WATER AND SANITATION PROGRAM: **TOOLKIT**

Lender's Manual for Commercial Financing of the Water and Sanitation Sector in Kenya

November 2015

The Water and Sanitation Program is a multi-donor partnership, part of the World Bank Group's Water Global Practice, supporting poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP's donors include Australia, Austria, Denmark, Finland, France, the Bill & Melinda Gates Foundation, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank.

The Water Services Regulatory Board (WASREB) is a non-commercial State Corporation established in March 2003 as part of the comprehensive reforms in the water sector. The mandate of the institution is to oversee the implementation of policies and strategies relating to provision of water and sewerage services. WASREB sets rules and enforces standards that guide the sector towards ensuring that consumers are protected and have access to efficient, affordable and sustainable services.

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Abbreviations

AFD	Agence Française de Développement
AWSB	Athi Water Services Board
BoD	Board of Directors
CVA	Company Voluntary Arrangement
CEC	County Executive Committee
DA	Deed of Assignment
DCA	Development Credit Authority
DSRF	Debt Service Reserve Fund
DWQ	Drinking Water Quality
EBIT	Earnings Before Interest and Tax
EBITDA	Earnings Before Interest Tax Depreciation and Amortization
EIA	Environmental Impact Assessment
EWASCO	Embu Water and Sewerage Company
GDP	Gross Domestic Product
GPOBA	Global Partnership on Output Based Aid
GRDP	Gross Regional Domestic Product
IVA	Independent Verification Agent
KPI	Key Performance Indicators
KShs	Kenya Shillings
MDGs	Millennium Development Goals
MWI	Ministry of Water and Irrigation
NEMA	National Environment Management Authority
NRW	Non-Revenue Water
NWCPC	National Water Conservation & Pipeline Company
NWMP	National Water Master Plan
NWSC	Nairobi Water & Sewerage Company
O&M	Operations & Maintenance
OBA	Output Based Aid
OECD	Organization for Economic Co-operation and Development
PCG	Partial Credit Guarantee
PFMA	Public Finance and Management Act 2012
PPIAF,	Public-Private Infrastructure Advisory Facility
PPPIRC	Public-Private Partnerships in Infrastructure Resource Centre
PPPs	Public Private Partnerships
SIDA	Swedish International Development Cooperation Agency
SMEs	Small and Medium-sized Enterprises
SPA	Service Provision Agreement
SPV	Special Purpose Vehicle
TOR	Terms of Reference
USAID	United States Agency for International Development
USD	United States Dollars
WASH	Water Sanitation and Hygiene
WASREB	Water Services Regulatory Board
WaterCAT	Water Credit Assessment Tool
WB	World Bank
WHO	World Health Organisation
WRMA	Water Resources Management Authority
WSB	Water Service Board
WSP Program	Water and Sanitation Program
WSPs	Water Service Providers
WSS	Water Supply and Sanitation
WSTF	Water Service Trust Fund

I. How to Use this Toolkit

- How to use this Toolkit

1. How to Use this Toolkit

1.1 Introduction

This toolkit is designed to give lenders useful insights into how the water sector in Kenya operates to help facilitate commercial lending into the sector. It provides a recommended standardized procedure for loan application and appraisal for investments in water and sanitation projects.

Developed by a team of industry experts, this toolkit is a resource for bank officers, bank credit committee members, water project investors and guarantors. Other stakeholders in the sector, such as Water Service Providers (WSPs), County and National Government, have also been provided with similar toolkits.

While much of this manual is applicable to other markets, the toolkit is specifically designed for the Kenya market.

The toolkit is divided into six sections focusing on:

- **Section 1: How to use the Toolkit**. This section provides an overview of the tool kit and how it can be applied.
- **Section 2: How the Sector is Organized**. This section provides a high level overview of the current operations in the Water Supply and Sanitation Sector in Kenya. The section also discusses some of the unique features of the water sector from a commercial lending perspective.
- **Section 3: How the Water Service Providers Operate.** This section gives an overview of the operations of a typical WSP in Kenya.
- **Section 4: Opportunities for Commercial Banks in Financing the Water and Sanitation Sector**. This section discusses the current sources of financing, funding gaps and the roles (opportunities) for the commercial banks in plugging the gap.
- **Section 5: How Commercial Banks Can Lend to the Sector.** This section covers a step by step approach for the commercial banks to lend to WSPs, including: reviewing the applications, sourcing the business opportunities, credit appraisal and risk mitigation measures available to the commercial banks to cushion them against some of the sector's unique risks.

- **Section 6: Appendices.** This section provides further elaborations on roles and responsibilities and provides pro-forma forms, business plan model and management diagnostic tool kits, etc.

Caveat: While this toolkit provides lenders with effective decision making and credit appraisal support to facilitate well-considered lending to WSPs in Kenya, banks must carry out their own credit appraisal procedures. The toolkit does not replace the formal credit assessment process of the commercial banks intending to lend to the sector. The toolkit should be used to help guide commercial lenders on how to tailor their appraisal and approval practices for lending into the water sector.

As any toolkit, the information in this document is time sensitive. As policies and regulatory framework evolve, the procedures for commercial lending should also change to accommodate the new environment. For example, as discussed in Section 2, the legal and regulatory framework is in a transition period with a number of functions in the process of being devolved to the Counties. As the regulatory framework becomes clearer with the anticipated enactment of Water Bill 2014, some aspects of this manual may become outdated.

It is hoped that this toolkit provides the lenders with the appropriate sector understanding to spot appropriate commercial lending opportunities and design commercial loan products that are suitable for the sector for long term sustainability.

1.2 Forms and Guidance Materials provided in this Toolkit

Throughout the document, the toolkit provides materials that are relevant for commercial lending, references, interactive tools, and links to web sites cited. Some of the templates and links provided within the chapters include the following:

Section	Document and relevance	Link/Reference
Section 2	National Water Master Plan	*http://www.wrma.or.ke/index.php/projects/nwmp-2030.html*
	National Water Sector Strategy (including Water Act 2002) and policy to guide water investment in the sector	*http://www.wasreb.go.ke/policy-instruments*
	The Constitution of Kenya	*http://kenyalaw.org/kl/index.php?id=398*
	Sector Investment Plan	*Ministry of Water and Irrigation*

Section	Document and relevance	Link/Reference
	Sector Regulation (including licensing, NRW standards, Sample of an SPA, service regulations, enforcement of standards, appointment criteria, corporate governance,	http://www.wasreb.go.ke/regulatory-tools
	Water Act 2002	http://wasreb.go.ke/policy-instruments
Section 3	The criteria appropriate for the services to be provided by the WSP http://www.wasreb.go.ke/regulatory-tools/wsp-appointment-criteria	
	WASREB sector regulatory tools can be found in	http://www.wasreb.go.ke/regulatory-tools
	Corporate Governance documents issued by WASREB http://www.wasreb.go.ke/images/Downloads/Corporate%20Governance%20Guideline.pdf	
	The guidelines and various roles in tariff setting	http://www.wasreb.go.ke/regulatory-tools
	The reporting requirements	http://www.wasreb.go.ke/regulatory-tools
	Past Sector Impact reports	http://www.wasreb.go.ke/impact-reports
Section 4	Water Services Trust Fund (WSTF) loan guarantee mechanism	http://www.waterfund.go.ke/
Section 5	The Impact Reports that contains technical and operational performance of the utilities.	http://wasreb.go.ke/impact-reports
	Financing Urban Water Services in Kenya: Utility Shadow Credit Ratings[1]	http://wasreb.go.ke/publications/credit-rating-report
Section 6	**Templates & forms**	
	Roles and Responsibilities per the 2002 Water Act	Appendix 1
	List of Water Service Providers	Appendix 2
	Request for Funding Proposal Template	Appendix 3
	Sample WSP Memorandum & Articles of Association	Appendix 4
	Sample Memorandum of Understanding between County Government, WSB, WSP & WSTF	Appendix 5
	County Government Approval Template for Borrowing	Appendix 6
	Water Service Provider Approval Template for Borrowing by Board of Directors	Appendix 7
	Water Service Board Approval Template for Borrowing by WSB	Appendix 8
	Financial Model and Cashflow Projection Template	Appendix 9

[1] WASREB Shadow Credit Rating Report 2011

II. How the Water Sector is Organised in Kenya

- Introduction to the Water Sector
- The Current, Institutional & Regulatory Arrangements
- Devolution in the Water Sector

2. How the Water Sector is Organized in Kenya

This section provides an overview of how the WSS sector in Kenya is currently organised. It provides a brief overview of the key sector players and how they interact. This is invaluable in the credit appraisal process and in understanding the key commercial lending sector risks and how they can be mitigated. It is hoped that with this understanding, the lenders can design better commercial lending products for the local Water Supply and Sanitation (WSS) sector in Kenya.

The country's vision is to have 100% access to safe water and sanitation services in Kenya by 2030

- Access to safe water supplies throughout Kenya is 59% while access to improved sanitation is 32%.
- Investment requirements to reach this goal dwarf the current financing sources.
- With inadequate allocation from central budgets and development partners, the sector needs to rely more on new sources of raising finances.

2.1 Introduction to the water sector

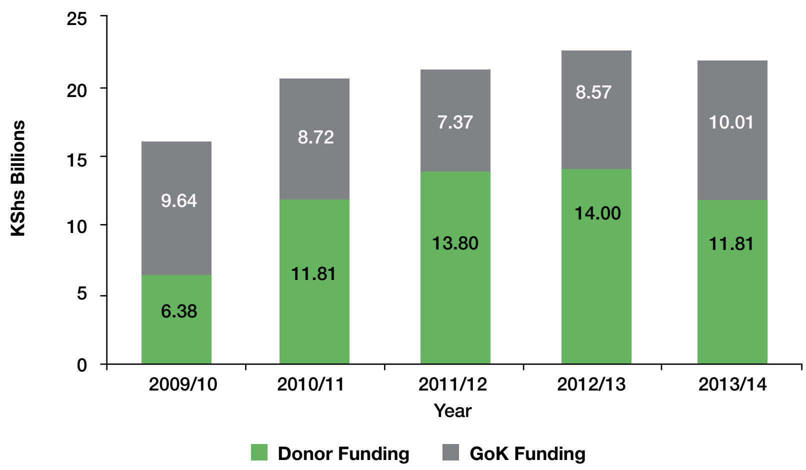
Water coverage stands at 53% in areas covered by Water Service Providers in Kenya. Sewerage coverage stands at 16%.[2] This is against the Vision 2030 targets of 100% coverage making this development target a significant challenge for the Government. For the country to reach the 100% coverage, substantial investment in WSS infrastructure is required both for rehabilitation of existing infrastructure, as well as for expanding water supply and sewer connections to unserved areas.

In recent years, the sector has benefited from a large number of technical studies, improvement plans, and re-organisations; however, the investment has not been adequate. This underinvestment will inevitably lead to deteriorating and insufficient infrastructure and poor services. Over the last three years, investment in the sector has averaged about KShs 20 billion against a requirement of KShs 300bn required annually as discussed in the Ministry's Sector Investment Plan.

Traditionally, most of the financing for investments in the WSS sector has been sourced from Government budgetary resources and development partners (as shown in Figure 1) . Given the Government's limited budgetary resources, funding from donor sources has historically provided more than half of the funding.

[2] WASREB, Impact Report Issue No. 8, Performance Review of Kenya's Water Services Sector 2013 – 2014

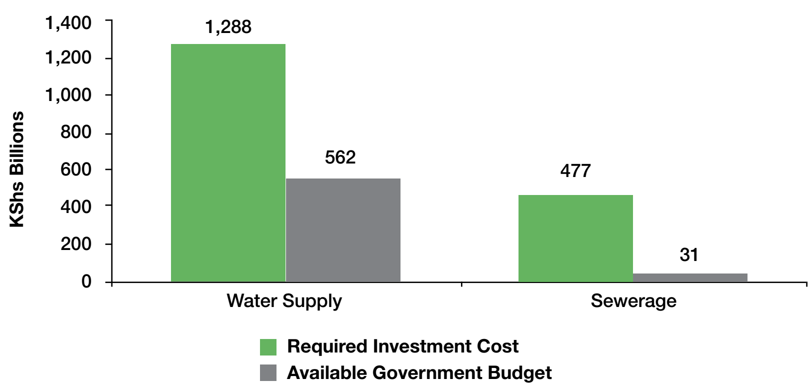
FIGURE 1: DONOR & GOVERNMENT OF KENYA CONTRIBUTION TO WATER SECTOR BUDGET



Source: Annual Water Sector Review 2013/14

The National Water Master Plan for 2014 shows that KShs 1.765 trillion (or about KShs 110 billion per annum) is needed for immediate rehabilitation and medium term expansion of piped WSS systems in Kenya to achieve the 2030 goals. This is almost 78% of Kenya's annual expenditure budget of KShs 2.246 trillion. Whilst improved water supply and sanitation services are justifiably high priorities for government, public sector financial resources are insufficient to meet this requirement, even with donor support.

FIGURE 2: REQUIRED INVESTMENTS AND AVAILABLE FINANCING IN WATER & SANITATION



Source: National Water Master Plan

The financing requirement to cover the investment in new WSS infrastructure, operation & maintenance, and upgrading is simply too daunting to be met through traditional financial sources.

With competing needs for Government resources, coupled with changing focus away from development partners and donors, there are limited financial and other resources available to meet the ever increasing demand for services. Consequently, the Government is encouraging WSPs, as well as other Government entities involved in the WSS services provisions, to look for innovative ways of raising infrastructure financing.

In this regard, the Ministry of Water and Irrigation (MWI) has identified the private sector, through Public Private Partnerships (PPPs) and commercial financing from banks and other lenders, as a key component to financing some of the Vision 2030 infrastructure projects.

The need to raise commercial financing to fund investments in WSS infrastructure provides an opportunity for commercial banks and other lending institutions to provide credit products to WSPs. This opportunity is explained in more details in Section 4 of this document.

2.2 The Current Institutional & Regulatory Arrangements

The institutional and regulatory arrangements of the Water Sector in Kenya are currently governed by the Water Act of 2002. The adoption of the Constitution of Kenya in 2010 has seen the introduction of the County Governments that has led to the devolvement of functions that were the preserve of the National Government.

Consequently, the water sector is in a state of transition as the current institutional and regulatory arrangements have to be revised to ensure that they are in line with functions and responsibilities as set out in the Constitution.

In this regard, the Water Bill of 2014 has been drafted but is yet to be enacted and as such the old Water Act of 2002 is still effective. The paragraphs below discuss the framework under the old Act as well as the some of the transitional arrangement that has been effected as well as the requirements under the devolved system.

2.2.1 Water Sector Reforms of 2002

In 2002, the Kenyan government launched an ambitious program of reforms for the sector, passing new enabling legislation with clear roles and responsibilities of the key water institutions, increasing public spending to the sector, and pursuing other governance improvements such as the separation of water resources management from water supply services delivery.

Previously service provision had been the responsibility of a single National Water Conservation and Pipeline Corporation (NWCPC) as well as of a few local utilities established since 1996. After the passage of the Act, service provision was gradually decentralized to 117 Water Service Providers (WSPs).

The ownership of facilities previously owned or used by the Central Government and NWCPC were transferred to the relevant Water Services Boards (WSBs) to facilitate management and operation of water services. This led to the formation of 8 regional WSBs in charge of infrastructure development and asset management. The Water Act of 2002 also established the Water Services Regulatory Board (WASREB). WASREB's mandate is to oversee the implementation of policies and strategies relating to provision of water and sewerage services. WASREB's role is to ensure that consumers are protected and have access to efficient, adequate, affordable and sustainable water services and sanitation.

The 2002 reforms were acknowledged to have been one of most advanced and comprehensive institutional designs and intervention packages for the water sector in the whole of Africa. Most WSS stakeholders in Kenya seem to agree that the 2002 reforms were a key step to improving water and sanitation services provision in the country, and that the sector has experienced significant progress since then.

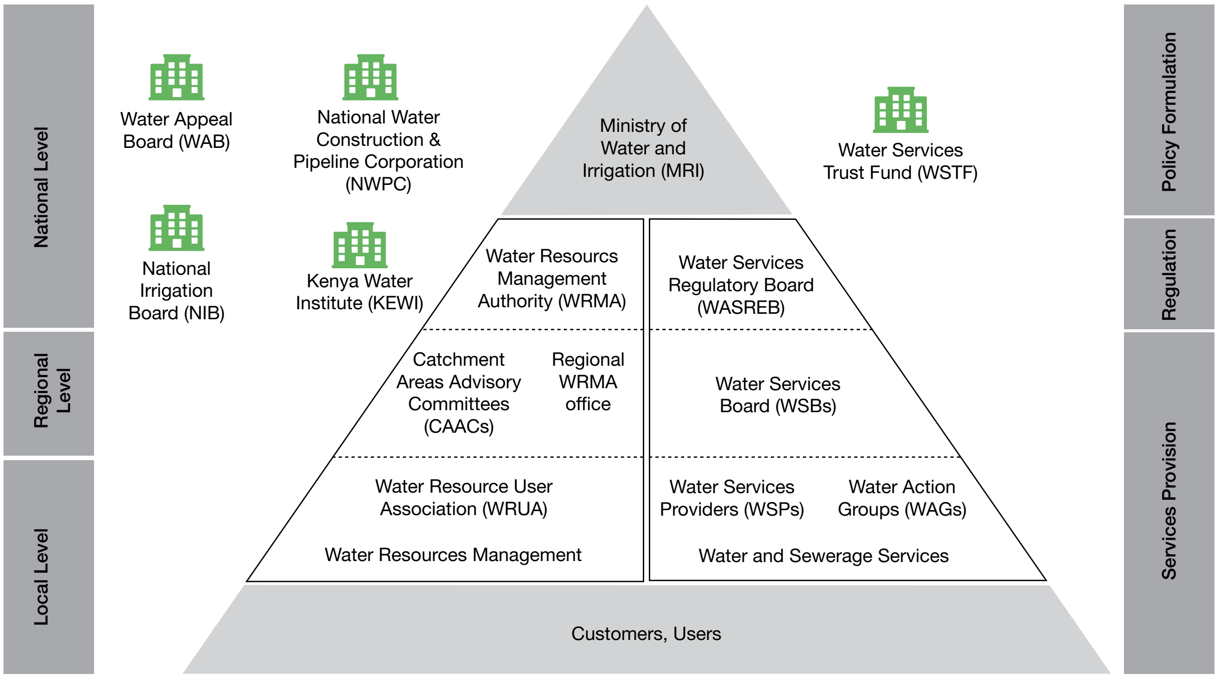
The reform process entailed setting up and building the capacity of the new institutions inaugurated by the Water Act 2002, and the introduction of the new service delivery framework for water and sanitation services and for water resource management. It saw the transfer of the functions previously held under various ministries, and other stakeholders to new organisations under the new institutional and service delivery framework.

The institutions set up by the Act are shown in Figure 3.

KEY REFORMS USHERED BY THE WATER ACT OF 2002

- WSPs became autonomous private companies, managed professionally and independently
- WASREB created as the sector's regulator with the authority to regulate tariffs
- WSPs act as agents of WSBs
- WSBs with legal ownership of the water and sewerage assets
- Financing of water services through the establishment of the Water Services Trust Fund (WSTF)

FIGURE 3: CURRENT INSTITUTIONAL SETUP (PER 2002 ACT)



Source: Annual Water Sector Review (2012)

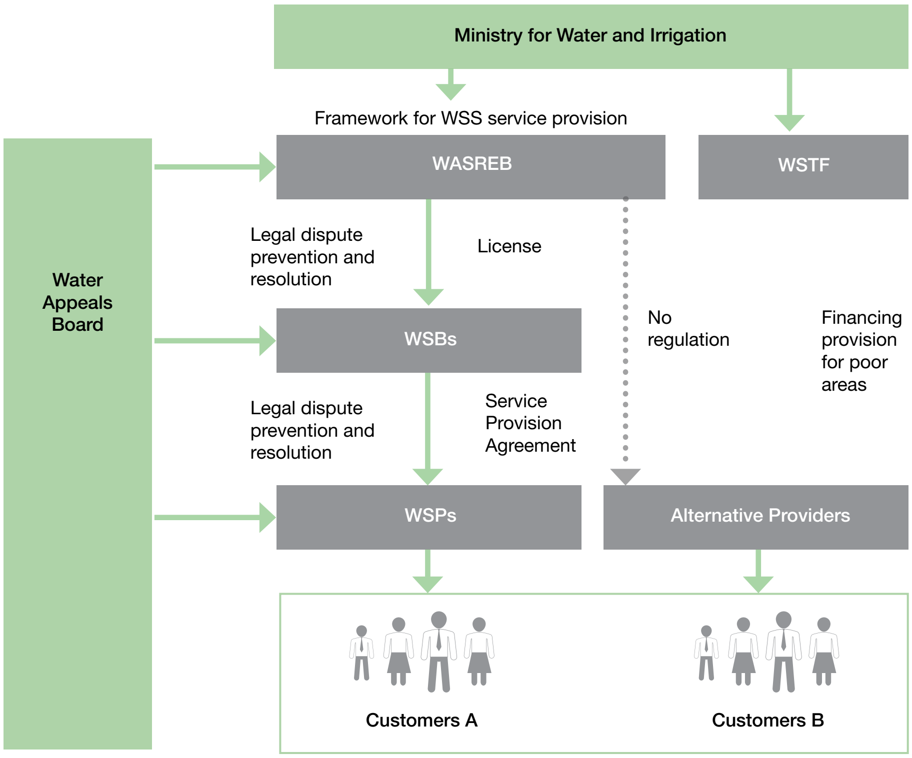
As it can be seen from the diagram above, the Water Act of 2002 envisaged a number of stakeholders across the water supply and sanitation services provision chain, that can grouped from national, regional and local levels.

The sector devolution, discussed in the section 2.3 Devolution in the Water and Sanitation Sector brings in new players such as the counties and places the existence of some of the bodies described in the 2002 Water Act into doubt. These would be clarified once the Water Bill 2014 has been enacted.
The current roles and responsibilities per the 2002 Water Act are included in

2.2.2 Regulatory Framework

Figure 4 illustrates the regulatory relationship between the different players in the Water Supply and Sanitation sector as envisaged in the 2002 Water Act.

FIGURE 4: WATER SECTOR REGULATORY FRAMEWORK



The broad regulatory functions are summarized in section 6 Appendices Appendix 1: *Roles & Responsibilities of Water Sector Institutions.*

2.2.3 Impact on Commercial Lending and Actions by Commercial Lenders

Until the 2014 Water Bill (discussed in the next chapter under devolution) is enacted, the 2002 framework remains the key legislation. The 2002 Water Act allows the WSPs to be corporate entities under the company law and are therefore able to borrow. However, lenders need to ensure that WSPs are compliant with the law in aspects that affect the commercial lending appraisal:

- Memorandum and Articles of Association of the WSPs allow them to borrow (sample documents are included in Appendix 4).
- Adherence to Service Provision Agreements (SPA) between the WSP and WSB (sample SPA agreement can be found in http://wasreb.go.ke/regulatory-tools/service-provision-agreements). In addition WSBs monitor the performance of WSPs within their area of jurisdiction and are essentially responsible for the investment. As such, a form of "no objection" to WSS infrastructure project is required from WSB. A sample letter to commercial lenders is included in Appendix 8.

- Tariffs applied for the revenues are dully approved by WASREB (tariff application process is explained under Section 3.6 while tariff guidelines can be found at http://www.wasreb.go.ke/regulatory-tools. As shareholders of the WSP, County Governments must sign a Memorandum of Understanding (MoU) with the WSP. This is a requirement that the National Treasury has put in place to ensure that County Governments do not incur debt obligations upon themselves or on behalf of the National Government through the WSPs. Section 2.2.3 expounds on the legal issues surrounding borrowing by WSPs including the requirement of the MoU.

WSS FUNCTIONS DEVOLVED TO THE COUNTIES

- Ownership of Water Service Providers
- Budgeting for the recurrent and development costs of water service provision
- Ensuring adequate resources for personnel and O&M costs to maintain services

2.3 Devolution in the Water and Sanitation Sector

Following the promulgation of the new Constitution of Kenya in 2010, among other functions, the delivery of water and sanitation services function was devolved to the County Government level. This devolution is the most significant initiative in governance that Kenya has undertaken since independence. Under the Constitution of Kenya (2010), devolution has wide-ranging implications for the water sector.

The Constitution recognizes access to safe and sufficient water and reasonable standards of sanitation as a basic human right. Furthermore, constitutional provisions also firmly distribute the functions between the two levels of government with the National Government being tasked with the management and protection of water resources while the County Governments are tasked with the provision of WSS services and the implementation of the National Government policies on natural resource including soil and water conservation.
With envisaged devolution, there arose a need for legislative alignment of the Water Act of 2002 to the new Constitution that led to the publishing of the Water Bill of 2014. The Bill is expected to advance the 2002 reforms with emphasis on the devolution of water services and sanitation.

2.3.1 Role of County Governments in the Water Sector

The Ministry's National Water Policy of 2012 outlines the various roles of the County Governments in WSS services provision:

a) Ensuring access to water and sanitation according to constitutional rights.
b) Catchment management and protection by implementing water catchment activities at county level.
c) Provide adequate consumer protection - interests of underserved consumers should be protected by regulations ensuring progressive achievement of the right to water.
d) Financial management through investment and finance planning through development of 5- year development plan incorporating an investment and financing plan for the provision ‘of water services in the rural areas.

e) Safeguarding integrity, good governance and performance in water supply service delivery.
f) Ring-fencing of income in the water sector and autonomy of management of WSPs. Increasing mobilization and efficient use of funds.
g) Ensuring and coordinating the participation of communities in governance.
h) Cooperate and coordinate with other counties to ensure limited water resources make inter-county sharing of resources inevitable.
i) Contribute to research and development in the water sector.

However, there are a number of roles at the County level still to be operationalized as the counties seek financial and other resources to deliver this mandate. As a result and before the enactment of the Water Bill, the WSBs continue to play a significant role in the investment and management of the WSS services across their jurisdictions.

2.3.2 Impact on Commercial Lending and Actions by Commercial Lenders

The devolved system comes with a number of challenges for commercial lending. These include:

- **Restriction on Borrowing by County Governments**

  Article 212 of the Constitution of Kenya 2010 provides that borrowing by County Governments may only be carried out with a National Government guarantee as well as the approval of the County Assembly.

  Article 260 of the Constitution further defines borrowing as the repayment of a debt using "public funds".

  Therefore where a debt will be repaid using "public funds" (whether by a County Government itself or its entity), the restriction at Article 212 of the Constitution applies.

- **Borrowing by WSPs**

  Public Finance and Management Act 2012 (PFMA) allows for the establishment of County Corporations either through county legislation or an Act of Parliament.

  Being separate legal entities, county corporations may escape the restrictions faced by County Governments in borrowing directly. They do however face two important restrictions:

  - Any debt taken on by a County Corporation cannot be repaid using public funds.
  - Along with County-Government linked companies, County Corporations may not receive any investment (whether by loans, share capital, etc.) from the County Government without the approval of the County Executive Committee (CEC).

- **Are Tariffs considered as 'Public Funds'?**

  There is no single definition of the term 'public funds' in either the Constitution or statute. However, according to the PFMA, 'public money' is said to include:

  - All money that comes into possession of, or is distributed by, a National Government entity and money raised by a private body where it is doing so under statutory authority; and
  - Money held by National Government entities in trust for third parties and any money that can generate liability for the Government.

As regards payment for WSS services (to water utility companies), such payments is likely to fall under 'public money' only where such payments are capable of generating liability for the Government.

The Legal implications on lending to the sector are covered in further detail in section 5.2 *Legal Due Diligence: Applicable Legal Framework for Lending* to the Sector.

In essence, Counties cannot guarantee WSPs commercial loans without the approval from National Treasury. However, having a significant role to play in the management of WSS services under devolved system, some form of County Government consent is required for significant borrowing to affirm that the proposed infrastructure is in line with the County WSS investment strategy. A sample approval and Memorandum of Understanding that a WSP needs to obtain from Counties to support commercial lending is included in section 6.5.

III. How Water Service Providers Operate in Kenya

- Overview of Water Utilities in Kenya
- How Water Service Providers are Managed in Kenya
- Key Performance Indicators in Water Service Providers
- Understanding Tariff Setting for WSPs in Kenya
- Dealing with the Sector's Uniqueness

3. How Water Service Providers Operate in Kenya

This section discusses the operations of WSPs in Kenya including how they are organised, their responsibilities, how they are run versus characteristics of a well-run utility. This is key in understanding the performance of the WSP and how they would rank for commercial financing evaluation. The chapter offers guidance into how to evaluate the WSPs performance and other external reports available such as WASREB water sector Impact Report and the Credit Worthiness Index that would provide additional information to commercial lenders in evaluation of WSPs.

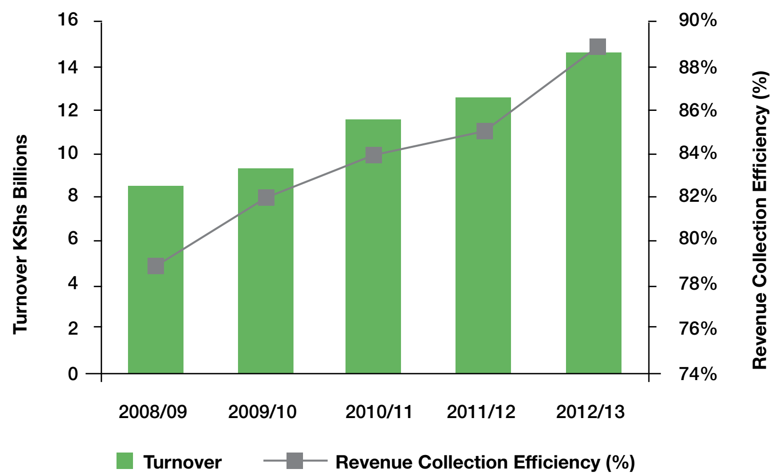
3.1 Overview of Urban WSPs in Kenya

There are currently about 65 urban WSPs serving about 8.1 million Kenyans. This represents 40 % of the urban population within WSP service areas and 21% of the total population for the country. The utilities are grouped into three categories (small, medium, Large & Very Large) by WASREB according to their size. A list of utilities as at 30 June 2014 is included in Appendix 2: *Water Service Providers in Kenya*.

Urban Utilities generated KShs 14.62 billion in revenues in 2012/13. This represents a 70% growth over a five-year period from the KShs 8.59 billion recorded in 2008/09. The same period also saw water production increase from 279 million cubic meters (m^3) to 363 million cubic meters. This growth is attributable to an increase in connections, service areas coverage and revenue collection efficiency.

Urban WSPs generated KShs 14.62 billion in revenues in 2012/13. This represents 70% growth from the KShs 8.59 billion collected in 2008/09.

FIGURE 5: URBAN UTILITIES TURNOVER & REVENUE COLLECTION EFFICIENCY



Source: WASREB

CORE FUNCTIONS OF THE UTILITIES

- To source, treat and manage all the town's water supply & sewerage.
- Bill and collect water and sewerage revenue.
- Supply of good quality water in sufficient quantities to meet various needs while ensuring safe disposal of waste water and environmental protection,
- Allocation of water in a sustainable, rational and economic way.

3.2 How WSPs Operate in Kenya

Currently, WSS services are delivered through WSPs acting as agents of WSBs. Under the 2002 Act, WSBs own and develop infrastructure used in the production and delivery of WSS services with WSPs as agents through Service Provision Agreements (SPAs).

WASREB, as the industry regulator, oversees the implementation of policies and strategies relating to the provision of WSS services; approving tariff rates; setting rules; and monitoring the performance of WSBs and WSPs.

WASREB licenses WSBs who in turn engage and contract WSPs to operate the systems in demarcated service areas. WASREB licenses WSBs and WSPs based on specific technical and financial criteria. The goal is to ensure that the WSPs are capable of meeting routine operation and maintenance costs and have in place proper management for the provision of WSS services. The criteria for the appointment of a WSP can be found on http://www.wasreb.go.ke/regulatory-tools/wsp-appointment-criteria.

As part of its regulatory role, WASREB evaluates the performance of all the WSPs against certain parameters and publishes the results in the Water Sector Impact Report. The annual sector impact reports can be found on the WASREB website through http://www.wasreb.go.ke/impact-reports.

In addition, WASREB monitors the corporate governance and board composition of WSPs and has in past pursued remedial actions including through the court system, where there has been external interference that affects corporate governance. WASREB's sector regulatory tools can be found in http://www.wasreb.go.ke/regulatory-tools while Corporate Governance documents issued by WASREB can be found in http://www.wasreb.go.ke/regulatory-tools/water-service-regulations.

The WSPs should be companies incorporated under the Companies Act. As such the WSPs are required to have, Company Articles and Memorandum of Association. These provide the overall objects and the management of the entities and set out the roles and responsibilities of the Board of Directors that is responsible for the overall management of the Company.

The Articles and Memorandum of Association are generally standard across the WSPs and a sample has been provided Appendix 4: *Sample WSP Memorandum & Articles of Association*. These allow commercial financing. The shareholders are generally the County Government within which the WSP operates. The management of WSPs in Kenya is discussed in section 3.3.

3.3 How Water Service Providers are Managed in Kenya

3.3.1 Corporate Governance

Board Appointment and Composition[3]

Like companies incorporated under the Companies Act, the management and running of WSPs is required to be supervised by a Board of Directors (BoD). Under WASREB corporate governance guidelines, the WSP are required to have a minimum of 7 board members and a maximum of 11 members, with representation across the relevant County Government, WSB and stakeholders.

The Corporate Governance code also requires that the appointment of directors representing stakeholders' interests to be through a competitive stakeholder participation procedure such that no individual or group of individuals or interests can dominate its decision making.

The code also requires that the Board be chaired by an independent director who shall be elected from among the stakeholder directors by the other directors during the first meeting.

The Role of the Board of Directors is set as follows:

- Supervise and support the management team of the WSP;

[3] Corporate Governance Guidelines, WASREB

WSPS' BOARD COMPOSITION

- 2 directors from the county government where one shall be a professional officer from each of the local councils covered by the WSP.
- 2 members from the business and manufacturing community nominated by their bodies.
- 1 local professional from the professional bodies nominated from the bodies.
- 1 representative from resident organizations.
- 1 member from a women organization.
- Where possible at least 3 of these members shall be women, provided that the eligibility criteria below are not compromised.
- A representative of the CEO of the respective WSB shall be invited to sit in attendance at the board where deemed necessary to offer guidance to its agent or to explain contentious issues.
- Managing Director of WSP.

Source: WASREB

- Approve key decisions in accordance with the WSPs Articles of Association;
- Be aware of the laws the company is supposed to comply with and the key provisions of the SPA between WSB and WSP; and
- Ensure compliance with regulatory and reporting requirements from WSBs, WASREB and other relevant bodies.

Board Committees

WASREB's corporate governance guidelines allow for the establishment of an Audit Committee. Additional committees of the board can also be established but these additional committees shall not exceed two.

WASREB has developed a Corporate Governance Indicator that is included in its annual water sector (Impact) report. This indicator scores WSPs' corporate governance on the basis of their performance on six sub-indicators:

- The Utility Oversight / Supervision sub-indicator covers the transparency and accountability of the BoD.
- The Information and Control Systems sub-indicators covers the transparency and adherence to set organizational systems.
- The Financial Management sub-indicator reviews the efficiency and compliance to financial and tariff standards.
- The Service Standards sub-indicator looks into how the WSP engages with the consumer to deliver services.
- The Human Resources sub-indicator reviews adherence to the competence criteria and equity in staff recruitment and retention.
- The User Consultation sub-indicator looks at the participation of the local community in the decision making process and sharing of information with stakeholders.

The Corporate Governance Indicator is a useful tool that can be leveraged on to give potential lenders an indication of how well a WSP is managed.

3.3.2 Organizational & Management Structure

Figure 6 shows the recommended and typical organisation structure of WSPs in Kenya while the table that follow outlines the key responsibilities.

FIGURE 6: ORGANIZATIONAL STRUCTURE OF A WSP

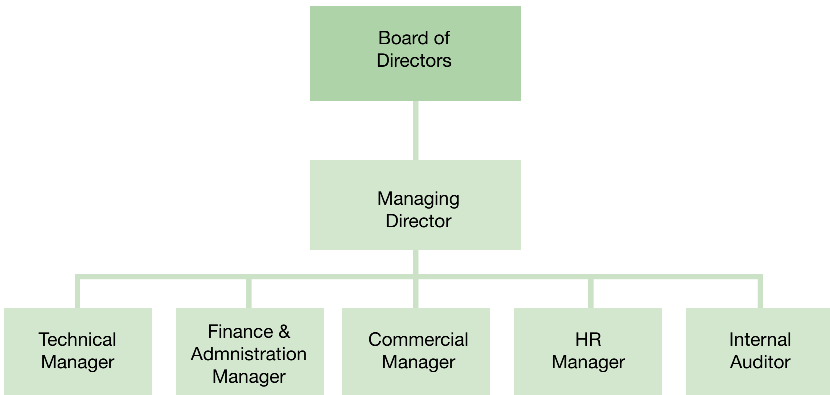
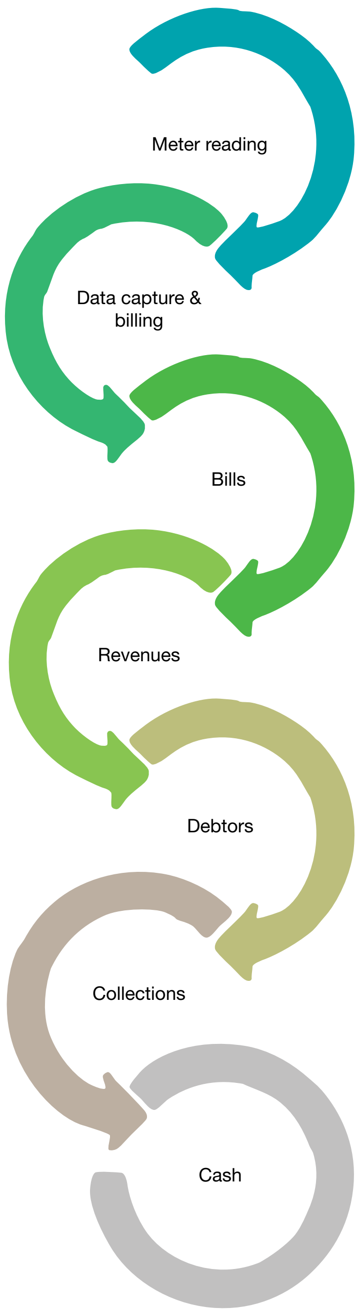


TABLE 1: MANAGEMENT ROLES & FUNCTIONS IN A WSP

Organizational Structure	Roles & Functions
Management Board	• Supervise and support the management team of the WSP • Approve key decisions in accordance with the WSP's Articles of Association • Be aware of the laws the company is supposed to comply with and be aware of the provisions of the Service Provision Agreement • Ensure compliance with regulatory and reporting requirements from WSBs, WASREB and other relevant bodies
Managing Director/ General Manager	• Performs the distinctive functions of a Water Utility • Provide strategic direction of the company under delegated authority of the Board of Directors • Supervises the Management team
Finance & Administration Manager	• Measuring and reporting the financial performance of the company • Manages the support functions such as IT and Administration
HR Manager	• Manages the employees' development, advices and implements policies that consider immediate and long-term staff
Technical Manager	• Manages the operations and maintenance of the water & sanitation infrastructure and also manages quality standards
Internal Auditor	• Conducts an independent assurance that an organisation's risk management, governance and internal audit control processes are operating
Commercial Manager	• Manages the entire sales process (from water connections to cash collections) and manages customer service delivery



3.4 Financial Management of WSPs

Revenue generation, billing and cash collections

The critical success of a WSP will largely be driven by how it manages its revenue resources and cash flows, in particular the billing and revenue cycle. The cycle involves the following:

1. Meter Reading
   - This could be manual or automated. In most cases in Kenya, meter reading is manual with use of data loggers in to the system.
   - Timeliness of meter reading each month is key. These are typically read at end of the month in areas, but there are also frequent cases for billing estimation. With thirty days credit period, it means that WSPs are only able to realise their collections two months in arrears.
   - Meter reading must be accurate (current water usage & meter number). Inaccurate meter reading a key problem for utilities in Kenya and is often cited as one of the reasons why the billing systems are inaccurate. The accuracy of meter reading also requires regular maintenance of meters, and ensuring proper calibration of the same.
   - Some WSPs require rotation of meter readers to avoid collusion.
   - Often there will be a portion of meters that are not active although the aim is at 100% of active water connections.

2. Data capture into billing system
   - Data capture has traditionally been manual but a number of WSP are now automating this through mobile devises.
   - Accuracy is critical and senior personnel are required to cross check initial data versus data captured into the billing system.

3. Generating water bills & billing reports
   - WSP are usually in a position to generate billing reports depending on the billing software being utilized. Banks should consider reviewing billing reports (e.g. current water consumption versus prior month, total water billed versus water produced, etc.).

4. Revenue recognition
   - This is usually automated from the billing system and some reconciliations of water billed versus revenue recognized and debtors is often needed.
   - Revenues are a function of water consumed (usually measured per cubic meter) as recorded from the water meters and the respective water tariff (price) per category of user (water tariffs are discussed in section 3.6).
   - Waste Water (sewerage) is billed as a percentage of water consumed to those customers that have sewer connections. Some WSPs, for example Mombasa water, have introduced a flat rate charge for some consumers. Sewer coverage access is low (32%) across Kenya and most customers are billed for water consumption only. Tariffs for sewer services range across WSPs and are usually between 75%-100% the water consumption tariff.

5. Debtors and Collections
   The billings are typically done in four categories:
   - Government offices e.g. County offices, ministries, parastatals/ corporations
   - Public/private institutions e.g. hospitals, schools, prisons
   - Commercial enterprises e.g. hotels and leisure resorts, private companies
   - Domestic individual water users

The four categories of water consumers above are managed separately as they present different opportunities and risks. Commercial departments have established procedures for monitoring parameters for each of the above four segments, e.g. percentage of revenue generated from each segment, number of connections for each segment, water consumed by each segment, debtors collection period for each segment.

Typically WSP revenue collections are affected by long outstanding debts from government and public utilities that presents problems in applying a strict disconnection policy.

Procurement and cash expenditure
Being public bodies, financial management of WSPs is guided by the public financial management requirements that include the Public Procurement & Disposal Act (PPDA), 2005. The PPDA Act establishes procedures for procurement and the disposal of unserviceable obsolete or surplus stores and equipment by public entities. This governs the overall procurement of goods and services by the utilities.

The PPDA Act requires that goods and services are competitively sourced and priced. WSPs are therefore required to obtain several quotations to demonstrate value for money. Sourcing of loan products is therefore covered under this PPDA Act and WSPs have to demonstrate that the financial charges within the loan term sheets are the best in the market. In this regard, included in Appendix 6 is loan tender documentation that lenders are required to complete for WSPs.

Lenders can also take comfort that if WSPs follow the PPDA Act, then the utilisation of the loan products (i.e. expenditure and procurement for the construction of the infrastructure) will most likely be effected in the most efficient way possible.

3.5 Understanding the Key Performance Indicators for WSPs in Kenya

One of the most important criteria in any assessment of whether a utility is a viable prospect for commercial financing will be its ability to demonstrate that it is well-run. There is no shortage of literature on identifying the characteristics of a well-run commercially viable utility and some examples are given in Table 2.

TABLE 2: CHARACTERISTICS OF A WELL-RUN UTILITY

Characteristics of a well-run utility
These six characteristics of high performance organisations would be present in either public or private models and are:[4] 1. Effective staffing 2. Consistently sufficient funding 3. Detailed asset management systems 4. Performance measurements and rewards aligned to organisational objectives 5. Decision processes that are transparent and open to the public 6. Using an effective planning process that identifies and assesses problems before arriving at solutions
Evidence of a high level of the following six characteristics should be identifiable in well performing public WSPs:[5] 1. External Autonomy 2. External Accountability 3. Internal Accountability for Results 4. Market Orientation 5. Customer Orientation 6. Corporate Culture
It is widely recognised that "if you don't measure you do not manage". The following measures of 'success' should be identifiable:[6] 1. Effective – is it working? E.g. Quality and quantity of water supplied 2. Equitable – can all benefit? E.g. % of population receiving the service 3. Sustainable – will it continue? E.g. Extent of self-financing 4. Efficient – achieved with optimum use of resources? E.g. Staffing ratios 5. Transparent – is it apparent to all how it happens? E.g. Audited financial statements with customer audited complaints procedures 6. Replicable – can it be repeated? E.g. Processes, procedures and quality assurance should be present.

These characteristics can be applied to the WSS sector by commercial banks to various degrees in judging a WSPs performance.

WASREB classifies WSS utilities to various categories, in its sector Impact Report, based on performance of the following nine KPIs:[7]

[4] Gary Wolff and Eric Hallstein, Beyond Privatization: Restructuring Water Systems to Improve Performance, Pacific Institute, 2005.

[5] Aldo Baietti, William Kingdom, Meike van Ginneken, Characteristics Of Well-performing Public Water Utilities, Water Supply & Sanitation Working Notes, Note No. 9, May 2006.

[6] Richard Franceys, Managing and Financing World Water and Wastewater, https://www.cranfield.ac.uk/courses/training/managing-and-financing-world-water-and-wastewater.html

[7] WASREB Impact Report

TABLE 3: WASREB'S KEY PERFORMANCE INDICATORS

Indicators		Sector Benchmarks		
		Good	Acceptable	Not Acceptable
1. Water Coverage		> 91%	80-90%	< 79%
2. Sanitation Coverage		> 91%	80-90%	< 79%
3. Drinking Water Quality	No. of tests – Residual Chlorine	> 96%	90-95%	< 89%
	Compliance – Residual Chlorine	> 96%	90-95%	< 89%
	No. of tests – Bacteriological Quality	> 96%	90-95%	< 89%
	Compliance – Bacteriological Quality	> 96%	90-95%	< 89%
4. Hours of Supply	Population > 100,000	21-24	16-20	< 15
	Population < 100,000	17-24	12-16	<11
5. Non – Revenue Water		<19	20-25%	> 26%
6. O&M Cost Coverage		>150	100-149%	<99%
7. Collection Efficiency		>91%	85-90%	<84%
8. Staff Productivity (Staff per 1000 connections)	Large & Very large Companies	< 4	5-8	> 9
	Medium & Small (less than 3 towns)	< 6	7-11	> 12
	Medium & Small (more or equal to 3 towns)	< 8	9-14	> 15
9. Metering Ratio		100%	95-99%	< 94%

Each of the KPIs is explained in more details below.

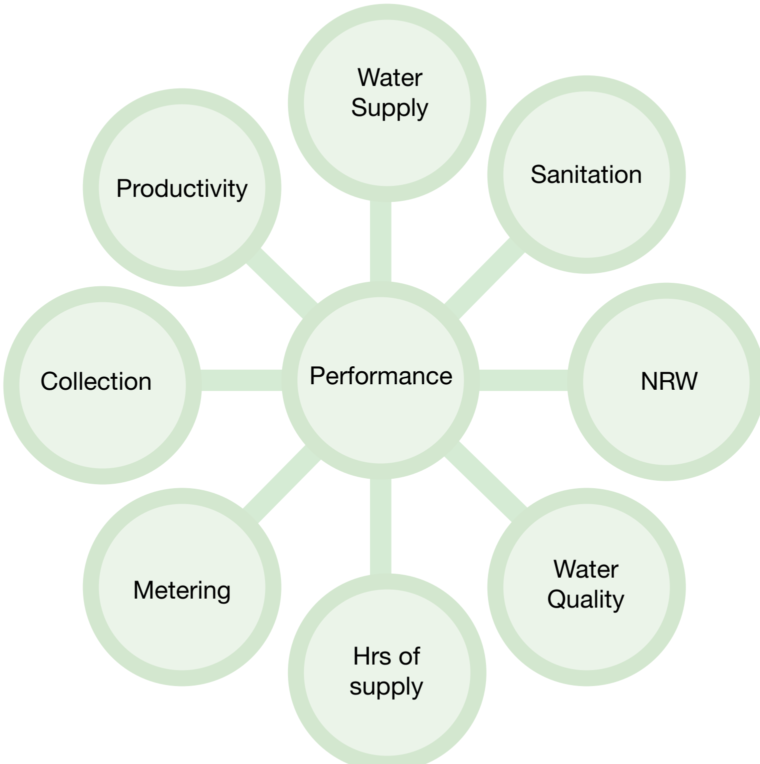
1. **Water coverage** - assesses the utility's performance in executing its core business of supplying portable water to consumers.

2. **Sanitation coverage** - measures performance with regard to the provision of sewerage and on-site sanitation services. Improved facilities include flush or pour-flush to piped sewer systems, septic tanks, ventilated improved pit latrines (including Urine Diversion Dehydration Toilets) and traditional pit latrines (with a squatting slab).

3. **Drinking water quality (DWQ)** - DWQ measures the portability of the water supplied by a WSP. The indicator is composed of two equally weighted sub-indicators, Residual Chlorine and Bacteriological Quality.

4. Hours of supply – measures the continuity of services of a WSP and thus the availability of water to the customer. It has a direct bearing on the financial sustainability of the WSP: the higher the hours of supply, the higher the consumption and revenue.
5. **Non-Revenue Water (NRW)** – NRW refers to the difference between the amount of water produced for distribution and the amount of water billed to customers. It measures the efficiency of the WSP in delivering the water it produces to the customer take-off point. It captures both technical losses (leakages) and commercial losses (illegal connections/water theft, metering errors and unbilled authorised consumption).
6. **Operation and maintenance (O&M) cost coverage** – is the extent to which internally generated funds cover the cost of running a WSP. It is the first step towards full cost coverage. It ensures long term financial sustainability.
7. **Revenue collection efficiency** – measures the effectiveness of the revenue management system of a WSP. Revenue collected, as opposed to amounts billed, is what impacts on a WSP's ability to fund its operations. Collection Efficiency is a proxy indicator on the commitment of management in optimizing the WSP revenue inflow and is, indirectly, a reflection of customers' willingness to pay and, by extension, their satisfaction with services provided.
8. **Staff productivity (staff per 1000 connections)** – measures the efficiency of WSP in utilising its staff. Thus, a low figure is desirable. It should be noted that staff productivity is affected by factors such as the nature of human settlement (distances between connections), skills mix, outsourcing, the number of schemes served, and whether a utility provides water alone or water and sewerage services together.
9. **Metering ratio** – measures to what extent the WSP has implemented metering as a management tool. It provides critical information to WSPs in managing NRW and allows them to charge customers according to their consumption and thereby manage water demand.

FIGURE 7: WASREB KEY PERFORMANCE INDICATORS FOR THE WATER SECTOR



3.6 Understanding Tariff Setting for WSPs in Kenya

The main source of WSP revenues is from tariffs. A WSS tariff is the service charge price assigned to water supply and sanitation services delivered by a utility through its WSS infrastructure to its customers. Other sources include sale of sludge (for fertilisers) and other miscellaneous revenues from disposal of old and or non-core assets, etc.

> It is imperative that commercial lenders understand how tariffs, the price for the services, are set.

Being a public good, the WSS services sector is one of the regulated sectors in Kenya. As a result, both quality of service delivery and price charged for the services are regulated. This means that WASREB, as the sector regulator, not only provides general oversight of service provision but also approves all tariff applications from the WSP. The tariff application process and approvals, as well as the appeal mechanism embedded, are described below.

WASREB has developed guidelines for setting tariffs and other charges on water services in accordance with the national strategy. The guideline and various roles in tariff setting can be found WASREB's website on http://www.wasreb.go.ke/regulatory-tools/tariff-guidelines.

Lenders should ascertain the type of WSP in evaluating loan applications. Ideally Type III WSPs would be more commercially viable. However Type I and II would normally have other sources of financing and could potentially afford some commercial financing.

Types of Tariffs

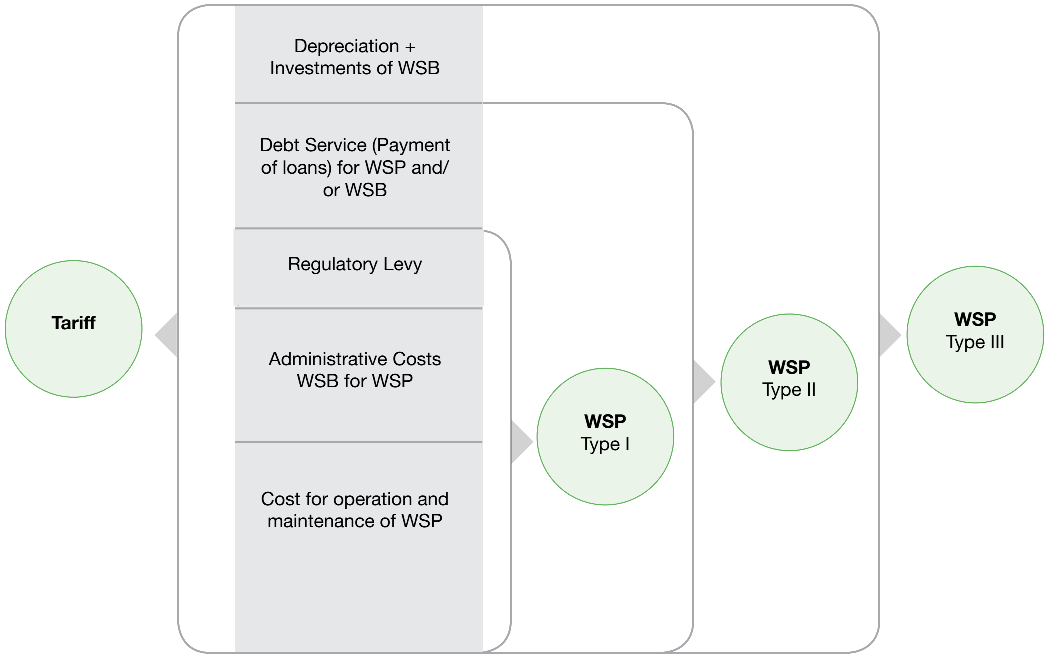
WASREB recognizes that WSP performance is driven by several factors including whether urban or rural and whether small, medium, large or very large. Tariffs are set at cost-recovery levels, only covering the costs of the WSP, and not intended to result in profit. The regulator has developed guidelines on what costs tariffs should cover for different categories on WSPs.

- **Type 1- Full coverage of operations and maintenance costs is not achieved**: This tariff type applies to WSPs yet to achieve full O&M cost recovery. The economic viability of these WSPs is most important for WASREB. Tariffs adjustments of Type 1 are set to cover mandatory costs (fees), administrative costs and O&M cost. WASREB will also set targets for such WSPs to achieve a minimum acceptable service level.
- **Type 2 - Full coverage of operations and maintenance cost achieved, but repayment of debts is pending**: This tariff type applies to WSPs that have achieved 100% O&M coverage but cannot fully cover to debt service costs. Few WSPs have debt to service. Infrastructure investment has remained mostly on the books of the WSBs. However, several WSPs have debt service responsibility for debt borrowed by the Government with regular obligations to pay back to the WSB. Some of these WSPs have yet to begin debt service payments.

  WASREB would approve tariff adjustments for this type taking into consideration the consumers' ability to pay, the performance and cost structure of the WSPs and the WSPs ability to meet acceptable service standards.
- **Type 3 - O&M costs are covered between 100% and 150% and repayment of debts (if any) is achieved or ongoing**: This tariff type applies to WSPs that are viewed as being able to recover cost, including financing costs, fully. These WSPs would be regularly servicing WSB debt, if they have it. These WSPs would be allowed to apply for tariff adjustments including financing of infrastructure and asset depreciation. **WSPs looking to adjust their tariff to include financing costs of bank borrowing should be in Type 3**.

WASREB would adjust tariffs taking into consideration the consumer's ability to pay (which is studied in detail) and ensuring the maximum number of people have access to safe drinking water. Tariff increases are strongly tied to the WSP meeting set performance standards.[8]

FIGURE 8: TARIFF COMPOSITION



Source: Water Services Regulatory Board – Tariff Guidelines

The Tariff Structure

The tariff structure specifies how much each category of users of water and sanitation services is charged. These categories include residential, industrial, commercial, the poor etc. The structure is useful in ensuring fair charges based on usage for more customer categories and helps institute a pro-poor policy by ensuring lower and affordable tariffs are charged to poor customers.

The Water tariff structure has the following components:

1. An average tariff or structure that would determine total O&M recovery. The pricing options include:
   a. Variable Charges, per m3 of water provided;
   b. "Block" Structures with variable charges that charge once a customer's usage exceed certain volume of consumption;

[8] WASREB Tariff Guidelines

   c. Fixed Charge for a water service connection and some given quantity of water; or
   d. Combination of the above.

2. Customer Classes that reflect different costs imposed on system due to different usage patterns, utilization rates, technical requirements and administrative requirements.

3. A tariff structure that shows how much each user class will pay per unit consumed, for each connection type for each month of service.
   The Sanitation tariff is structured as per the following pricing options:
   1. A fixed sewerage charge with all households with sewerage connections;
   2. A volumetric charge based on percentage of water usage; or
   3. A combination of a fixed charge and a volumetric charge.

Contents of Tariff Application and Justification
The basic formula for the tariff is shown below:

TARIFFS = Opex + Dep + Cost of Capital

Where:
- Operating Expenditure (**Opex**): Labour, Chemicals, Power, Materials, Equipment, Overheads (Communications).
- Capital Maintenance Expenditure (**Dep** (CapManex)): Depreciation and infrastructure renewals.
- **Cost of Capital**: Loans interest rate (and/or equity dividend rate or weighted average of the two).

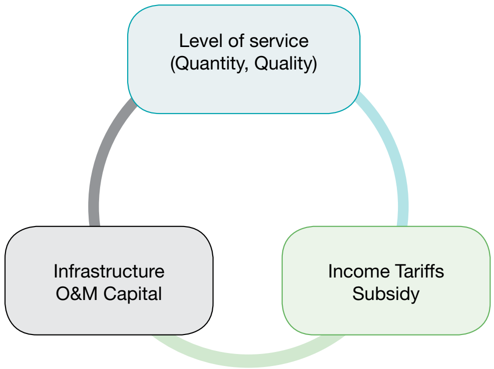
The principle for setting the tariffs is based on system sustainability. The tariff should be able to provide adequate income to the utility to provide good service to meet its performance obligations both in quantity and quality, cover infrastructure costs including the operating and maintenance expenses and return on capital for the investors.

At the moment however, WASREB does not include an equity return element in the tariff calculations as most of the WSPs are owned by the public. Future investors, including private and County Governments, may require a return of their investments and include this return in the price of the tariff.

In reviewing tariff applications, WASREB applies certain rules in granting tariff variations; it is not certain that utilities will be granted the sought variations. In particular, WASREB reviews the reasonableness of the costs, affordability among other factors in reviewing the tariff applications.

WSPs will have several options in considering their tariff levels. In evaluating these options, due consideration should be given to the three interdependent aspects indicated in Figure 9 . These drive the outcomes of the options a WSP may pursue as indicated below.

FIGURE 9: ASPECTS FOR CONSIDERATION IN EVALUATING TARIFF ADJUSTMENT OPTIONS



Options for Calculating Tariffs:

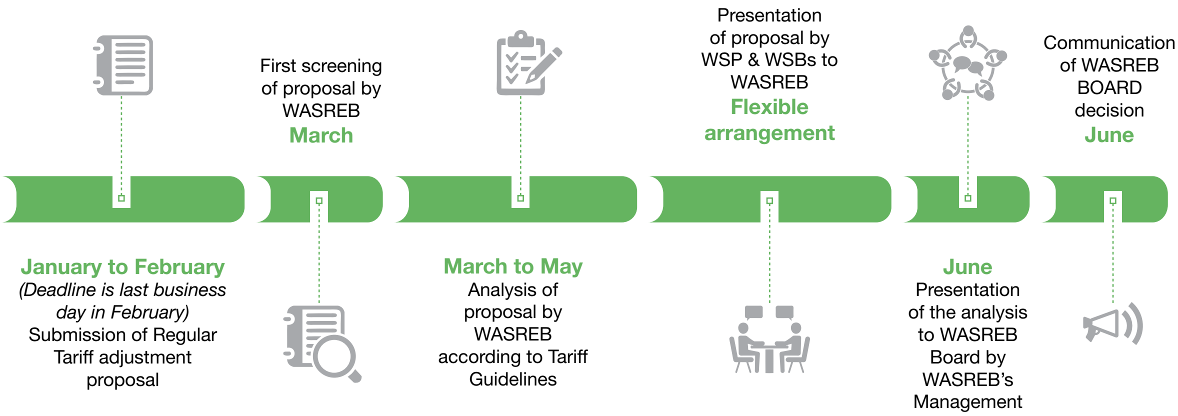
- Leave tariffs as they are, exposing the WSP to loss due to rising costs. Service levels may also suffer due to lack of funds to undertake maintenance.
- Aim for full recovery of operation and maintenance costs. This maintains the current service levels but does not provide for maintenance or expansion of infrastructure if required.
- Set a tariff to recover operation and maintenance costs plus depreciation (capital maintenance) – ensuring that the cost of using up all fixed assets is included in the bill. This does not provide for expansion of infrastructure.
- Set tariffs to recover operation and maintenance costs plus full amortization (interest payments and repayment of principal) of the capital costs- O&M costs plus paying back loans including interest. This gives room for the utility to seek financing for expansion.
- Long run marginal costs or average incremental cost – a method of considering future costs as the best indicator of what consumers should pay now. Economists believe that it is beneficial if the rates charged signal to the consumer the value of resources used in providing the services.
- WASREB's tariff guidelines allow for the automatic adjustment of tariffs over the tariff period. It allows the tariff to change every twelve months, or as otherwise provided for, during the tariff period, in line with changes in the underlying costs of service. Automatic Adjustments require no review by WASREB; however, automatic adjusting tariffs are not commonly used by WSPs in Kenya.

Tariff Preparation and Application Process

The tariff preparation process is initiated by the WSP or WSB. The party requesting the adjustment is required to consult with other key stakeholders such as the County Government to ensure that they are aware of its intention to adjust tariffs. The WSP then develops a tariff adjustment proposal in collaboration with the WSB and submits it for approval to WASREB.

Figure 10 illustrates the process of tariff approval process used by WASREB.

FIGURE 10: TARIFF APPROVAL PROCESS



If the WSB and WSP do not agree on the Tariff Adjustment Proposal, the WSB must clearly document where there is disagreement between the WSB and the WSP when submitting the proposal, and provide a copy to the WSP. If one of the parties does not agree to the Tariff Adjustment Proposal or fails to respond to the request of the other within three (3) months, the party requesting the Tariff Adjustment may refer the matter to the WASREB for assistance or initiate a Dispute Resolution Process.

In the situation where the WSP or the WSB disputes WASREB decision, the matter is referred to the Water Appeals Board for resolution within fourteen days of WASREB decision.[9]

WASREB may also request that the WSB prepare a Tariff Adjustment Proposal. In this case, the regulator will make its request to the WSB in writing, stating the reasons (which mainly involve increase cost of service delivery and need for higher cost recovery) for its request and the expected date of the Tariff Proposal Submission.

[9] Water Service Regulatory Rules, 2012

3.7 Dealing with the Sector's Uniqueness

The WSS sector has several distinctive features that differentiate it from other sectors. In addition, there are other features that make Kenya's WSS sector unique from WSS sectors in other countries. These are discussed in the paragraphs below.

3.7.1 Why the water sector is unique from other sectors

WHY ARE WSPS DIFFERENT FROM OTHER ENTITIES?

- Multiple Public Policy Objectives
- Capital Intensity
- Difficulty in determining Asset values
- Limited Ability to Diversify
- Unique Performance Indicators
- Ownership Structure
- Ownership of Assets

Multiple Public Policy Objectives

The government has a multi-faceted policy system for the WSS sector, including: water as a human right, economic efficiency, environmental enhancement, the protection of health, and the affordability of tariffs, as well as broader fiscal and political goals. Whereas most sectors, including SMEs, must meet these multiple policy objectives, some policy objectives, such as nation's health status, are more critical in the WSS sector due to the serious health and environmental consequences of substandard service provision. For example, it may not be possible for utilities to deny service to public hospitals to collect billing arrears. Indeed, most WSPs in Kenya have considerable outstanding debts owed from public entities.

Capital Intensity and Long Term Nature of Assets

WSS investments require huge capital outlays. The sunk costs involved are usually significant in development water production assets such as dam, trunk mains, distribution networks, waste water and sewer collection systems and treatment plants. This limits the scope for direct competition and usually results in one monopolistic operator per area. This creates a need for a credible regulatory framework to protect consumers from excessive charges and investors from "creeping expropriation."

Water assets can last 30 to 50 years. To keep tariff levels low, the payback period for water investments is usually amortized over 15–30 years reflecting their long term nature. The sector costs, relative to the prices for the services delivered (tariff), make the service expensive to deliver. Long-term financing is therefore needed to finance these investments to avoid asset/liability maturity mismatches.

However, commercial loans in Kenya are usually short term in nature with maturity periods of only up to 7 years. WSP therefore must rely on other sources of financing for longer term projects and reserve commercial financing for shorter term projects (e.g. last leg infrastructure connections, NRW reduction, etc.).

Difficulty in Determining Asset Values

There is generally a high degree of uncertainty of condition of WSS assets as these are often buried below the earth. It is difficult to ascertain the rehabilitation or maintenance required for these assets and the resulting investment requirements. Lenders can only obtain limited information about the state of the physical infrastructure (the pipes) and the customer base.

As a result, underinvestment and improper maintenance can go unnoticed for years. WSPs may have difficulty estimating the actual costs of rehabilitation and calculating the appropriate tariff can be subject to considerable uncertainty.

The problem of valuing assets has significant implications for commercial lenders evaluation of the credit risks. For example, more investment may be required than was expected leading to understated initial tariff calculations, which may in turn lead to inadequate cash flow to service debt and lower than expected returns than those contractually agreed.

Studies done in Kenya have suggested that there is massive underinvestment over the years in the WSS infrastructure, particularly in the sewerage systems for urban areas. This is usually reflected by high level of leakage (technical losses) and low access to sanitation services. Whereas this presents an opportunity for commercial financing the rehabilitation and expansion of the systems, capital costs can easily be understated due to higher than expected level of deferred maintenance. The difficulty in assessing the value of WSS assets suggests that regulatory provisions for tariff adjustment and contract renegotiation will play a critical role in attracting and securing private capital to the sector.[10] Whereas the latter would be sufficient for PPP contract type contracts, WSPs may always not get the level of tariffs required to meet debt service.

Limited Ability to Diversify

The WSPs sole purpose is to provide clean water and sanitation services to the people under their jurisdiction. Other enterprises often have leeway to diversify to other services. On the positive side, WSPs would largely be a monopoly in their area of jurisdiction. Any potential commercial investor has to factor this in when assessing a utilities potential to acquire funds.

Unique Performance Indicators

WSPs have specific performance indicators to show how well they are performing. Some of these indicators are specific regulatory and policy targets (e.g. quality of water, affordability, etc.) in additional to the usual profitability and business performance measures. Commercial banks evaluating utilities performance must familiarise themselves with the regulatory and other performance measures unique to the sector. For Kenya, WASREB has specific performance and reporting requirements. These include:

1. General Information e.g. about shareholding and incorporation
2. Financial Management
3. Commercial Management
4. Technical Information
5. Personnel information (qualifications and staffing levels eg number of persons per 1000 connections)

[10] Tapping the Private Sector: Approaches to Managing Risk in Water and Sanitation by D. Haarmeyer & A. Mody

Each of these have set performance obligation. The reporting requirements can be found using the following link http://www.wasreb.go.ke/regulatory-tools/reporting-guidelines.

This performance is usually captured in the annual Sector Impact Report. Where WSPs are assessed and ranked based on the following performance and monitoring indicators:

1. Water Coverage
2. Sanitation Coverage
3. Unaccounted for Water
4. Water Quality
5. Hours of Supply
6. Metering
7. Revenue collection efficiency
8. O&M Cost Coverage
9. Staff Productivity

The report also categories the WSPs based on:

- Size
- By type of service area
- Ownership structure

Past Sector Impact reports can be found through this link http://www.wasreb.go.ke/impact-reports

3.7.2 Additional Uniqueness of Kenya WSPs

Ownership Structure
Under devolution, WSPs have been put under County Governments. Commercial lenders will want to understand how much WSP's can rely on their County Government to fulfil contractual obligations in a timely manner. However, counties are prohibited from giving government guarantees for WSP loan obligations without the approval of National Treasury (see section 5.2.3 *The Borrowing Restriction*).

Ownership of Assets
Under the current institutional framework, there is a separation between ownership and operations of water and sanitation infrastructure with WSB tasked with the development and ownership of assets while WSPs are tasked with service provision through operating that assets owned by their respective WSBs. To operate these assets, WSPs are required to pay a monthly lease fee based on the revenues collected.

A commercial lender should seek clarity on the ownership of the assets of the firm and the assets to be financed by the commercial loan. To ensure ownership is clear from the onset of the financing process, there should also be a tripartite agreement between the WSB, the WSP & County Government as indicated in Appendix 5 *Sample Memorandum of Understanding*.

IV. Opportunities for Commercial Banks in Financing the Water Supply and Sanitation Sector

- How the Sector has Traditionally been Financed
- What are the Current Financing Needs
- Why the WSS presents New Opportunities for Commercial Financing
- Understanding the Key Risks in the Water & Sanitation Sector

4. Opportunities for Commercial Lenders in Financing the Water Sector

This section discusses the current sector financing including the financing shortfall, the available funding and why this presents an opportunity for commercial lenders. In summary, the sector needs significant investment if the sector targets of 100% coverage are to be achieved. However there is inadequate financing from the traditional financing sources namely budgetary support and donor funds to meet the financing requirements. The Government of Kenya has formulated a deliberate policy that allows private financing for infrastructure projects in Kenya. In this regard, the WSPs that are able to meet to commercial financing terms are being encouraged to source commercial financing for their projects. In addition, the Government has placed the larger bulk distribution projects in the overall Public Private Partnership (PPP) program to be financed through the PPP framework. Together, these present potential lending opportunities for commercial banks.

4.1 How the Sector has Traditionally been Financed

Traditionally, Kenya has relied on the following sources to finance the WSS services.

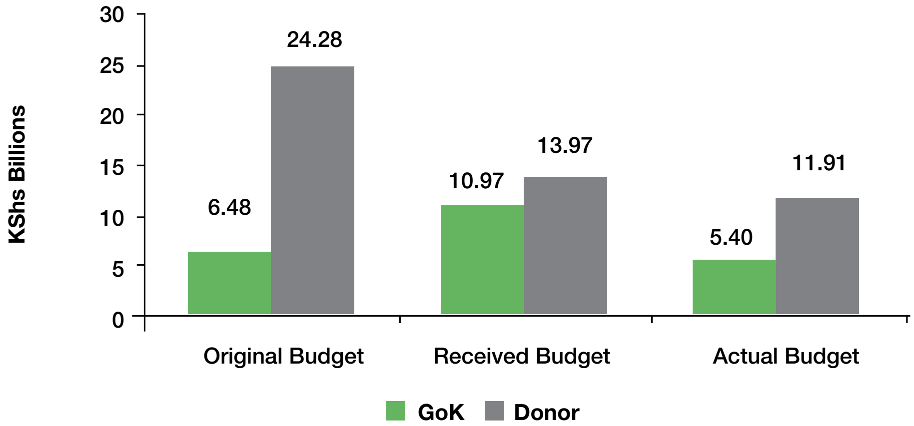
- Budgetary allocations
- Equalisation funds
- Decentralised funds
- Geographic earmarking (of donor funded projects)
- WSS development funds
- Consumer tariffs/contribution

4.1.1 Budgetary allocation

The Government of Kenya allocates a portion of its annual budget towards WSS. This allocation is derived from tax revenues and/or donor financing and is crucial in meeting capital requirements of WSS projects for the country. However, the Government's annual budget also covers funding for other infrastructure projects in many different sectors and, therefore, cannot fully fund all required WSS projects. This inevitably leads to a funding gap that needs to be filled from other sources.

Figure 11 shows the government of Kenya allocated KShs. 10.9 Bn in its 2013/14 revised development budget for capital investments for the water sector. However, only KShs 5.4 Bn was received, with the rest being reallocated to other sectors. This disparity in terms of actual funds disbursed and budgeted amounts is an indicator of the inadequacy of funding from the national government to cover the financing needs for the sector. This is discussed in further detail under section 4.2.1 *Available Sector Funding and deficit*.

FIGURE 11: DEVELOPMENT BUDGET BY FUNDING SOURCE 2013/14



Source: Annual Water sector Report 2013/14

4.1.2 Equalization Fund

Under the Constitution of Kenya, an Equalisation Fund has been established into which 0.5% of the annual revenue collected by the national government is paid. The national government is required to use the Equalisation Fund to provide basic services, including water, roads, health facilities and electricity, to marginalised areas so that they can benefit from the same level of service enjoyed by the rest of the nation. This funding option is therefore beneficial to the development of remote areas with poor WSS systems.

The primary source of funding for equalization fund however remains the Government. When there are competing needs, as often is the case, the fund may be underfunded.

4.1.3 County Allocation

The constitution of Kenya outlines that County Governments are responsible for water and sanitation services in their respective jurisdictions. Since the promulgation of the Constitution, there has been little WSS investment funded by the counties.

Counties have received what they consider to be inadequate allocation of funds to invest in their WSS services.

4.1.4 Donor funding

Donors have been active in the development of the Kenyan WSS sector. In the 2013/2014 budget, the gross budget for capital investments in water services was KShs24bn, of which KShs13.9 bn is donor funded.

However, donor terms and conditions of lending are strict and don't always allow funds to be directed towards priority projects. Furthermore, there is a gap in coordination of donor activity at both the National and grass-root level that further exacerbates the lack of prioritization of projects.

With devolution, mechanisms of getting funding to counties are yet to be determined and operationalised.

4.1.5 Water Services Trust Fund (WSTF)

The WSTF was established under the Water Act (2002). This body is funded by the Government of Kenya and development finance institutions to finance the implementation of water sector projects, and is specifically focused on the poor areas and is a vehicle that is used by the government and donors to manage grant funding to the WSS sector.

In relation to the financing needs, the fund is relatively small with a capped investment fund ceiling often insufficient to meet all the requirements of larger capital investments. Since the funding is mostly in the form of grants, there is uncertainty on availability and processes that are helpful in sieving the potential poor beneficiaries that makes the fund slow in responding to urgent/emergent funding needs.

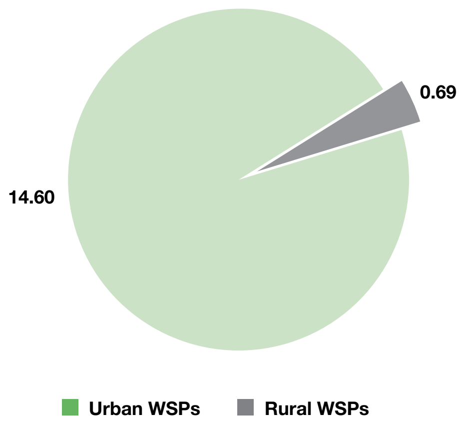
4.1.6 Consumer Contribution (WSS system generated revenue)

The WSPs internal revenue generation from billings is explained earlier under section 3.4. This is key to operations of the WSP and provides a key source of loan repayment from the WSPs. As explained earlier, this is a function of the water consumption (from water meters) and the respective tariffs.

The revenue generated from the tariffs by WSPs has increased since the introduction of the water sector reforms through the enactment of the Water Act of 2002. The increase has mainly been driven by two factors: increased network expansion and billings and increases in water tariffs. Reforms have also seen the introduction of the ring-fencing of revenues collected by WSPs-to remain and be reinvested back to the water sector. This resulted into more accountability.

In 2013/14, WSPs made KShs. 15.31Bn in revenues. This is in contrast with KShs. 7.2 Bn collected in 2009/2010 representing a compound annual growth rate of 21% per annum over the 5 year period. Most of the collections have been from urban WSPs.

FIGURE 12: CONSUMER TARIFFS COLLECTED IN 2013/14 (KSHS BILLIONS)



Source: WASREB Impact Report 2013/14

As discussed earlier, the tariffs in the water sector are set on the principle of cost-recovery. This means that tariff setting in its current form is focused on the WSP meeting its operations and maintenance cost. This provides minimal allowance for the WSP to make surpluses that could be used in reinvesting in infrastructure or servicing debt.

However, WSPs can apply to WASREB for tariff increments to cater for the cost of servicing debt. Due to the public nature of water services, this process is inelastic and adjustments are tightly controlled. It is particularly important for WSPs that are keen on accessing commercial financing to demonstrate that they have excess cash flow to cover debt service. Lenders need to review the cash projections as shown in the WSPs business plans and financial models. A template of a financial model to verify if the tariffs are adequate to cover costs and loan repayment is in Appendix 9.

4.2 What are the Current Financing Needs

4.2.1 Available Sector Funding and deficit

As discussed earlier the financing for WSS infrastructure has traditionally been drawn from two main sources: government budgetary support and financing from development partners. The sector's overall financing has steadily been growing over the last 5 years from KShs 16 Bn in 2009/10 to KShs 22 Bn in 2013/14 as indicated in Figure 14.

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For the country to reach the 100% coverage, substantial investment in WSS infrastructure is required for both rehabilitation of existing infrastructure, as well as for expanding water supply and sewer connections to unserved areas. For example over the last three years, investment in the sector has averaged about KShs 20 billion against KShs 300bn required annually as discussed in the Sector Investment Plan.

Separately the, to meet the country's water and sanitation financing gap, the NWMP 2030 projects an investment of KShs 1.764 trillion (equivalent to KShs 110 Bn per annum) for the Water & Sanitation Sector as indicated in Figure 15. The available government budget for the water sector up to 2030 is projected at KShs 1.246 trillion (or KShs 80 billion per annum). Although this does not include financing from development partners, this analysis implies a financing gap of KShs 1.172 trillion.

FIGURE 13: URBAN AND RURAL WSPS REVENUE COLLECTIONS

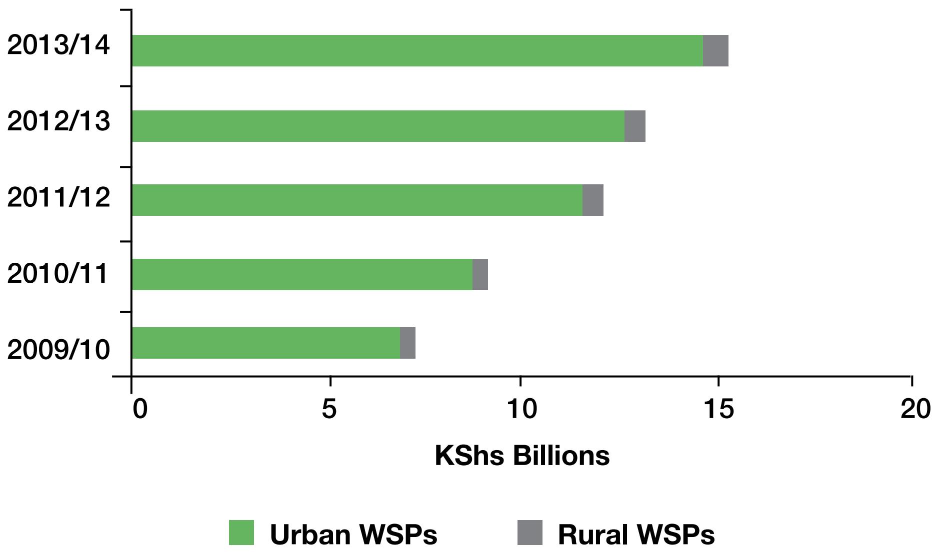
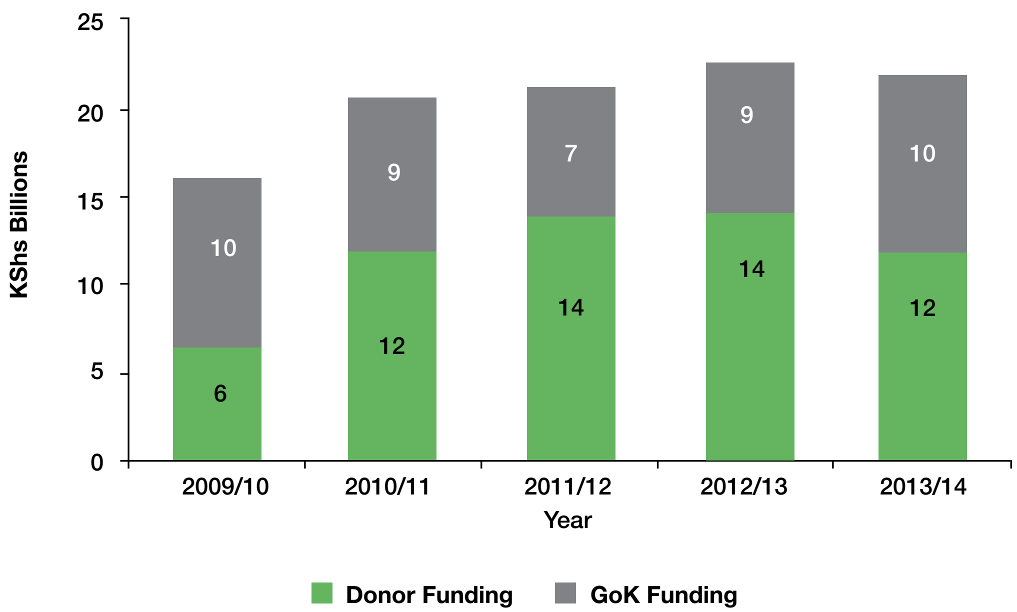
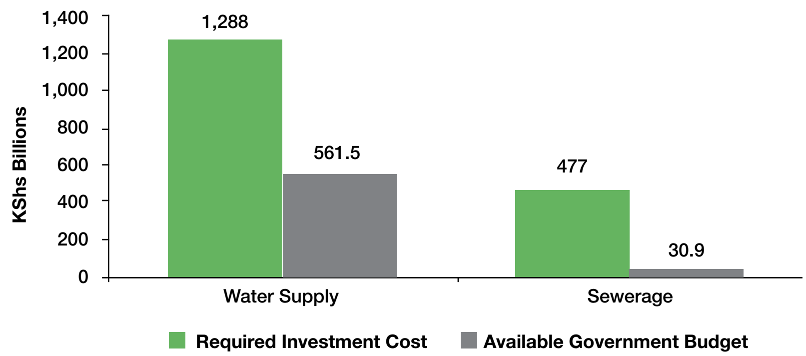


FIGURE 14: DONOR & GOVERNMENT OF KENYA CONTRIBUTION TO WATER SECTOR BUDGET



Source: Annual Water Sector Report 2013/14/ WASREB 2013/14

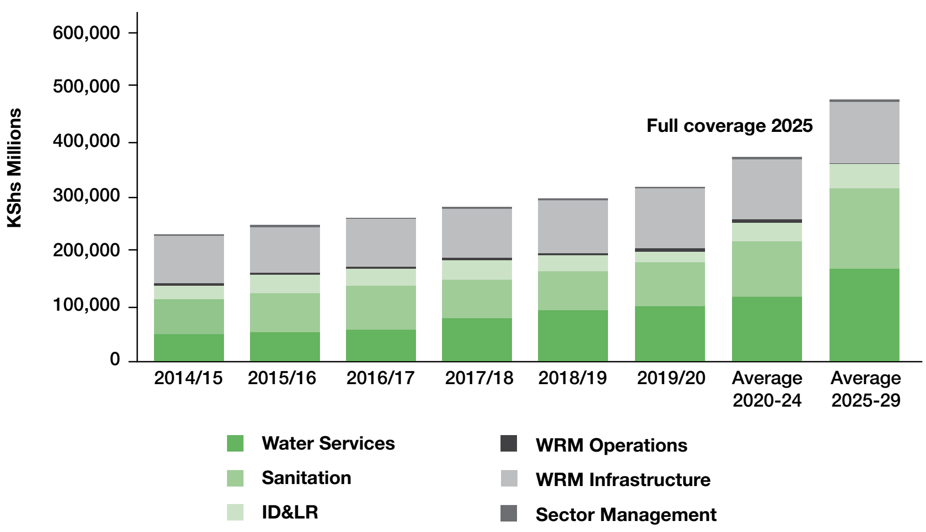
FIGURE 15: PROJECTED INVESTMENT REQUIREMENT & AVAILABLE FINANCING



Source: NWMP 2030

In addition, the SIP projects that the total projected annual water sector expenditure will rise every year as population, coverage and service standards rise. The SIP water sector expenditure is composed on 6 areas of expenditure – the project expenditure is driven by the current level of facilities, the policy targets on future coverage and level of services and the current and future water sector efficiency improvements.

FIGURE 16: WATER SECTOR FINANCING NEEDS 2014-2025

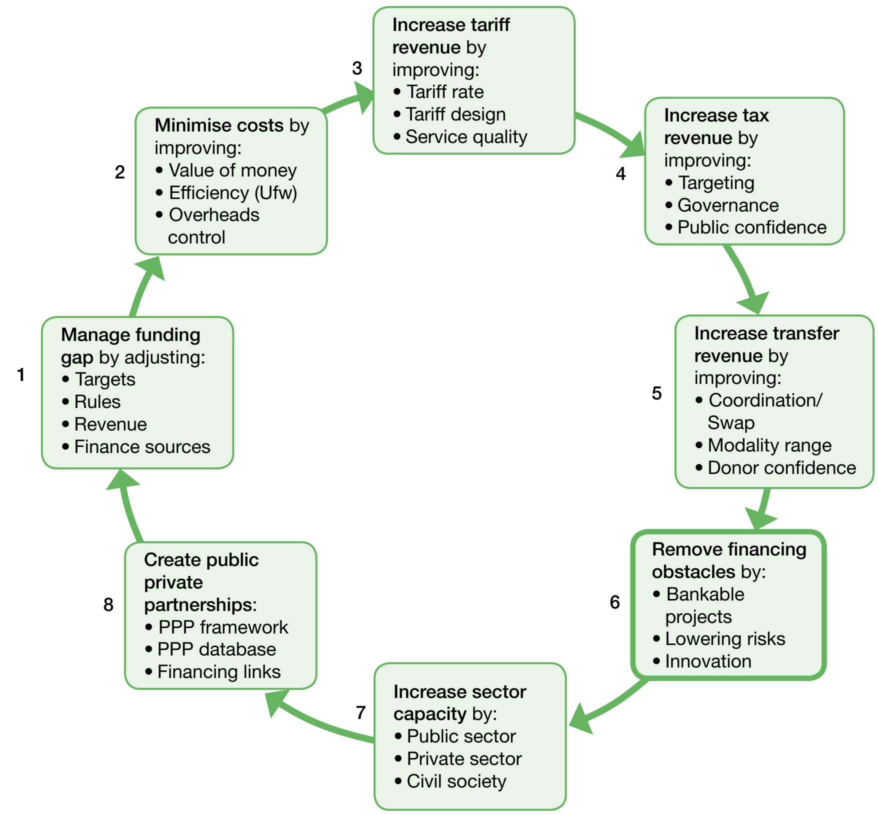


Source: MWI Sector Investment Plan

4.2.2 Bridging the Funding Deficit

The ministry has developed strategies on how to bridge the financing gap as shown in the diagram below.

FIGURE 17: CLOSING WATER SECTOR FINANCING GAP



Source: MWI Sector Investment Plan

The Ministry has formulated three broad strategies to meet the funding gap:

- reducing costs
- increasing revenues
- improving the enabling environment to attract new financing sources

Reducing Costs - Efficiency Improvements and Savings

In meeting the financing gap, there is need to consider operational improvements in WSPs. This could be through improving their Operational & Maintenance Cost Coverage, Billing and Collection Efficiency and their Staff Efficiency.

Increasing revenues

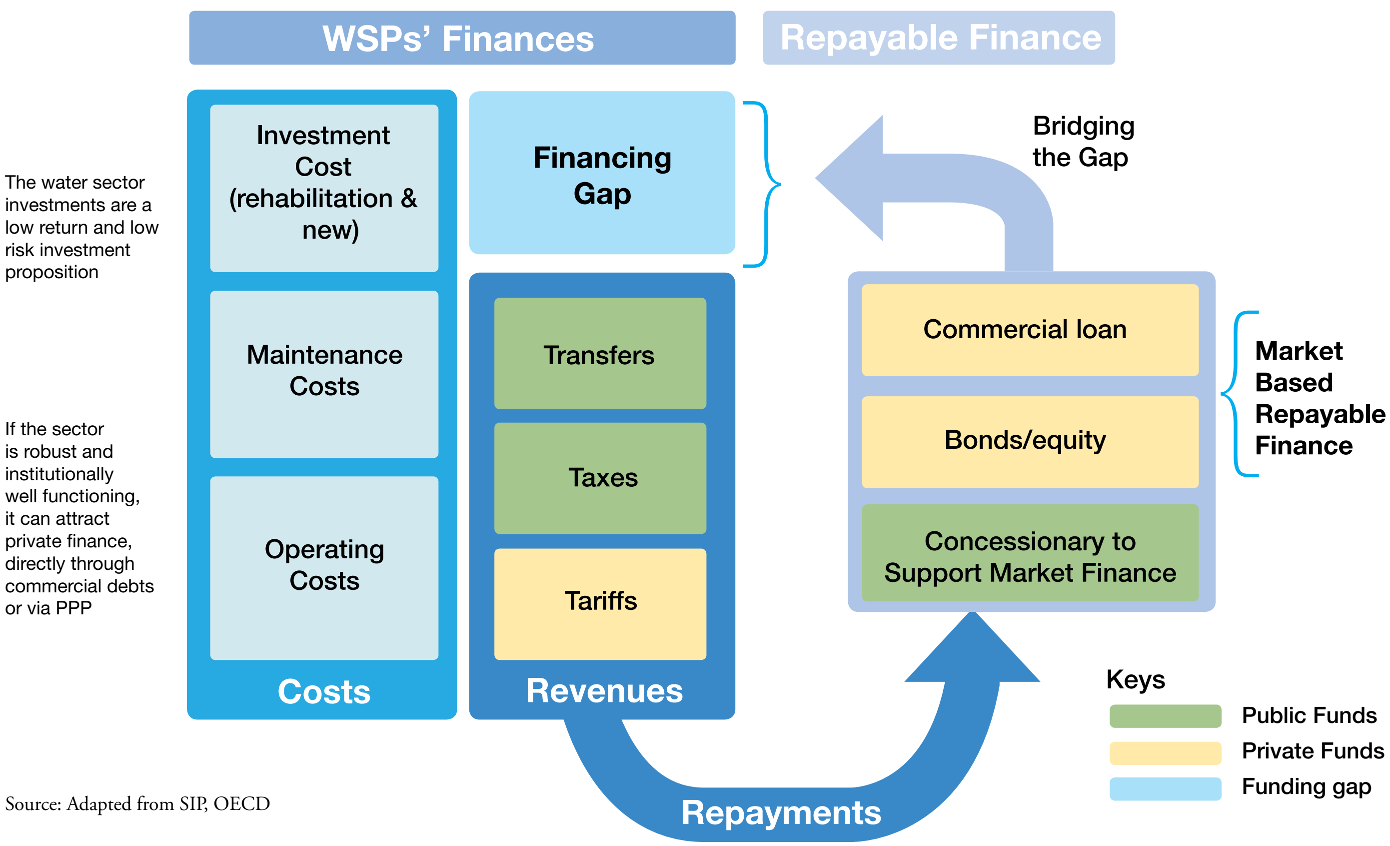
The Ministry's objective is to progressively increase the sector revenue in the medium to long term by raising tariffs so that they reflect the real cost of supply whilst being socially and economically affordable. The tariff reviews would include considering the affordability & willingness to pay. It is therefore important to consider social protection measures for the poor householders in addition to undertaking constant operational performance monitoring and implementing performance improvement measures so that costs for the service provision are minimized.

Improving the enabling environment to attract new sources including Private Sector Participation & Commercial Financing

There is increasing private sector interest for financing of public infrastructure through commercial lending and other private sector participation (PSP) arrangements. This would include commercial financing for both the private and public sectors and as well as PPP structures where relevant.

This provides an opportunity for commercial banks, as shown below and as discussed overleaf to provide commercial financing to the sector.

FIGURE 18: NEW SOURCES OF FINANCE



Source: Adapted from SIP, OECD

4.3 Why the WSS is Ready for Commercial Financing

As discussed in the sections above, lack of access to adequate financing is a challenge in the WSS sector. There is therefore an opportunity for commercial financing, a largely untapped source of finance, in the sector. This section covers some of the rationale for these opportunities.

WSPs management and enabling environment is changing to encourage commercial funding

Traditionally, the water sector has had low lender interest due to lack of sector understanding, low risk appetite and complex financing environment. There are current initiatives under way to improve the WSP performance and accountability. Year on year, the WASREB Impact report has shown steady improvement in WSP management and financial standing. In addition, a creditworthiness analysis carried out for the 2013/14 financial year indicated that thirteen WSPs are considered to be of high creditworthiness. Fourteen of the WSPs were classified as currently not yet creditworthy but have the potential of being creditworthy with a small level of improvement. See separate title *Creditworthiness Index Report* for in-depth analysis.

In addition the Government is promoting Public Private Partnership arrangements for WSS and a number of WSS projects are already included in the initial PPP program. Whereas these are largely Bulk Supply schemes that are expected to be designed, financed, developed or operated by the private under a PPP program, it is expected that the project developers to raise commercial debt financing to finance part of the capital expenditure requirements. As part of this initiative the Government is developing PPP Guidelines for the water and sanitation sector that will make it clearer and easier for the private sector to bid for and operate these programs.

Growing demand for WSS services shows a continued business case for WSS utilities

With the increasing population coupled with the drive to meet the sector goals for water for all by 2030, the demand for WSS services is expected to grow. There is therefore demand for new investments that will generate more revenues from the services delivered. The management reforms instituted through the WSS reforms of 2002 coupled with the availability of technical assistance from development partners further increases the sector's potential to generate more revenue.

Well Regulated Sector

WASREB has enforced industry-wide best practice in corporate governance and reporting and has made the sector more transparent and accountable. WASREB is currently incorporating creditworthiness to its annual sector capacity report.

INDICATORS OF WSS SECTOR READINESS FOR COMMERCIAL FINANCING

- Underfunded Sector with Few Players
- Increasing demand for services and hence business case
- Well Regulated Sector
- Well Structured WSPs
- Availability of Risk Mitigation Tools
- Government Focus on PPPs

WSPs are structured as companies who can borrow

Most WSPs are registered as companies under the Companies' Act. This requires them to operate in a semi-autonomous way with their board of directors being the responsible for overseeing a management team. Under the Water Act of 2002, revenues collected by the WSPs are legally ring-fenced ensuring sustainable service provision and re-investment into the sector. This ring-fencing is likely to be continued or enhanced once the 2014 Water Bill is enacted.

Availability of Risk Mitigation Tool for Lenders

In order to catalyse commercial financing for the sector, the government and development partners have developed a number of tools to help mitigate some of the risks associated with commercial lending to the sector. These tools are as outlined below:

- **Partial Credit Guarantees**: These are guarantees to the lender that apply should the WSP default on its obligations.
- **Subsidies**: These are conditional payments made to the WSP to subsidize debt repayments.
- **Credit Ratings**: These are formal opinion by an independent, specialized agency on the long term ability, capacity, and willingness of a borrower to repay debt on a timely basis.
- **Availability of technical assistance both to the lenders and the utilities**: This is technical advice provided to develop projects with the aim of accessing financing.

These risk mitigation tools are discussed in more detail in section 5.4.3 *Risk Mitigation Products in the Water Sector*.

Demystifying the risks in the WSS sector

For commercial financing to take root, it requires the commercial banks to structure commercial loan products that mitigate these risks. Commercial banks are often reluctant to lend to WSPs for a number of reasons, including:

- Water is often viewed as a social good with little ability to generate financial return;
- Banks in Kenya prefer not to lend for periods beyond seven years, whereas the useful life of water assets is often much longer;
- Water assets provide limited collateral to lenders due to low liquidation value; and
- WSPs are often not conversant with the lending criteria of banks due to limited commercial borrowing occurring in the sector.

There have been successful Commercial Bank Lending Experiences that can be replicated.

With the reforms discussed above, commercial banks have started lending to the sector. Some examples of commercial financing Products in Kenya are listed in Figure 19.

FIGURE 19: EXAMPLES OF WATER SECTOR COMMERCIAL FINANCING IN KENYA

Embu Water and Sanitation Company (EWASCO)	Nakuru Water and Sanitation Services Company (NAWASSCO)	Kisumu Water and Sewerage Company Limited (KIWASCO)
Objective • To install 23 kilometres of pipeline in Embu, Kenya **Approach** • Commercial financing backed by a guarantee from the • The WSP also received subsidies on delivery of pre-determined indicators **Result** • The utility secured KShs 81.5 Million in commercial financing	**Objective** • To develop public, prepaid meters strategically-placed in 10 low-income settlements of Nakuru. **Approach** • Combined investment of KShs 23 Million from a commercial bank and WSTF. • Bank provided financing for the construction of the water point bases. • WSTF which financed 15 meters, the software program and staff training. **Result** • Using the standard tariff structure, NAWASSCO will recover the cost of the investment in 26 months and achieve a net present value (NPV) profitability of 72% over five years. • Other benefits to NAWASSCO include: no loss of water, pre-payment, 100% collection rate, and no paper billing.	**Objective** • KIWASCO completed a water treatment plant in 2011 and intended to increase water distribution. • The WSP required finance for the construction of 35 Km of pipe infrastructure and the installation of 1,500 metered connections in Nyamasira. **Approach** • KIWASCO received technical assistance in developing a feasibility plan and financing proposal to the bank. • KIWASCO received for achieving the connection target, whereby the OBA pays 50% of the interest accumulated. **Result** • A loan of USD 245,122 from a commercial bank with an eight month grace period and five-year repayment term.

Focus on Public Private Partnerships (PPP)

With the enactment of the PPP Act in 2013, the National Government has provided a policy framework for the private participation in the development and operation of infrastructure.

This has led to the development of a national priority list of PPP projects as indicated in Table 4. This provides an opportunity for lenders to finance the implementation of these projects by the private sector.

TABLE 4: NATIONAL PRIORITY LIST OF WATER SECTOR PPP PROJECTS

Project Name	Contracting Authority	Project Description	Cost
Nairobi Bulk Water Supply	Athi Water Services Board (AWSB)	Construction of Maragua and Ndaragu Dams and the supply of bulk water to Nairobi County on a PPP basis	KShs 6.8 Bn
Mwache Multipurpose Dam	Coast Development Authority	Construction of a Dam with capacity of 209 million m^3, supply of 190,000 of m^3 of domestic water/ day and irrigation of 5,050Ha.	USD 290 Mn
Turkwel Downstream Irrigation	Kerio Valley Development Authority (KVDA)	Development of 3,215Ha of land for irrigation	USD 7.65 Mn
Arror Multipurpose Dam	Kerio Valley Development Authority (KVDA)	Construction of a Dam, generation of 80MW hydro power, irrigation of 5,000 Acres	USD 302 Mn
Munyu Multipurpose and Greater Kibwezi irrigation	Tana & Athi Water Rivers Development Authority	Construction of a Dam with 625 mil cm^3, 40MW hydro power generation, 13,000Ha irrigation and water supply	USD 1.6 Bn
Tana Delta Irrigation	Tana & Athi Water Rivers Development Authority	Expansion of irrigation scheme from 1,763Ha to 5,000Ha to produce 24,000Metric tons of rice/annum	Not available
Tana Delta Irrigation sugar project	Tana & Athi Water Rivers Development Authority	Development of 20,000Ha of sugar fields and construction of 10,000 capacity sugar processing plant and installation of a 34MW cogeneration power plant and installation of ethanol plant with capacity of 75,000ltrs/ day	USD 120 Mn
Nandi Forest Multipurpose Dam	Lake Basin Development Authority	Construction of a Dam, generation of 50MW hydro power, irrigation of 7,000Ha	USD 4.09 Mn
Magwagwa Multipurpose dam	Lake Basin Development Authority	Construction of dam, installation of 120MW hydro-plant, and development of 15,000Ha of irrigated land	USD 979 Mn
Murang'a Mukuyu Water Supply	Murang'a County	Expansion, Upgrading and rehabilitation of distribution networks	Not Available

4.4 Understanding Key Risks in the Water & Sanitation Sector

This subsection discusses the major commercial and lending risks faced by banks financing water projects. Some of these risks are common to all types of businesses while others are specific to water or arise with particular force in this sector. This section focuses on these water sector specific risks and include:

- Political
- Commercial & Financial
- Operational and
- Strategic risks

FIGURE 20: WATER SECTOR RISKS

Source: Atkins

4.4.1 Political Risks

The Constitution of Kenya considers water as a basis human right. This raises the possibility of political risks for a number of reasons. Politicians are for example likely to interfere to influence resource allocation and to override, or exploit ambiguities, the terms of agreed contracts.

This is particularly likely to happen at the completion of an investment program, when tariff increases are due. Devolution increases the risk of local political interference in tariff setting.

Political risks can be reduced by ensuring knowledge of financed projects by political entities, delivering clear and early benefits in service to local consumers, and by transparency in the awarding of contracts and in operational decisions.

Good regulation can also increase confidence in contractual undertakings. Its absence creates regulatory risk, where investors and operators cannot rely on a stable and impartial regime to govern their activities. Even in mature water economies unexpected actions by the regulator can create risks for operators, their shareholders and financiers.

KEY FINANCIAL RISKS IN WSS

- Credit Risk
- Concentration Risk
- Liquidity Risk
- Market Risk

4.4.2 Commercial & Financial Risks

Financial risks include events that can weaken business earnings or cash flow, and affect retained earnings. Financial risk can arise due to a company's inability to meet its current obligations without incurring significant losses.

Financial risks can be categorized into:

Credit / Default risk

This is the risk associated with the borrower/WSP going into default and not making principal and interest payments. County governments cannot directly guarantee against default risk. However, Counties can offer indirect financial and non-financial support of the WSP operations.

Lenders can mitigate this risk is through:

- Risk based pricing: Charging higher interest rates to customers likely to default
- Covenants
- Controlling & monitoring sector exposure
- Diversifying the pool of customers receiving loans

Concentration Risk

Concentration risk manifests itself where WSPs have a small number of clients that account for a high percentage of its revenues. This can happen for example where the WSP relies on a few large industrial or institutional investors e.g. a large factory. Concentration risk can also be seen in WSPs that have a high concentration of clients in a particular sector or industry (e.g. flower farming).Concentration leads to revenue being directly correlated to WSS service utilization by customers. In addition, problem with the revenue collection from these customers would impact on the profitability and cash flow of the WSPs. WSPs with higher spread of consumers - domestic, industrial, institutional will be less exposed to these risks.

Lenders should also identify any seasonality in the utility's revenues and set covenants that require sufficient reserves to be maintained to ensure consistent debt servicing.

Liquidity Risk

Liquidity risk in utilities can arise where working capital is tied down in its receivables book. This is a common problem for a number of WSPs in Kenya, particularly those highly dependent on supplying public bodies. Net debtor days of most urban and rural utilities ranges from 180 to 270 days. Utilities with a higher proportion of public sector clients tend to have even higher debtor days.

Lenders can mitigate this risk by requiring WSP management to provide a clear view of its working capital position on a regular basis with clear segregation of current and long outstanding debtors and creditors. Lenders can also craft loan products that ameliorate the short term liquidity problems for WSPs, such as overdraft facilities.

Market Risk

Market risk arises from volatility in market prices of key commodities, interest rate and exchange rates. WSPs in Kenya face major challenges in containing costs due to inflationary effects on key commodities such as treatment costs, fuel and energy. Labour costs can also be a problem as collective bargaining agreements negotiated for unionisable employees, if not factored in the WSPs business plan and tariffs, can add to cost volatility. Market risk poses significant risk to WSPs as costs are exposed to market volatility while revenues can be locked for long periods of time. It can take WSPs considerable time to raise the tariff or obtain new customers, exposing the company to operating losses.

Banks should analyse the risk of rising cost exposure and put in place measures to either decrease costs or speed up the increase in tariff. Automatically adjusting tariffs or pre-approved tariff increases could be possible mitigation tools. These are covered in section3.6 *Understanding Tariff Setting for WSPs in Kenya*.

4.4.3 Operational Risks

The WSS sector faces many operational challenges similar to most SMEs; however, due to high regulation, the sector has many reporting tools to assist banks in analysis of WSPs as borrowers. For example, most operational performance indicators are reported in WASREB's annual Impact Report.[11]

Operational risks relate to a utility's inability to deliver quality services or outputs due to internal and other constraints such as lack of resources (raw water for WSPs), employees, processes, equipment and materials, failed performance improvement initiatives, upgrades of a business processes and the lack of balance of investments in incremental improvements of existing infrastructure.
Operational Risks are categorized as follows:

KEY OPERATIONAL RISKS IN WSS

- Management Capability
- Commercial Management
- Technical Capability & Operational Performance

[11] http://wasreb.go.ke/index.php/impact-reports

Management Capability

Management Capability covers the leadership of the WSP, employee skill sets and organizational culture. Management capability assessment is not different from assessing other types of SMEs. However, being quasi-public entities, WSPs may have a harder time rectifying some challenges. The lender should seek to answer the following questions:

- Does the leadership team provide a clear sense of mission and serve as positive role models?
- Do managers understand what needs to be done in order to extend and enhance their services?
- Is the WSP work culture characterized by teamwork, cooperation and good communication among staff?
- Are staff at every level committed to serving all consumers?
- Are the WSPs staffing numbers at an optimum level to meet needs?
- Is there evidence that staff have adequate technical skills to perform services?

Commercial Management

Commercial Management looks at how the utility is performing as a surplus generating entity. It looks at how the revenue collection and cost control practices. It also examines the WSP's understanding and relationship with its customers:

- **Commercial Orientation** covers whether a utility is charging cost reflective tariffs, has good billing and collection efficiency, has visibility on its non-revenue water and its efforts to leverage on technology to make savings. A WSP faces adverse risk exposure if it does set cost reflective tariffs and has poor billing and collection efficiency. Lenders should review financial & operational indicators such as O&M recovery ratio, billing & collection efficiency ratios and the amount of non-revenue water to determine the WSPs commercial orientation. These are reported annually in WASREB's impact report

- **Low-income Customer** Needs establishes the degree of inclusion of poorer customers in accessing and paying for water services. Non-inclusion of this customer segment may lead to water losses through theft. It is however important for a WSP to recognize that these customers may require a more affluent customer base to cross-subsidize their cost of water. Failure to strike this balance may have an adverse effect on the WSPs revenue. Lenders should be keen to know the customer mix of the WSP and the revenue collection per customer category.

- **Consumer Orientation** helps to determine the level of service provided to customers and how customer-centric the tariff structure is. WSPs need to responsive to customer feedback. Key among these is ensuring interruptions on service are kept at a minimum or risk lower revenues due to customers seeking more reliable supply sources. The tariff structure requires to be backed by exhaustive willingness-to-pay studies to ensure that they are affordable to customers. Lenders should be keen to review the WSPs customer satisfaction surveys.

Technical Capability and Operational Performance

- **Product Availability Risks**: These are risk associated with water resource management, determining water sources and their resilience and exposure to pollution risks. Lenders can find this information from reviewing the WSPs water sources and abstraction permit which can provide an indication of water resource availability risks. Studies done by the National Environmental Management Authority (NEMA) can provide the lender with information on the water resource resilience and pollution risks.
- **Product Retailing Risks**: Risks associated with the WSP's inability to supply water: continuity of supply, non-revenue water losses, treatment quality and treatment costs. This information is available in WASREB's annual Impact Report.
- **Sewerage Collection Risks**: This covers risks associated with the type and profile of sewer users, sewage disposal systems& treatment capacity. Certain users (such as industrial customers) may produce effluent that requires more treatment hence higher treatment costs. Lenders should establish this by examining the WSPs customer profile along with their associated sewerage treatment costs and determine whether sewerage fees adequately cover these costs. Lenders should also review the quality and maintenance regime of sewerage treatment infrastructure.
- **Capability of Staff**: The lender should be able to determine the project design and implementation capability of staff. They would also be keen to understand their costing capability. A toolkit for the WSPs to take them through commercial lending has been prepared separately and can be found on the WASREB website. In addition, the WSPs are able to tap into technical assistance available from the WSTF to help them in designing their projects and financing.

Management of these risks lies within the control of both parties. WSPs need to have or establish proper internal controls that will improve efficiency in procurements, investment planning and management of NRW. As discussed earlier the WSPs are required by law to follow PPDA Act in their procurement and are bound by the public financial management requirements. Lenders should also carry out proper due diligence on the potential WSP borrower (commercial, financial, technical, etc.) and oversee the internal control capacity of the utility.

4.4.4 Strategic Risks

This pertains to risks emanating from the governance, regulation and operating environment. To determine the exposure to these risks, lenders need to understand:

- **County & National Government Support**: What is the declared level of support to the WSP and proposed project? Are there dedicated funds for the sector and can those funds support the operation of the utility and/or the project being financed?
- **Water Services Boards Support**: What is the declared level of support (and if applicable liability) to the WSP and proposed projects? A number of WSPs have on-lent loans from WSBs that finance specific projects within their area of jurisdiction. These loans are to be repaid using revenues from operations.
- T**ariff-setting strategy and plan**: Tariff setting procedures have been discussed in section 3.6. Commercial banks need to understand when the last tariff-setting was concluded, what the results were and whether the tariff is actually recovers costs. The servicing of the loans would also depend on the levels of future tariffs and it is important to understand when the next tariff-setting is scheduled for and the level of increase is anticipated. It is also important to understand whether the WSBs, WASREB and the County support future revisions.
- **County responsibilities/Water Services Board service level agreements**: Determine the status of any ongoing performance agreements.
- **WSP autonomy & accountability**: Does senior management believe it has sufficient autonomy to manage successfully? How clear are the accountability lines? Is the WSP financially ring-fenced from the County? The latter is key for loan servicing. It is for this reason that this document recommends a Memorandum of Understanding (MoU) from the WSBs and the Counties. The MoU is a requirement for the WSTF subsidy. Sample Letters of Comfort have been included in Appendix 5 *Sample Memorandum of Understanding between County Government, WSB, WSP & WSTF*, Appendix 6: *County Government Approval Template for Borrowing*, Appendix 7: *Water Service Provider Approval Template for Borrowing by Board of Directors* and Appendix 8: *Water Service Board Approval Template for Borrowing by WSB*.
- **Board member selection**: When is the next Board 'refreshing' due? How likely are the Board to sign off on the financing proposals?
- **Economic base**: What are the typical income levels of main segments of consumers and what is the WSPs vulnerability to economic downturns.
- **External risks**: Are there any external risks that you can foresee in the short-term? Are there any identifiable known unknowns?

The risks above and others have been summarised in Table 5.

TABLE 5: A CHECKLIST OF WATER RELATED RISKS

Water Related Risks	Stakeholders Affected				
	WSP	Suppliers	Regulator & Governmental Bodies	Lenders	Other Stakeholders
Commercial & Financial Risks					
Credit Risk					
Concentration Risk					
Liquidity Risk					
Market Risk					
Political					
Political Interference					
New standards & Directives					
Stakeholder Actions					
Operational Risk					
Management Capability					
Commercial Management					
Technical Capability & Operational Performance					
Strategic Risks					
County & National Government Support					
WSB Support					
Tariff Setting Strategy & Plan					
Responsibilities & Service Level Agreements					
WSP Autonomy & Accountability					
Corporate Governance					
Economic Base					
External Risks					

V. Lending to a Water Service Provider

- Credit Appraisal: How WSPs Develop Financeable Projects in the Water Sector
- How to Lend to a Water Service Provider
- Risk Mitigation: Pre-Lending- Non-Collateralized Lending Techniques
- Risk Mitigation: Pre-Lending – Credit Ratings & Creditworthiness Index
- Risk Mitigation: Pre-Lending – Subsidies, Guarantees & Dedicated Credit Lines

5. Lending to a Water Service Provider

This section discusses the recommended process a commercial bank should go through when lending to a WSP in Kenya. The section starts with discussion on the key aspects a commercial bank needs to consider in appraising the WSP project viability after the initial loan decision to lend. It includes some diagnostic toolkits for analysing the performance of the utility, financial model and cash flow projections and legal diligence toolkit. This leads to the typical procedures a commercial bank can follow to lend to the WSP and discusses some of the risk products available to commercial lenders for pre and post-lending to risk mitigation.

5.1 Credit Appraisal: How WSPs Develop Financeable Projects in the Water Sector

5.1.1 Overview

As part of this project, a creditworthiness index has been developed as an initial screen in determining creditworthy WSPs. Should a lender seek to further examine a project with a view to lending, it would be prudent to conduct an appraisal of the project.

A project appraisal entails a validation of the project feasibility study. Following project appraisal and loan approval, the WSP should carry out the final detailed designs and costing of the project prior to implementation.

This section covers the analysis of a project's bankability, including:

1. **Project Appraisal Due Diligence Checklist:** An overview of the important aspects of the project that require an appraisal with an accompanying set of key considerations.
2. **Project Appraisal Tools:** Tools that will assist the lender to carry out a deeper analysis of key project appraisal queries. The tools developed in this toolkit include:
   a. a WSP Diagnostic Tool
   b. a Financial Model
   c. a Legal Due Diligence Tool

5.1.2 Project Appraisal - Due Diligence Checklist

Institutional Analysis

Institutional analysis helps assess the key strengths and weaknesses of a WSP. The analysis will help determine whether the strengths offset any weaknesses, and if not, if there are specific measures that should be implemented prior to loan approval. Key indicators include the following:

- **Vision** - Does the WSP have a clearly stated vision that is widely known to its staff? The vision should provide a futuristic picture of what the utility wants to attain and the staff should be able to state it.
- **Goals** - Does the WSP's business plan or other planning documents describe short to medium term goals? Ideally, goals should be specific, measurable and time-bound.
- **Cultural values** - Interview staff on the presence of employee unions or employee associations and determine whether their objectives are aligned with that of the WSP.
- **Structures, systems and processes** – Compare the actual organizational structure to the recent structure approved by the WSP's board and get reasons for any deviation.
- **Resources** - Check management and other levels of staff qualifications vis-à-vis their position.
- **External relations** - Check with various stakeholders outside the WSP to determine the goodwill (or lack of it) that the WSP has built over the years. These will include WASREB, WSTF, depository banks, WSB officials, media, suppliers/contractors and customers.

In analysing the WSP as an institution, this toolkit uses the WSP Diagnostic Toolkit covered in more detail later in this chapter.

Technical and Operational Soundness

The project should be able to address the problems identified in the feasibility study. Technical appraisal of WSS projects may require the lender to hire a consulting engineer to review the technical aspects of feasibility study.

The appraisal team needs to answer the following questions;

- Is there a balance between water source capacity and facilities, and the average day or peak hour demand regardless of the level of water losses?
- Is the pipe network appropriately sized to maintain minimum and maximum pressures?
- Is there a study on identifying and segregating the causes of non-revenue water? Are the recommended corrective measures relevant to the identified causes of NRW?
- Is the project technically feasible in the proposed project site?
- Is the technology appropriate for the present level of expertise of the WSP? Will it require capacity building and staff training?

DUE DILIGENCE CHECKLIST FOR PROJECT APPRAISAL

- Institutional Analysis
- Technical and Operational soundness
- Financial Sustainability & Project Cost Analysis
- Social and political soundness
- Environmental factors
- Proposed Implementation plan
- Legal & Regulatory Approval

Source: USAID Water Supply Appraisal Guide Book

Financial Sustainability & Project Cost Analysis

The project should be able to generate sufficient income to cater for the capital outlay and operational & maintenance costs of running the project.

Financial Modelling is an important tool in determining financial sustainability. This is covered in finer detail later in this chapter and an excel model specific to Kenya WSP[12] projects is provided as part of this toolkit.

In reviewing project costs, the following are key areas of emphasis:

- Quantities reflected in cost estimates should be reflected in the preliminary design of works and facilities presented in the feasibility study.
- Level of detail of estimation should be checked. Basis of cost estimation for single items costing more than 10% should be evaluated further.
- Lump sum items should be scrutinized. Review the breakdown of these costs if they are a significant component of the total project cost.
- Check assumptions/references for unit costs.

In reviewing Financial Sustainability, key areas of appraisal include:

- Is the projected number of connections consistent with the market survey and population growth of the locality?
- Is the projected increase in consumption consistent with the existing consumption pattern of the locality and/or similar communities?
- Does the tariff structure provide enough revenue for O&M, debt service, reserves and taxes? If not, are future tariff increases (size and timing) identified.
- Has the WSP presented the project and planned tariff structure to its customers through a public hearing? Has WASREB approved the proposed tariff structure? Is there a clear strategy on how to obtain approvals for the tariff increase?
- In the case of default or events leading to default, are there available interventions to correct or avert the situation?

Social and Political Soundness

The community and its opinion leaders must support the project prior to its implementation. The following will form part of the key appraisal queries that will help determine stakeholder support for the project:

- Does the project address the priority needs of the locality?
- What is the perception of customers as to the present quality of service delivered to them?
- Are there programs by the WSP to promote "project ownership" by the community through involving local labour during project construction?
- Does the WSP have an advocacy program to win the support of local leadership for the program?

[12] A copy of the financial model can be found on the WASREB website.

Environmental

In carrying out the environmental impact due diligence, the lender must ensure that the WSP has commissioned a formal environmental impact assessment of the project and has submitted this study to the National Environmental Authority (NEMA) for approval. Banks must understand if:

- the project will require an environmental impact assessment and environmental clearance.
- the implementation of the project will produce environmental damage. What measures can be taken to mitigate the effects? Would the mitigation measures be sufficient?

Project Implementation

- Can the project be implemented any time during the year, regardless of the season?
- Will the project be implemented by the WSP or by a contractor?
- Is the project size attractive to contractors? How will the required equipment and expertise be made available?
- Does the WSP have the technical expertise to supervise the project's implementation or will it hire services for project supervision?
- How will outside services be procured? Is there an existing procurement procedure? Does the WSP adhere to the procurement regulations for public entities as stipulated by law?
- Does the project estimate provide for price and quantity contingencies?
- Is there an officer or project management unit to provide progress reports and feedback on the project's progress?

Legal Due Diligence Checklist & Required Approvals

In performing its legal due diligence, the Lender will be concerned with whether the WSP is operating legally and whether it has sufficient authority to borrow. Lenders should review the following:

Operational

- **Memorandum and Articles of Association for the WSP**: In this document the lender would look at whether the WSP board is empowered to borrow and the modalities in place for approval of borrowing.
- **The license granted to the WSP by WASREB for the provision of water services**: This will enable the lender determine whether the WSP is duly licensed as a WSP.
- **The Service Provision Agreement (SPA) between the WSB and the WSP**: The agreement will be useful in determining the length of time the WSP can provide services prior to application of renewal and the service area within which the WSP can operate.
- **WASREB approval of tariff increment**: This is if the WSP has applied for a tariff increment to enable it meet the financing costs.
- Any agreement between the County Government and the WSP concerned.

Authority to borrow

- The WSP's Board of Directors authority to borrow: A template for a board resolution has been provided in Appendix 7: *Water Service Provider Approval Template for Borrowing by Board of Directors*.
- Approval from the WSB for the WSP's borrowing: This approval will include the WSB acknowledgement that the WSP is borrowing and will also provide assurance that the WSB will renew the SPA over the life of the loan. A template for this approval has been provided in Appendix 8: *Water Service Board Approval Template for Borrowing by WSB*.
- Approval from the County Government for the WSP's borrowing: A template for this approval is provided in Appendix 6: *County Government Approval Template for Borrowing*.
- County Water Act (if one exists) or Water Bill if legislation is pending.

Comfort

- WASREB guidelines/directives on tariffs for the area concerned.
- Memorandum of Understanding between WSB/County Government agreement on ring-fencing, service exclusivity for life of loan (see Appendix 5).
- If the WSP has applied for subsidy under the World Bank's OBA program or KFW's Aid- On delivery (AOD) program, a Letter of Approval of subsidy from WSTF would be required.

The legal due diligence checklist is supplemented with a primer on the legal responsibilities by key player in section 5.2.

5.1.3 Project Appraisal Tools

WSP Diagnostic Assessment Tool

The Diagnostics Assessment Tool provides a methodology to assess the capability of WSPs. That covers the following areas;

- Leadership; Organisational Autonomy & Power
- Management & Administration
- Maintaining & Developing Staff
- Consumer Orientation
- Organisational Culture
- Commercial Orientation
- Technical Capability.

The template used for scoring WSPs is in an excel spreadsheet format that can be found in Appendix 10: *WSP Capacity Diagnostic Assessment Tool*.

The template can be utilized either by a WSP, bank or an independent third party engaged by either the WSP or bank to provide a snapshot indicator of suitability for commercial lending.

The results are typically summarised in a spider diagram as indicated in Figure 21: *Spider Diagram from WSP Diagnostic Toolkit*. This type of assessment illustrates at a glance any areas for improvement. Action would need to be taken to address significant weaknesses where they impact on a WSPs ability to service a loan.

FIGURE 21: SPIDER DIAGRAM FROM WSP DIAGNOSTIC TOOLKIT SHOWING AVERAGE SCORES FROM 10 SELECTED WSPS

Financial Modelling and Forecasting

Financial forecasts for the project over a defined time period are fundamental in evaluating a project proposal. The financial model helps the WSP project the possible financial effects of the project and provides direction on possible financing based on the information presented.

To develop the financial model and projections, WSP requires the following information:

- Monthly data sheets, including key operational statistics to be used in developing technical assumptions.
- Audited and interim financial statements.
- Schedule of receivables.
- Existing loan agreements.
- Project study.

Ideally, the WSP should use the monthly data sheets and audited financial statements for the past five years to establish trends and make plausible assumptions for financial projections. The Impact Report (http://wasreb.go.ke/impact-reports) contains technical and operational performance of the utilities. The Creditworthiness Index and the shadow rating reports contain summaries of the financial statements. This index is covered in finer detail in the credit assessment under section 5.4.3 *Risk Mitigation Products in the Water Sector*.

Critical Assumptions

To build a financial model for a water project, WSPs needs to identify the critical assumptions. Below are some of the critical assumptions that need to be answered in preparing a financial model.

These assumptions are divided into two principal groups:

- Technical/operational assumptions; and
- Financial assumptions.

a) Technical Assumptions

The following factors are the key technical & operational assumptions for the lender to consider.

i. Expansion of Service Connections

To assume a growth rate for the succeeding years, the lender should analyse the historical trend in organic growth in connections. This trend will form the baseline WSPs require to estimate the additional growth in connection that will result in the financed project.

The following factors may serve as the basis for the projection;

- Household surveys on willingness and ability to connect and to pay the proposed tariff and connection costs in the proposed expansion area.
- Household mapping.
- Resolutions from counties requesting the turnover of existing water systems or new connections.
- Official population projection.

ii. Non-Revenue water

To forecast NRW, look at the latest historical data and compare this with the WSP's strategy to reduce NRW.

The strategies may include:

- Replacement of old and defective pipes and fittings; and
- Campaign against illegal connections.

iii. Average consumption per connection per month

EQUATION 1: AVERAGE CONSUMPTION PER CONNECTION

$$\text{Average consumption per connection per month} = \text{Billed water} \div \text{Total number of connections}$$

The consumption pattern should be analysed to see if it is based on constrained demand (low consumption attributed to lack of water supply, particularly during peak hours). In such cases, the average consumption per connection can be expected to increase if the loan purpose is to improve water supplies.

It is worth noting that the use of average consumption figures should be reviewed against the type of customer the WSP intends to cover in its project. Poorer consumers are likely to have lower than average consumption per connection whilst more affluent consumers are likely to have higher than average consumption per connection.

iv. Water production capacity

The consumption pattern should be analysed to see if it is based on constrained demand (low consumption attributed to lack of water supply, particularly during peak hours). In such cases, the average consumption per connection can be expected to increase if the loan purpose is to improve water supplies.

It is worth noting that the use of average consumption figures should be reviewed against the type of customer the WSP intends to cover in its project. Poorer consumers are likely to have lower than average consumption per connection whilst more affluent consumers are likely to have higher than average consumption per connection.

b) Financial Assumptions

i. Tariff

Tariff is a critical driver of revenue for a WSP. Tariff setting is discussed earlier under 3.6 *Understanding Tariff Setting for WSPs in Kenya*.The tariffs in the financial model (including any model accompanying a loan application) should reflect the approved tariffs by WASREB.

In modelling tariffs, the lender can utilize the average tariff per cubic metre sold for the customer category the project predominantly targets. This is derived from the formula below. Information on billings and Volume of Water Billed is available in WASREB's Impact Report.

EQUATION 2: AVERAGE TARIFF PER CUBIC METER SOLD

Total amount of billings ÷ Volume of water billed = Average tariff per cubic metre sold

If the lender utilizes proposed tariffs (future tariffs yet to be approved by WASREB), due consideration should be accorded to the fact that tariff approval process is lengthy and requires the participation of various stakeholders. Cognisance should also be given to the fact that the average tariff per cubic metre varies across different customer categories and the lender should ensure that the appropriate adjustments are made to account for this.

ii. Collection Efficiency, Accounts Receivable, Penalty Charge
Collection efficiency can be projected based on historical data, available in WASREB's impact report, and the new strategies of management to improve collection efforts.

It is important to examine the schedule/aging of receivables. Most WSPs in Kenya have high receivables due to late payment by public institutions clients and debtors inherited from preceding institutions that provided water services.

EQUATION 3: COLLECTION EFFICIENCY

Collections inclusive of current year areas ÷ Total water billings inclusive of penalty charges = Collection efficiency

(iii) Connection Fees and Customer Deposits
Most WSPs assess connection fees at cost plus a margin. To install metered water connection in individual houses, the connection fee includes a non-refundable commitment fee, deposit for water meter, and costs of piping and fittings.

The customer deposit for the water meter is the only portion of the fee that is refundable hence WSPs hold these funds separate from the operational account.

(iv) Terms of Existing Loan/s
The Lender should obtain a copy of the existing loan agreement/s of a WSP to confirm any assets pledged as collateral and to understand restrictions imposed by previous lenders.

The lender should also review any infrastructure developments done through concessionary lending via the WSB. This may not appear on the WSPs balance sheet but WPS will usually be required to service the debt. The WSP or WSB should be in a position to provide information.

(v) Debt Service Reserve Fund

It would be prudent for the WSP to set aside a Debt Service Reserve Fund (DSRF) with the lender. This is normally set aside monthly in a deposit account built up by the WSP up to an agreed level. This account acts as a buffer to ensure the WSPs is in a position to meet contractual obligations, debt service, operation and maintenance costs, and for expansion and improvement of their physical facilities in months that it has lower than expected cashflow.

The borrower should execute a Deed of Assignment (DA) on the DSRF which serves as a substitute for fixed asset collateral for lenders. Normally, the holdout amount is equivalent to the highest 3 months' worth of amortization. Under the DA, the borrower cannot withdraw from the DSRF without consent from the lender. However, the DA also provides that the lender shall not unreasonably withhold such consent. For monitoring purposes, the DSRF is often kept in an account in the lending bank.

(vi) Production and Maintenance Expenses

Production and maintenance expenses usually include water supply, pumping, water treatment, and transmission/distribution expenses. To project these expenses, determine the unit production cost per category by dividing cost per category by the volume of production from the latest financial year. This provides a unit production cost per expense category. This is then multiplied by volume of water production projected to be utilized by the project to give the total production cost per expense category. The unit cost per expense category is assumed to have an annual escalation rate based on historical trends and projected inflation rate.

EQUATION 4: TOTAL EXPENSES PER CATEGORY

Volume of water production **X** Unit cost per expense cartegory **=** Total expenses per category

(vii) Administrative and customer expenses

Administrative and customer expenses include salaries and wages, provision for bad accounts, and depreciation. These are ordinarily projected based on historical data and proposed projects, plus any changes in the operating structures of the utilities going forward.

The following are the typical assets financed in a WSS infrastructure projects with their respective estimated useful life for depreciation purposes:

- office building and other concrete structures, such as pumping stations and reservoir - 30 years;
- Water & Sewerage transmission infrastructure (pipeline) – 30 years

- machineries and equipment like pumping/production/water treatment equipment - 10 years;
- office and IT equipment - 5 years; and
- Motor vehicles - 7 years.

(viii) Finance Charges
Interest rates and guarantee fees are the usual finance charges seen on a WSP's income statement. Currently in Kenya, guarantee facilities agreements are directly between the lender and the guarantor. This implies that the guarantee costs are not directly incurred by the WSP but are passed on to the cost of debt by the lender.

These finance charges must be considered in the financial projection and should reflect the most likely outcome based on lender discussions.

Financial Ratios
Once critical assumptions are covered, the lender can model the income statement, statement of cash flows and balance sheet to estimate indicative thresholds for financial indicators. The following ratios are good indicators of the past financial performance of a borrower. The ratio analysis is a retrospective and not prospective examination. Similar rations can be applied on projections to obtain prospective examination.

TABLE 6: FINANCIAL RATIOS

Ratio	Formulae	Indicator	Key Areas for Review
Debt Service Coverage Ratio	= EBITDA/ Annual debt amortization	Indicates how many times cash flow from operations covers obligations. Measures the amount of "free cash" available from operations to cover debt service payments.	• The WSP should ensure that both current and prospective debt repayments are included in the projection. Repayments for concessionary lending that is channelled through WSB to the WSP should be reviewed and included.
Debt to Equity Ratio	= Total Liability/ Total equity	Measures solvency. It's a financial ratio that indicates the percentage of a company's assets provided by debt.	• Since most WSPs would only have nominal share capital this would include retained earnings.
Current Ratio	= Current Assets/ Current Liabilities	Indicator of short-term liquidity. Evaluates the availability of cash and other liquid assets to meet short-term financial obligations such as operating and maintenance.	• A current ratio below 1.0 indicates substantial stress in a WSP's cash flow and signals to creditors that these WSPs may not make timely debt service payments. • WSPs may have high current ratios given the high receivables held whose collectability is uncertain. It is important for the utility to either have cash reserves or an overdraft facility to resort to in case of low cash flow.

Ratio	Formulae	Indicator	Key Areas for Review
Net Profit Margin	= Net Income/ Total Revenue	Reflects a WSPs tariff pricing policies and its ability to control costs. Also measures the WSP's financial ability to sustain operations and invest in new projects.	• An examination of trends in cost recovery are key in determining whether or not the WSP is likely to require a tariff increment to sustain cost recovery.
Operating Cost Coverage Ratio	= Total operating revenue/Total O&M costs	Measures a WSP's ability to recover operating costs with current operating revenues. Critical indicator in assessing debt capacity by measuring WSP's ability to control costs.	• An examination of trends in cost recovery are key in determining whether or not the WSP is likely to require a tariff increment to sustain cost recovery.
Debtor days/ Accounts Receivable Days	= Net debtors/ Operating revenue *365 days	Indicates how quickly cash is being collected from debtors. Uncollected receivables have the primary effect of reducing the available cash to meet day-to-day operating expenses and debt service payments.	• High Receivables are a major issue with WSPs. The WSP should be in analyse the receivables account to determine current and loan-outstanding receivables to estimate what is collectable.
Collection Efficiency	= Total cash collections/Total annual water and sewage billed	Measures the efficiency with which a utility is able to realize cash from its billed revenue	

5.2 Legal Due Diligence: Applicable Legal Framework for Lending to the Sector

5.2.1 Overview

This section covers the applicable laws in determining the roles and relevant approvals required from key stakeholders, particularly how borrowing by WSPs may remain within the restrictions posed by Article 212 of the Constitution.

5.2.2 The Applicable Legal Framework:

Currently, the Water Sector in Kenya is governed by the Water Act of 2002. This law underpins the legal and regulatory framework the water sector operates under.

With the promulgation of the Constitution of Kenya in 2010, water service provision was devolved to the County Governments. This has led to the drafting of the Water Bill of 2014 to harmonize the sector's legal framework with the constitution. County legislatures are also required to enact County Water Acts to govern water service provision at county level.

The adoption of the Constitution of Kenya also led to the enactment of the following laws to govern various aspects that affect the Water Sector.

i. The County Governments Act, 2012
ii. The Public Finance Management Act (PFMA), 2012
iii. Transition to Devolved Government, 2012

5.2.3 The Borrowing Restriction

Article 212 of the Constitution of Kenya, 2010 provides that borrowing by County Governments may only be carried out with a National Government Guarantee as well as the County Assembly's approval. Article 260 of the Constitution further defines borrowing as repayment of a debt using "public funds". Therefore, where a debt will be repaid using "public funds" (whether by the County Government itself or a County Corporation), the restriction at article 212 aforementioned applies.

WSPs, being separate legal entities may escape the restrictions faced by County Governments in borrowing directly. They however face an important restriction in that any debt they take on cannot be repaid using public funds.

'Public money' as defined at section 2 of the PFMA includes:

- All money that comes into possession of, or is distributed by, a national government;
- Money raised by a private body where it is doing so under statutory authority;
- Money held in trust for third parties by national government entities; and
- Money capable of generating liability for the Government.

In order to avoid falling afoul of the borrowing restriction, the WSP has to adhere to the general conditions outlined below:

- The WSP must have its own legal personality, capable of borrowing in its own right such a limited liability company or a county corporation;
- The WSP must be capable of repaying any borrowing without using public funds. The company must therefore be able to generate its own revenue;
- The WSP should not be designated a county entity under section 5 PFMA (as such an entity is subject to further restrictions on its borrowing under section 142, PFMA); and
- The WSP must be contracted, as opposed to being authorized by statute, to carry out this service and collect payment for the provision of such services.

Where the WSP meets and continues to meet conditions stipulated above, borrowing should remain within the prescriptions of the law. It is however prudent for Lenders to conduct their own legal analysis to form a view on lending to the sector.

5.2.4 The Role of Key Stakeholders in Lending to WSPs

The following are the key stakeholders involved in Lending to WSPs:

- Water Service Provider.
- Water Services Regulatory Board.
- Commercial Lenders.
- The Water Services Board.

- County Government.
- National Government.

Water Service Provider

Water Services Providers are established as public corporations under the Companies Act, further to section 55 (1) of the Water Act 2002 . By virtue of section 53 (1) of the Water Act, the WSPs are agents of the WSB to provide water and sanitation services.

The WSPs have various obligations with regard to commercial financing which include:

- To avoid liability for national government; this means that the WSPs assets, which are held on behalf of the public, cannot be charged;
- To apply for financing and adhere to the terms of the lender, using the funds for the purposes of developing and implementing water supply projects;
- To repay the loan without resorting to public funds, and ring-fence its revenue account in order to achieve this purpose;
- As the agent of the WSB, to obtain the approval of the WSB in order to apply for funds; and
- To follow all relevant provisions of the law in sourcing and applying the funds (e.g. public procurement law).

Water Services Regulatory Board

WASREB is established under section 46 of the Water Act.

- Section 47 (a) of the Water Act provides that WASREB shall issue licences for the provision of water services.
- WASREB is also obliged to approve the agreement between the WSB and the WSP for the provision of water and sanitation services.
- Another function of WASREB is to issue guidelines on tariff setting and determine fees, charges, levies, premiums and other charges to be imposed for water services; as provided for under section 47 (g) and (o) of the Water Act.

Commercial Lender

The Lender's interest in safeguarding the borrowing restriction is to ensure that its loan agreement is not tainted with illegality. The principle of illegality operates to render a contract so tainted unenforceable. A lender has to ensure the WSP approaching them for financing satisfies the conditions set out earlier by, carrying out the necessary due diligence.

Water Services Boards

Section 51 of the Water Act establishes WSBs who are responsible for the provision of water and sewerage services within their areas of coverage and are licensed by WASREB. Whilst the Constitution of Kenya 2010 now devolves this to County

Governments, the legal framework regulating water service provision has not been amended accordingly. The role of the WSBs therefore overlaps with that of the County Governments. Guidelines contained herein are therefore provided in light of the existing legislative and institutional framework.

Section 55 (1) of the Water Act provides that a WSB may arrange for the exercise and performance of all or any of its powers and functions under its licence to provide water and sanitation services by one or more agents, to be known as water service providers. The WSBs role being principals of WSPs with regard to provision of WSS services would be to approve and authorize the borrowing by WSP to access additional funds.

WSBs are also permitted under section 55 (5) of the Water Act to contract other WSPs to service the same area. However the WSB should not contract other WSPs in regards to the same area for the life of any loan taken by the WSP. This will facilitate the generation of more revenue by the WSP thereby enabling it to repay the loan on time.

The WSBs are also obliged to enter into SPAs with WSPs that include but not limited to the supply area, development, rehabilitation and maintenance of WSS facilities of the WSBs.

According to section 73 of the Water Act, the WSBs are responsible for the review of the WSS services tariffs proposals from WSP before submission to WASREB for consideration.

County Government

County Governments get their mandate to provide water and sanitation services from the Fourth Schedule of the Constitution of Kenya 2010, pursuant to article 185 (2), 186 (1) and 187 (2) and the County Governments Act 2012.

County Governments contract WSPs to provide water and sanitation services under section 6 (2) of County Government Act which provides that a County Government has all the powers necessary including entering into contracts for the discharge of its functions. The PMFA establishes county corporations under section 182 as read together with section 2 for the purpose of carrying out the County Government's mandate.

As the successor to municipalities (shareholders of WSPs), County Governments should also respect ring-fencing arrangements.

County Governments should ensure that county corporations are not declared as county entities so that additional borrowing restrictions under section 142 of the PFMA restrictions do not apply.

National Government

The National Government plays no role in the commercial financing process. However, all stakeholders should ensure that commercial financing does not incur any liability for the National Government in order not to breach the borrowing restriction.

5.3 How to Lend to a Water Service Provider

5.3.1 Lending Cycle

Successful commercial financing into the WSS sector will depend on the implementation of a sound lending cycle which relies on the future flow of earnings and their stability. The envisaged commercial financing lending cycle to WSPs is shown in the following diagram.

FIGURE 22: THE LENDING CYCLE

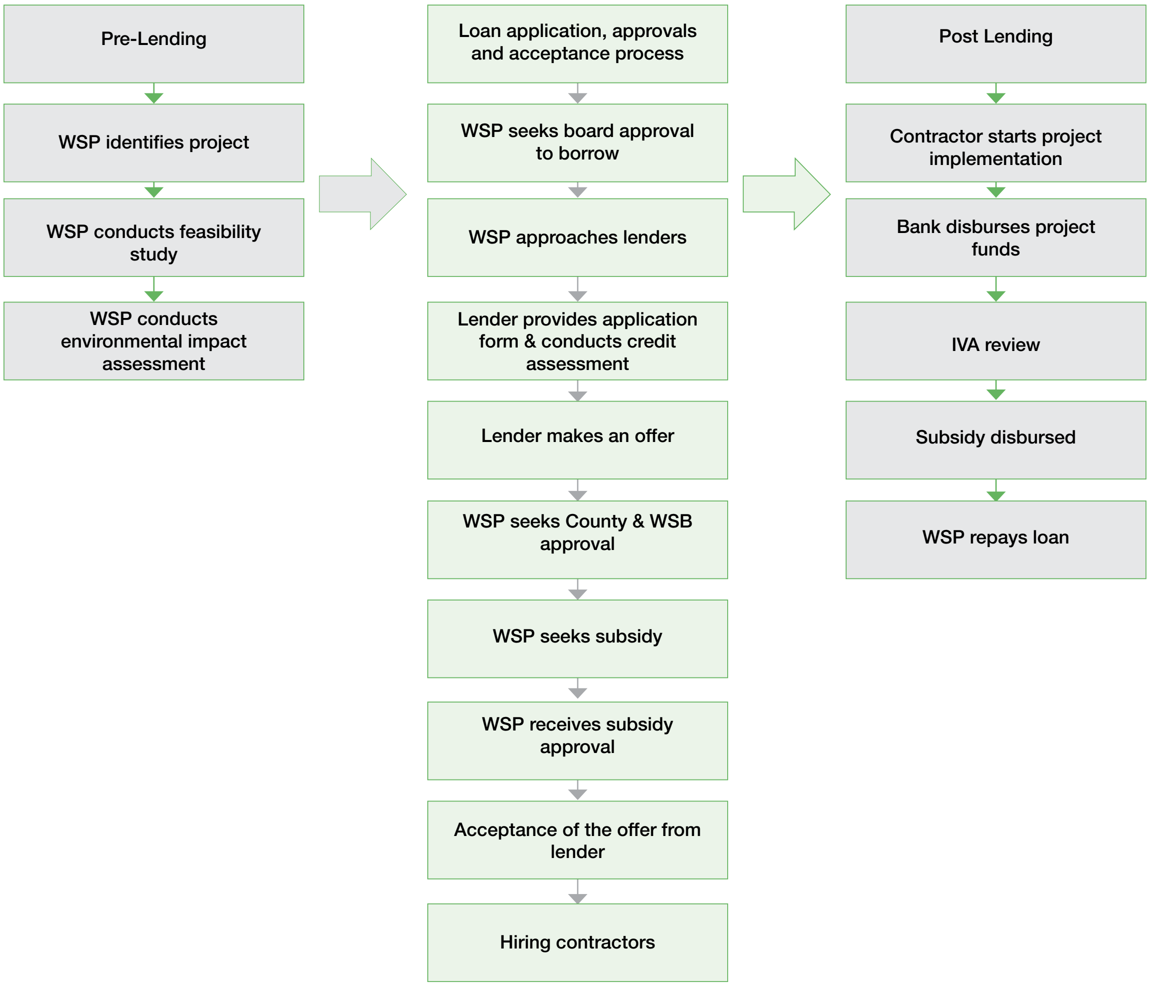
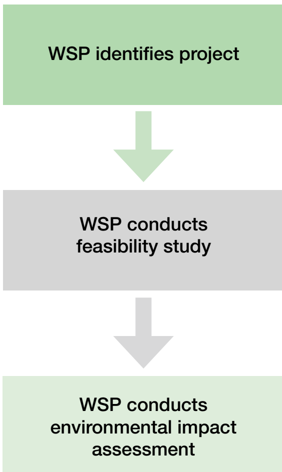


FIGURE 23: PRE-APPLICATION PROCESS



5.3.2 Pre-Application Process

Project Identification

Commercial lenders need to understand that a proper process for the project identification by WSP has been followed. The process of commercial lending starts with the WSP identifying a WSS project to be developed based on their prevailing service needs. To do this, the WSPs often conduct a user survey to identify what gaps there are in their performance and capacity provision.

The WSP needs to consider whether the project will address the current needs of the population. Careful consideration of different alternatives is therefore important to find the best fit and enable the WSP to save on expenditure.

Feasibility Study

In this phase, the WSP prepares a project feasibility report that includes an updated business plan covering how the project fits within the business plan of the WSP. WSPs are required by WASREB to prepare at least three year strategic plans and annual business plans.

In assessing the viability of a project, the WSP would often hire a Financial & Technical consultant to assist in conducting a feasibility study and developing a business plan that may be used in the loan application process with the lender.

In appraising the project, the lender should ensure that it covers the following areas comprehensively:

- Institutional Analysis.
- Technical and Operational Soundness.
- Financial Sustainability & Project Cost Analysis.
- Social and political soundness.
- Environmental factors.
- Proposed Implementation plan.
- Legal & Regulatory Approval.

The lender then focuses on the financial viability judging this on the following parameters:

- Total estimated cost of the project.
- Financing of the project in terms of its capital structure, debt equity ratio and the WSP's share of total cost.
- Projected cash flow and profitability.
- Sensitivity in the repayments capability to the following factors.
- Time delay.
- Acute reduction/slowing of sales.
- Sensitivity to cost overruns (small or large).
- Impact on the overall tariffs.
- Financiability including debt service.

Environmental Impact Assessment (EIA)

The WSP often requires the hiring of a consultant to conduct an Environmental Impact Assessment of the project. The EIA report will then be submitted to National Environmental Management Authority (NEMA) for approval.

FIGURE 23: DOCUMENTATION REQUIRED PRE-APPLICATION STAGE

Commissioning external technical assistance to develop appropriate Project Feasibility that meets minimum lender threshold

As part of the loan application process, WSPs can commission external technical advisers to assist them in developing a feasibility study and business plan. The scope for the technical advisers would include reviewing various aspects of the project including:

- Technical project justification and operational soundness. This includes reviewing the demand gap to be met from the project execution
- Cost analysis
- Social and political soundness
- Environmental factors
- Proposed Implementation plan
- Recommendations an project monitoring e.t.c

WSPs can also access funds that cater for up to 90% of the costs of hiring consultants through the WSTF. This is covered in further detail in section 4.5.3 under the discussion on subsidies

5.3.3 Application, Approvals & Acceptance Process

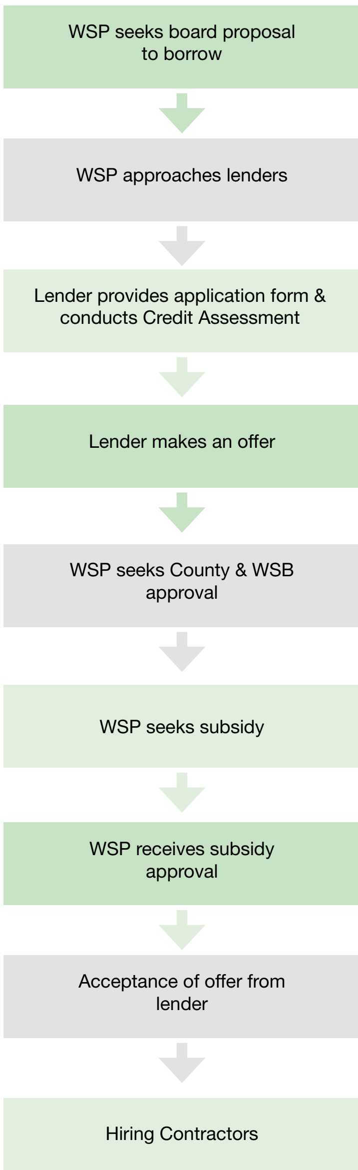
WSP seeks board approval to borrow

- The management of the WSP would seek approval for commercial borrowing from its board of directors.

WSP approaches lenders

- The WSP conducts a market sounding by sending the project to different lenders to gauge their appetite to lend. Utilities then formally approach banks through the floatation of a tender. Sourcing of services falls under the PPDA Act and WSPs need to demonstrate that finances have been competitively sourced. A direct request can be done if preferable candidates have been identified for the award. Shortlist could be drawn based on the PPDA Act.

FIGURE 25: LOAN APPLICATION, APPROVALS AND ACCEPTANCE PROCESS



- The floatation of a tender from the WSP inviting expressions of interest and sending a request for proposal (RFP) to shortlisted lenders along with an information memorandum covering a high level overview of the project.
- Lenders respond to the RFP by providing a draft term sheet covering key variables such as the term, interest rate, switching costs, hedging options, etc. A draft RFP can be found in Appendix 3: *Request for Funding Proposal Template*.

Lender provides application form & conducts credit assessment

- The lender would provide the WSP with application forms and other relevant documentation requests.
- Lender analyzes WSPs feasibility study and financials to determine the ability to repay debt.
- Apart from the information provided by the WSP, the lender can access key operational and financial indicators in WASREB's annual Impact Report. This report will also include a creditworthiness index that will rank WSPs based on the performance on a basket of indicators that will be used to determine the WSP's creditworthiness.

Lender makes an offer

- On strength of its credit analysis, the lender makes a loan offer. In determining the spread over the base lending rate, the lender should also review the effect of the following risk mitigation tools employed:
  - o The subsidy offered to the WSP in repayment of the debt. In Kenya, the World Bank and KFW have the OBA and AOD programs respectively.
  - o Guarantee facilities that the lender may have that will seek to have the debt underwritten by a guarantor. In Kenya, the DCA guarantee is offered by USAID. If this cost is passed on to the WSP, the corporate spread on the loan should decrease.
- The subsidy and guarantee programs are covered in further detail in section 5.4.3 *Risk Mitigation Products in the Water Sector*.

WSP seeks County and WSB approval

- County and WSB approval ensures all requirements have been met and that all regulations have been adhered to in order to facilitate the funding.
- The approvals will indicate the awareness of the WSB and the County of the borrowing process the WSP and its approval of the process.

WSP seeks subsidy facility

- This process is only necessary where the WSP is seeking subsidy support from WSTF under the OBA program or from KFW under the AOD program.
- The IVA appointed by the WSTF will conduct a baseline survey of the project. The IVA and the WSP will set up and agree on milestones that are to be met over an agreed period of time.

WSP receives subsidy approval (if applicable)

- The WSP (if applicable) will receive an approval for the subsidy from the WSTF.
- Subsidy approval will entail the verification of the project crossing pre-set milestones will have prior to disbursements. The verification will take the form of physical inspection in the field by qualified technicians or engineers and can take up to 30-60 days.

WSP Board accepts offer from lender

- WSP Board, in conjunction with the lender, must agree on terms of association. This occurs after the lender has provided the requested amount,, pricing and tenure of the loan and agrees on how the how the loan is going to be appropriated.

WSP appoints contractors

- WSPs are required to appoint independent contractors from a transparent and fair vetting process. This will not be necessary if the WSP is using its own manpower and resources for the project.
- WSPs owned by County Governments must follow the procurement rules described in the PPDA Act of 2005 and associated rules and regulations. They must also adhere to World Bank procurement rules if they have applied for OBA subsidy or technical assistance. Key guiding principles for procurements managed by WSPs are:
  - o Transparency in the procurement process and in the implementation of procurement contracts.
  - o Competitiveness by extending equal opportunity to eligible and qualified companies.
  - o Streamlined procurement process.
  - o Accountability of public officials directly or indirectly involved in the procurement process and implementation of procurement contracts and the private parties awarded contracts.
- Public monitoring of the procurement process and the implementation of awarded contracts
- If the WSP had previously acquired contractors, they are required to produce a statement of works from previous assignments and any other documentation from previous works.

Loan Disbursement

- After the required conditions have been met and document submissions finalized, the loan shall be disbursed.

FIGURE 26: DOCUMENTATION REQUIRED: APPLICATION, APPROVALS & ACCEPTANCE PROCESS

WSP

- WSP Board Approval for borrowing
- Application Documentation from lender
- Offer Letter from lender
- All documentation required by lender
- All documentation required by WSB and County
- All documentation required by IVA (If applicable)

Lender

- Establishment Documentation (Certificate of Registration, PIN, etc)
- Regulatory Documentation (SAP, Tariff Approval etc)
- Historical financial statements
- County approval
- WSB approval
- WSP Board approval for borrowing
- Project feasibility study
- EIA report & NEMA approval
- Appointment of IVA
- Approval of subsidy (If applicable)
- Loan Guarantee approval (If applicable)

FIGURE 27: POST- ACCEPTANCE

Contractor starts project implementation
↓
Bank disburses project funds
↓
IVA review
↓
Subsidy is disbursed
↓
WSP repays loan

5.3.4 Post-Acceptance

Contractor starts project implementation

- The appointed contractor begins the job once the loan facility has been fully approved. The appointment of the contractor should follow PPDA Act procedures.
- A Project Implementation Plan will be drawn up before any finances are transferred. The implementation plan is used a yardstick of to measure the progress in implementing the project by the lender.

Lender disburses based project funds

- Disbursements of funds will depend on the loan terms. In some cases, banks may prefer to fund the projects in which case the project funds will not be paid directly to the WSPs. They will be domiciled in an account where outflows are made based on approvals from both the WSP and the lender. The project disbursements should be made directly to the contractor on the basis of issuance of certificates of competition.
- Funds can also be disbursed directly to the WSPs accounts. In this case, the lender provides the financing upfront to the WSPs for the project implementation.

IVA reviews project implementation & advises on project milestones being met and subsidy target being met

- This only applies for the projects that qualify for subsidy.
- IVA reviews the project based on the baseline survey carried out to ensure that it meets the output targets set to qualify for the subsidy.

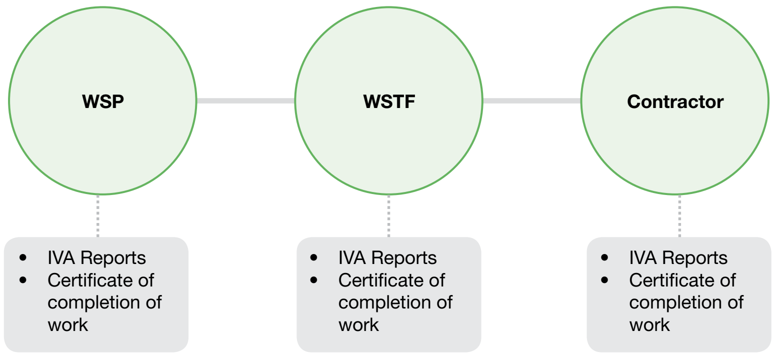
Subsidy disbursed based on IVA report

- This only applies for the projects that qualify for subsidy.
- The subsidy will be disbursed based on pro-poor targets set when the baseline was determined. The disbursement schedule under the AOD & OBA programs are covered in further detail in section 5.4.3 *Risk Mitigation Products in the Water Sector*.

WSP repays loans

- WSP repays the loan upon the expiry of the moratorium period agreed with the lender.
- Payments could be monthly, quarterly, semi-annually or annually depending with the lenders agreement. Non-payment of these debts might ultimately call for a bankruptcy petition filed by either financer.

FIGURE 28: DOCUMENTATION REQUIRED: POST-ACCEPTANCE



5.3.5 Loan Waterfall Structure

Given that the WSPs in Kenya do not own the infrastructure that they operate and that this infrastructure has little liquidation value, collateralized lending is not ideal for water projects.

A security structure that relies on the cash flow from water & sewerage revenue is needed to provide the lender with the necessary comfort. This structure gives debt service payments priority after essential operating costs have been met.

A sample cashflow structure showing the priority of payments from revenue is presented in Figure 29.

FIGURE 29: SAMPLE CASH WATERFALL STRUCTURE FOR WSPS

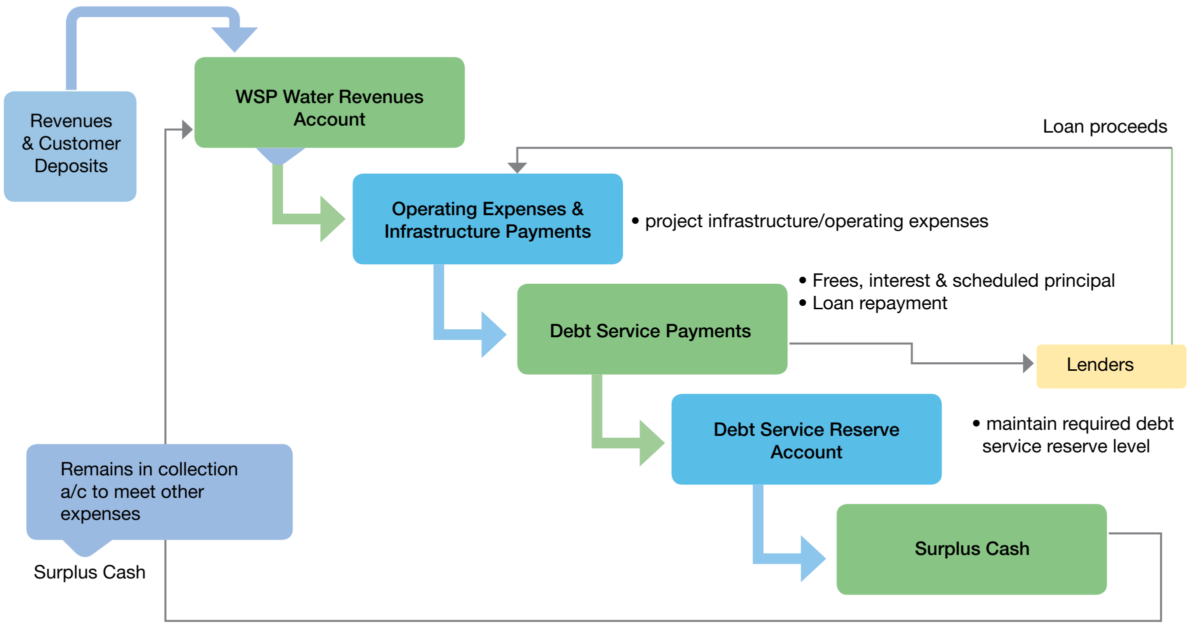


Table 7 discusses the steps contained in the loan structure.

TABLE 7: WATERFALL STRUCTURE

Account	Role(s)
WSP Revenues Collection Account	Customer deposits are moved from the Customer Deposits Account to the WSP collection account. The loan structure allows for the following statutory deductions to be made from the amounts received: • WRMA extraction fee. • 1% WASREB levy. • WSB Lease fee. • Income/VAT taxes. • Non-compliance penalties.
Infrastructure Account	The balance after statutory payments are made is firstly made available for the infrastructure account. This represents funds available for pre-approved operating and maintenance expenditure. Deduction of operating expenses gives operating income available for working capital replenishment.
Debt Payment Account	This represents cash available for debt service. Interest and principal payments are made from this account. Loan repayment to lenders could be in form of cash sweeps. Any costs incurred in addition to budgeted amounts that have been agreed with the lender may then only be paid after debt service obligations have been met.

Account	Role(s)
Debt Reserve Account	This represents an escrow account accessible by the lenders to be drawn upon in case of failure to make timely debt service payments. Operations and maintenance reserve could also be held in this account. Other mandatory prepayments can also be made from this account. Banks would have different requirements but a ratio of 1.2 for WSS projects would probably be sufficient.
Distribution Account	All the remaining cash goes to the distribution account. These funds remain in the collection account to meet other expenses and are distributed subject to the lender approval and agreed payments waterfall.

5.4 Risk Mitigation: Pre-lending - Non-Collateralized Lending Techniques

5.4.1 Overview

This section covers the measures a lender can undertake to minimize risk exposure in lending to a WSP through non-collateralized lending. These include:

- Debentures.
- Cash Sweeps.
- Assignment of Borrower Receivables.

5.4.2 Non-Collateralized Lending Techniques for the Water Sector

Commercial financing for WSS has remained a challenge due to local commercial banks preference for collateralized lending. Collateral presents a challenge for WSPs as their core infrastructure assets are difficult to collateralize as often these are buried in the ground.

WSPs ordinarily do not even own the assets they use. As per the Water Act of 2002, assets are owned by the WSBs. Under devolution this ownership will likely transfer to counties. Therefore, there is no authority for WSPs to use these assets as security for debt.

Below are non-collateral lending techniques that lenders can pursue for WSS Sector.

Debentures

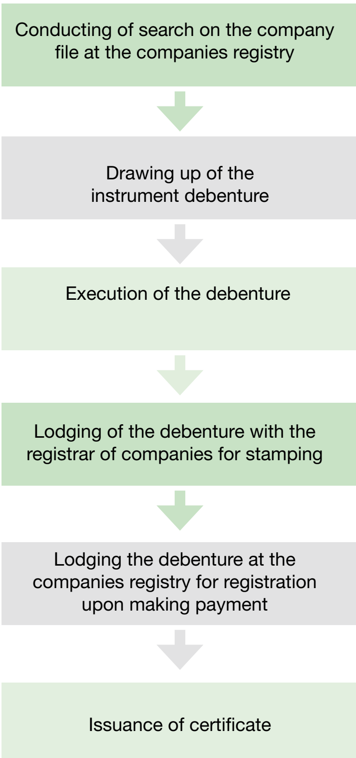
Being medium to long-term debt instruments that are not normally secured by physical assets or collateral, local debentures issued to WSPs must be backed solely by the general creditworthiness of the issuer.

Though WSP debentures are not secured by collateral, they do have a general claim on the assets and the earnings of the utility. In the event of default and following liquidation of the issuer, holders of the debenture have a claim on any assets not specifically pledged to secure other debt. If there are no pledged assets or no secured debt, then the debentures have the first claim on all of the company's assets (along with any other general creditor).

NON-COLLATERALIZED LENDING TECHNIQUES

- Debentures
- Cash Sweeps
- Assignment of Borrower Receivables

FIGURE 30: PROCESS OF DEBENTURE REGISTRATION:



Commercial banks, therefore, need to ensure that the indentures documenting the debentures are sound. Generally WSPs that have a history of significant cash-flow surpluses (that have never defaulted on any of their other debt) are considered creditworthy.

The attributes of a debenture are:

- Issued by the company in the form of a certificate of indebtedness. This would be rare for a WSP in Kenya.
- Generally specifies the date of redemption, repayment of principal and interest on specified dates.
- May or may not create a charge on the assets of the company.

Debentures are classified into different types based on their tenure, redemption, mode of redemption, convertibility, security, transferability, type of interest rate.

The debentures commonly available in Kenya include but are not limited to:

- Secured or mortgage debenture is secured by charge on some asset or set of assets. A trustee is appointed to hold the title on assets as they cannot be assigned to each and every debenture holder.
- Naked or unsecured debenture is issued solely on the credibility of the issuer.

Fixed rate debentures have fixed interest rate over the life of the debentures. Floating rate debentures have floating rate of interest which is dependent on some benchmark rate. Specific rate debentures are all other debentures with specified rate of interest which are just like a normal debenture.

Case for debenture lending to WSPs

Availability of Shadow Credit Ratings & Creditworthiness Index
The World Bank's Water and Sanitation Program, jointly with WASREB produced a Utility Shadow Credit Rating Report in 2011. This report rated 13 utilities with an investment grade. An updated Creditworthiness Index report is currently available from WASREB and concludes that 13 WSPs are probably creditworthy. Further information on these can be found in the Risk Mitigation Products in the Water Sector section of this report.

Use by Banks Lending to the Sector
In lending to the sector, debentures[13] on cash flow have been used and has seen to the growth of cumulative lending under the K-REP-World Bank partnership for lending to community based water project KShs. 303 Million.

[13] OBA Approaches: October 2009 Note 30

Cash sweeps

Cash sweeps are acceptable arrangements in the WSS sector in Kenya and are used where the borrowing WSP has excess cash. If the terms of the debt provide for early repayment, the borrower may use excess cash to periodically repay debt ahead of schedule.

Commercial banks have their own approaches of determining excess cash. The overriding principle is that excess cash should be calculated after considering cash balance required for operation of the business and various reserve funds requirements have been met.

Excess cash flow available for debt service can be used to pay down the revolver balance or optionally repay other debt early.

Assignment of Borrower Receivables

This refers to a lending agreement where the WSP assigns specific customer accounts that owe money (accounts receivable) to the lending institution to support the loan payment. The WSP still pays interest and a service charge on the advance. The WSP retains ownership of the accounts and continues to collect the accounts receivable and passes the payments on to the lender. The borrower retains the risk that some accounts receivable will not be repaid. In this case, the lender may demand payment directly from the borrower. This arrangement is called assignment of accounts receivable with recourse.

WSPs in Kenya generally have high accounts receivable given that they inherited many of these from former municipal councils and that some of their institutional clients do not pay within the traditional 30-day credit period. The Lender should examine the accounts receivable with a view of distinguishing between long outstanding receivables from current receivables. Lenders should also analyze the payment patterns of larger institutional clients.

5.5 Risk Mitigation: Pre-lending – Credit Ratings & Creditworthiness Index

5.5.1 Overview

This section covers how a lender can utilize credit ratings and the Creditworthiness Index to minimize risk exposure in lending to a WSP..

5.5.2 Credit Ratings

Introduction to Credit Ratings

A credit rating is a formal opinion by an independent, specialized agency (a credit rating agency) on the long term ability, capacity, and willingness of the borrower to repay commercial debt on a timely basis. The process of assessment is part science and part art in the sense that historical data, which is factual, can be used to predict trends into the future, which are speculative.

A credit rating is part art and part science, looking back to the past to gain trends and perspectives and then intelligently projecting them into the future. It is very different from an audit which looks at past year and focuses more on compliance than risks.

International Ratings

All ratings reflect a loss probability (probability of defaulting on an obligation) against benchmark investments that are regarded as risk-free. Supranational entities like the World Bank with the highest quality credit are awarded AAA ('triple A') ratings and are generally considered almost risk-free.

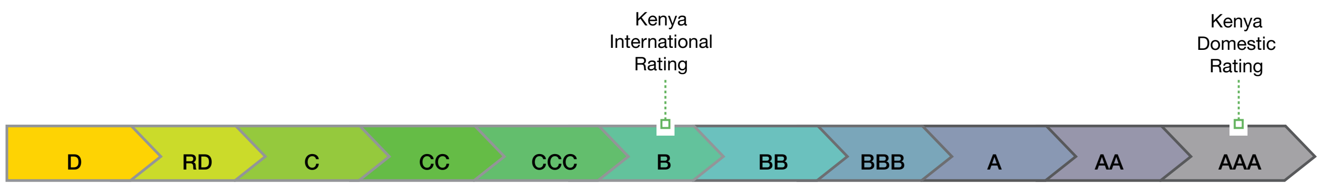
A lower credit rating indicates a higher probability that an entity will default on its debt service payment. For example, AAA-rated corporates have historically had a default rate of 0.11 percent over a five year period and 0.66 percent every 10 years, whereas BB-rated corporates have a default rate of 14.77 percent every five years and 26.61 percent every 10 years. Entities such as corporates and municipalities, and specific debt instruments issued by these entities, can be rated. Ratings of sovereigns are based on a number of macro-economic considerations such as export surplus, foreign reserves, and the general strength of the economy. Examples of AAA rated economies are Singapore, Germany, and New Zealand. Most emerging market economies, however, have lower internationally ratings.

Domestic Ratings

Domestic ratings use a 'within-country' (as opposed to international) approach by benchmarking other institutions to the government of the country. In domestic ratings, the government receives a AAA rating even though its international rating is below this. In this assessment, the Kenyan government has a domestic rating of AAA while the international rating is B+. In the country context, the sovereign is largely regarded as risk-free and assigned a AAA rating, as it can effectively print money to make a debt service payment, albeit at the cost of higher inflation. This implies that domestically no other entity can have a higher rating than the sovereign benchmark.

Credit rating definitions[14] are indicated in Table 8.

FIGURE 31: KENYA'S DOMESTIC & INTERNATIONAL CREDIT RATINGS



[14] Fitch Ratings

TABLE 8: WATER SECTOR INSTITUTIONS

Credit Rating	Definition
AAA: Highest credit quality.	AAA' ratings denote the lowest expectation of default risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.
AA: Very high credit quality.	AA' ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A: High credit quality.	A' ratings denote expectations of low default risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.
BBB: Good credit quality.	'BBB' ratings indicate that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.
BB: Speculative.	'BB' ratings indicate an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial flexibility exists which supports the servicing of financial commitments.
B: Highly speculative.	'B' ratings indicate that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment.
CCC: Substantial credit risk.	Default is a real possibility.
CC Very high levels of credit risk.	Default of some kind appears probable.
C: Exceptionally high levels of credit risk	Default is imminent or inevitable, or the issuer is in standstill.
RD: Restricted default.	'RD' ratings generally indicate an issuer that in the issuers' opinion has experienced an uncured payment default on a bond, loan or other material financial obligation but which has not entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure, and which has not otherwise ceased operating
D: Default.	D' ratings indicate an issuer that in the issuers' opinion has entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure, or which has otherwise ceased business.[15]

The Benefits of Credit Ratings

There are a number of benefits to having a formal credit rating:

- Provides an independent and objective evaluation of an institution's or utility's creditworthiness. Proven, on the whole, to be an accurate predictor of the risk of default.
- Provides scale of credit ratings to allow potential lenders to compare different utilities or institutions and assess their relative creditworthiness;
- Provides a track record of creditworthiness. As ratings are often done annually, historical ratings show the credit trends of a rated entity;

[15] Fitch Ratings & Definitions

- Assists in pricing risk. Not all institutions or utilities are equally creditworthy, so lenders and investors need a way of assessing how risky their loan might be;
- Can improve the negotiating positions, especially with regard to finance costs. In developed markets where credit ratings are widely used, a rating can often facilitate access to finance without the lender having to perform its own due diligence; and
- Allows the rated entity to focus on areas that reduce its creditworthiness and launch actions to address these issues.

Ratings are however relatively expensive as they depend on in depth assessment and interviews. This gave rise to the concept of the Creditworthiness Index.

5.5.3 WASREB Creditworthiness Index

Credit ratings are not static and change over time according to the financial health of a WSP. However, the cost of carrying out periodic credit ratings is prohibitive for most WSPs.

For this reason, WASREB and the World Bank created a Creditworthiness Index as a suitable and affordable alternative to the credit ratings. This is an automated index based on scores derived from a WSP's performance on selected quantitative financial and operational indicators that are collected annually by WASREB.

An automated index is easier and cheaper to administer and provides a good proxy for the full shadow rating process.

Purpose of Creditworthiness Index

The purpose of the Creditworthiness Index is to summarise the financial trends and data and integrate this with the available operational data to allow a snapshot view of the performance of the WSPs operational and financial performance.

It is assumed that the creditworthiness index scores would be a good indicator of the likely domestic credit rating the WSP would receive.

Changes in Approach from 2011 Shadow Credit Rating

Detailed shadow credit ratings can only be done through analysis of the financial statements, the economic environment supported by a field visit and in-depth interviews. The overall approach therefore includes subjective and interpretive assessments as an integral part of the process. This can be done on WSPs that are ready and want to access private financial markets.

The state of readiness of some of the utilities does not justify the expenditure on full credit ratings on an annual basis. The adoption of a creditworthiness index provides a proxy of the creditworthiness of a WSP at a fraction of the cost.

It must be stressed that the creditworthiness index is not a shadow rating but an automated factual perspective of the financial creditworthiness of a utility based purely on financial and operational data provided by the utility. Integrity is not guaranteed as only limited verification of a utility's data was undertaken as part of data validation by WASREB.

Furthermore, no qualitative parameters are incorporated in the Creditworthiness Index. In particular, the creditworthiness does not consider:

- Management capacity, orientation, experience and qualification;
- Human resources attitude orientation and performance;
- Stakeholder support and relations;
- Governance issues;
- Legislative and regulatory framework; and
- Strength of the economic base.

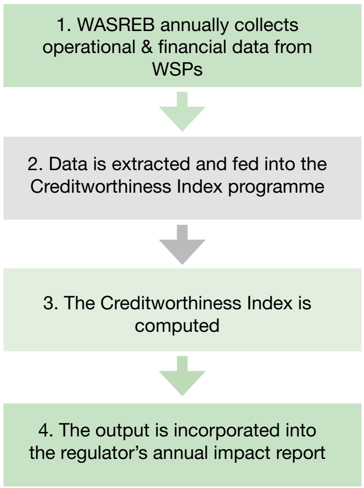
Commercial lenders will need to form their own opinion about the strength, commitment and attitude of the utilities' boards of directors and executive management to supplement the factual information contained in the creditworthiness index report.

Lenders also need to consider the changing legal and regulatory institutional environment (see Legal Due Diligence: Applicable Legal Framework for Lending to the Sector).

The Structure of the Index and Methodology Applied

The Creditworthiness Index methodology is simpler than the WATERCAT approach previously used in the 2011 shadow rating report. The data collection is not as extensive. The creditworthiness index relies on data from financial statements and operating statistics, as reported by the utilities in WASREBs reporting database, WARIS. WASREB carries out limited data validation as part of the Impact Reporting process.

FIGURE 32: METHODOLOGY OF THE CREDITWORTHINESS INDEX



An interface program extracts the data from the utility reports and financial statements to calculate the creditworthiness. The results are then fed back into the WASREB system.

In developing and designing the index, the key challenge was not only selecting the specific and critical indicators necessary for a good index, but also that would also be readily available from the financial statements and from the operating data, as reported by the utilities in WASREB's WARIS database.

Alter consultation with key stakeholders, the indicators in Table 9 were chosen.

TABLE 9: CREDITWORTHINESS INDICATORS

Indicator	Definition	Reason for inclusion	Weights
Technical indicators			
Poverty rate	County poverty rates are derived simply by dividing the total number of poor people in each county in by the total population in each county	Indicates the strength of the economic base	3
Sanitation coverage	Number of people served with Sewerage Services/ Population of area	Indicates size of future challenges	1
Water coverage	Number of people served with Water Supply Services/ Population of area	Indicates size of future challenges	1
Non Revenue Water (NRW)	Total Volume of Water Lost from Commercial and Physical Losses as a proportion of Water Produced	Efficiency and credit quality	5
No of staff /connection	Number of Staff Members Divided by the total number of Connections	Efficiency	3
Financial Indicators			
Revenue Indicators			
Revenue Diversification	The scoring of this indicator was done as the difference between the % residential revenue and % institutional	Diversity of RevenueStreams	6
Average Tariff Differential	This indicator was scored as the difference between Average tariff per cubic metre and Production cost per cubic metre.	Pricing of services	8
Cost Indicators			
Maintenance Costs /OPEX	Total Maintenance Costs divided by total operations and maintenance expenditure	Future challenges	3
Electricity Costs /OPEX	Total Electricity Costs divided by total operations and maintenance expenditure	Vulnerability	2
Employee Costs /OPEX	The employee Costs (inclusive of salary, pension and other employee related benefits) as a % of Total OPEX	Efficiency	2
Percentage O&M coverage	Total revenue from water and sewerage sales divided by total operations and maintenance expenditure	Creditworthiness	4
Grant dependency for OPEX	The proportion of OPEX financed by income from Grants	Vulnerability	3
Profitability/ Cost Recovery Indicators			
EBITDA/Revenue	Earnings Before Interest Tax, Depreciation & Amortization divided by Revenue	Credit quality	5
Liquidity & Solvency Indicators			
Cash reserves as % of annual operating income (expressed as months of operating expense)	Cash reserves as % of annual operating income	Liquidity indicator	5
Liquidity ratio: Cash & Near Cash Reserves/ Current Liabilities	Liquidity ratio: Cash & Near Cash Reserves/ Current Liabilities	Liquidity indicator	4

Indicator	Definition	Reason for inclusion	Weights
Debt service coverage: % The amount of cash available to meet principal and interest obligations	Debt service ratio: %(The proportion of annual revenue spend on servicing principal and interest obligations)	Debt service ability	5
Cash Flow Available for Debt Service	Net Operating Cashflow + Interest Repayments	Credit quality	10
Debt /equity	Total Debt: Total Equity	Solvency	5
Debtor Days: average number of days it takes WSP to collect monies billed	Net billed amount outstanding/ Total annual operating revenues excluding grants and transfers *365	Cash flow resilience	5
% Change in debtor days over the last financial year	(Debtor Days in Current Financial Year Less Debtor Days in previous Financial Year)/Debtor Days in Current Financial Year	Adjusted cash flow to eliminate legacy debt	5
Consumer bad debt provision% Cash provision for bad and doubtful debt	Cash provision for bad and doubtful debt / Consumer bad debt provision%	Credit quality	5
Billing efficiency: % Utilities ability to bill water produced/bought	Billing efficiency: % Utilities ability to bill water produced/bought	Efficiency	5
Collection efficiency :Utilities ability to collect billed accounts	Collection efficiency :Utilities ability to collect billed accounts	Efficiency	5

Every indicator was allocated a weight, based on the experience of the shadow credit rating process in 2011 (which was ratified by an accredited rating agency on an Africa wide basis by correlating the results of the shadow credit rating with 7 formal ratings). The rationale for allocating weights is that all indicators, although individually important, have varying importance when it comes to credit assessment.

Additionally, each indicator had a defined range within which the indicator value was scored based on its performance within the range. This helped determine the weighting of the indicator in the creditworthiness index.
The rating rewarded for total score per WSPs was largely based on the shadow credit rating scale used in 2011 and is per Table 10.

TABLE 10: CREDITWORTHINESS INDEX SCORES

Score	Indicative Creditworthiness Level	Description
< 30	No Rating awarded	Indicative of substantial to exceptionally high risk of default
31 to 40	Lower-Creditworthy	Indicates that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment
41 to 50	Low-Creditworthy	Indicates an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial flexibility exists which supports the servicing of financial commitments
51 to 60	Creditworthy	Indicates that expectations of default risk are currently low. Capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity
61 to 70	Creditworthy	Denotes expectations of low default risk. Capacity for payment of financial commitments is considered strong. Capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings
71 to 85	Highly Creditworthy	Denotes expectations of very low default risk. Very strong capacity for payment of financial commitments. Not significantly vulnerable to foreseeable events
> 85	Very Highly Creditworthy	Denotes the lowest expectation of default risk. Assigned only in cases of exceptionally strong capacity for payment of financial commitments. Highly unlikely to be adversely affected by foreseeable events

5.6 Risk Mitigation: Pre-lending – Subsidies, Guarantees & Dedicated Credit Lines

5.6.1 Overview

This section covers how subsidies, guarantees and dedicated credit lines work as risk mitigation techniques in the water sector in Kenya

5.6.2 Subsidies

Overview

To encourage commercial lending to the water sector, two donors have partnered with WSTF to provide subsidies to WSPs that develop their infrastructure financed with commercial loans. Both facilities are results based, meaning subsidy is not disbursed until the infrastructure is completed.

These subsidies cover up to 60% of the borrowings. WSPs access these grants after meeting agreed upon outputs and development outcomes. These outputs may include, for example, the project achieving a certain number of connections in poor neighbourhoods.

In Kenya, there are two subsidy programs being run by the WSTF:

- Output- Based Aid (OBA) program via the World Bank's GPOBA supported by Swedish International Development Agency; and
- Aid- On- Delivery (AOD) program by supported by KFW[16]

Lenders that require more information on these two programs can request it from the WSTF.

Output Based Aid

The OBA facility is part of a global program run by the World Bank that uses a results-based mechanism to increase access to basic services (infrastructure, healthcare and education) for the poor in developing countries.

In Kenya, the OBA program is providing subsidies for commercial loans to WSPs for projects that have target or include low-income households. The program targets Kenyan towns and cities except Nairobi. The program also has a technical assistance component that assists WSPs in covering consultancy fees incurred in project preparation.

Eligibility Criteria

The minimum criteria for a WSP to be considered for financial support under the Kenya OBA Fund is listed below. Applicants meeting these criteria are eligible to receive technical assistance funding to support the development of a project proposal and subsidy funding for completed projects that meet the output targets:

- WSP is in compliance with WASREB and WRMA guidelines and has the support of the County Government to develop the project.
- WSP may either be county owned or a private operator or community licensed to provide water and sanitation services.
- Proposed project is demonstrated to be technically feasible and commercially viable as shown in the project proposal.
- WSP has secured a loan offer to finance the project from a commercial lender in Kenya, and is able to demonstrate its capability to repay the non-subsidized portion of the loan.
- Proposed project is situated in a low-income area that meets the Majidata criteria. In cases where partial project is based in a Majidata area, the portion of the project attributable to the low-income area is eligible for subsidy.
- WSP has WASREB approved tariff and will charge appropriate connection and consumption fees to cover operating and maintenance costs and the non-subsidized investment cost of the subproject. Up to 60% of consumer connection fees may be subsidized, and fees may be payable in instalments to increase affordability and uptake by low-income consumer.

TYPES OF INVESTMENTS FUNDED:

- Technical assistance to prepare and implement projects
- Construction/expansion of water and sewer networks to reach unserved consumers
- Rehabilitation / improvement of existing networks e.g. NRW reduction program
- Water and/or sewer connections to households and public points
- Water and sewer treatment facilities

[16] Overview of AOD in the Water Sector in Kenya

Technical Assistance (TA)

If a WSP that meets the above criteria but requires TA funds to hire consultants in further developing the project, it can apply for up to 90% of the consultant's costs. The consultants can help the WSP:

- Perform project preparation surveys and designs.
- Develop financial and technical analyses and business plans and environmental, health and safety, and social safeguards analyses in line with the Environmental and Social Management Framework.
- Supervise project implementation and completion.
- Perform system operating and financial diagnostics and performance improvement related activities.

The final product of the work of the consultants should be, at least, a proposal that is acceptable to the WSTF and the commercial lender(s) participating in the project.

Pre-qualification for Subsidy & Output Targets

The project business proposal is submitted to the WSTF and pre-qualified for eligibility for subsidy following the eligibility criteria set under the OBA facility. WSTF will then hire an Independent Verification Agent (IVA) who will undertake a baseline survey of the subproject. The IVA and the WSP will set up and agree on output targets that are to be met over an agreed period of time and against which the subsidy will be paid. If satisfactory, the WSTF will issue a certificate of eligibility for subsidy funding indicating the total subsidy amount applicable to the project.

The OBA facility covers up to 60% financed by domestic lenders, subject to a cap of $115 per beneficiary of the subsidy.

Commercial Loan Facility

The WSP can then submit the certificate of eligibility of subsidy funding along with its loan application to the commercial lender. The WSP is eligible to borrow a commercial loan of up to 100 % of the project implementation cost.

Disbursement Process

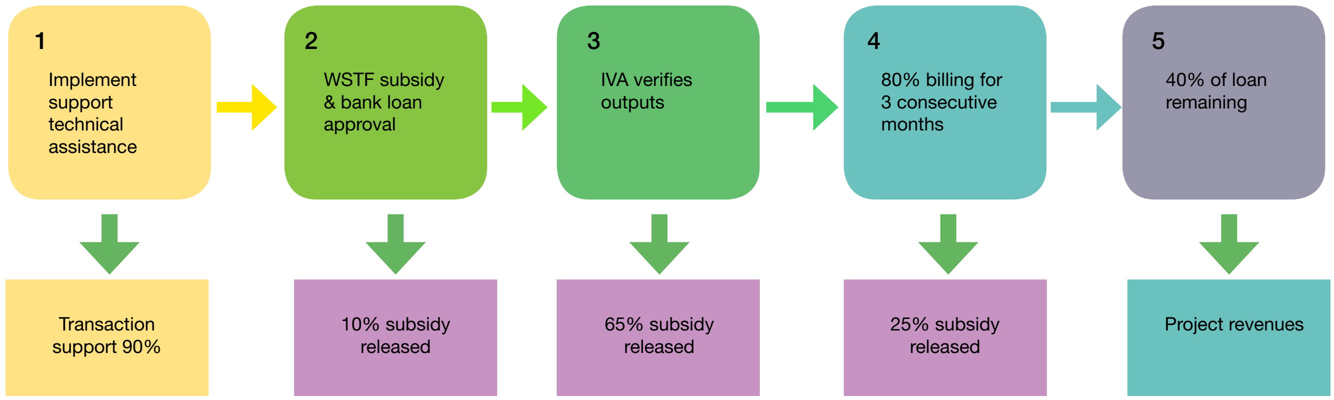
After meeting the output targets, WSTF will award a subsidy of up to 60 per cent of the commercial loan.

The disbursement of the subsidy will be done in three tranches as follows:

1. **10% of total subsidy amount**: The WSP submits the loan agreement signed with the commercial lender to WSTF. After reviewing the loan agreement, WSTF signs a Subsidiary Agreement with the WSP and disburses the first 10% advance payment,

2. **65% of total subsidy amount**: The WSTF, through the IVA, will verify whether the WSP has met the agreed outputs, will assess the quality of the works, the satisfaction of the beneficiaries and gather other monitoring information. If satisfactory, the WSTF will make the second disbursement (65%) towards the repayment of a portion of the loan to the commercial lender.
3. **25% of total subsidy amount**: After commissioning the works, the WSP will provide the service to the beneficiaries and bill them. After at least three continuous months of operation, the WSP will calculate the percentage of beneficiaries paying their bills. If that percentage is higher than 80%, the WSTF, after verification by the IVA, will make the third disbursement (25%) towards the repayment a portion of the loan to the commercial lender. The WSP will then repay the balance of loan over the remaining loan tenor.

FIGURE 33: OBA DISBURSEMENT PROCESS



Past OBA Experience in Kenya

In Kenya, the World Bank, in partnership with local lenders, successfully ran an OBA program focused on WSS projects ran by community based organizations in rural and peri-urban areas. This program initially had 22 pilot projects whose successful completion led to its expansion to 35 more projects. This program resulted in the cumulative lending of KShs. 303 million to the sector.

A new OBA program has been established for 2014-2018 period and will provide 60% subsidy for commercial loans to WSPs who increase water and sanitation connections to low income areas funded by commercial loans. The facility is available for all WSPs except Nairobi.

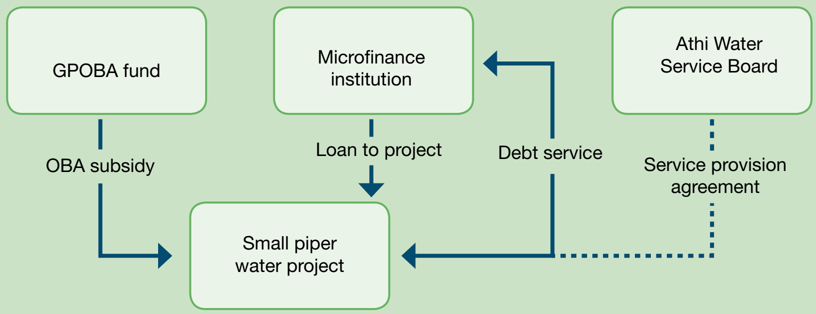
OBA Case Study: The Experience of K-Rep bank

The Water and Sanitation Program of the World Bank and K-Rep bank developed a pilot project for supporting community-based WSPs in Kenya that combined micro-finance to leverage commercial financing with OBA with focus on network extensions.

Institutional and financial arrangements worked as follows:

1. The borrower would contract a loan with K-Rep Bank and is responsible for making debt service payments to this institution.
2. The Borrower entered into an SPA with the WSB in whose jurisdiction it falls.
3. Upon successful completion of the project, GPOBA pays subsidies to the borrower (see figure below).

OBA reduced the overall size of the loan to the project and kept debt service payments affordable. It provided better risk management from the lender's perspective and increased incentives for project completion as the subsidy was transferred upon the delivery of agreed outputs (including the increase in the number of connections and in revenues collected).



Prior to the subsidy release, the K-Rep Bank's loan amounted to 80% of the total investment. This share would drop to about 40% upon successful delivery of the outputs (which needs to be independently verified) and payment of the subsidy. After the release of the subsidy, the K-Rep remains responsible for collecting the remainder of the loan that is to be covered from water revenues.

Aid on Delivery Program

The AOD Program to provide 40% subsidy to WSPs for commercial loans aimed at improving service delivery upon completion of the project. The program also has a technical assistance component that assist WSPs in hiring consultants to assist in project preparatory works.

Eligibility for Technical Assistance (TA) Funding

A WSP can apply for TA funding to hire a consultant to assist it in project preparatory works which forms the integral part of the project business plan and bankable project proposal to be submitted to a commercial lender.

The subsidy contribution from the WSTF will cover up to 80% of the costs for the consultancy services but limited to a maximum of 3% of the AOD project cost limit of KShs120 million. Therefore, the maximum subsidy contribution from the WSTF is limited to KShs 3.6 million while the balance is payable by the WSP to the consultant.

Eligibility Criteria for AoD Subsidy

It is a requirement that the WSP submits the business proposal to provide water and or sanitation services to WSTF. To qualify for an AOD subsidy, a WSP will propose a project. Project eligibility is determined using the two following criteria:

- An output measuring the degree of achieving /completing the physical project works; and
- An outcome measuring the effect on the intended target group.

The two criteria are supported by the following targets agreed under the financing contract:

I. Output measurements:

a) Target 1: For volume of water delivered at end-points of the pipelines.

II. Outcome measurements:

a) Target 2.1: For minimum Volume of water billed; and
b) Target 2.2: For Non-Revenue Water reduction.

The WSP and WSTF will together set up and agree targets based on the above criteria to be completed over an agreed period of time.

If the proposal fulfils all criteria, the WSTF will communicate its approval for the subsidy to the commercial lender financing the project.

The AoD subsidy is limited to a project cost ceiling of KShs120 million and is awarded as a subsidy of up to 40% of the project cost i.e. a maximum of KShs 48 million. Project costs above the ceiling limit will not be eligible for the AoD subsidy.

Debt & Equity Contribution towards Project Investment Costs

The WSP will be required to contribute up to 20% equity towards the total cost of implementing its subproject. The provision of the 20% equity is to be negotiated between the WSP and the commercial lender. The WSP may provide for the 20% equity as cash in their bank account or may contribute towards the payment of initial costs of implementing the project, equivalent to 20% equity.

AOD CASE STUDY: EMBU WATER & SANITATION COMPANY

The AOD programme has benefited Embu Water & Sanitation Company by subsidizing KShs 43 Million of its loan principle from Housing Finance.

The Key targets for the project were:

- Increase volumes of water supply
- Increase billing and financial sustainability
- Reduce water losses (non-revenue water)

Source: KFW

The remaining portion of project costs of up to 80% is to be financed by the commercial lender.

Subsidy disbursement
The WSTF and the commercial lender will monitor the project and provide reports on the status of the implementation works. Once the project is declared completed and commissioned, the WSTF will assess the project in terms of achieving planned impact (targets). Upon fulfilment of impact criteria, the WSTF will release a total of 40% of the total project cost as subsidy to the commercial lender, towards repayment of a portion of the loan.

5.6.3 Partial Credit Guarantees

Partial Credit Guarantees (PCG) entail a promise of full and timely debt service payment up to a certain amount. PCGs are meant to encourage commercial lenders to lend to new sectors, facilitate more lending, extend loan terms and reduce collateral requirements.

The guarantee amount may vary over the life of the transaction based on the borrower's expected cash flows and creditors' concerns regarding the stability of these cash flows.

Guarantees often require a fee, a deed on receivables and certain project requirements. There are various types of partial credit guarantees depending on their purpose:

- Cover a fraction of the loan in case of a default.
- Reduce probability of default.
- Increase recovery in the event of a default.
- Extend loan tenor.

LOAN PORTFOLIO GUARANTEES (LPG)

LPG provides financial institutions with partial coverage on a portfolio of loans that they provide to their customers.

In the case of the Kenya WSS sector, USAID agrees to share in the risk of a broadly defined category of bank loans with a view toward inducing local banks to extend credit toward an underserved sector.

The individual borrowers under a LPG are not predetermined at the time the Guarantee Agreement is signed, but the borrowers must fall within a pre-agreed definition of "Eligible Borrowers," such as borrowers that are WSPs

USAID's Development Credit Authority
The Development Credit Authority (DCA) provides USAID missions the authority to issue credit guarantees cover up to 50% of the risk in lending to projects that are within USAID key development focus areas.

In Kenya, USAID offers loan portfolio guarantees (LPG) to commercial banks to provide loans to WSPs. The guarantee arrangement must be in place between the lender and USAID prior to lenders extending loans.

DCA guarantee facility has been successfully utilized in lending to the water sector in Kenya. In 2014, Embu Water & Sanitation Company was borrowed KShs 81.5Mn from Housing Finance bank. This loan was 50% guaranteed under the DCA program.

Key Features of DCA LPG facilities

The following table has the summary key characteristics of the DCA guarantee. These characteristics are indicative and may vary based on the agreements between the lender and DCA.

TABLE 11: DCA GUARANTEE TERMS

Guarantee Party	Local Bank
Term of Guarantee	September 2010 – September 2017
Maximum Loan Portfolio	Dependent on bank
USAID Guarantee Percentage	50%
Origination Fees	1% of Guarantee Ceiling
Utilization Fees	1% of Outstanding Principal
Maximum Loan Amount	Likely $250,000
Tenor	Not Specified in Agreement[17]

5.6.4 Dedicated Credit Lines

This mechanism entails provision of dedicated credit lines to commercial lenders by the government and/or development partners at concessional borrowing rates for on-lending to a specific sector, e.g. water and sanitation infrastructure projects.

Dedicated Credit can be a useful way for governments and development partners to target lending to specific sectors whilst also building capacity within commercial lenders to extend credit sectors that would have been otherwise neglected. Furthermore, lenders can utilize lending to these sectors as an opportunity to cross-sell their other products.

However, a major concern for lenders is foreign exchange risk as dedicated credit lines are from development partners and are usually in provided hard currency and thus have to be repaid in the same currency. This exposes the bank to foreign exchange risk as their borrowers are likely to be lent and repay their loans in local currency.

[17] Kenya 2006 & 2010 DCA Evaluation - June, 2013

Dedicated Credit Line: Vietnam Drinking Water

Agence Française de Développement (AFD) financed a Program devoted to Urban Water Supply in the Mekong Delta Region in Vietnam. The overall objectives of the Program are:

1. increase clean water services in urban centers of Mekong Delta (especially small towns);
2. improve the operational efficiency of the provincial water supply companies
3. pilot a new financing mechanism - program approach, to move forward to sustainable sector financing.

AFD allocated a €30 million credit line and €2 million grant to extend and improve drinking water networks in small- and medium-sized cities in six Mekong Delta provinces.

The financing is multi-staged: a loan to the State is retroceded to the Vietnam Development Bank, which in turn earmarks it for loans to local water companies. The program will finance access to water for 750 000 people and will strengthen VDB's capacities in terms of assessing and monitoring its finances.

Source: AFD, Water & Sanitation

5.7 Risk Mitigation: Post Lending

5.7.1 Overview

This section covers measures a lender can undertake to monitor risk and the options available in the event the WSP faces financial distress. The section reviews the following:

- Signs of Financial Distress in a WSP
- Lender Protection
- Default Proceedings
- Restructuring

5.7.2 Monitoring WSPs for Signs of Financial Distress

WSPs, like other businesses, exhibit particular signals that may point to financial distress. This section highlights the more common signals lenders should look for.

Revenue

- Frequent Revenue Shortfalls: WSPs in Kenya have fairly stable revenues given that they are likely to have a monopoly over their service area. However, they may experience seasonal variations in revenue that are likely to follow water usage patterns among its customers. Revenue trends that do not follow well-established seasonal patterns should be a cause of concern for Lenders.

- Steady Decline or Rapid Increase in Sales: Revenue recognition in WSPs is done at the point of billing which is typically on a monthly basis. It should not significantly vary from one month to the next outside the bounds of seasonality in water usage patterns.
- Deficient Billing & Collection Practises: WSPs typically bill on a monthly basis and extend a 30-day credit period prior to enforcing denial of service. WSPs also require efficient billing systems that enable collection within the credit period. Lenders should understand the efficiency of the WSP's billing systems and how strictly the credit policy is enforced.
- Unrealistic Tariffs: WSPs are required to have tariffs at levels that they can sustainably maintain cost recovery. It is thus important for the lender to monitor whether the utility tariffs are sustainably covering operating & maintenance costs. Also, a decline in average tariffs per unit of water sold without a compensating increase in volume of water sold may point to a decline in the WSPs ability to meet costs.
- Increasing Dependence on Fewer Customers: The diversity of a WSPs customer base is a good indicator of its resilience in earnings. The lender should monitor the WSPs customer mix.
- Grant Revenue: WSPs receives grants used to cater for operational costs. These are could be sourced from its WSB, the line Ministry or the County Government. An increasing dependency on operational grants points to a WSPs inability to meet costs from water and sewerage revenues.

Costs

- Rapidly Increasing Costs: WSPs should be fairly stable with deviations arising from unforeseen on-off events such as major emergency maintenance. Rapidly increasing cost could be an indicator of poor cost management by the WSPs management.
- Inadequate Maintenance Spending: WSPs should be spending on maintaining and repairing their infrastructure regularly and adequately. Failure to implement this practice can lead to large emergency expenditures.
- Failure to Make Statutory Payments: Statutory payments include WRMA abstraction fees, WASREB Levy and WSB lease fees. The WSPs is also liable to remitting PAYE on employee salaries and other taxes that it is not explicitly exempted from. County Governments may add additional fees.
- Failure in paying other Creditors: WSPs in Kenya often benefit from concessionary lending through WSBs for donor-funded projects and often are liable to repay these loans. The level of enforcement of debt repayment from the WSPs varies. It is important for lenders to have clarity on if and when these debt repayments are required.

Working Capital and Cash Flow

- Frequent Cash Shortages: WSPs typically bills customers for services every month and have a 30-45 day credit period post- billing and hence there should be a steady flow of cash. However, most WSPs grapple with delayed payments from public institutional clients that may lead to poor cash flow.
- Unexpected Changes in Business Strategies: Changes that are too frequent and not obviously beneficial could reflect management problems or attempts to hide poor performance.
- Negative Operational Cashflow with Net Profits: If the WSP's operational cash flow is negative in more than one period when it is reporting net profits, this raises questions about the viability of the WSPs business model, especially its collection efficiency. This may suggest the WSP is being sustained by new financing activities or by consuming capital while relying on minimizing non-cash deductions to show a profit.

Balance Sheet

- Deteriorating Accounts Receivable: Most WSPs in Kenya have large receivables due to historical poor payment by institutional clients. A deterioration of the accounts receivable may indicate write-offs of some of the debtors.
- Lengthening terms of settlement for payables: This may reflect unilateral actions taken by the WSP as coping measures because of insufficiency of cash to meet the payment of obligations falling due in each cycle.
- Repeated Changes in Suppliers: When a WSP changes suppliers frequently, it is important to ascertain the reasons. If quality or improved economy are not the apparent motivation, the problem may be one of suppliers tightening the terms of sale because of the WSP's failure to settle the payment of invoices on a timely basis due to financial strain.

At the portfolio level, the lender needs to develop reporting requirements and frequency for both individual loans and the overall portfolio. A distinction should be made between cases of isolated or ad hoc financial distress of borrowers and the wider incidence experienced during periods of macroeconomic (or systemic) financial distress. In the Water Sector in Kenya, WASREB's Impact report is useful in developing a sector-wide view.

5.7.3 Lender Protection

In commercial financing of the water sector, the lenders will want to ensure that:

- the revenue stream is certain, sufficient to cost including debt service, and protected;
- the project performs as it is supposed to perform in order to meet debt service; and
- the WSP does not default on its loan.

FORMS OF LENDER PROTECTION

- Warranties, Undertakings & Representations
- Step-In Rights
- Taking Security

Source: World Bank

This section reviews practical control mechanisms that a lender can use such as limitations on what the WSP can do without lender approval and the ability to step into management of the WSP in the event the project is not performing, and that they take security over project assets.

Warranties, Undertakings and Representations

The WSP is required to promise to the lenders that it will not (among other things) change the following elements without lender consent:

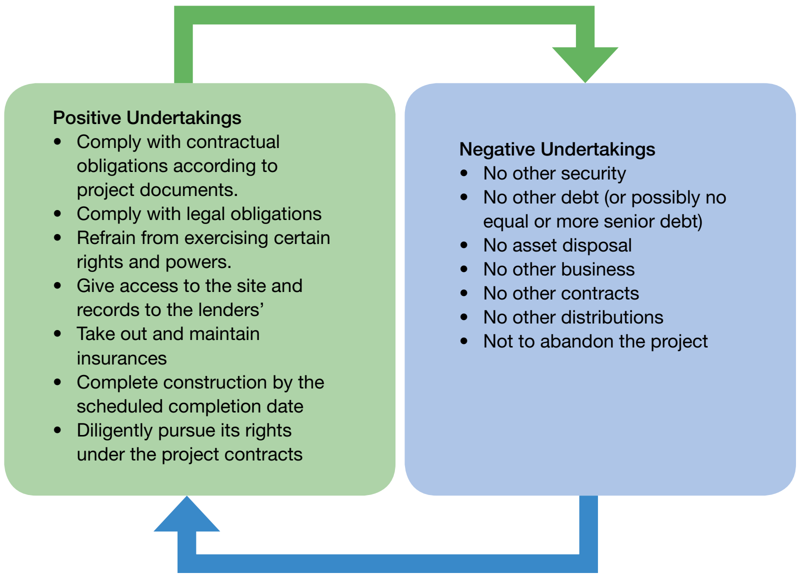
- project plan;
- project contracts;
- capital expenditure program; and
- debt program.

The lenders will want the WSP to provide warranties and representations concerning the following;

- financial status of the WSP;
- legal status of the WSP;
- commercial status of the WSP; and
- construction, operation and performance of the works.

The Lenders will also want the WSP to provide reserve discretions whereby the company will not act on certain rights and discretions without lender approval. Representations and warranties are often divided between positive and negative undertakings as indicated in Figure 34.

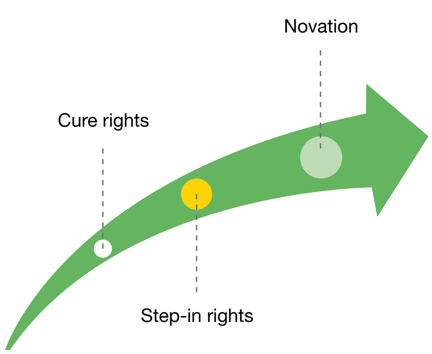
FIGURE 34: UNDERTAKINGS



In the case of termination of the agreement, the lenders may have security over the project assets. However, the project assets are likely not to be worth the value of the outstanding debt. Therefore, the lenders must require some form of step-in right to take over the project where the service provider has failed in its obligations and the grantor intends to terminate the agreement.

The lenders will not want to be involved in the actual step-in but will want to ensure that a third-party entity is in a position to continue with the project after step-in. Banks will need to consider who will fill this role prior to lending. Banks should at least know if such an entity exists in the local market or international market and whether such an entity can legally take over. Note: the step-in can be project specific using qualified contractors and does not necessarily need to take over the entire water company. A list of qualified water sector contractors can be found in the line ministry's website (http://www.environment.go.ke/wp-content/uploads/2014/12/WATER-CONTRACTORS-2014-UPDATED.pdf)

FIGURE 35: STEP IN REGIME



A step-in regime can involve three different levels of lender intervention in the project.

- **Cure rights** allow the lenders to cure a breach of an obligation by the company under one of the project documents, including in particular the loan agreement. An example of this may be that the shareholders of borrower may be required to pump in more cash (equity) in the business in the event of a default in payment to reassure the lenders. This however, may not be workable for most Kenyan WSPs due to their shareholding structure but may apply to privately owned WSPs.

  Lenders are often hesitant to involve themselves in the cure of a WSP breach unless the cure is limited to the payment of amounts due. Lenders will likely want the opportunity to cure before having to decide whether to step in.

- **Step-in rights** arise when the WSP breaches one of the agreements and the lender steps in to get the project back on track. Other project participants will be required to continue their contractual relationships with the substitute entity, although the service provider will not be released from its obligations under the project agreements. The lenders will be permitted to step out where they choose to do so, without incurring any continuing liabilities.

- N**ovation** is where the project documents or even loan agreement is renegotiated before the lenders can successfully give the project to the substitute entity.

Step in regime will generally be for the larger PPP projects and less likely to work for financing the last mile connections.

5.7.4 Default Proceedings

In the event that the WSPs defaults or are unable to make repayment on either interest or principle the lender may implements a cure period where either:

1. There is a renegotiating of the terms of the loan i.e. this may include the payment duration, interest rates and other charges etc;
2. The borrower repays the loan in full (known as loan acceleration); or
3. The borrower requests a cure period.

In the event that none of the above is possible the lender has the right to either:

1. Sell off any security, and/or
2. Step in to manage the company by appointing a qualified manager. This is difficult (in most countries not just Kenya) given there are few firms that have the expertise to run a water company. This may be viable in a market using Management Contracts. Kenya has experience in management contracts with Rural Focus Limited that has run the Kiamumbi Water project on behalf of the Kiamumbi Farmers Multipurpose Cooperative Society for a 5-year period. Also, HP Gauff ran the management of the Malindi WSP in the early 2000s. Even if a market is not using Management Contracts, there may be legal guidance on this in the PPP legislation.

5.7.5 Restructuring

Restructuring activities can include measures that restructure the debtor's business (operational restructuring), and measures that restructure the debtor's finances (financial restructuring). Due to the public nature of WSPs, commercial banks may have highly limited avenues for restructuring the utilities and would likely require support from the County or National Government.

There is a spectrum of restructuring strategies going from informal to formal. Regardless of what type of restructuring is attempted, both borrowers and lenders should seek professional advisory services likely from a local law firm or consulting firm specialising in loan restructuring and work outs.

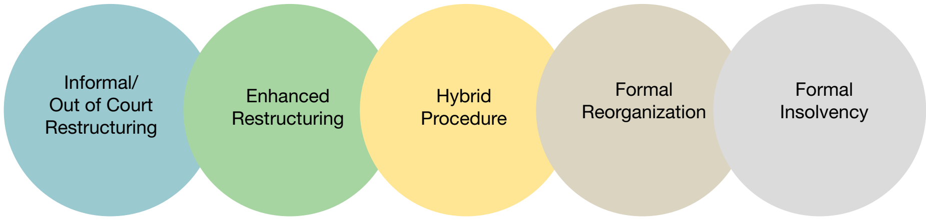
Informal restructurings constitute an alternative to formal insolvency procedures. However if unsuccessful, an informal restructuring may have to be dealt with in a formal insolvency procedure. In numerous insolvency systems, there is no clear dividing line between formal insolvency proceedings and informal restructuring processes.

FORMS OF RESTRUCTURING

- Informal Restructuring
- Enhanced Restructuring
- Hybrid Procedure
- Formal Reorganization
- Formal Insolvency

Source: World Bank

FIGURE 36: SPECTRUM FROM INFORMAL TO FORMAL INSOLVENCY



Pre-conditions for debt restructurings

- A situation of "financial difficulty" generally, illiquidity or insolvency, although the term "financial difficulty" is broad enough to cover numerous situations.
- The viability of the debtor's business ascertained through a complete analysis of the debtors finances and a rigorous business plan. Lenders in Kenya may not be in a position to push for liquidation of unviable WSPs as these companies provide a vital public service and may need to seek other avenues to resolve viability issues.
- A positive attitude towards negotiation by both the debtor and the financial creditors.
- The effects of formal insolvency proceedings are unnecessary.
- An enabling legislative and regulatory framework. The current legal framework in Kenya is based on the Bankruptcy Act and the Companies Act is not sufficiently robust. The Insolvency Act of 2015 is set to establish a stronger framework for Insolvency.

Workout / Out-of-court Debt Restructuring

A workout, or out-of court debt restructuring, involves changing the composition and/or structure of assets and liabilities of debtors in financial difficulty, without resorting to a full judicial intervention. The objective of a work-out is to promote efficiency. Workout practices aim to remedy or avoid foreclosure and bankruptcy. A workout refers to contractual agreements between the debtor and its creditors that restructure the debtor's liabilities and, possibly, also its business activities.

Advantages of informal workouts in the WSS sector[18]

- Flexibility and ease of adaptation to the specific needs of the business.
- Ease of negotiation—less confrontational.
- Faster to implement.
- Confidentiality—reputational damage can be minimized for the WSP among its suppliers and customers.
- Less stigma—cause less reputational damages and carry less stigma than formal insolvency.
- Continuation of business—easier for the debtor to continue its business

[18] Out-Of- Court Debt Restructuring- World Bank Group

- No changes in management.
- Lower cost—formal insolvency procedures are costly in terms of time, money, and reputation for both the Lender and the WSP.
- Lower regulatory impact—does not necessarily imply a risk that the debtor loses a license.

Disadvantages of out-of-court restructurings

- It is hard to restructure the business activities of a WSP they operate under regulation of WASREB and WSBs and cannot, for instance, increase tariffs without WASREB's approval or deny service to customers deemed to be loss making.
- Difficult to identify malfeasance and punish fraudulent behaviour as the Lender has no control over management or board of directors.
- Creditors may face reputational risk or liability if it is found they were de-facto running the debtor, especially since WSPs are publicly owned.

Enhanced Restructurings

There are several methods to enhance out-of-court restructurings by including limited interventions of the courts, such as: using social norms that promote best restructuring practices, adding master contractual agreements for workouts and establishing alternative dispute resolution systems to deal with the inter-creditor.

Hybrid Procedures

Hybrid procedures entail a mixture of the features of contractual workouts and limited court intervention. These procedures incorporate some elements of formal insolvency proceedings in an attempt to eliminate the problems that arise in the context of informal workouts. There are several types of hybrid procedures such as, using a court appointed a mediator, enacting a stay on creditor actions, and where a court validates an agreement among creditors (pre-packaged bankruptcy).

Formal Reorganization

Formal reorganization involves the reorganization of a business through the courts system. It allows the debtor's management to continue running the business while giving it a stay from the creditor's actions. This gives management a strong incentive to reorganize instead of going through a formal liquidation procedure

Formal Insolvency

Insolvency is when the company can no longer meet its financial obligations (the term bankruptcy is generally reserved for individuals). Insolvency laws generally provide for liquidation proceedings to be initiated by either a creditor or the debtor but they differ on the specific criteria that must be satisfied before the proceedings can commence. Step-in rights (see Negotiation in the Application Stage) can be invoked once a company is declared insolvent. A company can be placed into a formal insolvency procedure by its directors, shareholders, creditors or the court. How it is done will depend on the facts of each case and the procedure involved.

Legal framework for Insolvency in Kenya

In Kenya, insolvency is dealt with within the Bankruptcy Act, Cap 53 Laws of Kenya enacted in 1938 and the Companies Act, Cap 486 Laws of Kenya. This framework is set to be updated with the Insolvency Act of 2015. The Act seeks to provide a robust insolvency framework through among other things:

- The regulation of insolvency practitioners by establishment of the office of the Insolvency Practitioner that will regulate insolvency professionals
- The institution of corporate insolvency: The Bankruptcy Act only covered individual insolvency while the Companies Act provided for winding up procedures for companies. The Insolvency Act seeks to rationalize, amend and consolidate the laws relating to receivership and insolvency for individuals, corporate and unincorporated bodies.
- The Insolvency Act also provides for alternatives to bankruptcy procedures. These include: voluntary procedures, summary instalment orders and No-asset procedures.
- Improvements in bankruptcy adjudication procedures.

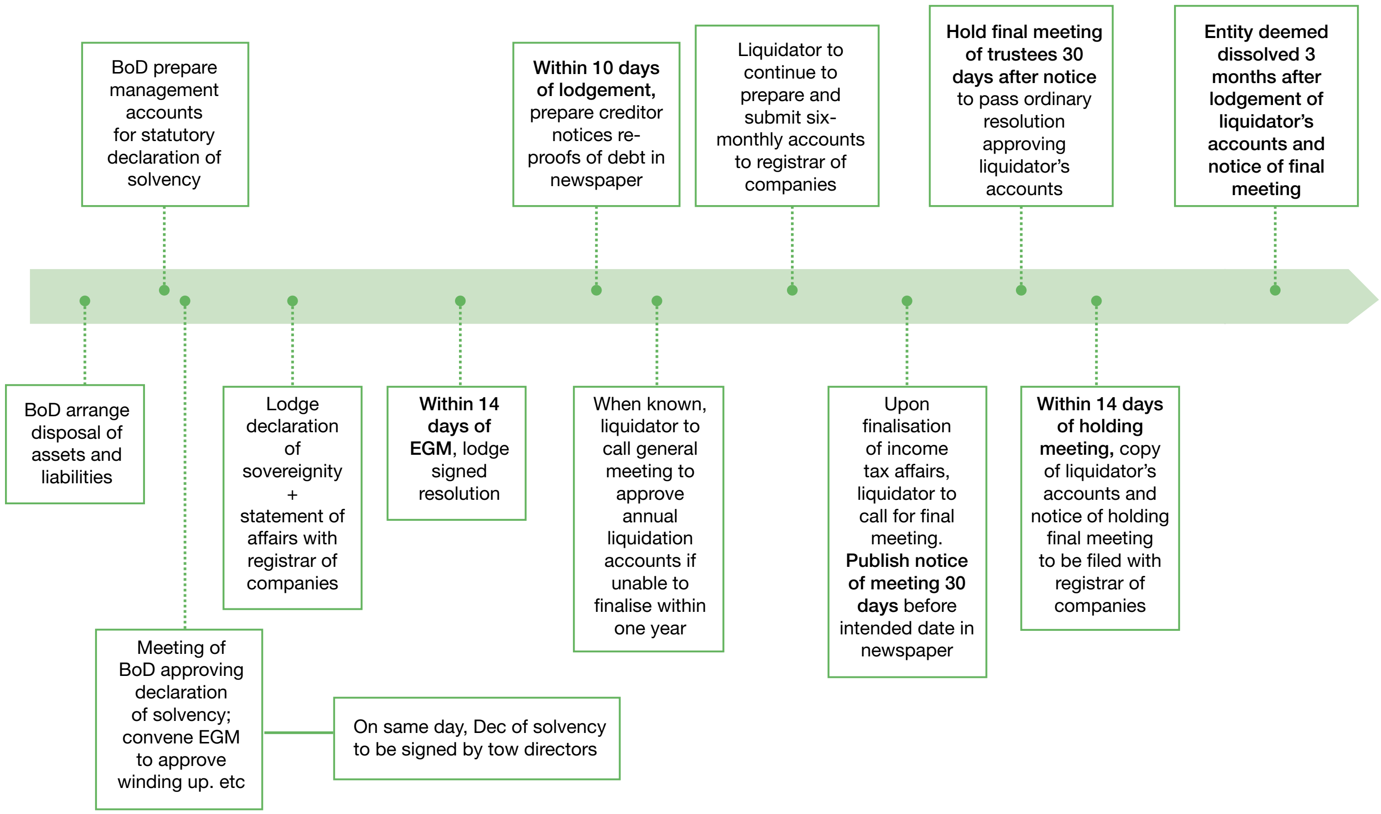
More detail can be found on the draft bill
http://kenyalaw.org/kl/fileadmin/pdfdownloads/bills/2015/InsolvencyBill2015.pdf

The enactment of the Insolvency Act is a major step in credible insolvency framework creates a viable alternative to a bailout and will enhance lender confidence in dealing with the sector.

Below are some of the procedural options.

- **Administration**: a collective corporate rescue procedure run for the benefit of all creditors, under which the company's assets are protected by virtue of a statutory stoppage, of any forms of creditor action.
- **Administrative receivership**: where the holder of a floating charge against the company appoints a receiver-manager to sell the company's assets for maximum value in order to pay off its secured debt. Administrative receivers have no authority to pay unsecured creditors.
- **Company Voluntary Arrangement (CVA)**: a legally regulated agreement between a company and its creditor where creditors typically agree to a reduced or rescheduled debt arrangement to allow the company to survive. Sometimes used in conjunction with the administration procedure.
- **Scheme of Arrangement**: a compromise between a company and its creditor approved by a court. The process is more complicated than a CVA usually reserved for large companies with a multiple classes of investors.
- **Liquidation**: the collective process by which a company is ended by converting all of its assets into their cash value and distributing them to creditors.

FIGURE 37: LIQUIDATION TIMELINE



5.8 WSP Capacity Diagnostic Assessment Tool

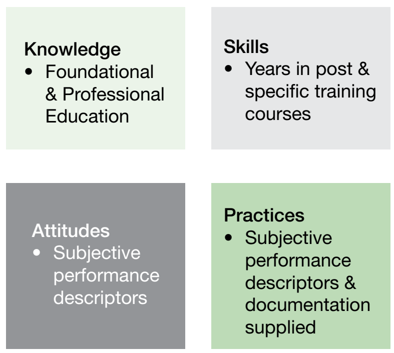
Overview of Approach

As part of the credit appraisal, commercial banks or their advisers may visit the utilities to assess their management capacity. They can use the following tool to test Knowledge, Skills, Attitudes and Practices. This tool is sufficiently robust to meet the objective to assess the current capability of WSPs in relation to accessing and managing commercial financing and inform the next steps of the assignment.

Management Quality Attitudes and Practices

Objective performance indicators provide good measure regarding the output of an institution; they cannot describe why there may be particular strengths and weaknesses. Some studies have shown that 'Qualitative measures or targets give a better indication of performance than Quantitative' (Peters and Waterman 1982:284). In order to evaluate the qualitative component, we adapted a methodology derived from earlier utility studies by USAID though the Camp Dresser McKee WASH program to assess attitudes and practices as being critical for successful water and sanitation utilities[19].

FIGURE 38: CAPABILITY ASSESSMENT METHODOLOGY



Source: Atkins

[19] WASH Technical Report No 37, Guidelines For Institutional Assessment - Water And Wastewater Institutions, 1986 http://pdf.usaid.gov/pdf_docs/Pnaaz336.pdf

This methodology has been in existence since 1998. We have adapted it to take account of the operating environment in Kenya as well as breakthroughs in technology (such as mobile telephones and associated technology) and other industry or management good practice. These developments and advances could not have been foreseen in the original design of the diagnostic tool.

The approach focuses on problem definition and identification in institutional areas. It is interdisciplinary and seeks to identify crosscutting issues. It is also designed to avoid the temptation to jump to 'quick-fix' solutions while ignoring the more difficult and basic issues. The methodology is based upon team field investigation procedures which identify, define, and verify institutional performance using indicators which have been pre-identified. It also acts as a form of validation of the Skills and Knowledge data also collected.

The WASH approach perceives the main categories or performance indicators of a WSP to be as indicated in Figure 39.

FIGURE 39: MAIN CATEGORY OR PERFORMANCE INDICATORS OF A WATER UTILITY

The indicators and their sub components are set out in detail in the diagnostic toolkit. The tool employs three data-gathering techniques in order to measure effectiveness in each of these performance categories:

- interviewing (this technique should account for two thirds of the usable information collected)
- reviewing institutional documentation such as business & Strategic plans, customer charter, KPI reporting
- observation

Interviews

To ensure consistency in the structure of the interview, the interview team should focus on particular practices and target interviewees:

a) 'Leadership', 'Management' and 'Autonomy' through interviews with the Managing Director;
b) 'Consumer and Commercial orientation' through interviews with the Commercial Manager and Customer Care team;
c) 'Maintaining and Developing Staff with the Human Resources Manager and;
d) 'Technical capability' with the Technical Manager.

Scoring

'Attitudes and Practices' can be determined from the interviewers' reflective scoring process based on approximately ten self-administered reflection questions on each of eight main attitude areas. These areas coincided with the practice areas that toolkit focuses upon in interviews with senior managers and visits where possible to treatment works and water kiosks as a means of broadening our understanding of capability.

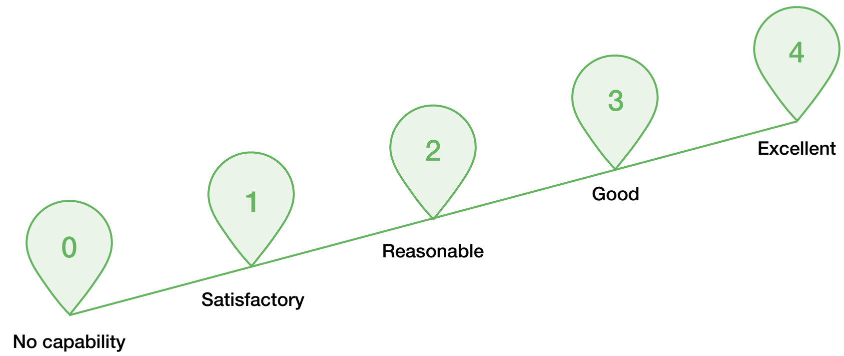
In order to make subjective judgments on capability and management quality, the particular practices focused on in the assessment need to be linked to:

- The risks and resilience of the utilities' business model with a focus on water resources management (product availability risks);
- Water supply management (product retailing risks: physical losses);
- Sewage collection;
- Treatment and waste disposal risks (product recycling risk);
- Project planning and delivery risk (commercial finance absorption capacity);
- Consumer billing (commercial losses and also issues of bill concentration)
- Bill collection and customer care risks (cash flow risks)

These topics are seen to embody the risks related to commercial lending to WSPs and therefore also form part of the toolkits that is designed to enhance utility and lenders awareness of each other's concerns regarding borrowing and lending.

A five-point scale is utilized in scoring. In the course of the evaluation, some areas can be left blank if the scorer did not believe they had adequate knowledge or expertise to make a judgment. (See Figure 40).

FIGURE 40: FIVE POINT SCORING SCALE FOR KSA ASSESSMENT



There is deliberately no 'mid-point' on the 'unsatisfactory' to 'excellent' part of the scale to limits a scorer's tendency to mark as 'average' at a mid-point.

All scoring need to be undertaken independently. This is a subjective process because different scorers having different opinions and experiences which affect the awarding of outcome they give. The tool kit also recognize 'primacy' (different scoring levels for initial visits) and 'recency' effects (scoring most strongly the most recently visited service provider when scoring in a batch). These cognitive biases mirror a lender's likely subjective determination of 'quality of management', often influenced by 'first impressions' (in the premises or the people met) and/or confidence in 'ability to do business with that person' which is known can outweigh the more objective financial indicators with respect to a lender's perception of borrowing and loan servicing capacity.

Analysis & Reporting

The analysis and reporting is in two parts. There is a cross-utility analysis, which identifies trends and outliers in Sections under Findings- Management Quality Attitudes and Practices and Risk and Resilience, and an analysis and report on each individual utility set out in Figure 41: *Sample Spider Diagram*.

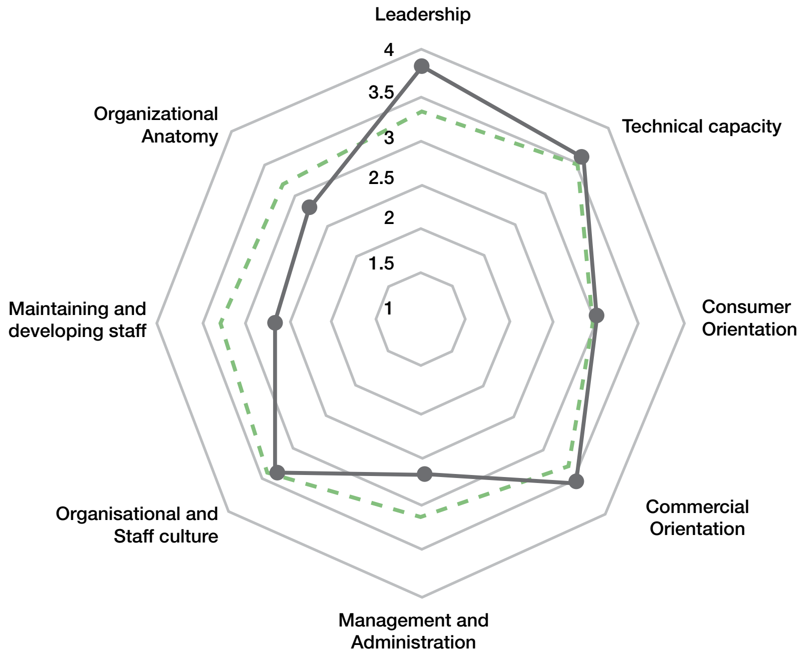
Results are reported using spider diagrams which identify strengths and gaps as well as some associated commentary on an exception basis.

Knowledge and Skills

'Knowledge' and 'Skills' can be determined by collecting information on formal professional and educational qualifications of staff and the number of years in the position to act as another proxy for skills.

Data requirements which are related to Knowledge and Skills are set out in the data diagnostic toolkit attached.

FIGURE 41: SAMPLE SPIDER DIAGRAM



Risk and Resilience

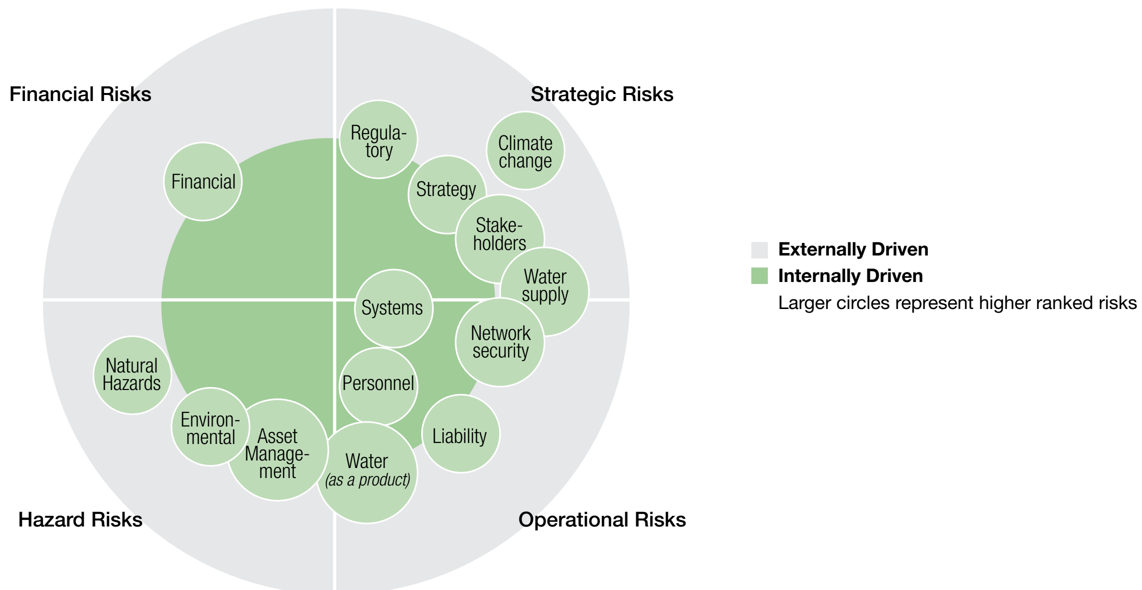
There are specific issues of risk and resilience that a commercial lender would want to understand in order to ensure that appropriate mitigation measures are put in place.

The approach should be tailored to match the Capability Assessment against the likely risks related to water and wastewater management. This is both to determine if and where capacity building is likely to be required and to guide potential borrowers on the likely issues to consider with respect to lending to water and sanitation service providers.

This approach was adapted from the Marsh 2013 Water Industry Insurance and Risk Benchmarking Report which identifies four key risk areas: financial, strategic, operational and hazards.[20] Many of these areas were also present and assessed in the earlier version of WaterCat used in Kenya in 2011.

[20] http://uk.marsh.com/Portals/18/Documents/2013%20Water%20Industry%20Insurance%20and%20Risk%20Benchmarking%20Report%20Aust-UK%20Electronic%20-%20may13.pdf

FIGURE 42: WATER INDUSTRY RISKS RADAR



Source: Marsh & McLennan – 2013 Water Industry Insurance & Risk Benchmarking Report

The toolkit adapts the Operational and Hazard risks approach to explain capacity issues with respect to the most significant risks regarding water and sanitation management.

Financial risks approach has been omitted as these are comprehensively catered for through the shadow credit rating assessment. Also omitted were two 'strategic risks', as defined by Marsh, with respect to 'regulatory' and 'stakeholder' issues as these are already captured in the 'Organizational Autonomy' scoring and commentary for each WSP.

The objective was to make these risks more explicit from a technical perspective.

VI. Appendices

- Appendix 1: Roles and Responsibilities per the 2002 Water Act
- Appendix 2: List of Water Service Providers
- Appendix 3: Request for Funding Proposal Template
- Appendix 4: Sample WSP Memorandum & Articles of Association
- Appendix 5: Sample Memorandum of Understanding between County Government, WSB, WSP & WSTF
- Appendix 6: County Government Approval Template for Borrowing
- Appendix 7: Water Service Provider Approval Template for Borrowing by Board of Directors
- Appendix 8: Water Service Board Approval Template for Borrowing by WSB
- Appendix 9: Financial Model and Cashflow Projection Template

All document templates in this section can be downloaded in MS Word format from the regulator's website www.wasreb.go.ke

6. Appendices

6.1 Appendix 1: Roles & Responsibilities of Water Sector Institutions

The table below shows the functions as envisaged per the 2002 Water Act.

TABLE 12: WATER SECTOR INSTITUTIONS

Institution	Roles & Responsibilities
Ministry of Water and Irrigation	• Development of legislation and policy • Strategy formulation • Sector coordination and guidance • Financing, monitoring and evaluation.
Water Resource Management Authority (WRMA)	• Implementation of policies and strategies relating to management of water resources • Development of catchment level management strategies, including appointment of catchment area advisory committees and their facilitation.
Water Services Regulatory Board (WASREB)	• Overseeing the implementation of policies and strategies relating to provision of water and sanitation services • Regulating the provision of water supply and sewerage services • Licensing water services boards and approving their appointed water services providers. • Monitoring the performance of WSBs and WSPs
Water Services Boards (WSBs)	• Responsible for contracting WSPs to provide water services within their jurisdiction. • Responsible for the development of WSS assets, investment planning and implementation within their area of jurisdiction • Responsible for Rehabilitation and replacement of infrastructure • Responsible for procurement and leasing water and sewerage facilities
Water Service Providers (WSPs)	• Provision of water and sanitation services, ensuring good customer relations and sensitization, adequate maintenance of assets and reaching a performance level set by regulation
Water Services Trust Fund (WSTF)	• Assisting in the financing of provision of water services in areas that are inadequately provided for.
Water Appeals Board (WAB)	• Arbitration of water related disputes and conflicts between institutions and organization

Institution	Roles & Responsibilities
National Water Conservation & Pipeline Corporation (NWCPC)	• Mandated to develop state schemes i.e. construction of dams and water pans; development of canals; flood control works and drilling of boreholes
Kenya Water Institute (KEWI)	• To provide the sector with Training for water professionals and research
Catchment Area Advisory Committees (CAAC)	• Advises on water allocation at water catchment level and resolves disputes over water
Water Resource User Associations (WRUA)	• Provides a Forum for conflict resolution and cooperative management of water resources in designated catchment areas

6.2 Appendix 2: Water Service Providers in Kenya

WSPs in Kenya (100)						
Urban (65)				Rural (35)		
Very Large (5)	Large (19)	Medium (13)	Small (25)	Large (9)	Medium (6)	Small (10)
1. Nairobi 2. Mombasa 3. Eldoret 4. Nakuru 5. Thika 6. Limited	1. Nzoia 2. Nyeri 3. Kakamega 4. Kirinyaga 5. Malindi 6. Mathira 7. Nakuru Rural 8. Kilifi 9. Tilibei 10. Kisumu 11. Embu 12. Kericho 13. Gusii 14. Nanyuki 15. Nyahururu 16. Murang'a 17. Garissa 18. Meru 19. Kwale 20. Sibo 21. Tavevo 22. Kikuyu	1. Ruiru Juja 2. Machakos 3. Kiambu 4. Isiolo 5. Limuru 6. Nol Turesh Loitoktok 7. South Nyanza 8. Mavoko 9. Kitui 10. Oloolaiser 11. Amatsi 12. Lodwar 13. Mikutra	1. Naivasha 2. Kapsabet Nandi 3. Kibwezi Makindu 4. Gulf 5. Karuri 6. Nyanas 7. Lamu 8. Kiambere Mwingi 9. Eldama Ravine 10. Narok 11. Mandera 12. Kapenguria 13. Mwala 14. Maralal 15. Yatta 16. Iten Tambach 17. Olkalau 18. Namanga 19. Runda 20. Kiamumbi 21. Rumuruti 22. Matungulu Kangundo 23. Wote 24. Moyale 25. Olkejuado	1. Othaya Mukuruweni 2. Murang'a South 3. Gatundu South 4. Kahuti 5. Imetha 6. Tetu Abadare 7. Karimenu 8. Gatamathi 9. Ngandori Nginda 10. UBA Kenya Bank Limited	1. Gatanga 2. Ngagaka 3. Nithi 4. Githunguri 5. Kyeni 6. Tuuru	1. Nyandarua 2. Murugi Mugumango 3. Embe 4. Muthambi 4K 5. Rukanga 6. Ndaragwa 7. Kikanamuka 8. Mawingo 9. Nyasare 10. Kathiani 11. Tachasis 12. Engineer 13. Nyakanja 14. Mbooni 15. Kinja 16. Tia Wira 17. Upper Chania 18. Ruiru Thau 19. Gitei 20. Kathita Kiirua

6.3 Appendix 3: Request for Funding Proposal Template

Request for Proposals

Long Term Funding of

[Amount in KShs]

For

[Name of Water Service Provider]

Closing date and time [Insert Date & Time of Closure of RFP]

1 Introduction

The [Name of WSP] at its meeting held in [Insert Date] duly approved, in principle, a [Insert project(s) duration]-year capital investment program of [Insert project Investment amount] in support of [Insert short description of projects].

The overall financial implications of the capital investment program are set out in the table below:

FY	Total (KShs)
[Insert Financial Year]	[Insert Planned Project Expenditure]
TOTAL	[Insert Total Expenditure]

In addition [Insert additional loan details].
An Information Memorandum accompanying this Request for Proposals provides further information on [Insert Name of WSP].

2 Requests for proposals

2.1 General information

a. Proposals from qualifying Kenyan and international financial institutions are invited in terms of the above resolution.
b. Proposals will be accepted until on [Insert time day month year] and no late submissions will be accepted.
c. Proposals must be in sealed envelopes and deposited in the tender box at [Insert address of opening venue] that are clearly marked [Insert title of RFP]
d. Proposals will be opened in public in the [Insert address of opening venue] at [Insert time day month year]
e. The [Board of WSP] may at its discretion reinvest any unused portion of the amount drawn down with the financial institution until progress with the capital expenditure program justifies the withdrawal. The Board will consider alternatives for phased draw-downs from the successful tenderers provided that commitment fees are clearly articulated.

f. The [Board of WSP] is not obliged to accept any tender and may accept different tenders for the deposit and the loan but is prepared to offer the deposit as ceded security for the loan.
g. The [Board of WSP] records its intention to fund [Insert % of Project to be finance through debt] of the capital programme with loans from financial institutions
h. The [Board of WSP] undertakes to annually provide the financial institution(s) with both its interim financial statements and its annual audited financial statements. These statements will be provided within [Insert number of months] of close of the financial year and within [Insert number of months] of the half-year closure.

2.2 Specific information

Clauses to be incorporated into the loan agreement are attached in the Annexure.

Further specific conditions are stated below:

a. No conditional proposals shall be considered and all proposals must indicate that the relevant credit approval has been pre-obtained from a duly authorized body;
b. All tenderers shall submit their standard loan agreement together with their completed term sheets and repayment schedules, adjusted with the conditions contained and stipulated in this invitation. Each party shall carry its own costs in the finalization of the loan agreement;
c. The Board shall not be responsible for any costs incurred in the preparation of the proposals;
d. The Board reserves the right to not to accept any proposals or accept part of a proposal or to combine proposals;
e. The Board reserves the right to negotiate with the successful tenderer(s);
f. Funds shall be deposited in the Board's bank account free of bank charges or commissions or any other costs;
g. Price variations due to statutory changes in the [Insert relevant acts e.g. Banks Act, Companies Act] and other related legislation that can be proven to directly increase the costs of the loan shall be for the account of the Board. No other variations shall be entertained;
h. Failure to comply with the required term sheets shall lead to disqualification of the tender;
i. Unsolicited variations and proposals shall only be considered from the successful tenderer(s);
j. Tenderers may tender for the whole or part of the amount requested. The RfP allows for tenderers to submit both variable-rate and fixed-rate tenders;
k. Repayment shall be on half yearly basis on an amortizing profile;
l. Interest rates quoted shall be in [Insert how interest rates should be quoted];
m. The interest rate of fixed-rate tenders shall be fixed on the day of drawdown and be based on [Insert reference rate and spread];
n. The interest rate on variable-rate tenders shall be expressed as a margin above the [Insert reference rate];
o. Tenders for the deposit shall mirror the conditions of the loan i.e. be expressed as a fixed- or variable-rate above the [Insert reference rate] and in the case of a fixed rate shall be fixed on the day of deposit and in the case of a variable rate shall be reset at quarterly intervals.

2.3 Basis of award of loan component

Adjudication of the loan will take place on the following basis:

a. Interest rate: weight 80 points, with the lowest tenderer being awarded 90 points and one point being deducted for every one basis point increase in the price offered;
b. Reinvestment rate: weight 10 points with the highest tenderer being awarded 10 points and 1 point being deducted for every basis point decrease in interest rate offered;
c. Switching cost: weight 10 points with lowest offer being awarded 10 points and every sequential offer reducing by one point.

The tender shall be awarded to the qualifying bid with the highest score

2.4 Basis of award of Deposit Component

The deposit will be awarded to the Bidder offering the highest rate without any further considerations being taken into account.

2.5 Term sheets

The term sheets and information about the tenderer shall be substantially in the following format and shall be duly signed by an authorized representative.

Term Sheet for Loan		
Amount (KShs)		
Profile (amortized with X installments per annum)		
Term (Months)		
Fixed Rate Margin (in basis points above reference rate)		
Floating Rate Margin (in basis points above reference rate)		
Security Required except Deposits (If applicable)		
Disbursement		
Reinvestment Rate (in basis points above reference rate)		
Cost of Switching Option (as one-off basis points of outstanding amount)		
Authorized Representative	Name	
	Position	
	Date	
	Signature	
Witness	Name	
	Position	
	Date	
	Signature	

Term Sheet for Deposits	
Fixed Rate Offered (in basis points)	
Floating Rate Spread (in basis points as reset quarterly above the 91 day T-bill)	

Information of Tenderer		
Name of financial institution		
Physical Address		
Postal Address		
Company Registration Number		
PIN number		
Authorized Representative	Name	
	Telephone Contacts	
	Email Address	
Proof of Authority Attached		

ANNEXURE: Clauses to be incorporated into the loan agreement

1 Definitions

1.1. "Audited annual financial statements "Means the audited annual financial statements of the [Insert name of WSP]

1.2. Bid" means a written offer in a prescribed or stipulated form in response to this invitation

1.3. "Closing time" shall be the date and time specified above.

1.4. "Credit approval" shall mean an irrevocable commitment to extend the loan to the [Insert name of WSP]]. Should there be disagreement on the conditions the conditions contained in this invitation will prevail.

1.5. "Interim financial statements" shall mean the unaudited 6 monthly management accounts of the [Insert name of WSP]]

1.6. "Loan agreement" means the written agreement entered into between the [Insert name of WSP] and the financial institution including all documents by reference and appendixes and attachments.

1.7. "Corrupt practice" means the use of offering of items of value to influence the decisions of the [Insert name of WSP]] in the procurement process.

1.8. "Day" means calendar day.

1.9. "Draw down" Drawdown shall mean the transfer of funds from the financial institution to the [Insert name of WSP]].

1.10. "Default "shall be defined as the failure of the board to make a due payment on the scheduled repayment date .Should such a default exceed two weeks it shall be regarded as a permanent default and the financial institution shall be entitled to call the entire loan including in the case of fixed interest loans any breakage costs and to take such further actions as required to recover the outstanding amount.

1.11. "Fixed Interest rate": Fixed interest rate shall mean interest rate set on award and remaining constant for the entire duration of the loan.

1.12. "Force Majeure" means an event beyond the control of the financial institution and the [ ]. Such events include acts also described as "Acts of God", and may include but are not limited to wars, revolution, civil unrest, fires, floods and epidemics.

1.13. "Fraudulent Practice" means a misrepresentation of the facts to influence the procurement process and includes collusion among tenderers any other action denying free and fair competition.

1.14. "Repayment" shall mean the scheduled amount due by the [WSP] on a scheduled repayment date and the schedule shall be attached to the term sheet. The schedule shall in the case of a floating interest rate loan be updated every time an interest rate variation occurs.

1.15. "Scheduled repayment date" shall be the date on which payments to the financial institutions are due as per the term sheets

1.16. "Switching costs" shall mean the cost of changing from a variable interest rate to a fixed interest rate.

1.17. "Tenderer" shall mean the financial institution responding to this invitation by submitting a proposal.

1.18. "Penalty Amount" shall be the additional amount payable per calendar day for failure of the [ ] to make scheduled repayments.

1.19. "Public holiday" shall be any day recognized in the Republic of Kenya as a public holiday. Should a scheduled repayment fall on a Sunday or a public holiday repayment shall move to the next working day without any penalty being incurred.

1.20. "Variable or floating interest rate" Floating interest rate shall mean an interest rate reset every three months as a fixed margin above the agreed benchmark rate.

1.21. "Written" means handwritten in ink or any form of electronic or mechanical writing.

2 Settlement of disputes

2.1 If any dispute or difference of opinion of any kind arises between the parties in connection with issues arising out of the contract, the parties shall for [ ] days make every effort to resolve the dispute amicably.

2.2 If after the period the dispute has not been resolved either party can refer the matter for mediation.

2.3 Should it not be possible to resolve the differences the matter shall be settled by a Kenyan court of law. During the duration of the legal proceedings both parties shall continue to perform their obligations unless mutually agreed. This shall specifically apply to repayments due by the [Insert name of WSP]

6.4 Appendix 4: Sample WSP Memorandum & Articles of Association

THE COMPANIES ACT (CHAPTER 486)

COMPANY LIMITED BY SHARES

MEMORANDUM OF ASSOCIATION

of

WATER UTILITY COMPANY LIMITED

1. The name of the Company is "WATER UTILITY COMPANY Limited"

2. The registered office of the Company will be situated in the Republic of Kenya.

3. The objects for which the Company is established are:
   (a) To carry on the business of water and sewerage services within the area under the jurisdiction of (Insert County) and its environs in accordance with the terms and requirement of water services provider as provided by license and the Water Act, 2002 and any subsequent amendments thereto or enactments thereof.
   (b) To manage and maintain assets and facilities of water and sanitation services provision in accordance with the license granted and the provisions of the laws aforesaid.
   (c) To provide and distribute a constant supply of potable water for commercial, industrial and domestic purposes within the area of operation.
   (d) To design and construct dams reservoirs and weirs, to dig wells and drill or sink boreholes and carry on any other water conservation and reticulation works for the provision of water for domestic, industrial and agricultural purposes.
   (e) To acquire for its own use and distribution by sale to the public water pumps, engines, tanks, pipes and any other equipment and chemicals that may be deemed necessary for and connected to the carrying out of the said business of the Company.
   (f) To be responsible for the treatment and disposal of sewage in its area of operation by such means and at such times and locations as are appropriate.
   (g) To obtain water for the purposes of distribution and supply from all appropriate sources in accordance with water resource regulations.
   (h) To enter into agreement with the consumers on water and sewerage tariffs and collection of revenues and design tariff structures as may be required in accordance with the laws and regulations governing water service provision.
   (i) To undertake laboratory facilities and analysis to ensure that acceptable water and effluent quality standards are maintained.
   (j) To enter into investment of land such as to acquire, lease, own or utilize for the purposes of water undertakings.

(k) To purchase, or otherwise acquire or lease facilities assets, warehouse, building or machinery and equipment for the purposes of water undertaker ship and to establish workshops for the repair and fitting of metering equipment, electric motors, pumps and other associated equipment common and incidental to the provision of water and sanitary services.

(l) To construct stand pipes and water kiosks in area as may be conducive to local conditions and delineate water supply zones and sewerages zones within the area of operation.

(m) To acquire, establish, construct and provide workshops, waterworks, offices and other premises and facilities necessary or convenient for the performance of the objects of the company, and for that purpose, buy, take on lease or in exchange, hire or otherwise, acquire immovable property and interests therein, and rights over the same and concessions, grants, rights, powers and privileges in respect thereof.

(n) To maintain a data base, registers, books and records in quality and quantity for technological, financial, commercial property and facilities information to facilitate efficient management audit and supervision and to keep the license, regulators, consumers informed about quality service and performance.

(o) To insure and keep insured all buildings, assets and facilities, equipment that is in the possession and control of company against all losses, risks and damage.

(p) To keep and maintain fire-fighting equipment such as hydrants and pumps and portable fire extinguishers at the premises and to protect them from loss and damage and to train and mobilize staff and consumers for the aforesaid purposes.

(q) To carry on any other business which may seem to the Company necessary to, or capable of, being conveniently carried on in connection with the objects of the Company or calculated directly or indirectly to enhance the value of, or render profitable, any of the property or rights of the Company, or to improve the quality, efficiency, effectiveness or extent of the services provided to the customers of the Company.

(r) To apply for, buy or otherwise acquire patents, patent rights, trade marks, designs licenses, concessions or the like conferring an exclusive or non-exclusive or limited right to their use, or any confidential or other information or a process which may seem to the Company capable of being used for the purpose of the company or the acquisition of which may seem to the company calculated, directly or indirectly, to benefit the company, and to use exercise, develop and grant licenses in respect of, or otherwise turn to account, rights, information and processes so acquired, and to expend money in experimenting upon testing, or improving any such patents, inventions or rights.

(s) To acquire and undertake the whole or any part of the business, property, and liabilities of any person or company carrying on or proposing to carry on, any business which the Company is authorized to carry on, or possessed of property suitable for the purposes of the Company, which can be carried on in conjunction there with or which is capable of being conducted so as directly or indirectly to benefit the Company.

(t) To amalgamate, enter into partnerships or into any arrangement for sharing profits, union of interest, cooperation, joint venture, reciprocal concession, or for limiting competition with any person or company carrying on in conjunction therewith or which is capable of being conducted so as directly or indirectly to benefit the Company or to improve the quality, efficiency, effectiveness or extent of the services provided to the customers of the Company.

(u) To apply for, promote and obtain any legislation, charter, privilege, concession, license or authorization of any government, state municipality or authority or other authority for enabling the company to carry out any of its objects into effect or for extending any of the powers of the company or for extending any modification of the constitution of the company or for any other purpose any proceedings or application which may seem calculated directly or indirectly to prejudice the interests of the Company.

(v) To apply for, purchase, take on lease or in exchange, hire or otherwise acquire any real and personal property and any rights or privileges which the company may think necessary or convenient for the purpose of its business or businesses, and in particular any land, buildings, plant, and stock in trade.

(w) To sell, improve, manage, exchange, let, develop, grant, dispose or, turn to account or otherwise deal, with all or any part of the property, rights, interest or privileges of the company.

(x) To invest any real or personal property, rights, or interest acquired by or belonging to the Company in any person or company on behalf of or for the benefit of the company and with or without any declared trust in favour of the company.

(y) To pay for any business, property, or rights acquired or agreed to be acquired by the Company by the issue or transfer of shares of this or any other company credited as fully or partly paid up, or debentures or other securities of this or any other company.

(z) To lend and advance money or give credit to such persons or companies and on such terms as may seem expedient, and in particular to customers and persons having dealings with the company, and to guarantee the performance of any contract or obligations and the payment of money of or by any such persons or companies and generally to give guarantees and indemnities.

(aa) To receive money on deposit or loan and borrow or raise money in such manner as the Company shall think fit (but always in accordance with the laws of Kenya) and in particular by the issue of debentures or debentures stock, perpetual or otherwise, and to secure, charge or lien upon all or any of the property or assets of the Capital, and also by a similar mortgage, charge, or lien to secure and guarantee the performance by the company or any person or company of any obligation undertaken by the company or any other person or company as the case may be.

(bb) To make, draw, accept, endorse, negotiate, discount, buy, sell, execute, issue and deal in bills of exchange, promissory notes, bills of lading, warrants, debentures and other negotiable or transferable instruments.

(cc) To sell, improve, manage, exchange, let, develop, grant, dispose or, turn to account or otherwise deal, with all or any part of the property, rights, interest or privileges of the company.

(dd) To apply for, promote and obtain any legislation, charter, privilege, concession, license or authorization of any government, state municipality or authority or other authority for enabling the company to carry out any of its objects into effect or for extending any of the powers of the company or for extending any modification of the constitution of the company or for any other purpose any proceedings or application which may seem calculated directly or indirectly to prejudice the interests of the company.

(ee) To enter into any arrangements with any government or authorities (international, regional, national, local or otherwise) or any person or company that may seem conducive to the objects of the company and to obtain from any such governments authority, person or company any rights, privileges, charters, contracts licenses and concessions which the company may think it desirable to obtain, and to carry out, exercise and comply with any such arrangements, rights privileges and concessions.

(ff) To establish and maintain or procure the establishment and maintenance of any contributory or non-contributory pension or superannuation funds for the benefit of, and to give or procure the giving of donations, gratuities, pension, allowances or emoluments, to any persons who are or were at any time in the employment or service of the company or is allied to or associated with the company or with any such subsidiary company or who are or were at any time Directors or Officers of the Company or of any dependants of any such persons and also establish and subsidize and subscribe to any institutions. Associations, Clubs or funds calculated to be for the benefit of or to advance the interests and well-being of the company or any such other company as aforesaid and make payments of the matters aforesaid either alone or in conjunction with any such other company as aforesaid.

(gg) To establish, promote, or assist in or enter into contracts with any person or company for the promotion of any company or companies, for the purpose of acquiring all or any of the other purpose which may seem directly calculated to benefit the company and to place or guarantee the placing of, underwrite, subscribe for or otherwise acquire all or any part of the shares, debentures or other securities of any such other company.

(hh) To remunerate or make donations to any person or persons whether Directors, Officers or Agents of the company for services rendered or to be rendered in or about the conduct of the company's business.

(ii) To invest and deal with the monies of the company not immediately required upon such securities or in the purchase of shares on other companies and in such manner as may from time be determined by the Directors.

(jj) To insure against losses, damages risks and liabilities, which the company may incur.

(kk) To deal with the company's employees in all matters including:

i. To appoint and employ such persons on such terms and conditions as the company thinks fit, and to terminate their appointments accordingly.
ii. To purchase, rent, take on lease or in exchange or otherwise acquire dwelling houses of occupation by employees of the company.
iii. To purchase land and construct thereon dwelling house for occupation by employees of the company.
iv. To sell, rent or lease dwelling houses and land for residential purposes to employees of the company.

(ll) To carry out all acts necessary for the purpose of improving:

i. The skill, knowledge or usefulness of persons employed in connection with the provision of water and sewerage services.
ii. The efficiency of equipment of the company or the manner in which the company is operated, and that connection to provide or assist other persons in providing facilities for training, education and research.

(mm) To protect from alienation all water services assets under its area of jurisdiction.

(nn) To plough back all surplus income for the purposes of development and renewal of water assets until such a time that optimal coverage of water services in the area of jurisdiction is achieved.

4. It is hereby declared that:

a) The Company shall not support or participate in any activity of a political nature but the Members may freely exercise their constitutional rights to comment on political and other matters in their personal capacity and the Company may comment publicly or privately on any matter of a political nature which affects the activities of the Company.

b) The income and property of the Company howsoever derived shall be applied solely towards the promotion of its objects as set forth in this Memorandum of Association. No portion of such income and property shall be paid or transferred, directly or indirectly, by way of dividend, gift, division, bonus or otherwise howsoever by way of profit, to the Members; provided that nothing herein shall prevent any payment in good faith by the Company:

(i) of reasonable and proper remuneration to any officer or servant, or to any Member in return for any service actually rendered to the Company including re-imbursement of reasonable travel and accommodation expenses for attendances at meetings, nor
(ii) of interest on money lent by any Member or other person or company to the Company at such reasonable rate of interest as the directors of the Company shall deem fit; nor
(iii) of reasonable and proper rent for premises demised or let by any Member.

5. Members may not secure loans for commercial or personal enterprises using any assets owned and/or managed by the Company as security, save for cash.

6. The word "company" in these objects, except where used in reference to the Company, shall be deemed to include any partnership or other body of persons whether incorporated or not incorporated and whether domiciled in the Republic of Kenya or elsewhere.

7. The meaning of any general word or words in any paragraph of these objects shall not be restricted by being construed ejusdem generis with any particular word or words in the same paragraph.

8. No addition, alteration or amendment shall be made to or in the provisions of the Memorandum of the Company for the time being in force unless the same shall have been previously submitted to and approved by the Registrar of Companies and provided further that any such addition, alteration or amendment shall have been approved by a special resolution passed at a General Meeting of the Company. No such additional amendment may be made which would have the effect of changing the objects of the Company to objects which are inconsistent with clause 2 of this Memorandum of Association.

9. If upon the winding up or dissolution of the Company there remains after the satisfaction of all its debts and liabilities, any property whatsoever, the same shall not be paid to or distributed amongst the Members, but shall be given or transferred to some other institution or institutions having objects similar to the objects of the Company, and which, in addition shall prohibit the distribution of its or their income and property among its or their members to an extent at least as great as is imposed on the Company, such institution or institutions to be determined by the Members at or before the time of dissolution, and in default thereof by a Judge of the High Court of Kenya.

10. The liability of the Members is limited.

11. The share capital of the Company is Kenya Shillings two thousand (KShs 2,000) divided into one hundred (100) redeemable preference shares of Kenya Shillings twenty (KShs 20) each.

12. The Company shall have the power to increase or reduce such capital and to attach thereto respectively any preferential, deferred, qualified or other rights, privileges, restrictions or conditions and to issue all or any part of such original, increased or reduced capital with or subject to such preferential, deferred, qualified or other rights, privileges, restrictions or conditions provided that in all cases upon the redemption of such shares in the Company the applicable Members shall hereby be deemed to have irrevocably waived any right to receive back any moneys paid by them to the Company on the issue of such shares, provided that no such change shall offend the principle enshrined in this Memorandum of Association that the Company shall not distribute to its Members any part of any profits generated other than in the circumstances expressly authorised by the Memorandum of Association.

13. Any alteration to the conditions set out in paragraphs 11, 12 and this paragraph 13 of the Memorandum is hereby prohibited for the purposes of section 25 (2) of the Companies Act (Chapter 486, Laws of Kenya), provided that this paragraph shall not prevent the Company from increasing or reducing its share capital in accordance with the Companies Act (Chapter 486, Laws of Kenya).

Names, Postal Addresses and Occupation of Subscribers	Number of shares taken by each Subscriber	Signatures of Subscribers

We, the several persons whose names, addresses and occupations are subscribed, are desirous of being formed into a company in pursuance of this Memorandum of Association and we respectively agree to take the number of shares in the capital of the Company set opposite our respective names.

Dated this day of 2015.
WITNESS to the above Signatures:-

CERTIFICATE UNDER THE COMPANIES REGULATIONS

It is hereby certified that the above Memorandum of Association of "WATER UTILITY COMPANY LIMITED" were produced by the method of Xerography.

DRAWN BY:
MOHAMMED MUIGAI ADVOCATES
MM CHAMBERS, 4TH FLOOR, K-REP CENTRE,
WOOD AVENUE, KILIMANI
P.O. BOX 61323-00200
NAIROBI

THE COMPANIES ACT (CHAPTER 486)

COMPANY LIMITED BY SHARES

ARTICLES OF ASSOCIATION

of

WATER UTILITY COMPANY LTD

1. The regulations contained in Table A in the First Schedule to the Act shall not apply to the Company.

2. In these Articles, if not inconsistent with the subject or context:
   (a) "Act" shall mean the Companies Act (chapter 486);
   (b) "Articles" shall mean these Articles of Association as now framed or as from time to time altered by Special Resolution;
   (c) "Board" shall mean the Board of Directors of the Company or the Directors present at a duly convened meeting of the Directors at which a quorum is present;
   (d) "Company" shall mean Water Utility Company Limited;
   (e) "debenture" shall include debenture stock;
   (f) "Director" shall include an alternate director;
   (g) "dividend" shall include bonus;
   (h) "Kenya" shall mean the Republic of Kenya;
   (i) "Member" shall mean a shareholder in the Company;
   (j) "month" shall mean a calendar month;
   (k) "paid up" shall mean paid up or credited as paid up;
   (l) "Seal" shall mean the common seal of the Company;
   (m) "Secretary" shall include a temporary or assistant secretary and any person appointed by the Board to perform any of the duties of the Secretary;
   (n) "Shillings" and "KShs" shall mean Kenya shillings;
   (o) the expression "in writing" or "written" shall include words written, printed, lithographed or represented or reproduced in any other mode in visible form;
   (p) words signifying the singular number only shall include the plural number and vice versa;
   (q) words signifying the masculine gender only shall include the feminine gender;
   (r) words importing persons shall include corporations;
   (s) reference to any provision of the Act shall be construed as a reference to such provision as modified or re-enacted by any act for the time being in force.
3. Subject to the last preceding Article, any words or expressions defined in the Act shall, if not inconsistent with the subject or context, bear the same meaning in these Articles.

OBJECTS

4. The Company is established for the objects expressed in the Memorandum of Association as amended from time to time.

PRIVATE COMPANY

5. The Company is a private company and accordingly:
    a) the number of Members of the Company (exclusive of persons who are in the employment of the Company and of persons who, having been formerly in the employment of the Company, were while in such employment and have continued after the determination of such employment to be Members of the Company) is limited to fifty; provided that where two or more persons hold one or more shares in the Company jointly, they shall, for the purpose of this Article, be treated as a single Member;
    b) any invitation to the public to subscribe for any shares or debentures of the Company is prohibited;
    c) the Company shall not have power to issue share warrants to bearers;
    d) the right to transfer shares is restricted in the manner hereinafter provided.

ACTIVITIES OF THE COMPANY

2. Any branch or kind of activities which the Company is either expressly or by implication authorised to undertake may be undertaken by the Board at such time or times as it shall deem fit and, further, may be permitted by it to be in abeyance, whether such branch or kind or activity may have been actually commenced or not so long as the Board may deem it expedient not to commence or proceed with the same.
3. The registered office of the Company shall be at such place in Kenya as the Board shall from time to time appoint.
4. No part of the funds of the Company shall be employed in the subscription or purchase of or in loans upon the security of the Company's shares or those of its holding company (if any) and the Company shall not give, whether directly or indirectly and whether by means of a loan, guarantee, the provision of security or otherwise, any financial assistance for the purpose of or in connection with any purchase or subscription by any person of or for shares in the Company or in its holding company (if any) and the transactions mentioned in the proviso to Section 56 (1) of the Act are prohibited to the extent that they conflict with the objects of the Company.
5. No part of the funds of the Company shall be employed to lend money or give credit to any person (whether a member of the Company or not) or company with or without security; nor to give guarantees or indemnities for the payment of money nor the performance of contracts or obligations by any such person or company; nor to secure or undertake in any way the repayment of money lent or advanced to or liabilities incurred by any person or company and otherwise to assist any such person or company.

SHARE CAPITAL

6. The share capital of the Company is Kenya Shillings two thousand (KShs 2,000) divided into one hundred (100) redeemable preference shares of Kenya Shillings twenty (KShs 20) each.
7. Subject to Article 12 below and without prejudice to any special rights previously conferred on the holders of any Shares, any Share in the Company may be issued with or have attached thereto any preferential, deferred, qualified or other rights, privileges, restrictions or conditions, whether in regard to voting or otherwise, as the Company may from time to time by Special Resolution determine, provided that no such change shall offend the principle enshrined in the Memorandum of Association that the Company shall not distribute to its Members any part of any profits generated other than in the circumstances expressly authorised by the Memorandum of Association.

8. The special rights conferred upon the holders of any shares or class of shares shall not, unless otherwise expressly provided by the conditions of issue of such shares, be deemed to be altered by the creation or issue of further shares ranking pari passu therewith.
9. The shares in the capital of the Company consist only of redeemable preference shares. The Shares shall be at the disposal of the Members which may by a unanimous decisions of all the Members from time to time allot and issue them to such persons on such terms and conditions (including the number of shares to be issued or allotted) and at such times as it may determine provided that no shares shall be issued at a discount except in accordance with section 59 of the Act provided that provided that no such terms shall offend the principle enshrined in the Memorandum of Association that the Company shall not distribute to its Members any part of any profits generated other than in the circumstances expressly authorised by the Memorandum of Association.

REDEMPTION OF SHARES

10. The Shares shall be liable to be redeemed in accordance with section 60 of the Act and such redemption shall be at the sole option of the Members provided that the Board shall at all times be entitled to require the Members to redeem any Shares which have been issued and allotted by the Company, by giving written notice of such requirement to the Members.
11. Without prejudice to the waiver by Members contained in regulation 13 of the Company's Memorandum of Association, no redeemable preference shares shall be redeemed otherwise than out of those profits that would have been distributable to the Members as dividends if the Company had been authorised to pay such dividends or the proceeds of a fresh issue of Shares made for the purposes of the redemption and all provisions of statute relating to the redemption of shares and the creation and increase where requisite of a capital redemption reserve shall be duly observed.
12. Any provision in the Articles which states that the Board shall have the power to redeem Shares on behalf of a Member shall be deemed to include a further statement under which the Member in question irrevocably appoints the Board to act as its attorney in relation to the effecting of any such redemption.

CERTIFICATES

13. Every person whose name is entered as a Member in the Register of Members shall be entitled, without payment, to one certificate for all its Shares. Every certificate shall be issued within sixty days after allotment or issue, shall be under the Seal and shall specify the share or shares to which it relates and the amount paid up thereon. In the case of shares held jointly by several persons, the Company shall not be bound to issue more than one certificate therefor and delivery of a certificate to one of the several joint holders shall be sufficient delivery to all.
14. If a share certificate is defaced, lost or destroyed, it may be replaced on payment of such fee, if any, not exceeding Kenya Shillings two hundred (KShs 200.00) and, in the case of loss or destruction, on such terms, if any, as to evidence and indemnity and payment of the out-of-pocket expenses of the Company of investigating such evidence, as the Board may think fit and, in case of defacement, on delivery of the old certificate to the Company.

TRANSFER OF SHARES

15. The transfer of any share in the Company shall not be permitted, save as provided in Article 16.

TRANSMISSION OF SHARES

16. The transmission of any share in the Company, whether in consequence of the death or bankruptcy of a Member or for any other reason whatsoever shall not be permitted, save with the prior written approval of the Members.

INCREASE OF CAPITAL

17. The Company may from time to time, by Ordinary Resolution, increase its capital by such sum to be divided into Shares of such amounts as the resolution shall prescribe provided that no such alteration shall be offend the principle enshrined in the Memorandum of Association that the Company shall not distribute to its Members any part of any profits generated other than in the circumstances as expressly authorised by the Memorandum of Association.

GENERAL MEETINGS

18. The Company shall, in each year, hold a General Meeting as its Annual General Meeting in addition to any other Meetings in that year and shall specify the meeting as such in the notices calling it. Not more than fifteen months shall elapse between the date of one Annual General Meeting of the Company and that of the next. So long as the Company holds its first Annual General Meeting within eighteen months of its incorporation, it need not hold it in the year of its incorporation or in the following year. Annual and other General Meetings shall be held at such times and places as the Board shall appoint. All General Meetings, other than Annual General Meetings, shall be called Extraordinary General Meetings.
19. The Board may, whenever it thinks fit, convene an Extraordinary General Meeting. Extraordinary General Meetings may also be convened in default of such requisition on the requisition of not less than 10% in number of the total Membership. If, at any time, there are not within Kenya sufficient Directors capable of acting to form a quorum, any Director or any two Members of the Company may convene an Extraordinary General Meeting in the same manner, as nearly as possible, as that in which Meetings may be convened by the Board.

NOTICE OF GENERAL MEETINGS

20. Every General Meeting shall be called by at least twenty-one days' notice in writing (exclusive of the day on which it is served or deemed to be served and of the day for which it is given). The notice shall specify the place, the date and the time of such General Meeting and, in case of special business, the nature of that business and shall be given, in manner hereinafter mentioned or any such other manner, if any, as may be prescribed by the Company in General Meeting, to such persons as are, under these Articles, entitled to receive such notices from the Company; provided that a Meeting may be called by shorter notice than that specified in this Article if so agreed by the Members referred to in and otherwise in accordance with the provisions of Section 133 (3) of the Act.
21. In every notice calling a Meeting there shall appear, with reasonable prominence, a statement that a Member entitled to attend and vote thereat is entitled to appoint one or more proxies to attend and vote in its stead and that a proxy need not be a Member.
22. The accidental omission to give notice of a Meeting to, or the non-receipt of notice of a Meeting by, any person entitled to receive such notice shall not invalidate the proceedings at that Meeting.

PROCEEDINGS AT GENERAL MEETINGS

23. All business shall be deemed special that is transacted at an Extraordinary General Meeting and also all business that is transacted at an Annual General Meeting with the exception of consideration of the accounts and balance sheets, and any other documents accompanying or annexed thereto, the reports of the Directors and Auditors, the election of Directors, the appointment of Auditors and the fixing of the remuneration of any officer of the Company or servant of the Company.
24. No business shall be transacted at any General Meeting unless a quorum is present when the Meeting proceeds to business. The Members in General Meeting may by ordinary resolution vary the quorum for such Meetings and

unless decided otherwise by the Members in General Meeting and save as otherwise provided by these Articles, two (2) Members, present in person or, in the case of a corporation, represented in accordance with Article 42, shall be a quorum.

25. If, within thirty minutes after the time appointed for the Meeting, a quorum is not present, the Meeting, if convened on the requisition of Members, shall be dissolved. In any other case, it shall stand adjourned to the same day in the next week at the same time and place and if, at such adjourned Meeting, a quorum is not present within thirty minutes after the time appointed for the Meeting, the Meeting shall be dissolved.
26. The chairman of the Board shall preside at every General Meeting as chairman of that meeting. If there is no such chairman present within fifteen minutes after the time appointed for the same the person elected as deputy -chairman of the Board shall act as chairman of the General Meeting. If neither is able nor willing to act as Chairman, the Members present shall choose some Member to be chairman of the Meeting.
27. The Chairman of any Meeting at which a quorum is present may, with the consent of the Meeting and shall, if so directed by the Meeting, adjourn the Meeting from time to time and from place to place as the Meeting determines but no business shall be transacted at any adjourned Meeting other than the business which might have been transacted at the Meeting from which the adjournment took place. Whenever a Meeting is adjourned for thirty days or more, notice of the adjourned Meeting shall be given in the same manner as in the case of an original Meeting. Save as aforesaid, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned Meeting.
28. At any General Meeting, a resolution put to the vote of the Meeting shall be decided on a show of hands unless (before or on the declaration of the result of the show of hands) a poll is demanded by the Chairman of the Meeting or by any Member present in person or, in the case of a corporation, represented in accordance with Article 42. Unless a poll is so demanded, a declaration by the Chairman of the Meeting that a resolution has, on a show of hands, been carried or carried unanimously or by a particular majority or lost or not carried by a particular majority and an entry to that effect in the book containing the minutes of the proceedings of the Company shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution. A demand for a poll may be withdrawn.
29. A poll demanded on the election of a Chairman or on a question of adjournment shall be taken forthwith. A poll demanded on any other question shall be taken at such time and place and in such manner as the Chairman of the Meeting shall direct.
30. If a poll has been duly demanded, the result of the poll shall be deemed to be a resolution of the Meeting at which the poll was demanded.
31. The demand for a poll shall not prevent the continuance of a Meeting for the transaction of any business other than the question on which a poll has been demanded and such demand may be withdrawn at any time.
32. On a poll votes may be given personally or by a representative of a corporation appointed in accordance with Article 42.
33. In the case of an equality of votes, either on a show of hands or on a poll, the Chairman of the Meeting shall be entitled to a second or casting vote.
34. If any vote shall be counted which ought not to have been counted or might have been rejected, the error shall not vitiate the resolution unless it is pointed out at the same Meeting and not, in that case, unless it shall, in the opinion of the Chairman of the Meeting, be of sufficient magnitude to vitiate the resolution.
35. Subject to the provisions of the Act, a resolution in writing signed by all the Members for the time being entitled to receive notice of and to attend and vote at General Meetings or, being corporations, by their representatives appointed in accordance with Article 42, shall be as valid and effective as if the same had been passed at a General Meeting of the Company duly convened and held. Such resolution may be contained in one document or in several documents in like form each signed by one or more of the Members or by their representatives as aforesaid.

36. The Members may participate in any meeting of the Members by means of conference telephone or other communication facilities as permit all persons participating in the meeting to hear each other simultaneously and such participation shall constitute a presence at a meeting of the Members as if those participating were present in person.

VOTES OF MEMBERS

37. On a show of hands every Member who is present in person or, being a corporation, is present by a representative appointed in accordance with Article 42 shall have one vote. On a poll every Member shall have one vote for each share for which it is the holder.
38. No Member shall be entitled to be present at any General Meeting or to vote on any question, personally, at any General Meeting or on a poll or to be reckoned in a quorum whilst any sum shall be due and payable to the Company in respect of any of the Shares held by it, whether alone or jointly with any other person, or whilst any other sum payable by it to the Company under these Articles shall remain due and payable.
39. In the case of joint holders of a share, the vote of the senior who tenders a vote in person, shall be accepted to the exclusion of the votes of the other joint holders and, for this purpose, seniority shall be determined by the order in which the names stand in the Register of Members.
40. A Member of unsound mind in respect of whose estate a manager has been appointed under section 26 of the Mental Health Act (Chapter 248, Laws of Kenya) may vote, whether on a show of hands or on a poll, by such manager who may vote on the depositing to the Secretary not less than forty eight hours before the time for holding of the Meeting, of proof of its appointment under such legislation.
41. No objection shall be raised to the qualification of any voter except at the Meeting or adjourned Meeting at which the vote objected to is given or tendered and every vote not disallowed at such Meeting shall be valid for all purposes. Any such objection made in due time shall be referred to the Chairman of the Meeting whose decision shall be final and conclusive.
42. Any corporation which is a Member or Director of the Company may, by resolution of its Directors or other governing body or by notification in writing under the hand of some officer of such corporation duly authorised in that behalf, authorise such person as it thinks fit to act as its representative at any Meeting of the Company or the Board and the person so authorised shall be entitled to exercise the same powers on behalf of the corporation which he represents as that corporation could exercise if it were an individual Member of the Company or member of the Board.
43. An instrument appointing a proxy shall be in the following form or a form as near thereto as circumstances admit:

"WATER UTILITY COMPANY LIMITED"

1) I/We ...., of ...., being a Shareholder/Shareholders of the above-named Company, hereby appoint .... of .... or failing it .... of .... as my/our proxy to vote for me/us on my/our behalf at the Annual/ Extraordinary General Meeting of the Company to be held on the .... day of .... 20.. and at any adjournment thereof.

Signed this .... day of .... 20..

This form is to be used *in favour of/against the resolution. Unless otherwise instructed, the proxy will vote as he thinks fit.

*Strike out whichever is not desired".

DIRECTORS

44. The number of Directors shall be not less than two and not more than nine in number. The first Directors shall be appointed, in writing, by the Members.
45. A Director need not be a member but shall be entitles to receive notice of and to attend and speak at all General Meetings of the Company.
46. Any Director may appoint another Director or any other person who is approved by the Directors to be his alternative (an "Alternative") to act in his place at any meetings of the Board at which he is able to present. The Alternative shall be entitled in the absence of his appointer to exercise all rights and powers of a Director and to attend and vote at the meetings of the Board at which his appointer is not personally present and, where he is a Director, to have a separate vote on behalf of his appointer in addition to his own vote. A Director may, at any time, revoke the appointment of an Alternate appointed by him. The appointment of Alternate shall be revoked, ipso facto, if his appointer for any reason ceases to be a Director. Every appointment and revocation under this Article shall be effected by notice in writing under the hand of the appointer served on the Company and on such Alternate.
47. The Directors, other than those whose remuneration is determined by agreement between them and the Board, shall be entitled to such remuneration for their services as the Board may, from time to time, in general meetings determine and such remuneration shall be divided among the Directors in such proportion and manner as they may determine or, failing such determination, equally, except that in such event any Director holding office for less than a year shall only rank in such division in proportion to the period during which he has held office during such year.
48. An Alternate whose Appointer is a Member shall, in the absence of a direction to the contrary in the instrument appointing him, be entitles to receive notice of and to vote at General Meetings as if he had been appointed a proxy of his appointer under the provisions of these Articles.
49. A Director shall vacate office as such if :
    i) he is removed from office pursuant to Section 185 of the Act or by a Special Resolution of the Company in General Meeting;
    ii) he becomes prohibited from being a Director by reason of any order made under Section 189 of the Act;
    iii) he becomes of unsound mind;
    iv) he fails, without reasonable cause and without consent of the Board, to attend three consecutive meetings of the Board and the Board resolves that, by reason of such failure, he shall cease to be a Director; or
    v) he resigns his office by giving notice in writing to the Board.
50. The Board may, at any time and from time to time, appoint a person to be a Director to fill a casual vacancy or as an addition to the Board but so that the total number of Directors shall not at any time exceed the maximum number (if any) fixed by or in accordance with these Articles from time to time. A Director so appointed shall retire at the next General Meeting and shall be eligible for re-election.
51. The Company may, by Ordinary Resolution, appoint another person in place of a Director who has vacated office as such under Article 49 and, without prejudice to the powers of the Directors under Article 50, the Company may, by Ordinary Resolution appoint any person to be a Director either to fill a casual vacancy or as an additional Director.

DIRECTORS' CONTRACTS

52. A Director or Member may contract with and be interested in any way, whether directly or indirectly, in any actual or proposed contract or arrangement with the Company, either as vendor, purchaser or otherwise, and shall not be liable to account for any profit made by it by reason of any such contract or arrangement, provided that the nature of the interest of the Director or the Member in such contract or arrangement is declared at the meeting of the Board at which the

question is first taken into consideration if its interest then exists or, in any other case, at the next meeting of the Board held after he or it became interested and it shall be the duty of the Director or the Member so to declare its interest. No Director shall vote as a Director in respect of any contract or arrangement in which he or the Member appointing him is interested and, if he does vote, his vote shall not be counted but he shall, nevertheless, be counted in the quorum present at the meeting. These prohibitions may, at any time, be suspended or relaxed, to any extent, by a Special Resolution of the Company in General Meeting and they shall not apply to any arrangement for giving a Director an indemnity.

53. For the purpose of Article 52, a general notice given to the Board by a Director at any meeting of the Board to the effect that he or the member appointing him as a Director is a member of a specified corporation, company or firm and is to be regarded as interested in any contract which may, after the date of the notice, be made with that corporation, company or firm, shall be deemed to be a sufficient declaration of interest in relation to any contract so made.
54. A Director may act by himself or its firm in a professional capacity for the Company, except as Auditor of the Company, and he or its firm shall be entitled to receive remuneration for professional services rendered as if he were not a Director.

POWERS AND DUTIES OF THE BOARD

55. The Board may exercise all the powers of the Company to borrow or raise money and to mortgage or charge its undertaking, property or any part thereof and to issue income notes, bonds, debentures and other securities.
56. The business of the Company shall be managed by the Board which may pay all such expenses of and preliminary and incidental to the promotion, formation, establishment and registration of the Company as it thinks fit and may exercise all such powers of the Company as are not by the Act or by these Articles required to be exercised by the Company in General Meeting (subject nevertheless to the provisions of these Articles and of the Act) and to such regulations, being not inconsistent with such provisions, as may be prescribed by the Company in General Meeting but no regulation made by the Company in General Meeting shall invalidate any prior act of the Board which would have been valid if such regulation had not been made. The general powers given by this Article shall not be limited or restricted by any special authority or power given to the Board by any other Article.
57. The Board may establish any local boards or agencies for managing any of the affairs of the Company, either in Kenya or elsewhere, and may appoint any persons to be members of such local boards or managers or agents and may fix their remuneration and may delegate to any local board, manager or agent any of the powers, authorities and discretions vested in the Board, with power to sub-delegate, and may authorise the members of any local board or any of them to fill any vacancies therein and to act notwithstanding vacancies. Any such appointment or delegation may be made upon such terms and subject to such conditions as the Board may think fit and the Board may remove any person so appointed and may annul or vary any such delegation but no person dealing in good faith and without notice of any such annulment or variation shall be affected thereby.
58. The Board may, by power of attorney, appoint any person or any fluctuating body of persons, whether nominated directly or indirectly by the Board, to be the attorney of the Company for such purposes and with such powers, authorities and discretions, not exceeding those vested in or exercisable by the Board under these Articles, and for such period and subject to such conditions as it may think fit. Any such power of attorney may contain such provisions for the protection and convenience of persons dealing with any such attorney as the Board may think fit and may also authorise any such attorney to sub-delegate all or any of the powers authorities and discretions vested in him.
59. The Company may exercise the powers conferred by section 37 of the Act with regard to having an official Seal for use outside Kenya and such powers shall be vested in the Board.
60. The Company may exercise the power conferred by section 121 of the Act with regard to the keeping of a branch register and the Board may, subject to the provisions of section 122 of the Act, make and vary such regulations as it may think fit regarding the keeping of any such branch register.

61. All cheques, promissory notes, drafts, bills of exchange and other negotiable and transferable instruments and all receipts for moneys paid to the Company shall be signed, drawn, accepted, endorsed or otherwise executed as the case may be in such manner as the Board shall from time to time determine.
62. The Board shall cause Minutes to be made, in books provided for the purpose, recording, in respect of every Meeting of the Company, of the Board and of committees or sectoral boards formed by the Board, the names of all persons present and all resolutions and proceedings at such Meetings. The Minutes of every such Meeting shall be read at the next Meeting of the Company, of the Board or of the committee or sectoral boards, as the case may be, and, after being amended or corrected, if necessary, and approved by the Meeting, shall be signed by the Chairman of the Meeting and, once so signed, shall be prima facie evidence of the matters stated therein.
63. The Board may grant pensions, annuities, gratuities or other allowances on death, sickness, disability or retirement to any person who is or has been employed by or in the service of the Company or of its holding company or any subsidiary company of the Company or to any person who is or has been a Director or other officer of the Company or of its holding company or any such subsidiary company and to the widow, family or dependants of any such person. The Board may establish and maintain or concur with such holding or subsidiary company (if any) as aforesaid in establishing and maintaining any schemes or funds for providing such benefits as aforesaid and may pay out of the funds of the Company any premiums, contributions or sums payable by the Company under the provisions of any such scheme or fund.

PROCEEDINGS OF THE BOARD

64. The Board may meet together for the despatch of business, adjourn and otherwise regulate its Meetings as it thinks fit. Unless stated otherwise in the Articles questions arising at any meeting shall be determined by a simple majority of votes cast. In case of an equality of votes, the chairman of the meeting shall have a second or casting vote. The Secretary, on the instructions of the Chairman or on the requisition of a Director, shall at any time summon a Board meeting. At least seven days' notice (inclusive of the date of service and the date of meeting) of all Board meetings shall, unless waived by all Directors, be given in manner hereinafter mentioned to all Directors and Alternates.
65. The quorum necessary for the transaction of the business of the Board shall be one third in total of the Directors from time to time, provided that one person whether a Director or not, although a duly appointed Alternate for any number of Directors, shall not constitute a quorum.
66. The continuing Directors may act notwithstanding any vacancy in their body but, if and so long as their number is reduced below the minimum number fixed by these Articles as the necessary quorum for Board Meetings, the continuing Directors may act for the purposes of increasing the number of Directors to that number or of summoning a General Meeting of the Company but not for any other purpose.
67. The Board may elect a Chairman and Deputy-Chairman of its meetings and determine the periods for which they, respectively, are to hold office and the Board may remove any person from office as Chairman or Deputy Chairman at any time. If no such Chairman or Deputy-Chairman is elected or if at any meeting neither the Chairman nor the Deputy-Chairman is present within fifteen minutes after the time appointed for holding the same, the Directors present may choose one of their number to be chairman of the meeting.
68. A meeting of the Board at which a quorum is present shall be competent to exercise all powers and discretions for the time being exercisable by the Board.
69. The Board may form committees and sectoral boards of its members or consisting of one or more of its members and others and may delegate any of its powers to any such committee. Any committee or sectoral board so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on it by the Board.

70. The meetings and proceedings of any committee or sectoral board consisting of two or more persons shall be governed by the provisions herein contained for regulating the meetings and proceedings of the Board so far as the same are applicable and are not superseded by any regulations imposed by the Board under the last preceding Article.
71. A resolution in writing signed or approved by letter, telegram, telex or fax by all the Directors or by all the members of a committee or sectoral board shall be as valid and effectual as a resolution passed at a meeting of the Board or, as the case may be, of such committee duly called and constituted. Such resolution may be contained in one document or in several documents in like form each signed by one or more of the Directors or members of the committee concerned.
72. The Board or a committee of the Board may participate in any meeting of the Board by means of conference telephone or other communication facilities as permit all persons participating in the meeting to hear each other simultaneously and such participation shall constitute a presence at a meeting of the Board as if those participating were present in person.
73. All acts done by the Board or any committee or by any person acting as a Director shall, notwithstanding that it is afterwards discovered that there was some defect in the appointment of any Director or person acting as aforesaid or that he or any Director or member of such committee had vacated office or was not entitled to vote, shall be as valid as if every such person had been duly appointed and had continued to be a Director or member of such committee and to be entitled to vote.

CHIEF EXECUTIVE OFFICER

74. The Board may from time to time appoint a person as chief executive officer ("CEO") for such period and upon such terms as it thinks fit and, subject to the provisions of any agreement entered into in any particular case, may revoke such appointment.
75. A CEO shall receive such remuneration in the form of salary as the Board may determine.
76. The Board may entrust to and confer upon a CEO any of the powers exercisable by it, other than the powers to borrow money and charge the property and assets of the Company, upon such terms and conditions and with such restrictions as it thinks fit and either collaterally with or to the exclusion of its own powers and may from time to time, subject to the terms of any agreement entered into in any particular case, revoke, withdraw, alter or vary all or any such powers.

SECRETARY

77. The Secretary to the Company shall be appointed by the Board for such term, at such remuneration and upon such conditions as it may think fit and the appointment of any such Secretary may be terminated by the Board. The provisions of sections 178 to 180 inclusive of the Act shall be observed.

THE SEAL

78. The Board shall provide for the safe custody of the Seal which shall only be used by the authority of the Board or a committee authorised by the Board in that behalf and every instrument to which the Seal shall be affixed shall be signed by a Director and by the Secretary or by a second Director or by some other person appointed by the Board for that purpose.

ACCOUNTS

79. The Board shall cause proper books of account to be kept with respect to:
    a) all sums of money received and expended by the Company and the matters in respect of which such receipt and expenditure takes place;

b) all sales and purchases of goods by the Company; and
c) the assets and liabilities of the Company.

80. The books of account shall be kept at the registered office of the Company or at such other place or places in Kenya as the Board deems fit and shall always be open to the inspection of the Directors.
81. The Board may, from time to time, determine whether and to what extent and at what times and places and under what conditions or regulations the accounts and books of the Company or any of them shall be open to the inspection of Members not being Directors and no Member, not being a Director, shall have any right of inspecting any account or book or document of the Company except as conferred by statute or authorised by the Directors or by the Company in General Meeting.
82. The Directors shall from time to time, in accordance with sections 148 to 152 inclusive, and 154, 155 and 157 of the Act, cause to be prepared and to be laid before the Company in General Meeting such profit and loss accounts, balance sheets and reports as are referred to in those Sections.
83. A copy of every balance sheet, including every document required by law to be annexed thereto, which is to be laid before the Company in General Meeting, together with a copy of the Auditor's report, shall, not less than twenty-one days before the date of the Meeting, be sent to every Member and every holder of income notes or debentures of the Company.

AUDIT

84. Auditors shall be appointed and their duties regulated in accordance with sections 159 to 162 of the Act.

NOTICES

85. Any notice or other document may be served by the Company on any Member or Director either personally or by sending it through the post (by airmail where such service is available) in a prepaid letter or by telegram, telex or fax addressed to such Member or Director at its registered address as appearing in the Register of Members or the Company's other records, whether such address shall be within or outside Kenya, or by telex or by telegram addressed as aforesaid. In the case of joint holders of a share, all notices shall be given to that one of the joint holders whose name stands first in the register of Members and notice so given shall be sufficient notice to all the joint holders.
86. Where a notice or other document is sent by post it shall be deemed to have been served on the third day after the day on which it was posted, if addressed within Kenya, and on the seventh day after the day on which it was posted if addressed outside Kenya. In proving such service or sending, it shall be sufficient to prove that the cover containing the notice or document was properly addressed and put into the post office as a prepaid letter or prepaid airmail letter. Where a notice is sent by telegram, telex or fax it shall be deemed to have been served at the expiration of twenty-four hours after the time at which it was sent.
87. A notice may be given by the Company to the person entitled to any share in consequence of the death or bankruptcy of a Member by sending it through the post in a prepaid cover or by telegram, telex or facsimile transmission addressed to it by name or by the title of representative or trustee of such deceased or bankrupt member or any like description at the address supplied for the purpose by the person claiming to be so entitled or by giving the notice in the manner in which the same would have been given if the death or bankruptcy had not occurred.
88. Notice of every General Meeting shall be given in some manner hereinbefore authorised to every Member, to every person upon whom the ownership of a share devolves by reason of its being a personal representative or trustee in bankruptcy of a Member where the Member, but for its death or bankruptcy, would have been entitled to receive notice of the Meeting, to the Directors of the Company and also to the Auditors for the time being of the Company.

WINDING UP

89. If upon the winding up or dissolution of the Company there remains after the satisfaction of all its debts and liabilities, any property whatsoever, the same shall not be paid to or distributed amongst the Members, but shall be given or transferred to some other institution or institutions having objects similar to the objects of the Company, and which, in addition shall prohibit the distribution of its or their income and property among its or their members to an extent at least as great as is imposed on the Company, such institution or institutions to be determined by the Members at or before the time of dissolution, and in default thereof by a Judge of the High Court of Kenya.

INDEMNITY

90. Every Director agent, Auditor, Secretary and other officer for the time being of the Company shall be indemnified out of the assets of the Company against any liability incurred by it in defending any proceedings, whether civil or criminal, relating to anything done or not done by it on behalf of the Company in which judgement is given in its favour or in which he is acquitted or in connection with any application under section 402 of the Act in which relief is granted to it by the Court and he shall not be liable for any loss, damage or misfortune which may happen to or be incurred by the Company in the execution of the duties of its office or in relation thereto. This Article shall however only have effect in so far as its provisions are not avoided by section 206 of the Act.

Names, Postal Addresses and Occupation of Subscribers	Signatures of Subscribers

Dated this day of 2015.
WITNESS to the above Signatures:-

CERTIFICATE UNDER THE COMPANIES REGULATIONS

It is hereby certified that the above Memorandum of Association of "WATER UTILITY COMPANY LIMITED" were produced by the method of Xerography.

DRAWN BY:
MOHAMMED MUIGAI ADVOCATES
MM CHAMBERS, 4TH FLOOR, K-REP CENTRE,
WOOD AVENUE, KILIMANI
P.O. BOX 61323-00200
NAIROBI

6.5 Appendix 5: Sample Memorandum of Understanding between County Government, WSB, WSP & WSTF

Memorandum of Understanding

Between

The County Government of

[insert]

And

[INSERT The Water Service Provider]

And

The Water Services Trust Fund

And

[INSERT The Water Services Board]

1. Purpose

This purpose of this Memorandum of Understanding (MOU) is to set out the terms and understanding between:

i. The County Government of …………………………………… (The "County Government"); and,
ii. (Water Service Provider) (the "Water Service Provider") and
iii. The Water Services Trust Fund (WTSF); and
iv. The relevant Water Services Board (WSB) in the transitory period pending any review of the legal and institutional framework concerning water service provision.

2. Background

[To add specific background of project]

3. Water Service Provider Obligations

In accessing commercial financing, the Water Service Provider shall be required to:

a. Generate its own revenue by carrying out its services and collect payment for provision of such services and therefore not borrow or repay using public funds
b. Use funds obtained via commercial financing to develop and implement water supply and sanitation projects within their service areas in accordance with the project rules
c. Access loans from commercial lenders, provided that neither the National government nor the County Government guarantees the loan taken by the WSP.
d. Be in compliance with WASREB, parent WSB and Water Resources Management Authority regulations and any other statutory requirements governing the operation of a WSP
e. Charge connection fees and consumers' tariffs as mutually agreed by the County Government and the WSP; and as approved by WASREB

f. Have in place concrete measures to ensure that residents of low income areas will benefit from the investment and service.
g. Provide a copy of this MoU to intended financiers as well as the WSTF.

4. Guarantees

It is understood by all parties that neither the County nor National Government shall guarantee any borrowing by the WSP. Neither the County nor National Government has any obligation to cover any liabilities service any debts incurred by the WSP.

5. Reporting Obligations

The WSP will report to the WSTF as follows:-

a. Pre-loan phase and Technical Assistance Phase
    i. The WSP shall fill an Expression of Demand form (Annex 1 to this Memorandum of Understanding);
    ii. The WSP shall provide its Technical Assistance Requirements (being the technical, financial and economic viability of the proposed project);
b. Finance Progress Reports
    i. The WSP shall provide reports on progress made towards meeting financiers' lending conditions.
c. Implementation
    i. The WSP will provide Construction Progress Reports which will include financial, technical and administrative aspects of the project including compliance to the World Bank fiduciary guidelines;
    ii. Reporting on social and environmental impacts as detailed on the Environmental and Social Management Framework (ESMF) and Resettlement Policy Framework (RPF).
d. Changes in management/ownership of the WSP
    i. During the life of any loan taken by the WSP, the WSP shall be under a continuous obligation to inform the financier as well as the WTSF of any changes in its management or ownership.
e. Inspection

The WTSF shall be entitled to carry out inspections on the projects for which finance is obtained.

6. WSP & County obligations in relation to WSP funds

a. All funds collected for water services by the WSP through water bills, commercial financing and other sources shall be used entirely for the purpose of covering costs for the provision of water services and asset development in accordance with regulations made by the Regulatory Authority.
b. For the duration of the loan, dividends or other payments shall not be paid to the owners of public water service providers.
c. During the duration of any loan taken by the WSP, the County shall remain entitled to collect licensing fees from the WSP in accordance with the terms of its license, but shall not increase any such fees for the duration of the loan.
d. The loan shall as far as possible, conform to the loan structure set out in Annex 2 to this Memorandum of Understanding. At all times during the duration of any loan taken by the WSP, that WSP will maintain a debt service account with the financier.
e. For the duration of any loan taken by the WSP, the County agrees not to license any other public water service provider to provide water services in the area served by the WSP.

7. The Subsidy application process

In the provision of the Subsidy, the following activities/processes will be undertaken by the relevant parties:

a. Promotional activities and Calls for Proposals by the WSTF via broadly accessible media
b. Submission of the Expression of Demand form by the WSP
c. Application for Technical Assistance to prepare project proposals by the WSP
d. Preparation of project proposal, loan application and request for subsidy by the WSP
e. Submission of project proposal, loan application and request for subsidy to the WSTF and Commercial Lender
f. Appraisal of project proposal and request for subsidy by the WSTF and Issuance of Certificate of Eligibility for Subsidy
g. WSP presents the project proposal, loan application and Certificate of Eligibility for Subsidy Funding to the Commercial Lender for appraisal and due diligence exercise.
h. WSP signs loan agreement with Commercial Lender.
i. WSTF and WSP sign the subsidiary agreement and the 1st tranche of subsidy to the WSP is made.
j. WSP procures works, materials, hires contractor and supervises works during project implementation
k. IVA verifies the project's physical outputs and reports to WSTF.
l. WSTF pays 2nd tranche of subsidy and the WSP pays back the loan.
m. WSP commissions the project and provides service delivery to the beneficiaries.
n. IVA verifies three months' of continuous billing operation and reports to WSTF.
o. WSTF pays 3rd tranche of subsidy and WSP pays back the loan.
p. WSP continues to operate the project and uses project collections to repay the remainder of the loan.

8. General

This MOU in no way restricts either of the parties from participating in any activity with other public or private agencies, organizations, or individuals.

9. Contact Information

The County Government of:

Party's representative………………………………………………….
Position…………………………………………………………………..
Postal Address……………………………………………………………
Telephone………………………………………………………………..
E-mail…………………………………………………………………….

Water Service Provider

Party's name…………………………………………………………….
Party's representative………………………………………………….
Position…………………………………………………………………..
Postal Address…………………………………………………………
Telephone………………………………………………………………..
E-mail…………………………………………………………………….

The Water Services Trust Fund:
Party's name…………………………………………………………….
Party's representative…………………………………………………
Position………………………………………………………………..
Postal Address…………………………………………………………
Telephone……………………………………………………………..
E-mail………………………………………………………………….

The Water Services Board
Party's name…………………………………………………………….
Party's representative…………………………………………………
Position………………………………………………………………..
Postal Address…………………………………………………………
Telephone……………………………………………………………..
E-mail………………………………………………………………….

10. Duration
This MOU is effective on the date of the final signature by the authorized officials from the County Government and Water Service Provider and shall remain in force for the duration of the loan (s) to which it applies. This MOU may be modified at any time by written agreement of the parties.

Nothing in this MOU shall be interpreted to limit or otherwise affect any authorities, powers, rights, or privileged accorded to the County Government or Water Service Provider or any of the officers, employees, or organizational units under any statute, rule, regulation, contract or agreement.

11. Execution
IN WITNESS to this Memorandum of Understanding, the authorized officials of the parties concerned have signed this contract in their respective names on the dates shown below:

For the County Government
Signature………………………………………
Name…………………………………………
Position………………………………………
County Government of ……………....………….
Date:………………………………………………...

For the Water Services Trust Fund:
Signature……………………………………………
Name………………………………………………..
Position……………………………………………..
Date:………………………………………………..

For the Water Service Provider:
Signature……………………………………………
Name………………………………………………..
Position……………………………………………..
Company ……………....…………………………
Date:………………………………………………

For the Water Services Board:
Signature……………………………………………
Name………………………………………………..
Position……………………………………………..
Board ….. ……………....…………………………
Date:………………………………………………..

6.6 Appendix 6: County Government Approval Template for Borrowing

COUNTY GOVERNMENT APPROVAL OF BORROWING BY THE WATER SERVICES PROVIDER RESOLUTION (TEMPLATE)
EXTRACTS OF THE MINUTES OF THE MEETING OF THE COUNTY EXECUTIVE COMMITEE OF COUNTY OF THE COUNTY GOVERNMENT OF ____________________ HELD AT________________________ON THE _____ DAY OF_____________________ 20___

PRESENT:
1.
2.
3.
4.
5.
6.
7.

THE MEETING BEING QUORATE:
(Insert a summary of the minutes of the meeting)
……
……
……
……
……
……
……
……
……………………………………………………………………………………………………

WHEREAS, the (INSERT WATER SERVICE PROVIDER) intends to borrow the sum of [KShs…………………] from ____________________ (the "Loan") on the terms that the annual interest rate of the Loan shall be ……………….. [Rate %]; that the Loan shall mature on ____________________; that the Loan shall be due and payable in full at the end of such period; and that the Loan shall be evidenced by a Loan Agreement (the "Loan Agreement").

WHEREAS, the WATER SERVICE PROVIDER has requested the approval of the County Government to take the Loan;
RESOLVED, that the County Government of _____________________ hereby approves the Loan;
RESOLVED, that the County Government of ______________________ will not declare the company a county entity for the duration of the loan agreement.
We, the undersigned, being the County Executive Committee members present at the meeting of the County Government of …………………………. consent and agree that the above resolution was made at a County Executive meeting held on the ……………day of ………………………. 20… at ………….. O'clock at ………………………….. location.

…………………………………......	…………………………………
Name	Signature
…………………………………......	…………………………………
Name	Signature
…………………………………......	…………………………………
Name	Signature
…………………………………......	…………………………………
Name	Signature
…………………………………......	…………………………………
Name	Signature
…………………………………......	…………………………………
Name	Signature

IN WITNESS WHEREOF, I ………………………………………… being the County Secretary of the County Government of………………………… certify that the above named County Executive Members on the …………… day of …………………… 20…. acknowledged the above signatures or marks to be theirs; and having understood the contents of this corporate resolution, freely and voluntarily executed it.

6.7 Appendix 7: Water Service Provider Approval Template for Borrowing by Board of Directors

WATER SERVICES PROVIDER BORROWING RESOLUTION (TEMPLATE)

____ LIMITED

EXTRACTS OF THE MINUTES OF THE MEETING OF THE BOARD OF DIRECTORS OF ____________________ LIMITED HELD AT________________________ON THE _____ DAY OF________ 20___

PRESENT:
1.
2.
3.
4.
5.
6.
7.

THE MEETING BEING QUORATE:
(Insert a summary of the minutes of the meeting)
………
………
………
………
………
………
………
………
………
………
………
…………………………………………………………………

WHEREAS, this Board of Directors deems it desirable and in the best interests of ………………………………………… Water Services Providers (the "Company") to borrow [KShs…………………] from ____________________ (the "Loan"). NOW, THEREFORE, BE IT RESOLVED, that this Company will borrow [KShs…………………..] from ____________________; on the terms that the annual interest rate of the Loan shall be ……………….. [Rate %]; that the Loan shall mature on ____________________; that the Loan shall be due and payable in full at the end of such period; and that the Loan shall be evidenced by a Loan Agreement (the "Loan Agreement").
RESOLVED FURTHER, that the ……………………………. and ……………………………………… of this company hereby authorized, directed and empowered to execute, for and on behalf of this company and in its name, any and

all documents required in connection with the Loan, including but not limited to the Loan Agreement, substantially in the form attached hereto as Exhibit A, with such changes thereto as the person executing same shall approve, such approval to be conclusively evidenced by the execution and delivery thereof.
RESOLVED, that the officers of this company are, and each acting alone is, hereby authorized to do and perform any and all such acts, including execution of any and all documents and certificates, as such officers shall deem necessary or advisable, to carry out the purposes and intent of the foregoing resolutions.
RESOLVED FURTHER, that this Company shall open and keep a "Water Revenue Collection Account" with the bank issuing the loan, for the duration of the loan.

RESOLVED FURTHER, that any actions taken by such officers prior to the date of the foregoing resolutions adopted hereby that are within the authority conferred thereby are hereby ratified, confirmed and approved as the acts and deeds of this Company.

We, the undersigned, being the directors present at the meeting of this Company consent and agree that the above corporate resolution was made at a board of directors meeting held on the ……………day of ………………………. 20… at ………….. O'clock at ………………………….. location.

…………………… ……………………..
Name Director's signature

…………………… ……………………..
Name Director's signature

…………………… ……………………..
Name Director's signature

…………………… ……………………..
Name Director's signature

…………………… ……………………..
Name Director's signature

IN WITNESS WHEREOF, we ……………………………………… and ……………………………………… being the Chairman and Secretary certify that the above named directors on the ……………. day of …………………… 20…. acknowledged the above signatures or marks to be theirs; and having understood the contents of this corporate resolution, freely and voluntarily executed it.

6.8 Appendix 8: Water Service Board Approval Template for Borrowing by WSB

WATER SERVICES BOARD RESOLUTION APPROVING BORROWING BY THE WATER SERVICE PROVIDER TEMPLATE (TEMPLATE)
WHEREAS, this Board of Directors deems it desirable and in the best interests of ………………………………………… Water Services Providers (the "Company") to borrow [KShs…………………] from ____________________ (the "Loan").

NOW, THEREFORE, BE IT RESOLVED, that this Company may borrow [KShs…………………..] from ____________________; on the terms that the annual interest rate of the Loan shall be ……………….. [Rate %]; that the Loan shall mature on ____________________; that the Loan shall be due and payable in full at the end of such period; and that the Loan shall be evidenced by a Loan Agreement (the "Loan Agreement").

RESOLVED FURTHER, that the Managing Director of this company hereby authorized, directed and empowered to execute, for and on behalf of this company and in its name, any and all documents required in connection with the Loan, including but not limited to the Loan Agreement, substantially in the form attached hereto as Exhibit A, with such changes thereto as the person executing same shall approve, such approval to be conclusively evidenced by the execution and delivery thereof.

RESOLVED, that the officers of this company are, and each acting alone is, hereby authorized to do and perform any and all such acts, including execution of any and all documents and certificates, as such officers shall deem necessary or advisable, to carry out the purposes and intent of the foregoing resolutions.

RESOLVED FURTHER, that any actions taken by such officers prior to the date of the foregoing resolutions adopted hereby that are within the authority conferred thereby are hereby ratified, confirmed and approved as the acts and deeds of this corporation.

We, the undersigned, being all the directors of this Corporation consent and agree that the above corporate resolution was made at a board of directors meeting held on the ……………day of ……………………… 20… at ………….. O'clock at ………………………….. location.

……………………	……………………..
Name	Director's signature
……………………	……………………..
Name	Director's signature
……………………	……………………..
Name	Director's signature
……………………	……………………..
Name	Director's signature
……………………	……………………..
Name	Director's signature

6.9 Appendix 9: Financial Model and Cash flow Projection Template

The financial model can be downloaded from the WASREB website: http://wasreb.go.ke/publications

November 2015

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