



# **WaterNet short course Financing of Water Infrastructure projects**

**Financing beyond the 3 Ts**

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implemented by  
**giz**



# Structure of presentation

- Why beyond 3Ts?
- Funding strategies

# Why beyond 3 Ts?

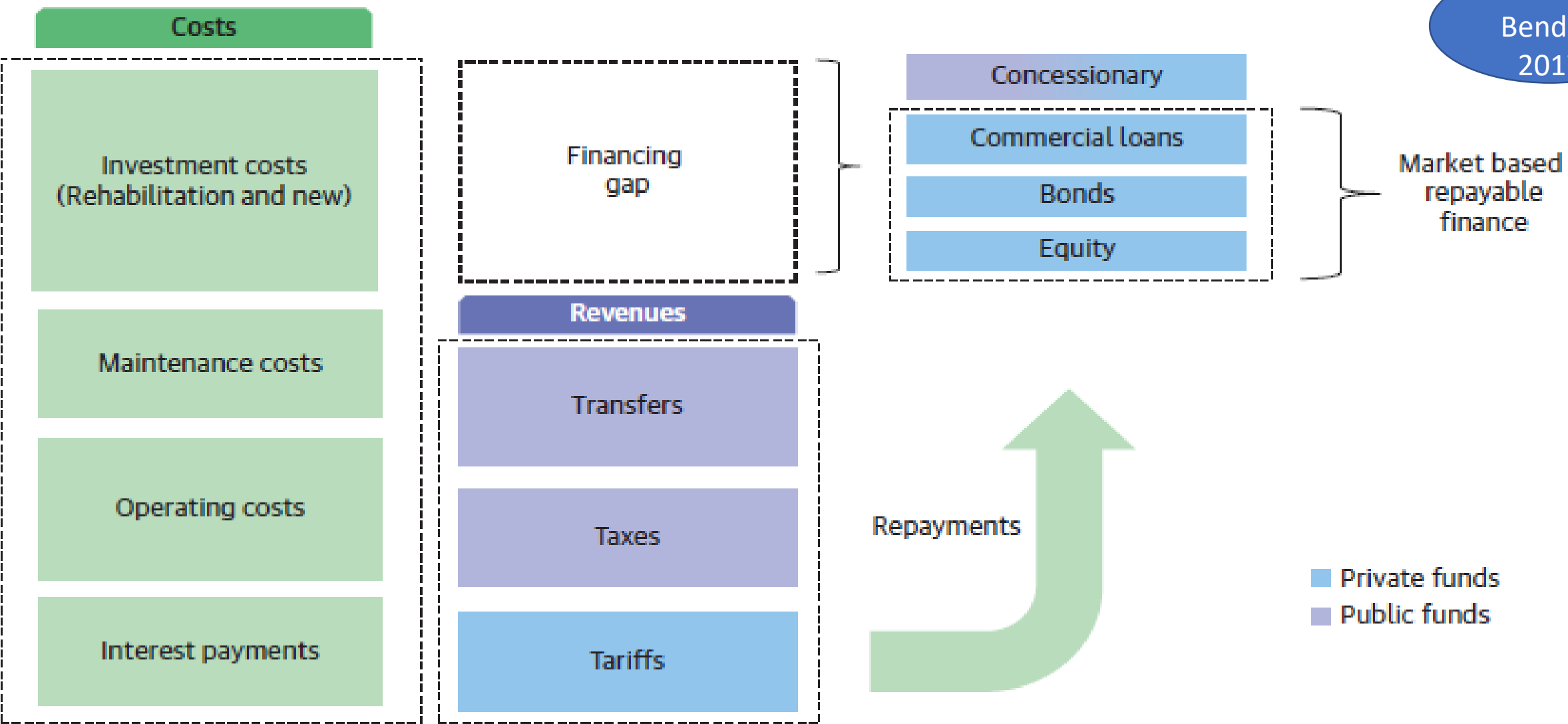
Tariffs should ideally pay back the O&M and capital costs

- Growing financial needs for investments and O&M:
  - Achieving SDG6 requires US\$1.7 trillion (source; Advance briefing for High-Level Political Forum 2018, quoting Hutton & Varughese, 2016)
- Constraints of 3Ts: unlikely to meet the future needs
  - Tariffs: affordability (domestic use & irrigation). Most efficient & in line with UPP. Poor unable to afford.
  - Taxes: competing demands for public funds (e.g. health, education, other infrastructure)
  - Transfers:
    - ODA and international assistance levelling off;
    - Sustainability concerns
    - Transfers from high users for basic needs possible

Mind set: water as a public service  
Need to change??

FIGURE I.3. Financing Gap for Water Service Providers

Source:  
Bender,  
2017



# Kenya report 2014-15 of the water regulator (WASREB)

- Kenya experiences a widening investment gap:
  - Investments by the WSBs for the period 2014/15 amounted to Ksh 11.28 billion, a decrease of Ksh 8.2 billion (42%) compared to the total investments in 2013/14. Thus the 'investment gap' for water and sanitation infrastructure is widening
  - The total investment is 10% of the investment needs in the water services sector (to meet the targets under Vision 2030 & the National Water Master plan 2030).

**Water Services Trust Fund of Kenya (WSTF) grants scheme.** WSTF is a state corporation that invests in pro-poor water and sanitation infrastructure

# Finance requirements & strategy

- Types of funding requirements:
  - Investments in water infrastructure
  - Rehabilitation of water infrastructure
  - Operation and maintenance of water supply systems
- Government strategy towards water infrastructure & supply:
  - Public or private good
  - Private good: best recovered from users through tariffs (UPP)
  - Public good: paid from general expenditures (taxes and government loans)
  - Increased cost recovery: often below O&M costs.

Full cost recovery through tariffs ensures sustainability, attracts new investments, and extends service coverage  
(source: briefing HLPF 2018)

# Types of water infrastructure development

- Private sector development:
  - BOOT: Build, Own, Operate and Transfer (after e.g. 15-25 years)
  - BOT: Build, Operate & Transfer (after e.g. 15-25 years)
  - BOS: Build, Operate & Sell (after e.g. 5 years)
  - ROM: Rehabilitate, Operate & Maintain (e.g. for old hydropower schemes)
- Public sector development:
  - Parastatal:
  - Traditional public projects by government
- Public-private sector partnerships:
  - Public shareholding in private company
  - Private investments in parastatal

# Private sector funding

- Advantages:
  - Extra funds available
  - Quicker access to funding & fast construction
  - Increased managerial capacity
- Conditions:
  - Borrowers:
    - Credit worthiness, identification of bankable projects (financial viability & robustness)
  - Lenders:
    - Risk assessment & mitigation strategy
- Governments:
  - Fill legislative gaps
  - Support budget – leverage
  - Bridge gap between financially and economic feasibility



# Parties for private investments

- *Borrowers*: often water service providers or ministries responsible for water infrastructure. Borrowers may range from local communities, to WSP, governments and RBOs.
- *Lenders*: banks and other financial institutions (e.g. pension funds, investors). **3 Rs**:
  - Risk mitigation
  - Rewards: level and security
  - Responsibilities: e.g. construction, operation, rehabilitation
- *Government*: at different levels (local to transboundary). Creation of supportive environment and providing leverage/ co financing

## Required stakeholder capacity to develop a water finance market

### Borrowers

Creditworthy water service providers able to identify, design, and manage bankable projects and a creditworthy company



### Environment

Governments able to identify and fill gaps with supportive legislation and allocated budget and appropriate levers



### Lenders

Banks able to assess the risks of water supply projects with access to risk mitigation tools



## Increasing private funding

### Constraints affect three critical water stakeholders

#### Stakeholder



#### Government



#### Lenders



#### Utilities/Borrowers



#### What is the critical constraint?

Local and national laws and policies hinder rather than catalyze loans to water projects

Lenders perceive too much risk and lack the market intelligence to assess the technical viability of projects

Borrowers face capacity constraints, especially around loan management and internal controls

#### What will help overcome these constraints?

Focused policy reforms that encourage lending; technical assistance to governments

Partial credit guarantees, direct lending, subsidies, technical assistance, credit assessments

Technical assistance from governments, donors, and other utilities

# Water self providers in Botswana: private investors in water infrastructure

## Most mines

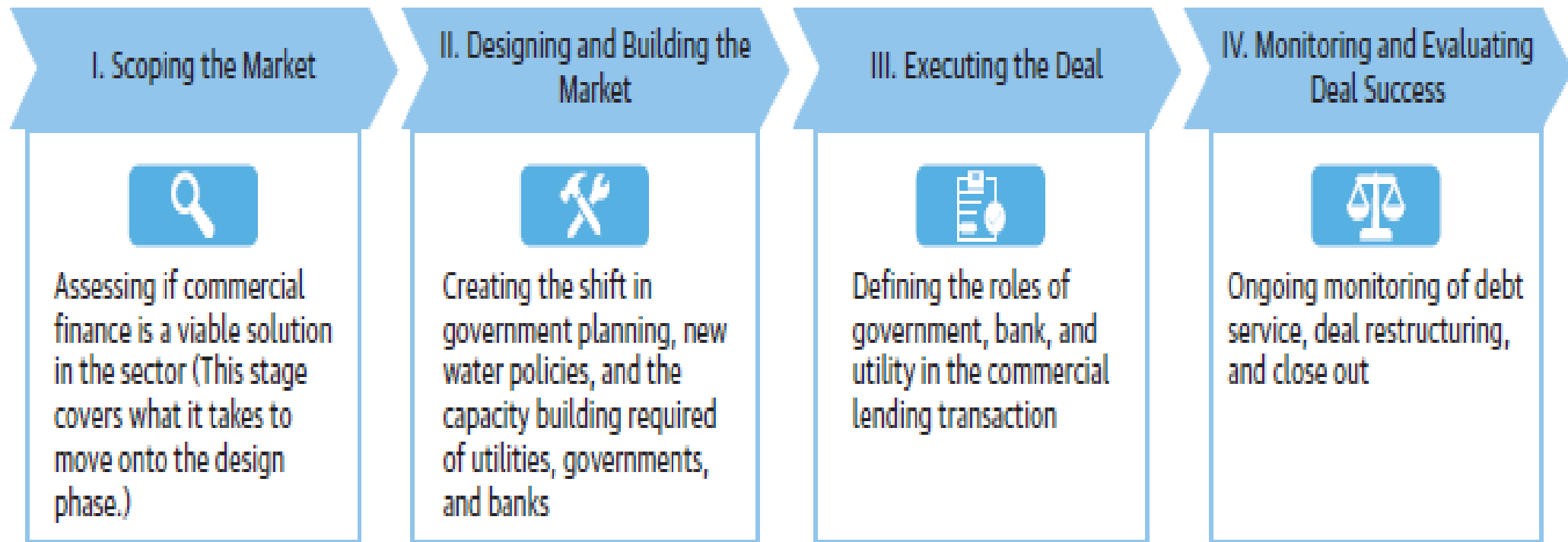
- Mines get water use rights (capped) & develop their own water sources (usually well fields)
- Pay full capital & O&M costs; no additional water charges by government. Water costs are high.
- Annual reporting duty of water abstraction & quality
- Limits costs of public water infrastructure development

## Livestock borehole owners

- Owners obtain water use rights (capped)
- Pay capital & O&M costs. No additional water charges
- Several government subsidy programmes for capital costs
- Government considering water charge for IWRM (all water resources are state owned).

# Framework for building a commercial finance market in the water sector (Bender, 2017)

FIGURE 0.1. Framework for Building a Commercial Finance Market in the Water Sector



# Four phases for private sector finance strategy

- **Scoping:**
  - Choice of tariff coverage & concept
  - Dealing with access & affordability
  - Efficiency of monopolies
  - Political interference (e.g. tariffs, boards)
  - Government levers (guarantees, output based subsidies, credit rating, blended finance)
  - Capacity assessment of borrowers, lenders & government
- **Market design & building:** e.g. regulatory benchmarking: Kenya and Zambia, IB-NET, risk mitigation, bankable proposals/ financial model,

# Four phases for private sector finance strategy

- **Making deals:**

- Structuring debt financing
- Optimizing loan structure & risk mitigation
- Preparing deal (incl. EIA)
- Applying for loan
- Lender protections
- Negotiations

- **Monitoring & evaluation:**

- Construction
- Pay out & debt servicing
- M&E of commercial finances (incl. distress)
- Managing/ terminating deal in trouble
- Restructuring

# Risk mitigation tools

- Output based aid (OBA)
- Credit enhancement & guarantee facilities
- Construction bonds
- Equity capital contribution
- Dedicated credit lines (e.g. pro-poor or environment)
- Credit ratings
- Technical assistance



## BOX 2.1. Regulatory Benchmarking for Commercial Finance

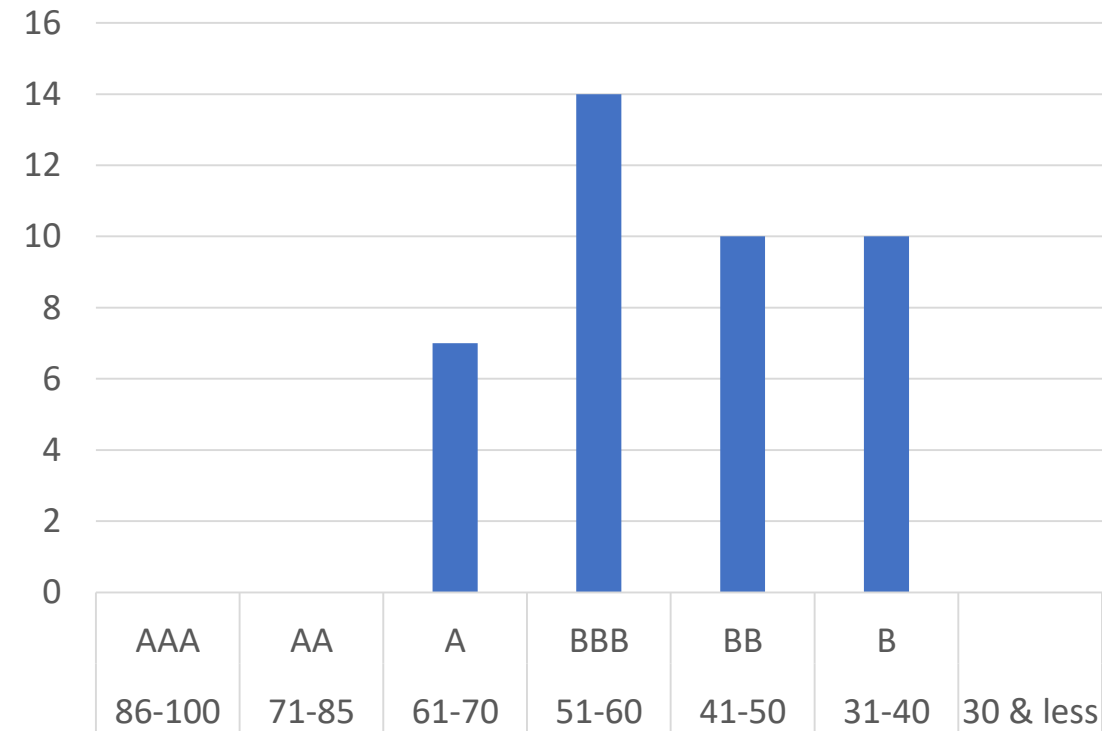
There are global benchmarking sites, such as the **International Benchmarking Network for Water and Sanitation Utilities** (IBNET), and some good quality local benchmarking instruments, such as the **Kenya Water Services Regulatory Board's impact reports**. Most benchmarking and indexation in the water sector focus on operational and technical indicators. These are important for lender due diligence, but lenders require financial and credit analysis as well. Lenders, borrowers, and regulators can greatly benefit from financial and creditworthiness indexation. However, this reporting is not often provided by regulators. Regulators are often unfamiliar with financial benchmarking and require technical assistance to establish credit indexing.

There are multiple levels of assessing credit, from creditworthiness indexing to shadow ratings to credit ratings. Governments (usually regulators) can develop a uniform set of creditworthiness standards for water utilities by facilitating partnerships with credit rating organizations. For example, the government of the Philippines established a water district credit rating system, which classifies districts as creditworthy, semi-creditworthy, pre-creditworthy, or not creditworthy. Creditworthy water districts are ready for investment, whereas less creditworthy districts are seen as opportunities for technical assistance targeted to address their weaknesses.

In 2015, the Kenya Water Services Regulatory Board (WASREB), with technical assistance from the World Bank, created the **Creditworthiness Index** report covering the top 40 water service providers (WASREB and WSP 2015a). The **Creditworthiness Index** evolved out of a sector-wide Kenya water utility shadow rating report, *Financing Urban Water Services In Kenya: Utility Shadow Credit Ratings* created by WASREB and the World Bank in 2011 (Kimani et al. 2011). Shadow rating reports are difficult for regulators to sustain as they are expensive, require significant expertise, and must be maintained on an annual basis. Normally, credit ratings and shadow ratings report costs are incurred by the borrower. An initial shadow ratings report can increase interest from all three stakeholders and establish a market interest in creditworthiness reporting. However, a self-reported and automated creditworthiness index managed by the regulator is more affordable and therefore more sustainable.

Score	Indicative credit worthiness level	Description
86 to 100	Creditworthy, probably AAA category	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.
71 to 85	Creditworthy, probably AA category	Denotes expectations of very low default risk. Very strong capacity for payment of financial commitments. Not significantly vulnerable to foreseeable events.
61 to 70	Low-Creditworthy, probably in A category	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. In a credit rating, this definition is equivalent to an A rating.
51 to 60	Low-Creditworthy, probably in BBB category	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. In a credit rating, this definition is equivalent to a BBB rating.
41 to 50	Low-Creditworthy, probably in BB category	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. In a credit rating, this definition is equivalent to BB rating.
31 to 40	Lower-Creditworthy, probably in B category	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. In a credit rating, this definition is equivalent to B rating.
< 30	No Rating awarded	Indicative of substantial to exceptionally high risk of default.

## Creditworthiness Index 2014-15 Kenya WSP



# Literature

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THANK YOU

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