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Report No: PAD560

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GLOBAL PARTNERSHIP ON OUTPUT-BASED AID GRANT

IN THE AMOUNT OF
US$11.835 MILLION EQUIVALENT

TO THE

REPUBLIC OF KENYA

FOR THE

KENYA URBAN WATER AND SANITATION OBA FUND FOR LOW-INCOME AREAS

November 12, 2014

Global Practice for Water (GWADR)
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective August 6, 2014)

Currency Unit = Kenya Shillings
Ksh 87.95 = US$1
Government Fiscal Year: July 1–June 30

LIST OF ACRONYMS

CEO	Chief Executive Officer
CPS	Country Partnership Strategy
DA	Designated Account
EA	Environmental Assessments
EMP	Environmental Management Plan
ERR	Economic Rate of Return
ESAP	Environmental and Social Action Plan
ESMF	Environmental and Social Management Framework
ESRS	Environmental and Social Review Summary
GoK	Government of Kenya
GPOBA	Global Partnership on Output-Based Aid
IFC	International Finance Corporation
IRR	Internal Rate of Return
ISDS	Integrated Safeguards Data Sheet
IVA	Independent Verification Agent
MoEWN	Ministry of Environment, Water and Natural Resources
O&M	Operating and Maintenance
OBA	Output-Based Aid
PA	Project Account
PDO	Project Development Objective
PIU	Project Implementing Unit
PPDA	Public Procurement and Disposal Act
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SPA	Service Provision Agreement
US$	United States Dollars
WASREB	Water Services Regulatory Board
WHO	World Health Organization
WSB	Water Services Board
WSP	Water Services Provider
WSP-Af	Water and Sanitation Program – Africa
WSTF	Water Services Trust Fund

Regional Vice President:	Makhtar Diop
Country Director:	Diarietou Gaye
Senior Global Practice Director:	Junaid Kamal Ahmad
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KENYA
Urban Water and Sanitation OBA Fund for Low Income Areas

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Kenya Urban Water and Sanitation OBA Fund for Low Income Areas (P132979)

PROJECT APPRAISAL DOCUMENT

AFRICA

GPOBA

Report No.: PAD560

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Basic Information			
Project ID P132979	EA Category B - Partial Assessment	Team Leader Kevin Bender	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ]		
	Financial Intermediaries [ ]		
	Series of Projects [ ]		
Project Implementation Start Date 05-Sep-2014	Project Implementation End Date 30-Jun-2018		
Expected Effectiveness Date 04-Dec-2014	Expected Closing Date 30-Jun-2018		
Joint IFC No			
Practice Manager	Senior Global Practice Director	Country Director	Regional Vice President
Jonathan S. Kamkwalala	Junaid Kamal Ahmad	Diarietou Gaye	Makhtar Diop

.
Borrower: The National Treasury
Responsible Agency: Water Services Trust Fund

Contact:	Ismail Fahmy M. Shaiye	Title:	CEO
Telephone No.:	(254-02) 0272-0696	Email:	ismail.shaiye@wstf.go.ke

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Approval Authority
Approval Authority RVP Approval Project is financed by a Recipient Executed Trust Funded provided by GPOBA. GPOBA has cleared the project for funding after review by an independent Panel of Experts.

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Project Financing Data (in US$ Million)

[ ]	Loan	[X]	Grant	[ ]	Guarantee
[ ]	Credit	[ ]	IDA Grant	[ ]	Other

Total Project Cost:	18.135	Total Bank Financing:	0.00
Financing Gap:	0.00		

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Financing Source	**Amount**
Borrower	6.300
Global Partnership on Output-based Aid	11.835
Total	18.135

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Expected Disbursements (in US$ Million)

Fiscal Year	2014	2015	2016	2017	2018	2019
Annual	0.00	1.70	2.20	3.30	3.30	1.335
Cumulative	0.00	1.70	3.90	7.20	10.50	11.835

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Proposed Development Objective(s)

The project development objective is to increase the number of people in low income areas with access to improved water supply and sanitation services. This objective will be realized by incentivizing urban Water Services Providers to invest in water supply and sanitation improvement subprojects to benefit households in low income areas by applying one-off Output-Based Aid subsidies to make water and sanitation access affordable.

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Components

Component Name	Cost (US$ Millions)
Implementation Support Activities	2.335
Output-Based Aid Subsidies for Water and Sanitation Subprojects	9.50

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Institutional Data

Practice Area/ Cross Cutting Solution Area

Water and Social, Urban, Rural and Resilience

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Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Water, sanitation and flood protection	Water supply	70		
Water, sanitation and flood protection	Wastewater Collection and Transportation	30		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

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Themes		
Theme (Maximum 5 and total % must equal 100)		
Major theme	Theme	%
Urban development	Other urban development	60
Urban development	Municipal finance	40
Total		100
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Compliance	
Policy	
Does the project depart from the CAS in content or in other significant respects?	Yes [ ] No [X]
.	
Does the project require any waivers of Bank policies?	Yes [ ] No [X]
Have these been approved by Bank management?	Yes [ ] No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ] No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X No [ ]
.	

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09		**X**
Physical Cultural Resources OP/BP 4.11		**X**
Indigenous Peoples OP/BP 4.10		**X**
Involuntary Resettlement OP/BP 4.12	**X**	
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**
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Legal Covenants			
Name	**Recurrent**	**Due Date**	**Frequency**
Description of Covenant			
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Conditions	
Name	**Type**
Adoption of Project Operations Manual	Effectiveness

Description of Condition

The Operations Manual, satisfactory to the World Bank, has been adopted by the Project Implementing entity.

Name	Type
Execution of Subsidiary Agreement	Effectiveness

Description of Condition

The Subsidiary Agreement, referred to in Section I.A. of Schedule 2 to the Grant Agreement, has been executed on behalf of the Recipient (National Treasury) and the Project Implementing Entity (The Water Services Trust Fund of Kenya).

Name	Type
Withdrawal conditions	Disbursement

Description of Condition

No withdrawal shall be made:

(a) for payments made prior to the date of signing the Grant Agreement; and,

(b) for payments covered by Category (2) unless:

i. the Project Implementing Entity shall have entered into the relevant Service Provider Agreement with the WSP in form and substance satisfactory to the World Bank; and

ii. for payments covered by Category (2) which are not considered a Subsidy Advance, unless an Outputs Verification Report satisfactory to the World Bank has been received from the Independent Verification Agent.

Team Composition			
Bank Staff			
Name	**Title**	**Specialization**	**Unit**

Nyambura Githagui	Lead Social Development Specialist	Social Development	GSURR
Efrem Fitwi	Senior Procurement Specialist	Procurement	GGODR
Jemima T. Sy	Sr Water & Sanitation Specialist	Water and Sanitation, Private Sector	GWASP
Svetlana Khvostova	Operations Officer	Operations Analyst	GENDR
Patrick Nduati Mwangi	Sr Water & Sanitation Specialist	Water and Sanitation, Technical	GWASA
Henry Amena Amuguni	Sr Financial Management Specialist	Financial Management	GGODR
Rajesh K. Advani	Sr. Infrastructure Specialist	Co-Team Lead, Infrastructure	GPOBA / SURR
Kevin Bender	Sr Financial Specialist	Team Lead, Water and Sanitation, Finance	GWASA
Maurice Wanyama	Administrative Assistant	Operations	GWASA

Non Bank Staff

Name	Title	Telephone	City

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Kenya		All counties excluding Nairobi			

I. STRATEGIC CONTEXT

A. Country Context

1. **Macroeconomic performance.** From 2001–2011 Kenya's economy experienced uneven growth, with an average annual growth rate of 4.6 percent. After a slowdown due to the 2008 post-election violence, the global economic crisis, and a severe drought in 2009, economic growth accelerated to 5.4 percent in 2010. Growth in 2012 was estimated at 4.3 percent with predictions of 5 percent growth for 2013. The ten year average inflation rate is 7 percent with brief periods of double digit inflation. The Central Bank target rate for inflation is 5 percent. The Central Bank of Kenya policy interest rate is 8.5 percent and commercial bank lending rates are at approximately 17 percent.[1] A persistent current account deficit, security issues and devolution remain potential risks to exchange rate stability and inflation.

2. **Urbanization is projected to continue at a rapid pace in Kenya adding pressure to deliver basic services**. The Kenya Constitution 2010 guarantees each person specific economic and social rights, including the right to "adequate standards of sanitation" and "to clean and safe water in adequate quantities." In 2011, 12 million of Kenya's population of 40 million resided in urban areas. With rapid urbanization, by 2030 it is estimated that 30 million Kenyans will reside in urban areas and account for 48 percent of the country's projected population.[2] Although better macro-economic conditions in the last decade have improved the welfare of Kenyans, levels of poverty remain high. In urban areas, about 39 percent of the population live below the income poverty line.[3] Access to basic services, such as water and sanitation, is key to improving the welfare of the poor and in contributing to economic development. The World Health Organization (WHO) estimates that globally the economic return on spending to achieve universal sanitation is US$5.5 per US$1 invested, while for water supply it is US$2.8 per US$1 invested. A post implementation review of the pilot Kenya microfinance for community managed water project estimated that every US$1 invested in piped water supply yielded economic benefits of between US$2 and US$10.

B. Sector and Institutional Context

3. **Kenya Vision 2030, the country's national development plan, aims to ensure that improved water and sanitation is available and accessible to all by the year 2030.** Access to water and sanitation services remains modest, with 2011 data from the Water Services Regulatory Board (WASREB) showing that 65 urban water service providers (WSPs) provide water to 52 percent and sewerage to 19 percent of the 16.5 million people within their service areas.[4] Although sewerage coverage is low, 69 percent of the population within these service areas has access to improved sanitation with un-sewered consumers using on-site sanitation facilities. There has been progress with water coverage increasing by 5 percent and sanitation coverage by 29 percent over the last four years. Investments will need to rise more rapidly in order to achieve the target of 100 per cent coverage of water supply and sewerage and on-site

[1] Commercial bank lending rate average for 2013 and Central Bank rate for Nov 2013; Central Bank of Kenya website Nov 5, 2013
[2] Kenya Economic Update June 2011; The World Bank
[3] Kenya Integrated Household Budget Survey (2006).
[4] IMPACT 5 report; WASREB, 2012

sanitation in urban areas by 2030. This investment is estimated to require over US$20 billion in capital funding.[5]

4. **Kenya's 2010 Constitution provides for decentralization of resources and responsibilities to subnational county governments, including delivery of water and sanitation services.** Kenya is a country in a high state of transition. Devolution, a key component of the new Constitution, provides for the creation of a new tier of 47 county governments and the devolution of many resources and services, including water/sanitation and urban services. Existing municipal utilities will be absorbed by the new counties; however, the Constitution allows for a transition period up to 2015.

5. **The Water Act of 2002 remains the current governing act in transition until a new law is passed**. The Water Act of 2002 called for an institutional setup that reduced conflicts of interest in the management of water resources and water supply and sewerage services. The Act separates the functions between each aspect of service delivery: policy making, regulation, asset ownership or control, and service delivery. Under the Act, water supply and sewerage services are delivered through municipally owned water services providers (WSPs) acting as agents of eight regional Water Services Boards (WSBs). WSBs own and develop infrastructure used in the production and delivery of water services, and contract WSPs to operate the systems in demarcated service areas. The Act established the independent Water Services Regulatory Board (WASREB) to oversee the implementation of policies and strategies relating to the provision of water and sewerage services, approval of tariff rates, setting rules, and monitoring the performance of WSBs and WSPs. The Act also established the Water Services Trust Fund (WSTF) as a state corporation to finance pro-poor investments in water and sanitation through WSPs and community run projects.

6. **In a move towards improving the financial sustainability of WSPs and WSBs, WASREB announced an Extraordinary Tariff Adjustment in January 2009 that resulted in tariffs levied by WSPs increasing between 70 percent and 100 percent**. This move was followed by a formal tariff adjustment process where WSPs and WSBs applied for regular tariffs to support their cost base in a progressive shift towards implementing a full cost recovery tariff policy in the medium term. 'Full cost recovery' is defined as the total cost of providing services, which includes operating, capital, administrative, and debt service costs. Approved tariffs apply to both connection and consumption costs. In setting tariffs, WASREB aims to balance commercial, social and ecological interests by ensuring access to all while allowing WSPs and WSBs to recover justified costs, including financing costs. With regards to adequate access for the poor, WASREB tariff guidelines note that WSPs and WSBs should apply tariffs at water kiosks for a minimum consumption of 20 liters per person per day. Tariffs are set to be equitable and not unfairly impose costs on lower income customers. The guidelines encourage the inclusion of cross subsidization in the tariff structure to provide affordable services to the poor. WSPs and WSBs are expected to extend their services progressively to areas that are served by informal providers either by linking up with informal providers, and ensuring fulfillment of minimum requirements, or by extending their own systems in order to ensure equal advantage by the poor.

[5] Source: Government of Kenya National Water Masterplan 2014.

7. **The current governing act (Water Act of 2002) does not incorporate the devolved county structure under the new Constitution and a proposed new Water Bill has not yet passed.** The exact roles the counties and the WSBs will play in the sector going forward is not clear, creating uncertainty over a number of sector governance issues, including how WSPs are going to finance investments for service expansion and ownership of sector assets. It is expected that a new Water Bill will be discussed in Parliament soon. The sector, like the country, is in a high state of transition. The majority of urban WSPs are incorporated under the Companies Act by their respective city, municipal or town councils, which were the shareholders of the WSPs until the enactment of the new Constitution dissolved the municipalities and installed the county entities. The counties will likely become the shareholders in the WSPs once the individual county is established via gazettement in Parliament.

8. **The transition period presents an opportunity to rationalize and introduce efficiencies in sector financing**. The establishment of an efficient and transparent mechanism for financing water and sanitation infrastructure subprojects in Kenya will improve access to and quality of water and sanitation services for low income households in urban areas is paramount.

9. This project will leverage existing funding sources of the Kenya water sector by introducing a new source of funding, commercial financing, to assist the GoK in achieving its Constitutional and Vision 2030 goals of water and sanitation services for all citizens. With the increasing challenge of rapid urbanization, leading to lower urban water and sanitation coverage, it is anticipated that urban centers will require more financing for water and sanitation infrastructure development than can be provided by the traditional sources of government, donor funds and customer tariffs. Moreover, the subsidy will facilitate commercial financing for infrastructure construction dedicated to poor areas and households increasing the immediate beneficiaries by 150,000 and establish a foundation of continued subsidization for poor households in the sector.

C. Higher Level Objectives to which the Project Contributes

10. **The project supports the Kenya Vision 2030, the national development plan, objective that "*improved water and sanitation are available and accessible to all*" by the year 2030 and has a clear poverty focus.** It will make available subsidies for connection of poor households to water supply and sanitation services from participating WSPs. This ensures that overall development of the water sector envisioned in Kenya Vision 2030 will benefit low income households who presently rely on alternative sources of water.

11. **The project will provide WSPs with incentives to improve water supply and sewerage services in low income urban areas**. WSTF has mapped over 1,880 urban settlements considered 'low income' based on an index of quality of life indicators, which includes service conditions for water supply and sanitation, other public services and the conditions of dwellings. There are over 7 million people residing in such settlements. A large portion of these residents rely on connections from neighbors outside the plot (31 percent), vendors (11 percent) and other unimproved sources (6 percent). On-plot water connection comprises 28 percent in these settlements compared to an average of 45 percent in urban areas. Almost twice the portion of the population in these areas need to fetch water compared to the national average (61 percent of the low income population versus 35 percent of the urban population). Irregular supply of water tops the main complaint of low income households on the service they receive. Limitation in

supply is usually citywide i.e. WSPs are constrained by their current production capacity, high unaccounted-for-water and the present reach of their distribution networks. Without incentives, WSPs may not prioritize delivery of services to low consumption, low tariff areas such as these.

12. **Linkages to Country Partnership Strategy (CPS).** The CPS for Kenya approved on June 25, 2014, (FY2014-2018) identifies three domains of engagement: (i) competitiveness and sustainability: *growth to eradicate poverty*; (ii) protection and potential: *human resource development for shared prosperity*; and (iii) building consistency and equity: *delivering a devolution dividend*. The CPS also has a special focus on governance. Under the first domain, the CPS recognizes the critical role of infrastructure development particularly, in supporting the growth engine of urbanization to improving Kenya's competitiveness. It also emphasizes the role of the private sector in driving growth. Water security and water supply and sanitation are key infrastructure areas mentioned in the CPS that the World Bank has comparative advantage. Under domain two, the CPS clearly focuses on protecting the most vulnerable and sharing the dividends of development more broadly with populations in the bottom 40 percent of income distribution. The project supports these objectives and the governance agenda. This project helps to foster economic growth by increasing the availability of clean water and sanitation for poor households in cities to become more productive, while attracting financial resources from the private financial sector for water and sanitation. It assists in improving equity by bringing water supply and sanitation services specifically to low-income areas and helps to promote sustainable development by ensuring that development of water supplies and sanitation systems are done in accordance with national environmental guidelines supported by the World Bank's environmental safeguards framework. Finally, it encourages improved governance by ensuring that only legally compliant and creditworthy WSPs are financed under the project.

13. **Linkages with on-going Bank financed activities.** The project will support additional investments in WSPs and allow services to reach low-income consumers that are currently financed under the World Bank's Water and Sanitation Services Improvement Project (WaSSIP) (P096367) and the planned Kenya Enhancing Water Security and Climate Resilience (P117635). Both these investment loans are primarily focused on infrastructure development in WSBs rather than last mile access. The project will benefit from the Bank-executed Technical Assistance activity, the Kenya Urban Commercial Financing for Water and Sanitation (P144507), which aims to increase access to commercial financing for basic water supply and sanitation services for the poor in urban centers. The project, in collaboration with Kenya Urban Commercial Financing for Water and Sanitation (P144507), will pursue work with the IFC Kenya's Financial Markets lending team as well as IFC Advisory's *Business Edge* team. While the subsidy will not support IFC lending directly, the project could support local banks co-lending with IFC's Infrastructure investment team. Collaboration with all three IFC teams is well established under the Kenya Urban Commercial Financing for Water and Sanitation TA.

14. **The project supports the CPS strategy of increasing access to private sector finance for infrastructure investment**. A shortage of resources for urban infrastructure investment is likely to grow more pronounced in the near future, due to rapid urban population growth and the increasing dedication of public resources to upstream water resource investments. The urban WSPs are therefore seeking alternative sources of funding, such as commercial banks or bond markets, to undertake strategic investments such as network densification, rehabilitation,

metering, and other programs that can improve their revenue positions. By requiring the private domestic financial sector to pre-finance utility subprojects, the project helps unlock potentially large flows of liquidity from the private sector for investment in water and sanitation.

II. PROJECT DEVELOPMENT OBJECTIVES

A. Project Development Objectives

15. **The project development objective (PDO) is to increase the number of people in low income areas with access to improved water supply and sanitation services.** This objective will be realized by incentivizing urban WSPs to invest in water supply and sanitation improvement subprojects to benefit households in low income areas by applying one-off OBA subsidies to make water and sanitation access affordable.

B. Project Beneficiaries

16. **The primary beneficiaries are residents of low income areas.** An estimated 30,000 households (150,000 people) in low-income urban areas in Kenya will gain access to water and sanitation services through a combination of individual household connections and public water and sanitation facilities.

C. PDO Level Results Indicators

17. **The indicators that apply are**:

Outcome indicator	Indicative Targets	Indicative Numbers of People Targeted
Number of water connections made under the project	19,000	95,000
Number of water kiosks constructed under the project	140	40,000
Number of sewer connections made under the project	1,000	5,000
Number of public toilets constructed under the project	30	10,000

18. The targets above are indicative since under the project, WSPs have the flexibility to choose their investment options based on the demand for services in the target areas i.e. some WSPs may opt for more individual connections whereas others may opt for public water points and toilets. Individual WSP targets will be established as business plans for each subproject are developed and the overall project targets will be periodically updated. However, the overall target of serving 150,000 people is expected to remain the same.

19. The project will support WSPs in accessing US$15.8 million in investment from the private financial sector supported by US$9.5 million in subsidies.

III. **PROJECT DESCRIPTION**

20. The project supports the commercial financing of water and sanitation infrastructure subprojects that will improve access to water and sanitation services for low income households. By creating an OBA financing fund, administered by the Water Services Trust Fund (WSTF), the project will provide subsidies to subprojects financed by commercial lenders and implemented by WSPs to provide water and/or sanitation services in low-income areas identified in the Government's poor areas mapping database, MajiData.

A. Project Components

21. **Component 1 – Implementation Support Activities - Project Management, Sub-project Preparation and Supervision, and Independent Verification** (GPOBA US$2.335 million equivalent). This project involves the development of a number of sub-projects that require extensive coordination and supervision. This component seeks to ensure effective management of the project in line with World Bank fiduciary obligations. This component will fund the following activities: a Project Manager for the project based at the WSTF (US$300,000); Capacity Building Support for WSP Sub-projects (US$1.35 million); an Independent Verification Agent (IVA) (US$400,000); Publicity and Workshops (US$50,000); WSTF administrative overheads including project audits (US$235,000).

22. **Component 2: OBA Subsidies for Water and Sanitation Subprojects** (GPOBA US$9.50 million equivalent). The project will support WSPs to increase investments serving low-income areas. A portion of WSP total investment is expected to come from private or commercial sources. Debt service of commercial finance will likely result in higher tariffs which may result in negative effects on the access of poor households to such services. This component will provide OBA subsidies for sub-project investments made by WSPs to ensure that low income areas benefit from this expansion and improved services. The subsidy funds will be administered by the WSTF.

23. **Subproject Description.** In order to provide water and sewerage services and achieve the expected outputs, WSPs will implement subprojects that involve the rehabilitation, expansion and development of water supply, sanitation and sewerage infrastructure that benefit both poor and non-poor households. These investments will be financed from WSPs retained earnings, grants and commercial financing sources, potentially with co-financing from the IFC.

Investment activities may include:

- Network extensions to connect new customers to water and sewerage services, including water points and kiosks
- Water source augmentation, treatment and distribution works
- Sewerage treatment and distribution works
- Public toilets, where the WSP has the mandate to build and service such facilities

24. **Principles for eligibility for subsidy support of subprojects.** Subprojects eligible for subsidy support will be guided by the following principles as fully described in the Operations Manual:

- Investments allow residents of low-income areas to access water and sanitation services, including bank interest during construction and a portion of upstream investments that do not exclusively benefit low-income areas. Any upstream investments benefiting both poor and non-poor will receive subsidy on only the pre-estimated prorata percentage of poor to total beneficiaries.

- Subprojects are pre-financed with loans from commercial lenders (commercial banks, lending facilities that are capitalized with bonds or other debt instruments, etc.) on market terms. This principle may be subject to expansion in the midterm review meeting as described in paragraph 57. Any expansion of the principles will be documented in the Operation Manual.

- Portions of sub-projects financed by the IFC will not be eligible for subsidy support.

- WSPs may finance a portion of the subprojects using internal funds such as working capital or equity, or external funds such as grants or soft loans[6], but project costs financed using these sources of funding will not be eligible for subsidies. Only additional investments financed using market debt will be eligible for subsidies. This principle may be subject to expansion in the midterm review meeting as described in paragraph 57.

- Subprojects must be pre-agreed between WSTF and participating WSPs before subproject preparation. The WSTF review will include:

    - Defining service delivery related outputs that will trigger subsidy payments. Such outputs will be a mix of one or more of the following: individual household water connections, individual household sewer connections, public water points or kiosks and public toilets.

    - Financial and technical analyses of the subprojects. The business plans will include an economic and social analysis of the target areas prior to borrowing, and an assessment of the sufficiency of revenue collection to repay the loans.

    - Positive economic impacts of the subprojects.

    - Verification that the subsidy beneficiaries/beneficiary areas are poor.

- In order to establish the ex-ante situation, the Independent Verification Agent will conduct a baseline survey for each subproject prior to subproject implementation.

25. **Principles of eligibility for WSPs.** Selection of WSPs participating in the project will be guided by the following principles:

[6] "Soft loans" refers to loans not on market terms such as those from development partners

- WSPs will be in compliance with WASREB and Water Resources Management Authority regulations and any other statutory requirements governing the operation of WSPs.

- WSPs will charge connection fees and consumers tariffs approved by WASREB.

- WSPs propose concrete measures to ensure that residents of low income areas will benefit from the investment and service, for example:

    - WSPs propose workable methods to secure revenue collection from low-income households, including the use of prepaid meters, options for frequent payment of smaller installments in the case of post-paid meters, and the establishment of zonal offices to serve these areas.

    - WSPs closely monitor and report on the service delivery and collection rates in the target areas in the post-implementation phase of the subproject lifecycle.

    - Where consumers are willing to pay consumption tariffs but cannot afford connection fees, WSPs offer household loans to consumers to recover the connection fees over a period of time.

26. **Geographic targeting will be used to identify low-income-households that qualify for subsidies.** The implementing agency, WSTF, will use its *Majidata* methodology to identify areas within the service areas of participating WSPs that will be eligible for subsidies. *Majidata*[7] is a poverty-focused database of urban areas that aims to assist WSPs and WSBs prepare tailor-made water supply and sanitation investments within their service areas. It uses a multi-dimensional criteria including settlement and housing patterns and status, socio-economic indicators, water and sanitation access indicators and policy and development 'distance' to identify areas considered as 'poor.' *Majidata* currently maps over 1,900 low-income areas across 270 towns, covering more than 8 million people. Low-income areas defined in this database include both informal, unplanned settlements as well as planned low income settlements. If the subproject target area is in the *Majidata* database, it will be considered a poor area for the purpose of the project and therefore, eligible for subsidies. Additionally, low-income areas not mapped in *Majidata* may be eligible for subsidies if classified as low income according to the *Majidata* methodology.[8]

27. **Excluding County of Nairobi.** The County of Nairobi will be excluded from this project due to another recently approved GPOBA project being implemented by the Nairobi Water Company (Nairobi Sanitation Project – P131512).

28. **Subsidy Calculation and Payment.** Subsidies are payable to WSPs on achievement of outputs. The total amount of the subsidy will be calculated as follows:

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[7] See Majidata website: http://www.majidata.go.ke/

[8] See Annex 9 for more information on the Majidata assessment methodology.

- Up to 60 percent of the subproject investment cost pre-financed by local commercial lenders meeting the criteria in paragraph 24 above.

- Each subproject is subject to a **subsidy cap** of $115 per beneficiary i.e. where 60 percent of subproject cost is greater than $115 per beneficiary, only a maximum of $115 per beneficiary is payable as subsidy. Where different investments are financed under one subproject, such as water kiosks, public toilets and household connections, the cap will apply to the number of beneficiaries served by the subproject as a whole.

- Where the WSP fails to achieve the agreed outputs target , the WSP will be paid a subsidy based on the proportion of outputs achieved.

29. **Subsidy Cap.** The total eligible subsidy of 60 percent of subproject cost is subject to a per capita subsidy cap. This allows a range of subprojects with different costs to benefit from subsidies under the project as long as the cap restriction is respected. The four subprojects assessed in the financial analysis have per capita subsidies ranging from US$43 in Muranga to US$114 in Meru. These figures are based on the pre-feasibility study, a summary of which is presented in the table below. Given the range of per capita subsidy estimates in the pre-feasibility analysis, a cap of US$115 per beneficiary is proposed. As the per capita investment costs are expected to vary per subproject and a number of subprojects are likely to present per capita costs considerably lower than the cap, it is envisaged that the funding will be sufficient to reach the targeted number of beneficiaries. As an additional benchmark, an analysis of unit costs for Kenya, carried out in 2011 for the African Ministers' Council on Water in collaboration with the Water and Sanitation Program, estimated per capita investment costs in water supply in urban areas at US$270 for household connections and US$70 for water kiosks. Although these estimates include resource development costs which are likely to be limited under this project, it provides a benchmark that the suggested cap is reasonable.

Summary of subprojects analyzed at pre-feasibility stage

WSP	Project summary	Number of beneficiaries	Project cost	Interest during construction	Projected subsidy	Subsidy per capita
Ruiru-Juja	Network extensions to areas not served by the on-going donor funded project, non-revenue water reduction, and household connections.	30,000	US$3.4 million	US$0.6 million	US$2.4 million	US$79
Mathira	Improve water supply replacing the current dilapidated system and expansion to new areas without services	45,000	US$3.1 million	US$0.5 million	US$2.1 million	US$48

Muranga	Supply potable water to Kambirwa and Mirira areas.	45,000	US$2.8 million	US$0.5 million	US$1.9 million	US$43
Meru	Expansion of water treatment works, installation of new transmission and distribution lines and connections into un-served areas.	12,500	US$2.0 million	US$0.3 million	US$1.4 million	US$114

[b] Assuming even loan draw down during the construction period

30. **Disbursement of Subsidy Payments.** The subsidy disbursement schedule will be as follows:

- 10 percent of the projected subsidy is payable to a WSP on establishing pre-agreed outputs with the WSTF through a subsidiary grant agreement and signing of a loan agreement with a commercial lender to pre-finance a subproject.

- 65 percent of the subsidy is payable upon independent verification that the pre-agreed output targets have been reached in the low income areas.

- 25 percent is payable against demonstrated service delivery, as evidenced by 3 months of continuous billing and receipt of payments for services from beneficiary customers under the project.

    - For public water kiosks and toilets, verification will involve ascertaining that revenue has been collected from consumers using the facilities over the three month period and that the facilities have paid their water and sewerage bills to the WSP.

    - For individual water and sewerage connections, the WSP will be required to demonstrate that at least 80 percent of the beneficiary customers have paid their water and/or sewer bills.

The table below summarizes the timing and amount of subsidy payments.

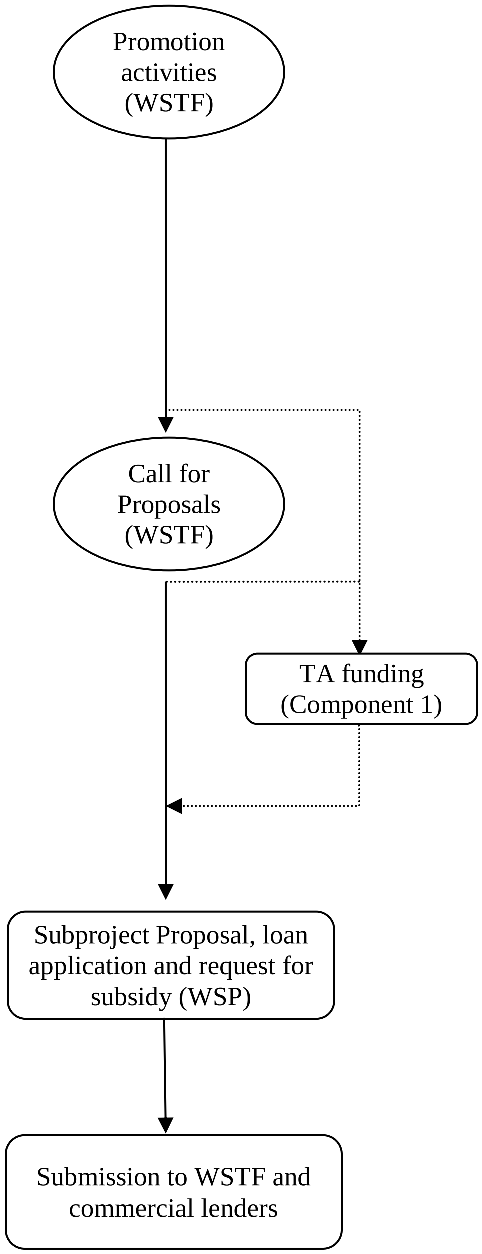
Subsidy payment trigger	**Verification mechanism**	**Amount of subsidy**
Baseline survey complete and subproject outputs agreed to between WSP and WSTF in a subsidiary agreement. Signed loan agreement between WSP and commercial lender.	IVA carries out baseline assessment and documents pre-agreed output targets. IVA verifies loan offer documentation and reviews proposed project cost, and makes recommendation to WSTF to make payment.	10 percent of projected total subsidy amount as determined by the subproject business plan and loan amount approved by the lender.
Completion of subproject implementation and	IVA checks that pre-agreed outputs documented in the subsidiary agreement	65 percent of eligible subsidy amount,

achievement of pre-agreed outputs by the WSP	have been achieved i.e. household water and/or sewer connections, public water kiosks and public toilets.	subject to the subsidy cap.
Measure of sustainability	Evidence that at least 80% of the consumers targeted under the project have received bills and have made payments for services rendered by the subproject for 3 consecutive months.	25 percent of eligible subsidy amount, subject to the subsidy cap.
Maximum subsidy payable	60 percent of subproject cost financed by commercial lenders operating in Kenya, including interest costs during the construction period.	
Subsidy cap	US$115 per beneficiary reached by a subproject using all investment options i.e. household water and sewer connections, public water kiosks and public toilets.	

31. **Justification for the advance disbursement of 10 percent of projected subsidy on signing the loan agreement with a lender to pre-finance a subproject.** Although OBA projects typically disburse against outputs, exceptions have been made to provide a portion of the subsidy upfront where sufficient justification is provided. Honduras water and the sanitation project in the Central African Republic both contain a 10 percent subsidy disbursement prior to the start of construction. On the signing of a loan agreement between a commercial lender and a WSP, a critical output of the project preparation phase, an advance disbursement of subsidy funds, equivalent to 10 percent of the projected maximum subsidy payable under the project, will be made from the WSTF to the WSP. At that point, preparation of the subproject would have been completed by the WSP, the baseline would have been assessed by the IVA and target outputs to be achieved by the WSP agreed to with the WSTF. The lender would have completed its appraisal and confirmed its intention to pre-finance the subproject by making a loan offer to the WSP. An upfront “equity” contribution is a common prerequisite of commercial lenders, who have raised concerns about the subsidy coming at the end of construction. As tariffs are set on a cost recovery basis, most WSPs have limited amounts of cash to allocate to the proposed subprojects. However, financing costs are considered acceptable costs in the current tariff guidelines. Expecting sizable upfront cash contributions from the WSPs at the start is likely to delay or cancel implementation of the project. Paying a small portion of the grant at the start of construction to assist with the upfront contribution will assist utilities in cash flow management and provide comfort to lenders.

32. **Subproject Cycle.** The annotated flowchart below explains the sequence of activities within a subproject cycle. The subproject cycle is divided in two stages, subproject preparation and subproject implementation. The first stage involves the optional technical assistance funding while the second includes the subsidy funding scheme.

Stage 1 – Subproject preparation (technical assistance funding stage)



If WSTF considers it necessary to raise the level of awareness among WSPs, WSTF will carry out promotion activities. This will consist of a combination of meetings, workshops, distribution of promotional material or other actions to provide sufficient information to the WSPs so they can start actions to participate in the subsidy scheme. County Governments, WSBs and WASREB could also participate of these activities.

Depending on the level of awareness, the promotion activities could be repeated at the beginning of other funding cycles.

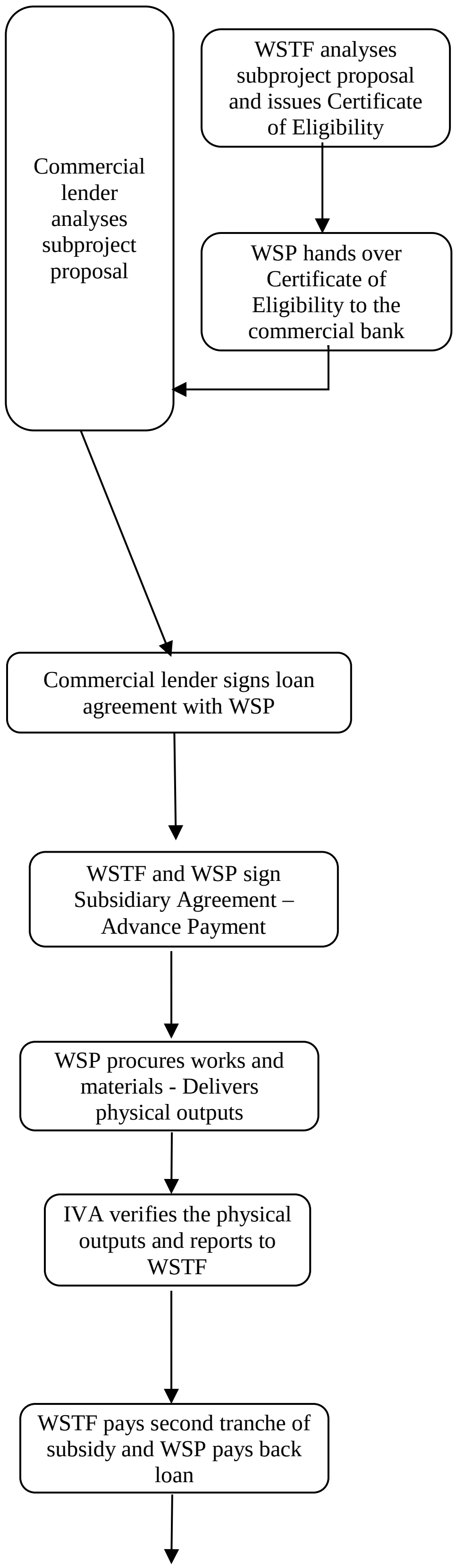
Once the level of awareness among the WSPs is judged sufficient by the WSTF, the WSTF will publish the Call for Proposals in broadly accessible media. However, the initial pilot subprojects, who have been assisted by the Water and Sanitation Program, may open without a Call.

Interested WSPs can apply for Technical Assistance funding from Component 1 to hire technical and financial consultants to help prepare subproject proposals that will include all necessary elements to make it attractive for a commercial lender to review the subproject.

This step is not mandatory, but given the need for good quality proposals, which will be evaluated by commercial lenders and WSTF, it is anticipated that initially all participating WSPs will request TA funds.

The subproject proposal will be submitted to the WSTF together with a request for subsidy funding and to the commercial lenders together with a loan application

Stage 2 – Subproject implementation (subsidy funding)



WSTF will review the subproject proposal submitted together with the request for subsidy funding and will determine whether the proposal is technically sound, the cost estimates properly represented and the proposed low income household areas are eligible for subsidy funding by checking whether they are mapped in the *MajiData* database. If satisfactory, WSTF will issue a Certificate of Eligibility for Subsidy Funding indicating that total subsidy amount applicable to the subproject.

The WSP will present the Certificate of Eligibility for Subsidy Funding to the commercial lender to support the business case for subproject financing.

In parallel to the analysis carried out by WSTF, the commercial lender will conduct the due diligence of the proposal and appraisal of the borrower to determine whether to finance the subproject.

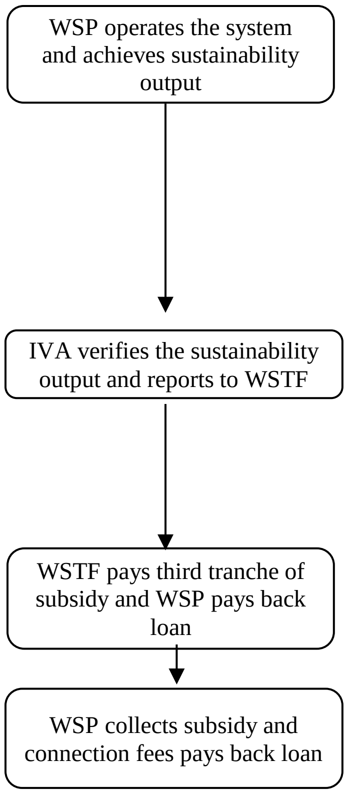
Once the appraisal and due diligence are successfully finalised, the commercial lender and the WSP will sign the loan agreement.

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 Advance Payment (10% of total subsidy amount).

The WSP will now procure the materials and hire the contractor to provide the services to the subproject beneficiaries and will supervise the works. Once the works are commissioned, the WSP will report the delivery of the physical outputs to the WSTF.

The WSTF will send the Independent Verification Agent to verify the results reported by the WSP, the quality of the works, the satisfaction of the beneficiaries and gather other monitoring information. The IVA will discuss its findings with the WSP and report them to WSTF including the recommendation for payment.

Based on the report by the IVA, WSTF makes second disbursement (65%) which is applied by the WSP to repay a portion of the loan to the commercial lender.



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 WSP will report to WSTF the achievement of the sustainability output.

The WSTF will send the Independent Verification Agent to verify the results reported by the WSP, the satisfaction of the beneficiaries and gather other monitoring information. The IVA will discuss its findings with the WSP and report them to WSTF including the recommendation for payment.

Based on the report by the IVA, WSTF makes third disbursement (25%) which is applied by the WSP to repay a portion of the loan to the commercial lender.

The WSP continues operating the system, billing and collecting and using the proceeds to repay the remainder of the loan to the commercial lender.

B. Project Financing

33. **Project Cost and Financing**

Project Components	Project cost	Grant Financing	% Financing
1. Implementation support for project management, subproject preparation and supervision, and output verification	US$2,335,000	US$2,335,000	100
2. Water and sanitation subprojects	US$15,800,000	US$9,500,000	60
Total Baseline Costs			
Physical contingencies			
Price contingencies			
Total Financing Required	US$18,135,000	US$11,835,000	65

C. Lessons Learned and Reflected in the Project Design

34. The project builds on the successful OBA pilot, the Kenya Microfinance for Community Managed Water Project (P104075), which used OBA subsidies to increase access to water supply in rural and peri-urban areas. The project replicates the approach and incorporates in its design the following lessons from the Kenya Microfinance for Community Managed Water Project:

35. **Commercial loans can be used for financing capital investments in water infrastructure**. The Kenya Microfinance for Community Managed Water Project mobilized US$4.2 million in piped water supply, which benefitted 190,000 people. Out of the investment capital, only 34% was effectively sourced from public funding via the output subsidies. The majority of the finance came from community equity (35%) and financing from debt financing (31%). At present, WSPs have short-term loans and asset financing facilities with several local banks, and there is a well-established commercial bank lending practice to the energy and public sector in Kenya that the project seeks to build upon.

36. **Target creditworthy WSPs and support the enhancement of utility creditworthiness.** The willingness and ability to pay for piped water supply was a key factor in identifying viable subprojects. The lender sought to establish that the target consumers were willing and able to pay the connection fees and monthly bills and that demand for piped water is not eroded by competing sources. Hence, while the project targeted communities in low-income areas, it also targeted consumers who could afford to pay these bills. Poorer consumers were served through point water sources such as kiosks. As commercial lenders will appraise and pre-finance the subprojects, only creditworthy utilities who demonstrate the commercial viability of their subprojects, including customer willingness and ability to pay, will be financed under this project. Credit assessments of 43 WSPs undertaken in 2011 found that 13 were in a position to access market financing and another 16 were potentially creditworthy.[9] Ongoing improvements to utility operating and financial management systems, led by the WSPs and supported by government and donors, will help achieve the project objectives.

37. **Debt repayment profile is significantly affected by delays in the implementation phase and revenue-effort in operating phase.** Construction delays penalized subprojects via an increase in capitalized interest owed. Where turn-key contractors were used, implementation time was shortened resulting in cost saving from lower interest payments. The rapid buildup of the customer base is critical for the borrower. Financial performance is stronger in communities that are able to connect larger numbers of households. The lender expressed a preference for subprojects where rapid densification of household connections would be possible so that operating revenues are quickly generated.

38. An ongoing program in Nairobi, Innovation in Urban Poor Access to Water and Sanitation (P132015), met with challenges of low revenue collection due in part to insufficient water volume available for end users. Commercial lender, supported by WSTF project analysis will

[9] Financing urban water services in Kenya - Utility shadow credit ratings; WASREB and WSP-Af, Nov 2011

ensure sufficient water supply will be available to meet project revenue targets. Economic and social analysis, submitted to WSTF for subsidy qualification and commercial banks in loan applications, will review willingness and ability of customers to pay prior to loan and subsidy approval.

39. Technical assistance will be deployed for the technical and financial development of subprojects as well as a senior level program manager in the WSTF to help ensure that challenges are detected at an early stage and corrected. Consulting firms, specialized in preparing and supervising the implementation of utility water and sanitation systems, will develop the subsidy and loan applications. This support goes a long way towards mitigating the risks transferred to the provider. The selection and design of subprojects will focus on high potential commercially viable projects, consistent with how commercial banks appraise loan proposals. The level of oversight provided by commercial lenders will also help ensure both the timeliness and success of the subprojects.

40. **Define a loan disbursement window with a firm closing date well before project closing.** Several communities that had taken out loans did not complete their outputs in time to receive subsidies. Other schemes were completed so close to project closing that estimates had to be used to verify that revenue outputs had been achieved. These problems can be avoided by closing the loan disbursement window twelve months or more prior to project closing. A loan disbursement window will be defined in this project with the WSTF and articulated in the Operations Manual.

41. **Scaling-up of the subsidy approach will require it to be embedded in a programmatic water sector initiative.** Kenya has dynamic sector institutions that could provide increased support to service providers to develop their management capacity. National institutions focus on infrastructure construction but could move towards providing technical assistance, project development support and subsidy financing/grants to support access to commercial financing. This would provide incentives for local governments to develop skills in planning, management and investment, while providing checks and balances through national oversight. This also affords the national government an opportunity to ensure that goals for poverty alleviation and sustainable development are achieved within a cooperative framework with local institutions. This lesson is being addressed by the current scale up to urban areas and by housing the OBA facility in the WSTF.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

42. **The project grant will be administered by the Water Services Trust Fund (WSTF),** a state-owned corporation with the mandate to fund pro-poor water and sanitation related investments. The terms and conditions for implementing the project will be governed by the Grant Agreement and its operation will be guided by an Operations Manual. WSTF will appoint a Project Manager that will be responsible for the overall implementation, coordination and supervision of the project and ensure reporting to the World Bank is in compliance with the project monitoring and reporting framework. The Project Manager will be responsible for consultancy planning, procurement, financial management and reporting and will supervise

fiduciary compliance as part of regular supervision. Component 1 has dedicated funds to hire an experienced senior project manager experienced in procurement and financial management.

43. **Service providers.** WSPs licensed by WASREB will be responsible for implementing the subprojects, including preparation of subsidy and loan applications, procurement of contractors for preparation, construction and supervision of subprojects. WSPs will operate the water and sanitation infrastructure and serve consumers targeted under the project and will generate revenue in the form of connection fees and tariffs. WSPs will be obligated to repay the loans to the commercial lenders net of subsidy. Component 1 has dedicated funds to hire external consultants to assist with creating technical and financial plans for submitting to both commercial lenders for loans and the WSTF for subsidy. The project will also investigate options for lending to private entities involved in the operations of water and sanitation systems that may be willing to finance and implement WSP subprojects under public-private partnership arrangements (including Management Contracts, Lease, Build-Operate-Transfer, etc.).

44. **Lenders.** Commercial lenders will appraise loan applications, enter into loan agreements with the WSPs and pre-finance the construction of subprojects. The loan agreements may stipulate a cash sweep of the subsidy into the Borrower's loan account, with the remainder of the loan amount being repaid over a longer period. In preparing the project, the task team has received indicative interest from several commercial banks. Three banks have recently signed a partial credit guarantee with USAID, amounting to US$11 million, exclusively for lending to the water sector in Kenya. The IFC is supporting the development of a commercial framework for a possible water finance facility for Kenya. The Water and Sanitation Program is working with WASREB on a second credit assessment of WSPs and has a technical assistance program to help banks build capacity in lending to the water sector. In the event that the WSPs are unable to access commercial loans, for whatever reason, the use of other mechanisms to support access to credit shall be explored.

45. **Independent Verification Agent.** The independent verification agent (IVA) will be contracted by WSTF to carry out baseline surveys of the proposed subprojects and assist in establishing clear and tangible output targets. The IVA will verify subproject costs before and after implementation, and will ascertain the amount of subsidy payable at each of the three stages of disbursement. The IVA will also be responsible for ensuring that the beneficiaries are in the low-income areas targeted by the project, and will analyze socio-economic indicators to further ascertain the impact of the project.

B. Results Monitoring and Evaluation

46. **Project monitoring and oversight.** Project monitoring will be based on the indicators of final and intermediate outcomes (refer to Annex 1), progress in implementation against timescales and targets, as well as resource use against budgets. WSTF will have the primary responsibility for coordinating and compiling various reporting inputs from WSPs, the IVA and lenders. Reporting from these various actors are described in detail in the Operations Manual. WSTF will submit semi-annual performance and financial reports to the World Bank as set out in the Operations Manual. WSTF is also subject to a statutory annual financial audit. WSTF will provide Interim Financial Reports on a quarterly basis to the World Bank's Financial Management specialists.

47. The IVA will prepare a baseline report for each WSP subproject prior to subproject implementation, which will provide existing coverage details and the output targets agreed to trigger the release of the subsidy as well as an output verification report for each WSP subproject to assess the extent to which the outputs have been achieved. WSPs will report on progress against their program of works during subproject implementation as well as operational phase financial and performance metrics. Lenders will monitor progress against program of works and debt service.

C. Sustainability

48. **Institutional sustainability.** Embedding the initiative in WSTF allows the GOK to use grants to fulfill its wider sector program targets. WSTF has experience working with local institutions (town councils, WSPs and WSBs) in planning, managing and implementing water and sanitation development projects for the poor. This affords the national Government an opportunity to cooperate with new local institutions under the decentralization framework such as county governments and WSPs for poverty alleviation and sustainable development programs for water and sanitation. WSPs will continue to manage services during the operational phase and have considerable experience and mandate to do so. WSPs are expected to continue to exist following the transition period, although its owners will change. Succession of debt service obligations will follow the assets and mandate to provide services.

49. **Financial and economic sustainability.** WSP subprojects will be appraised by the WSTF for subsidy eligibility and potential positive economic impact and by commercial lenders for financial viability. Subproject appraisal will pay careful attention to the poor customer's willingness and ability to pay for water supply and sewerage services once connected and the overall potential for cross-subsidization within the service area. In most cases, it is expected that expansion of the water supply and sanitation service will increase poor household surplus given that the cost of water from alternative sources (usually vendors) is considerably higher than what is charged by utilities on a per volume basis. Any required tariff increases will go to the regulator, WASREB, for review and approval. Part of WASREB's review looks at the affordability/impact of tariffs to the low income population. Finally, the Water and Sanitation Program's *Innovation in Scaling up Access to WSS for Urban Poor* (P132015) will work with this project and directly with WSPs and county governments to create Social Connection Policies documenting the on-going strategy for connecting poor households to water and sanitation.

50. One-off subsidies do not rely on any ongoing source of subsidy funding, as once a household is connected to the network it pays tariffs that cover the full operating and maintenance (O&M) costs of the service. The sustainability of the project is enhanced by the financing mechanism, where WSPs are obligated to repay loans to commercial lenders over a period of up to ten years using revenues from consumers served under the project.

51. **Enabling private sector participation in investment financing**. The project will pre-finance WSP subprojects to serve low income households using borrowing from the commercial lenders, thereby unlocking flows of liquidity from the private sector into the sector. Additionally,

the WSPs will likely be required by the commercial banks to use private contractors to implement the subprojects.

V. KEY RISKS AND MITIGATION MEASURES

A. Risk Ratings Summary Table

52. The following table summarizes the risk ratings in the Operational Risk Assessment Framework (ORAF). Details of the risk analysis and description of risk categories are provided in the ORAF, which is attached in Annex 4.

Table: Summary of ORAF Risk Ratings.

Stakeholder Risk	High
Implementing Agency Risk	
- Capacity	Substantial
- Governance	Substantial
Project Risk	
- Design	High
- Social and Environmental	Moderate
- Program and Donor	Low
- Delivery Monitoring and Sustainability	Substantial
- Other: Interest Rate Risk	Substantial
Overall Implementation Risk	**High**

B. Overall Risk Rating Explanation

53. **The overall project has a risk rating of 'High' before mitigation.** The overall project risk is high due to the novel nature of the design and substantial risks in implementing agency capacity and delivery. As the operation involves the development of a number of subprojects to be financed by commercial lenders, the project requires extensive coordination and supervision.

54. **Stakeholder Risks: Commercial lending to the water sector is new to Kenya** and while there is buy-in from national as well as county governments for commercial financing for infrastructure, the Constitution of Kenya 2010 severely limits county borrowing and the government policies and regulations on sub-national borrowing are not yet fully formed. The National Treasury has expressed concern over potential contingent liabilities stemming from commercial financing to WSPs and has requested further dialogue on this matter. Because of this, the structure of the service providers/ borrowers must be legally separated from the county government. The accompanying World Bank Technical Assistance, the *Kenya Urban Commercial Financing for Water and Sanitation* (P144507) is supporting the development of sector guidelines for PPPs and commercial financing and is also engaging the Ministry of Environment, Water & Natural Resources (MoEWN), WASREB, the Attorney General's Office and National Treasury to increase understanding and develop a commercial financing structure that will provide comfort on the limitations of contingent liabilities, clarify legal structure risk, and establish appropriate ex-ante and ex-post controls on WSP borrowing. The project will work

with the *Kenya Infrastructure Financing and PPP Project* (P121019), working on similar advisory in the PPP sector, with National Treasury. The National Treasury is however supportive of the concept, and confirmed in a letter to the World Bank dated September 5, 2014, that private financing for infrastructure development is one of the capital investment streams that the sector would like to pilot so as to upscale water and sewerage services in the country.

55. **County engagement.** In addition, Kenya is in a state of transition due to the on-going devolution process and the pending new Water Act. County governments have been recently established in line with the new constitution. Following a period of transition the counties will be responsible for delivering the services that are now handled by the WSPs and WSBs. The way in which the county governments will approach their responsibilities and the local administrative systems they will initiate cannot be known at this time. WSTF and the World Bank will ensure the involvement and approval of county governments in the participation of WSPs in the project. There is a significant technical assistance budget to support implementation and overall coordination at the implementing agency as well as subproject levels as well as other Bank-financed analytical and advisory programs supporting the devolution agenda to help in the establishment and strengthening of the new institutions.

56. **WSPs cannot access commercial loans.** As disbursement under the project is based upon WSP's ability to access credit from commercial lenders, there is a risk that the development objectives will not be achieved if commercial lenders do not finance the WSP subprojects. While the decision to lend is an external factor, the project has been designed on the basis of due diligence undertaken, including a credit assessment of water utilities and discussions with lenders that have indicated their willingness to lend to WSPs in Kenya. Commercial banks have in the past, offered loans to WSPs and three local banks have recently signed a partial credit guarantee with USAID to support lending in the water sector. Two WSPs have recently applied for loans from two separate banks and are in on-going negotiations. The TA Kenya Urban Commercial Financing for Water and Sanitation (P144507) supports WSPs to access commercial debt for infrastructure development, including offering Technical Assistance to county governments, national government entities and commercial banks. The risk will be further mitigated by the project manager and the World Bank task team providing technical support to the WSPs in negotiations with financial institutions. The availability of the subsidy, TA and external guarantees is expected to improve the comfort level of commercial lenders.

57. **Alternative if WSPs cannot access commercial loans.** The project will make maximum efforts to support WSP access to commercial finance including, for example, exploration of potential PPP structures, identifying additional support through credit guarantees and increased technical assistance. However, 18 months from the date of signing, the project will hold a midterm review meeting. If it is found at this review that commercial banks have not demonstrated willingness to lend to WSPs, for whatever reason, this meeting will review the principles for eligibility (described in paragraph 24) to allow the project to continue with alternative methods of financing, such as the use of internal funds and other sources of external funds. The new eligibility requirements will be presented to GPOBA's Panel of Experts for clearance and to the donor for no objection.

58. **Implementing agency risk: WSTF:** This risk will be mitigated through World Bank supervision and by the activities of the project manager to be hired by the WSTF under the project. The project manager will provide guidance to the WSTF and participating WSPs in consultancy planning, procurement, financial management and reporting, and will supervise fiduciary compliance as part of regular supervision. The costs for the project manager are provided in Component 1. There is also a budget for the WSPs to contract consultants to develop and supervise the implementation of subprojects.

59. **WSPs and risk transfer mechanism.** The OBA project shifts performance risk to the service provider by paying 90 percent of the subsidy to the WSP after the delivery of the pre-specified outputs. The following risks are borne by the provider: (i) Construction risk, as 90 percent of the subsidies are paid against functional subprojects that provide consumers with water and sanitation services; (ii) Demand risk, as utilities need to connect consumers to the system and receive payments of monthly bills before the final subsidy payments are disbursed; and (iii) Finance risk, as the WSPs will borrow from commercial lenders to pre-finance the projects on the strength of their balance sheets and operational and financial performance records and failure to achieve the output targets will leave the WSP with a larger debt obligation. The risk of over burdening service providers with unserviceable debt is mitigated by the high due diligence and analysis performed by commercial lenders. Some commercial lenders are covered only up to fifty percent with credit guarantees while others have no credit enhancement. The requirement for heavy lender analysis is increased as loans will not be made against collateral. Finally, all commercial lenders will be informed that there is no legal recourse back to either the county or national government.

60. **Interest rate risk could prevent lending** if local rates are too high to be covered by the IRR of the subprojects. This is a substantial risk as commercial lending rates are variable and fixed rates cannot be locked in. Seemingly viable borrowing rates in the beginning of the project could rise to unsustainable levels. Historically Kenya interest rates do not often get very high and when rising do not often remain high (see Annex 6). Initial estimates of potential projects show project IRRs in the 17%-29% range, protecting these projects from borrowing rate spikes. Also, the subsidy payout helps with the IRR and debt service burden as up to 60% of the borrowing for poor areas can be paid down in years 1 to 2.

61. **Protection of the poor customers from financial burden.** The subsidy facilitates commercial financing of infrastructure for the poor; however, both the commercial loans and the subsidy will go to the utilities and not directly to the poor. Therefore, the onus of ensuring debt service to the lender is on the utility. In the event that debt service cannot be met, any resulting increase in tariffs would need to be approved by the regulator and would not likely target poor customers. The commercial lenders will ensure that utilities can meet the debt service by demanding a demonstration that 1.) the utilities can provide sufficient services (e.g.: delivered water) and 2.) poor clients can and will pay their bills. The technical assistance will help utilities by funding economic/social analysis reports as well as creating utility specific Social Connection Policies for the poor to be created in collaboration with county governments. The WSTF will require submission of and review the quality of these reports. The *Kenya Urban Commercial Financing for Water and Sanitation* (P144507) will work with commercial lenders to ensure

their understanding of risks and risk mitigation strategies for lending to the sector and create tool kits for utilities and counties to ensure best practices in the sector.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

62. **Economic analysis.** The final subprojects to be financed by the OBA facility have yet to be developed. An economic analysis of benefits accruing to consumers in four utilities analyzed in the pre-feasibility study yields a positive economic rate of return of 34 percent. It is expected that the utilities financed under the actual project will have similar returns. (refer to Annex 6 for methodology). The rationale for public financing is that WSPs cannot afford to extend services to the poor consumers targeted by the project in the absence of capital cost subsidies. The World Bank adds value through its technical expertise in improving water and sanitation access and leveraging private sector finance for investment in the sector.

63. **Financial analysis.** A financial analysis based on financial returns was conducted for a sample of four utilities: Ruiru-Juja, Meru, Mathira and Muranga. It is expected that the utilities financed under the project will have similar returns. The Internal Rate of Return (IRR) for the project is estimated at 22 percent with the one-off capital subsidy. The project does not generate positive returns without a subsidy. Given that the current risk free rate for 91-day Treasury Bills is 8.85 percent, the proposed subsidy is justifiable (refer to Annex 6 for further explanation).

64. **User contribution.** Subsidies will account for 60 percent of the subproject cost financed through commercial lending, and the balance of 40 percent will be contributed by users through connection fees and tariffs. These charges will cover operating and maintenance costs and the 40 percent capital costs over a period of time, as loans will be amortized over the loan term after completion of subproject works. When the interest over the life of the loan is factored in, the user contribution towards capital costs will go up from 40 percent to about 55 percent, as demonstrated in the scenario below where the maximum subsidy of US$115 per capita is utilized. The corresponding user contribution per connection and per person is shown assuming a ten year loan to the WSP with two year grace period for construction.

Total CAPEX contribution over ten-year project life

	Per individual connection	Per person
GPOBA subsidy	US$575	US$115
User contribution	US$695	US$139

65. **Approach to reviewing consumer willingness to pay and tariff affordability.** Consumer charges will be levied as per approved WASREB tariffs, which provide for operational and capital cost recovery while ensuring that tariffs do not adversely affect the poor. WSPs in Kenya use a rising block tariff structure to ensure that a minimum quantity of water (usually 10 cubic meters per connection per month) is supplied at a tariff level that is affordable to low-income households. In accordance with WASREB guidelines, WSPs must carry out public consultations when submitting requests for tariff approvals and revisions. These public consultations, among

other things, confirm consumer willingness to pay. Individual household connection cost for a ½ inch water connection ranges from KShs 2,500 to KShs 3,000 (US$30 – US$35) for water supply with similar amounts being charged for customer deposits and sewer connections. Consumption tariffs for the lowest tariff block, usually 10 cubic meters, range from KShs 18 to KShs 33 per cubic meter (US$0.21 to US$0.39), increasing by about 40 percent in the subsequent tariff block. Sewerage is charged at between 50 percent and 100 percent of water consumed. For individual connections, utilities will be encouraged to spread the connection fees over a period of time to address the connection fee barrier and will factor these payments into their cash flow analysis developed as part of the loan application package. Water from public kiosks typically costs KShs 100 (US$1.18) per cubic meter and is sold in volumes of 20 litres. Poorer consumers who cannot afford household water and sewer connections will be targeted through water kiosks and public toilets.

B. Technical

66. **Technical analysis.** A pre-feasibility analysis was undertaken on a sample of subprojects to ascertain the feasibility of the project. The sub-projects identified by WSPs were assessed against their technical, financial and environmental feasibility and considered issues such as availability of water source, technology and construction issues if any such as conflicts in uses of water, easements etc. The projects were found to be technically feasible to go to the next stage of more detailed engineering design and feasibility study. Generally, the sub-projects are not complicated and are limited to downstream expansion and augmentation of the network, reduction of non-revenue water and rehabilitation of infrastructure. Additional reviews will be conducted particularly for more complex sub-projects such as those involving larger bulk water and wastewater handling.

67. **Sewerage projects.** Most WSPs would also want to undertake sewerage expansion projects, which will be analyzed on a subproject basis from a financial viability perspective. Part of the funds for implementation support will be used to contract consultants specialized in water and sanitation systems design and implementation supervision to support the WSPs in subproject implementation.

C. Financial Management and Disbursement Arrangement

68. **Financial Management.** The assessment indicates that while country level issues remain high, WSTF has adequate FM capacity to manage the grant. Details of the Financial Management Assessment can be found in Annex 3. The WSTF assessment revealed (a) adequate financial management arrangements to ensure the funds will be used for the purposes intended in an efficient and economical manner; (b) the project's financial reports will be prepared in an accurate, reliable and timely manner; and (c) the entity's assets will be protected. The organization has experience in managing funds for over 10 donors using FM arrangements similar to those required by the World Bank and is subject to annual fiduciary reviews on the project by the Internal Audit Division of the National Treasury. WSTF budget process is in line with country systems with approvals by CEO and line ministry to Treasury and Parliament and deemed adequate. WSTF has adequate accounting capacity and the FM unit is headed by a qualified Finance Manager. Comprehensive FM manual for management of donor projects is in

place and the provisions are similar to those required for Bank operations. WSTF has an internal auditor and has developed an institutional risk management framework. The FM manual makes adequate provisions for satisfactory internal control systems. Subprojects funded by the project will be subjected to institutional internal audit and risk management framework. Due to the nature of project design, funds flow relatively simply through the Designated Account (DA) in Treasury to the Project Account (PA) in WSTF in the designated commercial bank. WSTF will trigger tranches to WSP on the basis of criteria agreed with the Bank. WSTF already prepares quarterly reports in form and substance similar to the sources and uses of funds of the Interim Financial Report (IFR). The IFR will be submitted to the Bank within 45 days after every quarter. WSTF is audited by the Supreme Audit Institution, the Kenya National Audit Office, and received an unqualified audit report for FY11. The audit report and management letter will be submitted to the Bank 6 months after the year's end. Regular capacity building training will be undertaken by the Bank for the project team.

69. Other implementing agencies such as the WSPs were also assessed to have experience in Bank implementation rules and audit requirements. Technical assistance and capacity building will be provided to subproject level implementation agencies.

70. **Disbursement Arrangements.** The implementing agency will open a DA denominated in US dollars at Treasury in the CBK or a commercial bank acceptable to the World Bank. It will also open and operate two local currency PAs in a commercial bank acceptable to the World Bank. One project account will be used to make payments for project preparation and Independent Verification Agent (IVA) while the other PA will be used exclusively to make payments for subsidies to the WSPs under component 2. Funds from the DA will be transferred to the PAs based on the foregoing criteria.

71. The project will adopt the statement of expenditure method of disbursement. Tranches of amounts agreed between the World Bank and WSTF will be made to the DA in advance and disbursed to the WSP from the PA by approval of the WSTF. Initial disbursement of subsidies to the WSPs will be based on establishment of pre-agreed output targets with WSTF, whereas subsequent subsidy payments will be made upon successful output verification by the IVA. Payments related to project management and consultancies and other related costs will be paid from the PA by WSTF.

D. Procurement

72. **Procurement guidelines for the project.** Procurement of inputs and services under the Grant will be subject to the procurement guidelines for the project. The WSTF and WSPs shall follow the World Bank Guidelines for the "Procurement of Goods, Works, and Non- Consulting Services January 2011" and Guidelines for the "Selection and Employment of Consultants January 2011". National Procurement Procedures shall follow the procedures set out in the Public Procurement and Disposal Act of 2005 except for some provisions (which shall be clearly stated in the Financing Agreement) that are not consistent with Bank Guidelines. The thresholds for using National Procurement Procedures are US$5 million for works, US$500,000 for goods and US$200,000 for consultancies.

73. **Procurement Assessment.** A procurement assessment was conducted to evaluate the capability of WSTF and two sample WSPs (Ruiru-Juja and Muranga) as to the adequacy of procurement and related systems. Details of the assessment can be found in Annex 3. WSTF and WSPs operate under the Kenya Procurement Act of 2005 and Kenya procurement regulation of 2006 and its procurement capacity has been built to handle procurement under the existing laws. Overall, the procurement capacity of both the WSTF and WSPs is limited to local procurement of goods and low value works with no procurement capacity in international tendering or procurement of consultant services and therefore, the procurement risk is assessed as ‘Substantial.’

74. **Measures to Support Capacity.** Training of the procurement staff at WSTF on Basic Bank Procurement Guidelines, including an induction course on procurement and filing system, will be done as a first priority under the project. This staff would in turn assist those in the WSP as appropriate. A consultant will be hired to carry out training as appropriate. Close support from the World Bank Country office in Kenya on the application of Bank procurement Guidelines on Goods, Works and Selection of Consultants will also allow them to handle the procurement envisioned under the project. The appointment of a Project Manager well versed in the World Bank procurement guidelines will be undertaken. Depending on the workload, hiring additional procurement support staff to support WSTF and WSPs will also be considered.

75. **Prior Review Thresholds**. Harmonized prior review thresholds for Africa shall be applicable. Additional information regarding methods of procurement and frequency of supervision will be included in the procurement plan.

E. Safeguards (Environmental & Social)

76. **Environmental and social safeguards.** The subprojects that will be financed under the project have not yet been finalized and are subject to appraisal by WSTF and commercial lenders. The potential subprojects include rehabilitation, expansion and development of water supply, sanitation and sewerage infrastructure. The overall project was assigned the Environmental Category B, due to limited environmental and social impacts. It was determined during the screening that the project triggers OP 4.01 – Environmental Assessment and OP 4.12 – Involuntary Resettlement. The assessment of potential safeguards risks was informed by the two initial WSP projects, in Embu and Malindi, being reviewed for an IFC lending facility for Kenyan WSPs. The Appraisal stage Integrated Safeguards Data Sheet was disclosed through Infoshop on November 13, 2013.

77. **Safeguards Policies Triggered**

OP 4.01 – Environmental Assessment	Triggered due to the rehabilitation, expansion and development of water supply, sanitation and sewerage infrastructure. It has been determined that these activities will have site specific risks, none of which are irreversible and can be avoided or mitigated. Commercial banks will review, approve and pre-finance the subprojects and part of the costs will be eligible for subsidy on achievement of the outputs. As a result, the eligible WSPs will only be identified during implementation. The WSPs implementing the sub-projects are required to comply with Government of Kenya environmental legislation, which requires

	development of project-level Environmental Impact Assessments and their review by the National Environment Management Authority. The subprojects specific EIAs will be prepared, consulted upon and disclosed prior to beginning of works on each subproject.
OP 4.12 – Involuntary Resettlement	The Project involves the construction of water towers and treatment facilities. The extent of upstream works is limited to interventions such as elevated water tanks, installation of tertiary distribution lines, improvements to water supply intakes, and rehabilitation and extension of small scale treatment facilities needed to accommodate new connections. In general, these will be located on land that has been acquired on a willing buyer/ seller basis or in public lands owned by the country. Installation of underground water and sewer pipes will pass through inhabited areas and in such cases the project will need to manage compensation for households and businesses that are temporarily affected. No permanent resettlement is anticipated under the sub-projects. The project updated the Resettlement Policy Framework (RPF), based on the RPF for Kenya WaSSIP project. The RPF has been publicly disclosed in Kenya and in the Bank InfoShop. Based on the results of the screening for each sub-project, Resettlement Action Plans (RAPs) will be prepared, consulted upon and publicly disclosed prior to beginning of works on the subprojects.

78. **Environmental impact mitigation measures.** The project interventions are expected to result in overall environmental and public health improvements; however, potential adverse impacts could occur if the subprojects are not properly designed, implemented and maintained. To mitigate these potential impacts, the project updated the Environmental and Social Management Framework (ESMF) and the Resettlement Policy Framework (RPF) developed for the World Bank supported WaSSIP project and disclosed them in Kenya through the WSTF and through the Bank InfoShop on November 13, 2013. The ESMF and RPF provide a mechanism for screening subprojects and establish a set of mitigation measures to address potential adverse environmental and social impacts. The ESMF includes an Environmental Assessment (EA)/Environmental Management Plan (EMP) template, tailored for the subprojects under OBA grants.

78. As utilities approach the WSTF for OBA grants, the necessary environmental and social due diligence will be carried out. Specific EAs/EMPs, and, if necessary, RAPs will be prepared for each subproject prior to start of works, and publicly disclosed in Kenya and in the Bank InfoShop. As part of this process, implementation support for environmental and social impact assessment will be deployed as part of the grant facility to support the borrowers develop environmental and social safeguards instruments (EAs/RAPs) which form part of the sub-loan documentation and commitments by the borrower WSP. These instruments will address the potential environmental and social impacts to ensure that the respective sub-projects will, upon implementation of the specific agreed mitigation measures, comply with policies and standards applicable to national laws and regulations and the World Bank's safeguards policies.

ANNEX 1 – RESULTS FRAMEWORK AND MONITORING AND EVALUATION

Annex 1: Results Framework and Monitoring

Country: Kenya

Project Name: Kenya Urban Water and Sanitation OBA Fund for Low Income Areas (P132979)

Results Framework

Project Development Objectives

PDO Statement

The project development objective is to increase the number of people in low income areas with access to improved water supply and sanitation services.

These results are at	Project Level

Project Development Objective Indicators

				Cumulative Target Values						Data Source/	Responsibility for
Indicator Name	Core	Unit of Measure	Baseline	YR1	YR2	YR3	YR4	End Target	Frequency	Methodology	Data Collection
Number of people in low	☒	Number	0.00	0.00	13500.00	55000.00	95000.00	135000.00	As sub-projects	Project monitoring	Project implementing

income urban areas provided with access to Improved Water Sources under the project									become completed; compiled yearly	system	unit at national level and water companies at subproject level
Low income people provided with access to "improved sanitation facilities" under the project.	☒	Number	0.00	0.00	1400.00	4500.00	9500.00	15000.00	As sub-projects become completed; compiled yearly	Project monitoring system	Project implementing unit at national level and water companies at subproject level
Low income people provided with access to "improved sanitation facilities" - urban	☒	Number Sub-Type Breakdown	0.00	0.00	1400.00	4500.00	9500.00	15000.00	As sub-projects become completed; compiled yearly	Project monitoring system	Project implementing unit at national level and water companies at subproject

Intermediate Results Indicators

				Cumulative Target Values						Data	Responsibility

Indicator Name	Core	Unit of Measure	Baseline	YR1	YR2	YR3	YR4	End Target	Frequency	Source/ Methodology	for Data Collection
New household sewer connections constructed in low income areas under the project	☒	Number	0.00	0.00	100.00	300.00	600.00	1000.00	As sub-projects become completed; compiled yearly	Project monitoring system	Project implementing unit at national level and water companies at subproject level
Number of water utilities that the project is supporting	☒	Number	0.00	0.00	2.00	3.00	5.00	5.00	6-monthly	Project monitoring system	Project implementing unit at national level
New piped household water connections in low income areas resulting from the project intervention	☒	Number	0.00	0.00	200.00	8000.00	14000.00	19000.00	As sub-projects become completed; compiled yearly	Project monitoring system	Project implementing unit at national level and water companies at subproject level
Improved low income community	☒	Number	0.00	0.00	15.00	60.00	100.00	140.00	As sub-projects become	Project monitoring system	Project implementing unit at national

water points constructed or rehabilitated under the project									completed; compiled yearly		level and water companies at subproject
Number of public toilets constructed in low income areas under the project	☐	Number	0.00	0.00	5.00	10.00	20.00	30.00	As sub-projects become completed; compiled yearly	Project monitoring system	Project implementing unit at national level and water companies at subproject level

Annex 1: Results Framework and Monitoring

Country: Kenya

Project Name: Kenya Urban Water and Sanitation OBA Fund for Low Income Areas (P132979)

Results Framework

Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)
Number of people in low income urban areas provided with access to Improved Water Sources under the project	This indicator measures the actual number of people in urban areas who benefited from improved water supply services that have been constructed under the project. Guidance on "improved water sources": Improved water sources include piped household connections (house or yard connections), public standpipe, boreholes, protected dug well, protected spring and rainwater collection. Hence, "Improved Water Sources" do not include, inter alia, water provided through tanker truck, or vendor, unprotected well, unprotected spring, surface water (river, pond, dam, lake, stream, irrigation channel), or bottled water. The definition of what is considered an ‘improved water source' follows the UNICEF-WHO Joint Monitoring Program definition. Note that "Improved Water Sources" does not refer to the question of new versus rehabilitated water sources, but is the standard definition used to track progress on the Millennium Development Goals. Guidance on people with access: The data on the number of people provided with access can be estimated by TTLs by multiplying i) the actual number of piped connections with an estimate of the number of people per household connection; and/or ii) the actual number of community water points with an estimate of the number of people per community water

	point. The assumptions made regarding number of people per connection made should be carefully documented in the 'comments' section of the indicator when data is entered in the ISR. Guidance on urban classification: The classification should follow the official definition used in the country.
Low income people provided with access to "improved sanitation facilities" under the project.	This indicator measures the cumulative number of people who benefited from improved sanitation facilities that have been constructed under the project. This includes people newly provided with access to "improved sanitation facilities" and does not include people benefiting from rehabilitation works. The baseline value is expected to be zero.
Low income people provided with access to "improved sanitation facilities" - urban	No description provided.

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)
New household sewer connections constructed in low income areas under the project	This indicator is measured as the cumulative number of new sewer connections constructed under the project. The baseline value is expected to be zero.
Number of water utilities that the project is supporting	Total number of utilities providing water supply with which the Bank is working under the project. This refers to support for capacity building under Component 1 of the project.
New piped household water connections in low income areas resulting from the project intervention	Number of new piped household water connections which result from the project intervention. A piped household water connection is defined as a connection that provides piped water to the consumer through either a house or yard connection. Hence, they do not include, inter alia, standpipes, protected well, borehole, protected spring, piped water provided through tanker trucks, or vendors, unprotected wells, unprotected spring, rivers, ponds and other surface

	water bodies, or bottled water.
Improved low income community water points constructed or rehabilitated under the project	Number of improved community water points constructed or rehabilitated under the project in rural and urban areas. A community water point is defined as a public outlet for the provision of water supply to a number of households. Improved community water points refer to standpipes, protected dug well, borehole, or protected spring. Hence, improved community water points do not include, inter alia, unprotected wells or unprotected springs.
Number of public toilets constructed in low income areas under the project	No description provided.

ANNEX 2 –PROJECT DESCRIPTION

Refer to Section III for a complete description of the project.

ANNEX 3 – INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

A. Institutional Arrangements

1. **The project grant will be administered by the Water Services Trust Fund (WSTF),** a state-owned corporation with the mandate to fund pro-poor water and sanitation related investments. The terms and conditions for implementing the project will be governed by the Grant Agreement and its operation will be guided by the Operations Manual of the project. WSTF will appoint a Project Manager and designate an implementing unit that will be responsible for the overall implementation, coordination and supervision of the project and for reporting to the World Bank as per the project monitoring and reporting framework. The Project Manager and implementing unit will be responsible for consultancy planning, procurement, financial management and reporting, and will supervise fiduciary compliance as part of regular supervision. Component 1 has dedicated funds to hire an experienced senior project manager, with experience in procurement and financial management, to run the facility.

2. **Service Providers.** WSPs licensed by WASREB will be responsible for implementing the utility subprojects, including preparation of subsidy and loan applications, procurement of contractors for construction and supervision of subproject implementation. WSPs will provide water and sanitation services to consumers targeted under the project over the long term and will generate revenue in the form of connection fees and tariffs. WSPs will also be obligated to repay the loans to the commercial lenders net of subsidy.

3. **Other Institutions Involved and their Roles.** The table summarizes other institutions involved in the project.

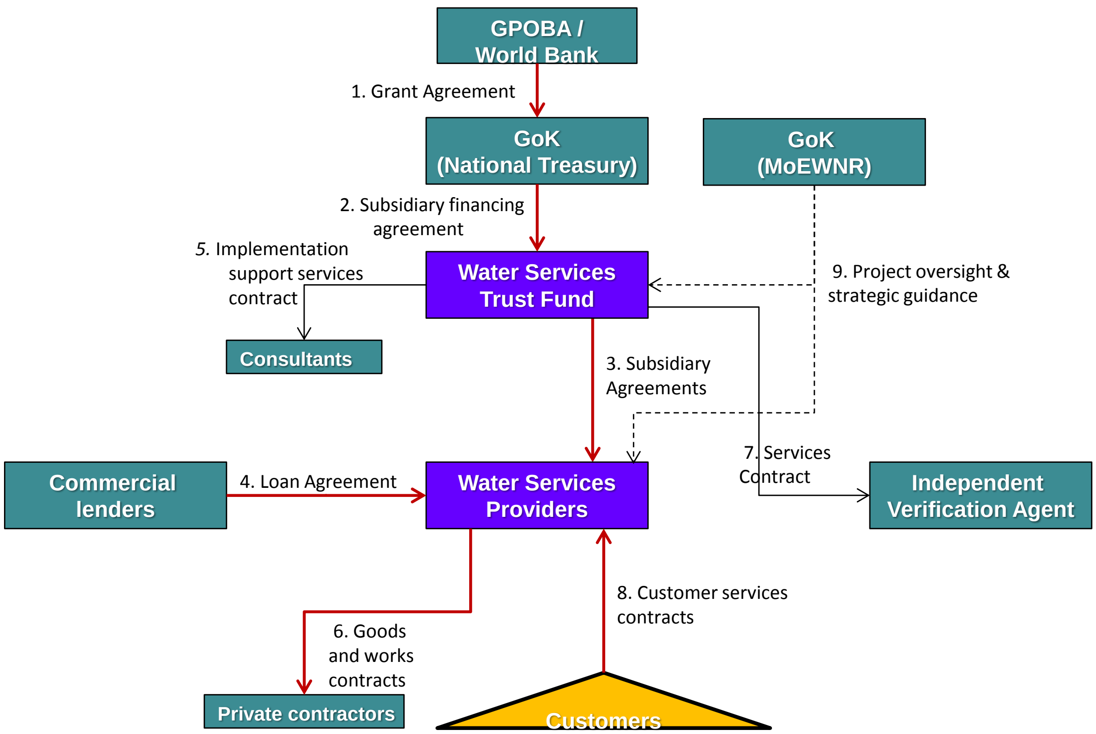
Entity	Role
WSTF	▪ Project implementing unit ▪ Fiduciary responsibility to ensure that the project is implemented in accordance with the terms of the Grant Agreement and the operating manual ▪ Administer implementation support and OBA subsidies under the project ▪ Verify that target investments are being made in low-income areas in line with objectives of WSTF’s urban window ▪ Monitor and evaluate the project impacts ▪ Disbursement and audit of project funds

WSPs	▪ Develop and implement water supply and sanitation subprojects within their service areas in accordance with the project rules ▪ Access loans from commercial lenders to pre-finance subprojects ▪ Provide water and sanitation services to consumers in low income areas ▪ Repay non-subsidized portions of commercial loans during subproject post-implementation operational phase
Lenders	▪ Appraise WSP loan applications ▪ Pre-finance subprojects ▪ Longer term loan management
GPOBA	▪ Subsidy funding ▪ Implementation support funding ▪ Support to WSP-Africa in project supervision ▪ Donor reporting
Water and Sanitation Program	▪ Represent the World Bank in management and supervision of the project ▪ Supervision of the project and terms of the Grant Agreement ▪ Support to WSTF and WSPs to meet the project objectives ▪ Support development of private sector/commercial lending initiatives
Target Beneficiaries (households)	▪ Payment of connection fees ▪ Payment for monthly consumption
IVA	▪ Baseline assessment and output verification ▪ Assessment of subproject costs and eligible amounts for subsidy ▪ Confirmation that investments are made in the targeted low-income areas
WASREB	▪ Approve any required changes to Service Provision Agreement
MoEWNR (WSB)	▪ Provide clearance for WSBs to sign legal loan obligations ▪ Provide support for WSPs to clear requests with National Treasury

B. Contractual Agreements and Flows of Funds

4. **Contractual agreements.** This section summarizes the proposed contractual agreement arrangements under the project.

Figure 1- Proposed Project Agreements

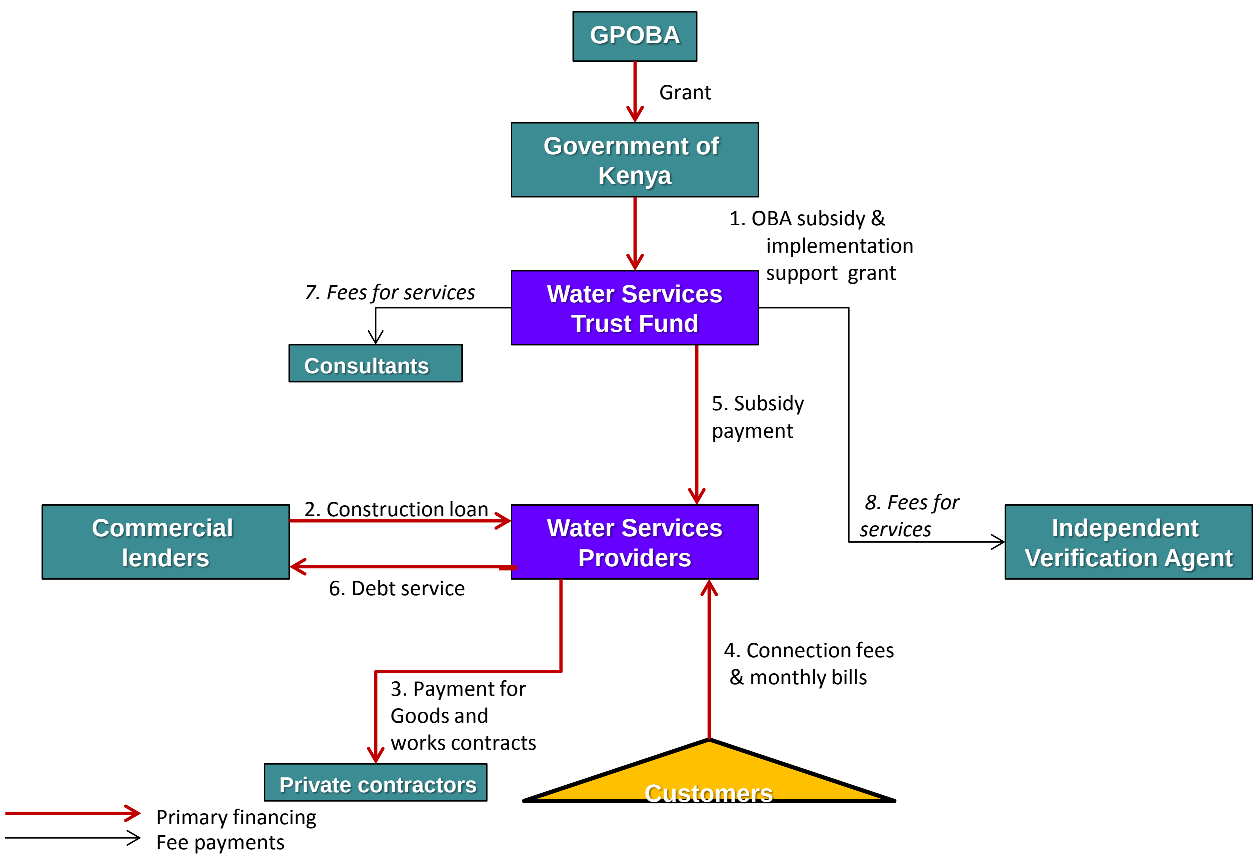


1) Grant agreement between GPOBA/World Bank and the National Treasury, on behalf of the Government of Kenya, following consultations with the line ministry, the Ministry of Environment, Water and Natural Resources (MoEWNR), and the proposed Project Implementing Unit, the WSTF. The provisions of the Grant Agreement will be supervised by the Water and Sanitation Program (WSP-Af) on behalf of the World Bank.
2) Subsidiary Agreement between the National Treasury and the WSTF, the project implementing unit.
3) Subsidiary Agreements between WSTF and participating WSPs to pay subsidies on achievement of outputs. These will include the agreed subproject output targets.
4) Loan agreements between commercial lenders and WSPs.
5) Contract for implementation support consulting services for subproject preparation, business planning, appraisal and supervision (WSPs are counterparty to this contract).
6) Goods and works contracts between WSPs and contractors.
7) Contract for services of an IVA managed by WSTF.
8) Customer services agreements between WSPs and beneficiary households.

9) The WSTF is and independent unit under the MoEWNR. The WSBs of the MoEWNR control public funds and sign the SPA licensing the WSPs to operate (currently under Water Act 2002).
10) (*not shown in diagram*) Service Provision Agreement (SPA) between WSP and respective Water Services Board (WSB) approved by the Water Services Regulatory Board (WASREB).

5. **Flow of Funds:** This section summarizes the proposed funds flow arrangements under the project.

Figure 2 – Proposed funds flow



1) OBA subsidy for investments and implementation, including project management and subproject development and implementation support. WSP-Africa will also support the project with technical assistance and will supervise the project on behalf of the World Bank
2) Loan from commercial lenders to WSPs for subproject implementation.
3) WSP payments to contractors for goods and works to develop infrastructure.
4) WSP connects low income households and collects revenue from connection fees and monthly bills paid by households targeted under the project.

5) Subsidy payment to the WSPs on achievement of connection targets and independent verification that accounts are active after four months (phased subsidy disbursement).
6) Debt service payments by WSPs to the lenders, including a bullet payment on receipt of subsidy, if stipulated in the loan agreement.
7) Fee payments for consultants to support the WSPs in project preparation and implementation supervision.
8) Payments to independent verification agent on report submission.

C. Timing of Key Milestone Activities

Item	Target Time	Responsibility
Securing of funding commitment from Sida	Dec 2012 (Done)	GPOBA
Present project to GPOBA Panel	Mar 2013 (Done)	GPOBA
Develop Project Operations Manual	Jul-Nov 2014	WSTF, WSP-Africa
Signing of Grant Agreement	Sep 2014	National Treasury, MoEWNR, WB Kenya
Hiring of Project Manager in WSTF	Dec 2014	WSTF
Procurement of IVA	Jan 2015	WSTF
Release of implementation support funding for feasibility studies and capacity building	First batch May-Feb 2015	GPOBA, WSTF
Completion of feasibility studies, due diligence by the banks and negotiation of loans with commercial banks	First batch Aug-Jun 2015	WSPs and commercial banks with assistance from WSP-Africa
WSP applications for tariff increases	From ~Mar 2015	WSPs, WASREB
Grant agreement becomes effective	Dec 2014	National Treasury, MoEWNR, WB Kenya
Signing of Loan and Grant Agreements with WSPs	From ~Feb 2015	WSPs, commercial banks
Hiring of contractors as laid out in	From ~ Mar	WSPs

Item	Target Time	Responsibility
Operational Manual	2015	
Start of construction	From ~ Apr 2015	WSPs
Verification of outputs	From ~ Jan 2016	IVA
Payment of OBA subsidies to WSP	From ~Jan 2016	IVA, WSTF
Mid-term evaluation	Oct 2015	WSP-Africa, GPOBA
Project completion	June 2018	WSP-Africa, GPOBA
Final disbursement	October 2018	WSPs, WSTF, WSP-Africa, GPOBA

D. Financial Management and Disbursement

6. Financial Management and Disbursement

1. Introduction

The World Bank's financial management team conducted a financial management assessment of the Water Services Trust Fund (WSTF). The objective of the assessment was to determine whether (a) the WSTF has adequate financial management arrangements to ensure the funds will be used for the purposes intended in an efficient and economical manner; (b) the project's financial reports will be prepared in an accurate, reliable and timely manner; and (c) the entity's assets will be protected. The financial management assessment was carried out in accordance with the financial management practices manual issued by the Bank's Financial Management Sector Board on November 3, 2005. The assessment indicates that WSTF has adequate FM capacity to manage the grant. The organization has experience in managing funds for over 10 donors using FM arrangements similar to those required by the World Bank.

2. Country Issues

Public Expenditure and Financial Accountability (PEFA) assessments have been done in Kenya. Progress has been achieved through the adoption of International Public Sector Accounting Standards; the strengthening of the supreme audit; and through the ongoing public financial management review in line with the new Constitution. The office of Controller of Budget under the new constitution will oversee proper budget execution. The weaknesses in the Judiciary are being addressed by the revamped Judiciary under the new constitution with the appointment of a new Chief Justice and the creation of the Supreme Court. The Government has also re-launched the implementation of IFMIS to address past concerns / weaknesses. The Ethics and Anti Corruption Commission (EACC) has also been entrenched in the new constitution and is expected to be more robust in the fight against corruption.

3. Risk Assessment and Mitigating Table

The analysis of the assessment is as follows:

Type of Risk	Initial Risk Rating	Brief Explanation	Risk mitigating measures incorporated into project design	Condition of Effectiveness (Y/N)?	Residual Risk Rating
INHERENT RISKS					

Type of Risk	Initial Risk Rating	Brief Explanation	Risk mitigating measures incorporated into project design	Condition of Effectiveness (Y/N)?	Residual Risk Rating
Country Level	S	This is based on the Country Public Financial Management environment and it takes into account relevant governance issues such as corruption and weaknesses in the Judiciary. It also takes into account the current reforms being undertaken in the review of Public Financial Management in line with the New Constitution. The weaknesses in the Judiciary are being addressed by the revamped Judiciary under the new constitution with the appointment of a new Chief Justice and creation of the Supreme Court. The government has also re-launched the implementation of IFMIS to address past concerns / weaknesses.	The Government has set up a Public Financial Management Reform programme in line with the new Constitution and a revamped implementation of IFMIS by Treasury. The ongoing reforms in the Judiciary and EACC will also address the governance and corruption issues. A new PFM law has also been enacted.	No	S
Entity Level	M	The WSTF has adequate capacity and experience in managing donor financed projects.	KENAO will conduct rolling in-year fiduciary reviews on the project.	No	M

Type of Risk	Initial Risk Rating	Brief Explanation	Risk mitigating measures incorporated into project design	Condition of Effectiveness (Y/N)?	Residual Risk Rating
Project Level	M	The MEWNR, WRMA, WSBs and other implementing agencies have experience in managing Bank projects	Technical support and capacity building for MEWNR , WRMA and other implementing agencies will be provided	No	M
OVERALL INHERENT RISK	M				M
CONTROL RISKS					
Budgeting	L	Budget system deemed adequate for purposes of the Project	WSTF budget process is in line with country systems with approvals by CEO and line ministry to Treasury and Parliament. This is deemed adequate.	No	L
Accounting	M	WSTF has adequate accounting capacity and the FM unit is headed by a qualified Finance Manager. Comprehensive FM manual for management of donor projects is in place and the provisions are similar to those required for Bank operations.	Regular capacity building training will be undertaken by the Bank for the project team	No.	L

Type of Risk	Initial Risk Rating	Brief Explanation	Risk mitigating measures incorporated into project design	Condition of Effectiveness (Y/N)?	Residual Risk Rating
Internal Controls	M	WSTF has internal auditor and has developed institutional risk management framework. FM manual makes adequate provisions for satisfactory internal control systems.	Project to be subjected to institutional internal audit and risk management framework in addition to KENAO rolling in-year audits.	No	M
Funds Flow	M	Due to nature of project design, funds flow relatively simple through the DA in Treasury to PA in WSTF in designated commercial bank. WSTF to trigger tranches to WSP on basis of criteria agreed with the Bank.		No	M
Financial Reporting	M	WSTF already preparing quarterly reports in form and substance similar to the sources and uses of funds of the IFR. The IFR will be submitted to the Bank within 45 days after every quarter.	Format of IFR agreed between WSTF and the Bank.	No	L

Type of Risk	Initial Risk Rating	Brief Explanation	Risk mitigating measures incorporated into project design	Condition of Effectiveness (Y/N)?	Residual Risk Rating
Auditing	M	WSTF is audited by the SAI KENAO and received unqualified audit report for FY11. The audit report and management letter to be submitted to the Bank 6 months after end of year end.	The ToRs and financial statements format have been agreed with the Bank.	No	M
OVERALL CONTROL RISK	M	M			M
OVERALL RISK	**M**				**M**

H = High; S = Substantial; M = Moderate; L = Low

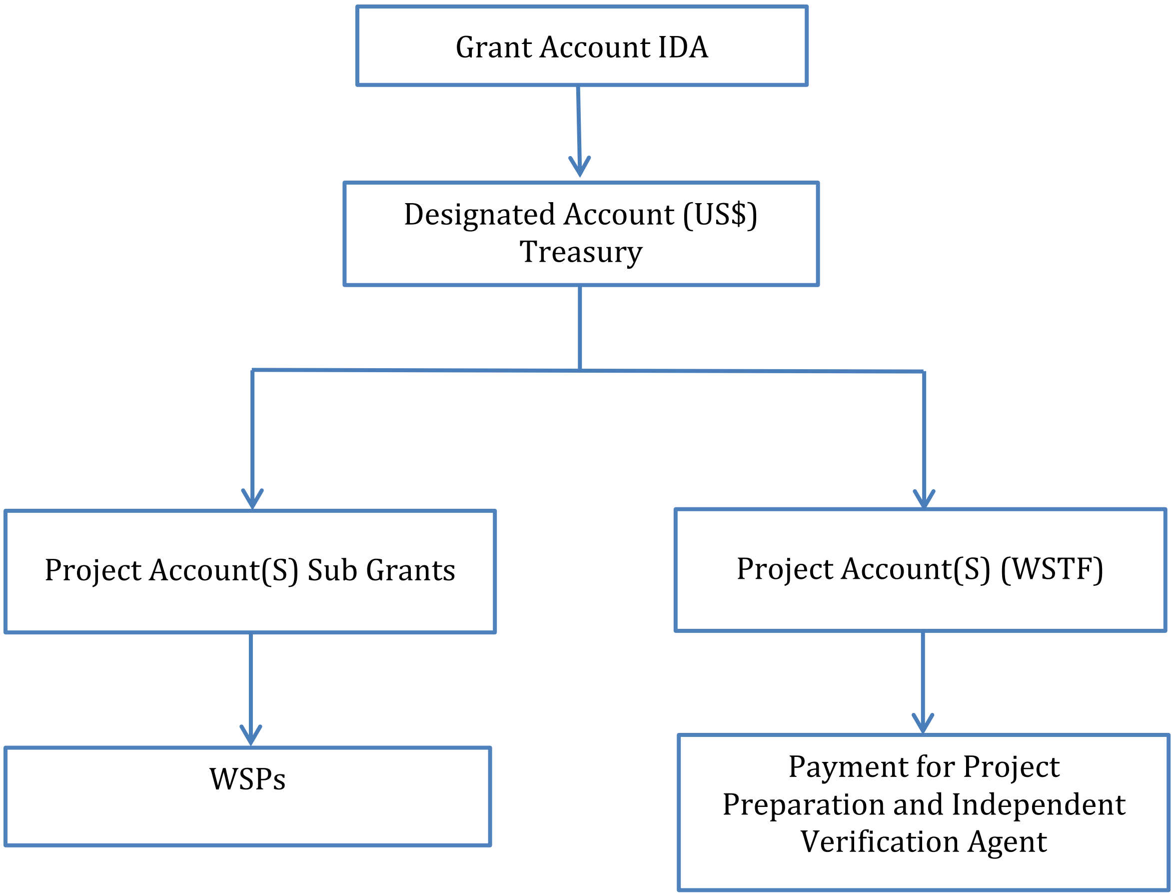
4. Disbursement Arrangements

7. The implementing agency will open a Designated Account (DA) denominated in US dollars at Treasury in the CBK or commercial bank acceptable to the World Bank It will also operate two Project Accounts (PA) opened in a local currency commercial bank acceptable to the World Bank. One PA will be used to make payments for project preparation and Independent Verification Agent (IVA) under Component 1 while the other PA will exclusively make disbursements in respect of the Sub grants (subsidies) to the WSPs under Component 2. Funds from the DA will be transferred to the project accounts (PA) based on this criteria.

8. The project will adopt the SOE method of disbursement. Tranches of amounts agreed between IDA and WSTF will be made to the DA in advance and disbursed to the WSP from the PA with approval from WSTF. Disbursement of the initial subsidy amounts to the WSPs will be based on the establishment of pre-agreed output targets with the WSTF through a subsidiary grant agreement and signing a loan agreement with a commercial lender to pre-finance a subproject identified by the WSP. Subsequent subsidy payments will be made upon successful verification of the achievement of the pre-agreed outputs by the IVA.

Payments related to project management and consultancies and other related costs will be made from the PA by WSTF.

Funds Flow Chart



5. Implementation Support Plan

9. Based on the outcome of the financial management risk assessment, the following implementation support plan is proposed:

Financial management activity	Frequency	FM OUTPUT
Desk reviews		
IFRs review	Quarterly	Interim Financial statements review report
Audit report review of the WSTF	Annually	Audit review report
Review of other relevant information such as internal control systems reports	Continuous as they become available	FM review report
Onsite visits		
Review of overall operation of the financial management system including internal controls.	Once every 12 months	FM review report
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit and other reports	As needed	FM review report
Transaction reviews (if needed)	Annually or as needed	FM review report
Capacity building support		
Financial management training sessions	By effectiveness and thereafter as needed	Training sessions held

6. Conclusion of the Assessment

10. The conclusion of the assessment is that the financial management arrangements have an Overall residual risk rating of Moderate, which satisfies the Bank's minimum requirements under OP/BP10.02, and therefore is adequate to provide, with reasonable assurance, accurate and timely information on the status of the project required by IDA.

E. Procurement

1. General

Procurement for the proposed project would be carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated January 2011; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated January 2011, and the provisions stipulated in the Financing Agreement. The various items under different expenditure categories are described below. For each contract to be financed by the Credit, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time-frame are agreed between the Borrower and the World Bank in the procurement plan. The procurement plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

Use of National Procurement Procedures: All contracts other than those to be procured on the basis of ICB and consulting services shall follow the procedures set out in the Public Procurement and Disposal Act of 2005 (PPDA). The PPDA governs purchase of works, goods and services using public resources by the central government entities, local authorities, state corporations, education institutions, and other GoK institutions. Under the PPDA, the Public Procurement Oversight Authority (PPOA) has been established, in addition to the Public Procurement Directorate in the National Treasury. The PPDA sets out the rules and procedures of public procurement and provides a mechanism for enforcement of the law. The new Constitution has devolved most of the key functions of the central government to forty seven (47) counties. In this respect, the Government has issued the Public Procurement and Disposal (County Government) Regulations, 2013, but these counties have weak procurement capacity. The Government is in the process of revising law to include provisions on counties and minorities. Procurement function is decentralized to individual procuring entities. The Public Procurement Authority (PPOA) has oversight and regulatory function including undertaking procurement reviews and audits. There is a Public Procurement Complaints Review and Appeals Board (Appeal Board) under the secretariat of PPOA that deals with complaints received from bidders or consulting firms. However, some provisions of PPDA are not fully consistent with the World Bank procurement guidelines and consultant guidelines, and therefore these may not be applied for the implementation of this project without modification. These provisions and their respective modifications are:

(a) PPDA 55(2): instead, the tender submission date shall be set so as to allow a period of at least 30 days from the later of: (i) the date of advertisement, and (ii) the date of availability of the tender documents.

(b) PPDA 4(2)(c): instead, Recipient's government-owned enterprises shall be allowed to participate in the tendering only if they can establish that they are legally and financially autonomous, operate under commercial law and are an independent agency of the recipient's government.

(c) The Borrower shall use, or cause to be used, bidding documents and tender documents (containing, inter alia, draft contracts and conditions of contracts, including provisions on fraud and corruption, audit and publication of award) in form and substance satisfactory to the Association.

(d) PPDA 61(4): instead, extension of tender validity shall be allowed once only, and for not more than thirty (30) days, unless otherwise previously agreed in writing by the Association.

(e) PPDA 66(3)(b): instead, evaluation of tenders shall be based on quantifiable criteria expressed in monetary terms as defined in the tender documents. It shall not be based on a merit points system.

(f) PPDA 39: instead, no domestic preference shall be used in the evaluation of tenders. Therefore, as a result of the non-application of PPDA 66(3)(b) and 39, contracts shall be awarded to qualified tenders having submitted the lowest evaluated substantially responsive tender.

(g) PPDA 67: instead, notification of contract award shall constitute formation of the contract. No negotiation shall be carried out prior to contract award.

(h) PPDA 91: instead, shopping procedure will apply for each low value contracts, in lieu of Direct Procurement, except as otherwise previously agreed in writing by the Association.

(i) Regulations 47: instead, the two envelope bid opening procedure shall not apply under NCB. The Bank's standard bidding documents for goods and works shall be used with appropriate modifications.

Procurement of Works: Works procured under this project will be identified as subprojects and submitted and appraised by the WSTF. Procurement will be done using the Bank's Standard Bidding Documents (SBD) for all International Competitive Bidding (ICB) and NCB contracts.

Procurement of Goods: Goods procured under this project will be as identified subprojects and submitted and appraised by the WSTF. Framework agreements may be used to implement some actions such as: (a) goods that can be procured off-the-shelf or are common use with standard specifications; (b) non-consulting services that are of a simple and non-complex nature and may be required from time to time by the same agency(ies) of the Borrower; or (c) small value contracts for works under emergency operations. Such arrangements should not restrict foreign competition and should be restricted to a maximum duration of three years. The nature and budget for such goods, including the circumstances and justification for its use; the particular approach and model to be adopted; the procedures for selection and award; and the terms and conditions of contracts will be defined and agreed between the Borrower and IDA prior to their inclusion in the updated annual procurement plan.

Procurement of Non-Consulting Services: Contracts under non-consulting services will be identified as subprojects are submitted and appraised by the WSTF. In the event that activities such as workshop venues, transport or IT services are identified, the type and budget for such services will be defined and agreed between the Borrower and IDA prior to their inclusion in the updated annual procurement plan.

Selection of Consultants: Consulting services to be procured under the project include selection of firms and individuals for independent verification agent(s), project manager in the WSTF, workshop trainers, and technical and financial advisory for subproject design.

The GoK-owned universities and research institutions in the Borrower's country that are uniquely qualified on specialized tasks may participate with prior agreement between the Borrower and the Bank and disclosed in the project documents and reports, or participate as sub-consultants in competitive selections in association with private consultants. Contracts to be procured under these arrangements include monitoring and evaluation (M&E), public private partnerships, etc. The budget for such services will be defined and agreed between the Borrower and IDA prior to their inclusion in the updated annual procurement plan.

Operating Costs: These items will be identified as the project and subprojects are established and will be procured using the Borrower national procurement and administrative procedures acceptable to the Bank. The Borrower will also pay for costs associated with any resettlement, land acquisition, compensation and relocation of services (if any).

2. Assessment of the Agency's Capacity to Implement Procurement

A procurement capacity assessment was conducted by the Senior Procurement Specialist for the Water Services Trust Fund (WSTF) (the agency responsible for the fiduciary management of the project) and two sample Water Service Providers (Ruiru-Juja and Muranga). The WSTF and service providers operate under the Kenya Procurement Act of 2005 and the Kenya procurement regulation of 2006. Their procurement capacity has been built to handle procurement under the existing laws. Overall, their procurement capacity is mainly limited to local procurement of goods and low value works with no procurement capacity in international tendering or procurement of consultant services.

Organization and staffing of the Procurement Function

A. Water Services Trust Fund

The present procurement function is structured within the Finance Section as an independent function and reports directly to the head of finance. It has two staff members composed of the head of procurement who has over 10 years of procurement experience mainly in Supply Chain Management and an assistant with two years of experience. WSTF has not handled oversight of decentralized procurement before. It functions independently. It was revealed that the head of procurement has limited knowledge in international procurement and no training in the use of World Bank Procurement Guidelines. His experience involves mainly local procurement using the Kenya procurement laws and procedures using the PPDA and the national Standard Bidding Document. Similarly all internal approvals also follow the Kenya procurement laws. The annual budget of WSTF is estimated to be not more than half a million US Dollars / year. Therefore, since, the agency will have an oversight authority on procurement by the Water Service Providers under the project, it would be necessary for WSTF to devise a way of ensuring that the procurement officer, is trained on Basic Bank Procurement Guidelines. With this and close support/guidance from the World Bank Country office in Kenya on the application of Bank procurement Guidelines on Goods, Works and Selection of Consultants, the two may be able to handle procurement under the project.

B. Water Service Providers (Ruiru-Juja and Muranga)

The organizational structure of the procurement function is not different from the WSTF agency in which the procurement function reports directly to the head of finance / commercial manager. Both Ruiru and Muranga have one procurement officer each assisted by stores clerk. Their experience is limited to local purchases with low cost works contracts using the PPDA and standard documents. Much of the procurement involves quotations or open tendering. Technical support is provided by the engineer(s) at that level. Overall annual budget is around US$600,000 and an average profit of US$24,000. There is no international procurement experience or the use of World Bank Guidelines at the level of Water Service Providers.

3. Procurement Processes

WSTF as well as the Water Service Providers like other similar Kenyan organizations follow the Public Procurement Disposal Act (PPDA) which is generally acceptable to the Bank except for some provisions and their modifications listed above which are clearly indicated in the financing agreement. Internal Approval methods are consistent with the provisions of the PPDA. Consistent with the act, tender opening as well as Technical Evaluation committees are appointed on an ad hoc basis, the evaluation recommendations would be subject to the approval of the permanent Tender Committee after which time they are submitted for the CEO's signature. This arrangement is working well whereby, immediately after bid opening, a technical evaluation committee comprised of a minimum of five members from the technical units are appointed to conduct the evaluation within a defined period of time. Bidding documents are prepared jointly by the technical staff and the support of the procurement staff and are issued to public by the procurement unit.

4. Risks and mitigating measures:

The assessment concluded that the overall procurement risk is Substantial and the proposed risk mitigation measures are summarized below:

Risk	Action	Timeframe	Responsibility
Inadequate procurement capacity of the WSTF	Recruit at least one qualified Procurement Specialist knowledgeable of Bank Procurement Guidelines to fill capacity gaps.	Within one year of Implementation	Borrower
Inadequate practical experience in the application of Bank Procurement Guidelines.	a) Conduct induction procurement training for the WSTF and WSPs procurement staff on Bank procurement procedures; b) Align the preparation processes of procurement plans, work plans and budget estimates. (d) Establish separate effective tracking systems of (i)procurement plan implementation and (ii) processing of payments to contractors and suppliers.	Induction training by Effectiveness; and formal training by regional training institutes by taking the earliest available slot.	IDA/Borrower
National procurement procedures are not fully	Financing Agreement must include the exception	Complete	IDA/Borrower

consistent with Bank procedures.	provisions.		
Procurement fraud is a risk.	(a) Recruit an independent consultant to carry out annual procurement audits. Incorporate procurement audit as an integral part of the annual financial audits. (b) In consultation with the Public Procurement and Oversight Authority (PPOA) and the Kenya National Audit Office (KENAO), ensure that procurement audits by PPOA and financial audits by KENAO are conducted jointly.	Within the first 12 months of project implementation, and during the life of the Project.	Borrower

5. The Procurement Plan

A consolidated draft Procurement Plan for the first 18 months has been prepared.

Prior Review Thresholds. Prior review and procurement method thresholds for the project are indicated in the table below.

Goods, Works and Non Consultancy Services

No.	Procurement Method	Threshold (US$)	Prior/ Post/ Review of all contracts	Comments
1.	ICB Goods Works	 ≥ 3,000,000 ≥ 15,000,000	 Prior Prior	
2.	LIB (Goods)	≥ 3,000,000		
3.	NCB Goods Works	 < 3,000,000 <15,000,000	 Prior Review Prior Review	 Above 1.0 million Above 10 million Prior Review
4.	Shopping Goods Works	 < 100,000 < 200,000	 Post Review Post Review	
5.	Direct Contracting	≥100	Prior Review	Below 0.1 million Post Review

Selection of Consultant Services

No.	Selection Method	Prior Review Threshold (US$)	Comments
1.	Competitive Methods (Firms) (QCBS,QBS, FBS, LCS)	≥ 500,000	
2.	Single Source (Firms)	≥ 100,000	
3.	Individual Consultant Selection (ICS)	≥ 200,000	
4.	Consultant Qualification Selection	<300,000	The threshold for CQS is US$300,000 as per the Guidelines.
5.	Single Source (ICS)	≥ 100,000	

6. Frequency of Procurement Supervision

In addition to the prior review supervision to be carried out from World Bank offices, there will be annual supervision missions to carry out post review of procurement actions.

7. Details of the Procurement Arrangements Involving International Competition

Goods, Works and Non-Consulting Services:

(a) List of goods and works contract packages to be procured following ICB in the first 18 months:

No.	Goods Description	Estimated contract Sum in US$	Procurement Method	Review by Bank (Prior/Post)	Bid Submission and Opening

(b) Non Consultancy Services:

Consulting Services:

(a) List of consulting assignments:

No.	Consultancy Description	Estimated cost in US$	Selection Method	Review by Bank (Prior/Post)	Expected RfP Submission and Opening

ANNEX 4 – OPERATIONAL RISK ASSESSMENT FRAMEWORK (ORAF)

Annex 4

Operational Risk Assessment Framework (ORAF)

Kenya: Kenya Urban Water and Sanitation OBA Fund for Low Income Areas (P132979)

<table>
<tr><th colspan="7">Project Stakeholder Risks</th></tr>
<tr><td>Stakeholder Risk</td><td>Rating</td><td colspan="5">High</td></tr>
<tr><td rowspan="3">Risk Description:

Government: Central Ministries -Government policies and regulations on lending to sub-nationals and their agents are not yet fully formed. The Constitution requires sub-national lending to be guaranteed by central government. Central ministries may oppose/restrict WSPs, agents of sub-nationals, from taking on debt to finance assets. Counties - Under the new Constitution, county governments became responsible for water supply and may not agree to long-term commitments required for lending (such as ring-fencing the revenues of the WSPs).

Tariff increases due to additional capital cost-recovery requirements may trigger opposition from water customers.

Other stakeholders - risks related to other stakeholders (direct beneficiaries, civil society organizations) are low</td><td colspan="6">Risk Management:
The sector team, with other development partners, is in active dialogue with the MoWER and the National Treasury to maintain the approach of ring-fencing water companies as provided for in the Water Act of 2002 and to adopt appropriate ex-ante and ex-post controls on sub-national agent borrowing. A team of senior members from MoWER, National Treasury and the regulator has been established to support borrowing in the sector. The Country Team, through analytical work and various Bank-financed operations in different sectors, is supporting the devolution agenda to help in the establishment and strengthening of the new institutions. However, whether county governments maintain the current institutional arrangements is unknown at this time. A new Bank Technical Assistance activity, the Kenya Urban Commercial Financing for Water and Sanitation (P144507), has been approved and will support capacity building to facilitate commercial bank lending to the sector for both ministry and county government.</td></tr>
<tr><td>Resp:
Both</td><td>Status:
In Progress</td><td>Stage:
Both</td><td>Recurrent:
✓</td><td>Due Date:</td><td>Frequency:
Yearly</td></tr>
<tr><td colspan="6">Risk Management:
Present tariff procedures include public information and consultation processes as well</td></tr>
</table>

<table>
<tr><td rowspan="2">(from experience of the WaSSIP2 Project (same sector and similar service providers).</td><td colspan="6">as approvals from the national regulator and the asset-owners (presently the Water Services Boards). These will be followed during sub-project preparation. The availability of subsidies for connections to the poor is part of the design of the project and seeks to mitigate this issue for poor households.</td></tr>
<tr><td>Resp:
Both</td><td>Status:
Not Yet Due</td><td>Stage:
Implementation</td><td>Recurrent:
☑</td><td>Due Date:</td><td>Frequency:
Yearly</td></tr>
<tr><th colspan="7">Implementing Agency (IA) Risks (including Fiduciary Risks)</th></tr>
<tr><td>Capacity</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td rowspan="5">Risk Description:

The Water Services Trust Fund (WSTF), as implementer and a state-owned corporation with a mandate to finance water services in areas without adequate service, will be subject to government procurement and financial management procedures. WSTF manages larger sums of grants from international development partners and the GoK. The WSTF Urban Project Cycle implemented $22 million of water projects in 2009-2011. WSTF has adequate capacity for funds management and accounting. Procurement by WSTF is limited to a contract for consultancy services (e.g. independent verification agent, project support staff). However, based on previous experience with a similar WSP-PPIAF-supported project in 2008, WSTF had difficulty in effectively supporting sub-implementing agencies in procurement and financial management reporting and were delayed in release of payments to contractors.</td><td colspan="6">Risk Management:
Task team will provide guidance to WSTF in its consultancy planning and procurement and financial management and reporting and will supervise fiduciary compliance by WSTF as part of regular supervision. As much as possible, arrangements to directly disburse funds from World Bank to consultants and sub-project implementing agencies are proposed. Operational funds will be also available to support WSTF supervise/monitor sub-project implementation activities.</td></tr>
<tr><td>Resp:
Both</td><td>Status:
In Progress</td><td>Stage:
Implementation</td><td>Recurrent:
☑</td><td>Due Date:</td><td>Frequency:
Yearly</td></tr>
<tr><td colspan="6">Risk Management:
Technical assistance will be provided to water companies, as sub-project implementing agencies, to guide sub-project preparation and procurement and supervision of tendering and implementation. As appropriate, procurement requirements will consider the capacity of the sub-implementer. The task team will support WSTF in developing a Project Operating Manual , which will stipulate the criteria to evaluate proposals for subsidy based on costing acceptable to the Bank. The task team will provide guidance and monitor the implementation of fiduciary obligations as part of supervision.</td></tr>
<tr><td>Resp:</td><td>Status:</td><td>Stage:</td><td>Recurrent:</td><td>Due Date:</td><td>Frequency:</td></tr>
</table>

Water Services Providers, as sub-implementing agencies, are responsible for a major part of the sub-project implementation including preparation, procurement, and implementation of safeguards policies to which OBA subsidies will be provided. Sub-project investments will be financed from loans made by domestic lenders to the WSPs. WSPs have limited financial and human capacity and may be challenged by implementing projects according to World Bank fiduciary policies. On Procurement: WSPs will be expected to procure goods and works, consulting and high skilled non-consulting services in implementation of water and sewerage sub-projects. Presently, they follow Kenyan procurement rules. Safeguards: WSPs as sub-project implementing agencies may not be fully able to implement agreed action plans in line with the World Bank's safeguards policies.	Client	In Progress	Implementation	☑		Yearly
Governance	**Rating**	**Substantial**				
Risk Description: The risk that the Project Implementing Unit (WSTF) will not pay subsidies to WSPs on achievement of outputs, or there is a dispute over the extent to which the outputs have been achieved; or that subsidy funds are not targeted at pro-poor areas.	**Risk Management:** The task team will monitor procurement and transactions processed through the WSTF. If required, an outside consulting firm can be retained to audit the WSTF's implementation. As well, the involvement of commercial banks should mitigate some of the risk of grant funds not getting to the WSPs.					
	Resp:	**Status:**	**Stage:**	**Recurrent:**	**Due Date:**	**Frequency:**
	Client	Not Yet Due	Implementation	☐		
	Risk Management: The Task Team will review the UNICEF Office of Internal Audit and Investigations (OIAI) report of the Government of the Netherlands-Supported WASH Programme of					

	the Kenya Country Office and incorporate the recommendations in its trainings (FM, Procurement, etc.). The report can be found at http://www.unicef.org/auditandinvestigation/index_70265.html Moreover, the Task Team will review this report with the Program Manager of the OBA facility in the WSTF. An Independent Verification Agent (IVA) will establish the baseline for each subproject, clarify the outputs to which the subsidy is linked, verify the final outputs and recommend payment of the subsidy. The project will primarily use a geographic targeting approach to identify low income households benefiting from the subsidies, and the IVA will verify that the targeting criteria is being met by the WSPs.					
	Resp: Client	**Status:** Not Yet Due	**Stage:** Implementation	**Recurrent:** ☑	**Due Date:**	**Frequency:** Yearly
Project Risks						
Design	**Rating**	**High**				
Risk Description: The project design requires WSPs to be able to access commercial loans and depends on many entities (ministries, counties, WSPs, banks, regulator) working together to facilitate this lending. WSPs may not be creditworthy enough to access commercial loans and consumers in the target areas may not be able to afford the tariff increases required to finance the new infrastructure. Detailed engineering designs and business plans for the sub-project investments may not be well executed as water companies apply for loan financing from domestic lenders. Lenders – While interested in the new client category,	**Risk Management:** A new Bank Technical Assistance activity, the Kenya Urban Commercial Financing for Water and Sanitation (P144507), has been approved and will support capacity building for all entities involved in the process. In addition to P144507 this project provides for technical assistance to help creditworthy WSPs prepare loan applications for appraisal by commercial lenders. The risk will be further mitigated by the project manager and the task team providing technical support to the WSPs in negotiations with financial institutions. Should the WSPs not access commercial loans, the team will look at the possibility of obtaining additional credit guarantees and using development impact bonds to finance the subprojects. The project includes support to water companies in project preparation – feasibility studies, detailed engineering design, development of program of work, audit, financial and tariff projections, and environmental and social assessment and planning.					

<table>
<tr><td rowspan="2">banks may decide not to lend to the water sector.</td><td colspan="6">The Water and Sanitation Program's technical assistance program (P144507) also works with commercial banks to increase the capacity of banks to lend to the water utility sector. If commercial financing is decided to be unobtainable for utilities, the requirement will be discussed with the project partners and alternative options for implementation considered.</td></tr>
<tr><td>Resp:
Both</td><td>Status:
Not Yet Due</td><td>Stage:
Implementation</td><td>Recurrent:
☑</td><td>Due Date:</td><td>Frequency:
Quarterly</td></tr>
<tr><td>Social and Environmental</td><td>Rating</td><td colspan="5">Moderate</td></tr>
<tr><td rowspan="2">Risk Description:

The borrowers' business activities are intended to provide environmental and public health benefits; there are no potential significant adverse impacts or high risks involved. And that limited impacts that may result can be avoided or mitigated by adhering to generally recognized practices, guidelines or criteria. The project is a Category B.</td><td colspan="6">Risk Management:

The WSPs implementing the sub-projects are county-owned and required to comply with Government of Kenya environmental legislation, which requires Environmental Impact Assessments to be reviewed by the National Environment Management Authority. The EIAs will be prepared and publicly disclosed prior to the donor approval of the commitment of the GPOBA investment. The EIAs for the sub-projects will include OP 4.12 requirements to identify the extent of resettlement and compensation required for each subproject. An ESMF and RPF have been prepared to guide the environmental and social aspects of the project and have been disclosed in country and through infoshop. The environmental and social risks are documented in the appraisal stage ISDS.</td></tr>
<tr><td>Resp:
Client</td><td>Status:
Not Yet Due</td><td>Stage:
Implementation</td><td>Recurrent:
☑</td><td>Due Date:</td><td>Frequency:
Yearly</td></tr>
<tr><td>Program and Donor</td><td>Rating</td><td colspan="5">Low</td></tr>
<tr><td rowspan="2">Risk Description:

Donor funding for the project is delayed.</td><td colspan="6">Risk Management:

Sida positively appraised the project and provided earmarked funding to GPOBA for its implementation in December 2012.</td></tr>
<tr><td>Resp:</td><td>Status:</td><td>Stage:</td><td>Recurrent:</td><td>Due Date:</td><td>Frequency:</td></tr>
</table>

<table>
<tr><td></td><td>Bank</td><td>Completed</td><td>Preparation</td><td>☐</td><td>31-May-2013</td><td></td></tr>
<tr><td>Delivery Monitoring and Sustainability</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td rowspan="2">Risk Description:

Because of poor management and revenue effort, WSPs are not able to complete sub-projects or unable to pay for loans taken to implement the sub-projects and therefore, target outputs are not achieved, or services are not delivered sustainably.</td><td colspan="6">Risk Management:

Commercial lenders will appraise the management and credit capacity of the water company borrower. The technical appraisal will involve an assessment of the WSPs capability to implement the subproject and achieve the outputs in order to benefit from the subsidy. As appropriate, WSPs will be advised to outsource construction of works requiring high technical capacity to qualified contractors who will take on the appropriate insurances.</td></tr>
<tr><td>Resp:
Client</td><td>Status:
Not Yet Due</td><td>Stage:
Implementation</td><td>Recurrent:
☑</td><td>Due Date:</td><td>Frequency:
Yearly</td></tr>
<tr><td>Other (Optional)</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td rowspan="2">Risk Description:

Interest Rate risk: as the subprojects are required to be commercially funded, high local interest rates could stop sub-project financing and therefore subsidy payment.</td><td colspan="6">Risk Management:

In the event commercial bank financing is not possible, for whatever reason, the team will regularly review the requirement of commercial financing. If commercial financing is decided to be unobtainable for utilities, the requirement will be discussed with the project partners and alternative options for implementation considered.</td></tr>
<tr><td>Resp:
Client</td><td>Status:
Not Yet Due</td><td>Stage:
Implementation</td><td>Recurrent:
☐</td><td>Due Date:</td><td>Frequency:</td></tr>
<tr><td>Other (Optional)</td><td>Rating</td><td colspan="5"></td></tr>
<tr><td rowspan="2">Risk Description:</td><td colspan="6">Risk Management:</td></tr>
<tr><td>Resp:</td><td>Status:</td><td>Stage:</td><td>Recurrent:
☐</td><td>Due Date:</td><td>Frequency:</td></tr>
</table>

Overall Risk		
Overall Implementation Risk:	**Rating**	**High**
Risk Description: There are uncertainties over the ability of WSPs to access commercial loans for infrastructure development in the context of the on-going devolution process and the pending Water Bill. As the operation involves the development of a number of sub-projects to be financed by commercial lenders, the project requires extensive coordination and supervision. There are multiple stakeholders who must all be supportive in order to allow for commercial financing into the water sector. Discussions with the national government and certain county governments and WSPs suggest they are keen to support private financing for infrastructure, and the project has been designed on the basis of extensive water sector financing analysis and the successful pilot project with K-Rep Bank. There is also a significant technical assistance budget to support implementation and overall coordination at the implementing unit. Disbursement against verified outputs will ensure that only technically feasible and financially viable subprojects will be financed under the project.		

ANNEX 5: IMPLEMENTATION SUPPORT PLAN

1. World Bank resources and staffing are available to assure this level of supervision will be made available throughout the project implementation cycle. The key objectives of this Implementation Support Plan are to: (a) support the project implementing agency, WSTF, and sub-project implementing agencies, WSPs, achieve project results (b) support WSTF manage key risks and (c) comply with fiduciary requirements.

A. Achievement of Results

2. *Implementation Support for Results.* Project support will be undertaken by an inter-disciplinary team of field experts. Significant support is provided for in Component 1 for technical assistance to the implementing unit including dedicated funds to hire a senior level project manager, independent verification specialist and consultants to assist WSPs in technical and financial design and planning.

3. *Team Composition*. The core implementation support team will be complemented by field and headquarters staff and consultants consisting of the Lead Social Development Specialist; the Senior Procurement Specialist; the Water & Sanitation Specialist; the Operations Officer; the Senior Water & Sanitation Specialist; the Senior Financial Management Specialist; the Infrastructure Specialist; and the Senior Financial Specialist

4. *Monitoring and Frequency*. The country-based TTL and staff will monitor implementation progress on a continuous basis and the TTL will conduct monthly meetings with the WSTF to review work program progress and address emerging issues. Safeguards and technical field visits to sub-investments will be included in all missions so that each sub-investment will have at least two annual safeguards visits. The performance of the WSTF and WSPs as well as consultants, in the implementation of these activities, will be covered in the WSTF project manager quarterly progress reports and reviewed by the TTL. Audited reports will be submitted annually.

B. Manage Risks

5. *Implementation Support for Managing Risks.* Risks associated with capacity issues of stakeholder not benefiting from technical assistance in Component 1, county governments, banks, regulator and ministries, will be supported by the Kenya Urban Commercial Financing for Water and Sanitation (P144507) technical assistance program of the Water and Sanitation Program. The independent verification agent, used as needed, will assist in project completion risk. The key risks are discussed in section V. Key Risks and Mitigation Measures.

6. *Expertise/Skills Needed*. The WSTF will receive project management, financial management and procurement support from the in-house senior consultant project manager as well as World Bank staff. WSPs will require technical and financial design assistance including project design, financial modelling, business plan development and environmental and safeguards analysis and preparation. WSPs and county governments will require assistance on social feasibility analysis and social connection policy design.

C. Fiduciary Compliance

Implementation Support for Fiduciary Compliance. While the WSTF has extensive experience in managing grant funding in the sector, OBA and commercial financing is a new task. Component 1 provides funds for a senior level project manager consultant working within the WSTF. This consultant should have project and financial management as well as procurement experience with World Bank or other donor agencies. Financial consultants will assist the WSTF project manager in ensuring financial compliance of WSPs. World Bank staff and consultant led seminar trainings will be given, followed by direct assistance if needed, for WSP executive and financial teams on an as needed basis.

7. Specific implementation support plans have been developed for financial management and procurement which are replicated below.

C.1 Financial Management Implementation Support Plan

Based on the outcome of the financial management risk assessment, the following implementation support plan is proposed:

Financial management activity	**Timeframe**	**FM OUTPUT**
Desk reviews		
IFRs review	Quarterly	Interim Financial statements review report
Audit report review of the WSTF	Annually	Audit review report
Review of other relevant information such as internal control systems reports	Continuous as they become available	FM review report
Onsite visits		
Review of overall operation of the financial management system including internal controls.	Once every 12 months	FM review report
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit and other reports	As needed	FM review report
Transaction reviews (if needed)	Annually or as needed	FM review report
Financial management training sessions	By effectiveness and thereafter as needed	Training sessions held

Procurement Implementation Support Plan

Risk	Action	Timeframe	Responsibility
Inadequate procurement capacity of the WSTF	Recruit at least one qualified Procurement Specialist knowledgeable of Bank Procurement Guidelines to fill capacity gaps.	Within one year of Implementation	Borrower
Inadequate practical experience in the application of Bank Procurement Guidelines.	a) Conduct induction procurement training for the WSTF and WSPs procurement staff on Bank procurement procedures; b) Align the preparation processes of procurement plans, work plans and budget estimates. (d) Establish separate effective tracking systems of (i)procurement plan implementation and (ii) processing of payments to contractors and suppliers.	Induction training by Effectiveness; and formal training by regional training institutes by taking the earliest available slot.	IDA/Borrower
National procurement procedures are not fully consistent with Bank procedures.	Financing Agreement must include the exception provisions.	Complete	IDA/Borrower
Procurement fraud is a risk.	(a) Recruit an independent consultant to carry out annual procurement audits. Incorporate procurement audit as an integral part of the annual financial audits. (b) In consultation with the Public Procurement and Oversight Authority (PPOA) and the Kenya National Audit Office (KENAO), ensure that procurement audits by PPOA and financial audits by KENAO are conducted jointly.	Within the first 12 months of project implementation, and during the life of the Project.	Borrower

ANNEX 6 – FINANCIAL AND ECONOMIC ANALYSIS

A. Financial Analysis

The financial analysis is based upon financial returns accruing to four utilities in the pre-feasibility study carried out on Ruiru-Juja, Meru, Mathira and Muranga, under the assumption that the utilities financed under the actual project will have similar returns.

The IRR for the project is estimated at 22 percent with the one-off capital subsidy. The project does not generate positive returns without subsidy.

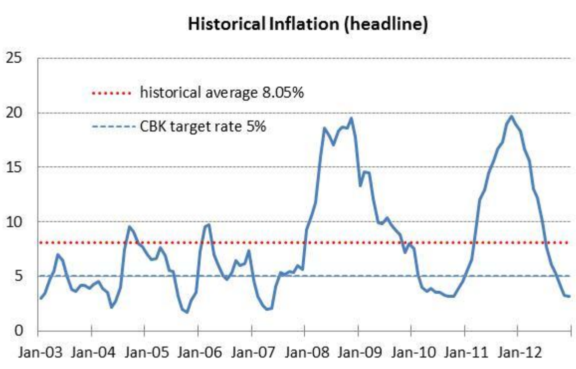
1. Assumptions

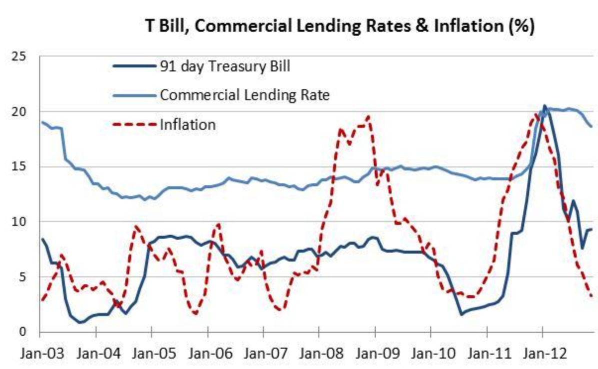
The key assumptions used in the financial analysis are:

Total investment cost in 4 utilities analyzed	KShs 955 million (US$11.2 million)
Total subsidy	KShs 684 million (US$8 million)
Number of beneficiaries	132,500
Interest rate	17%
Construction period	2 years
Loan term	10 years (including 2 years grace for construction)
Inflation rate	7%
Asset life	20 years

2. Inflation

Kenya Inflation over the last 10 years has been variable, fluctuating between 1.7 percent and 19.7 percent and averaging roughly 7 percent. The central bank of Kenya has a target rate of 5 percent and has shown ability to meet this target but experiences periods of high and volatile inflation.

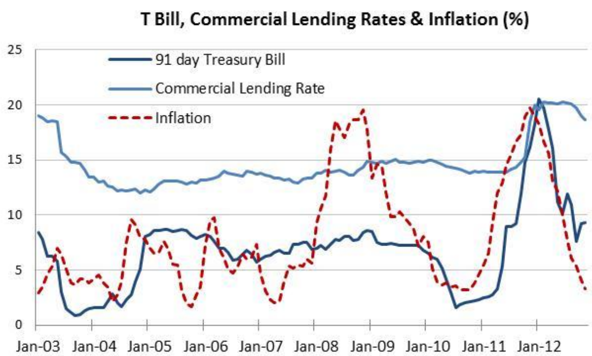


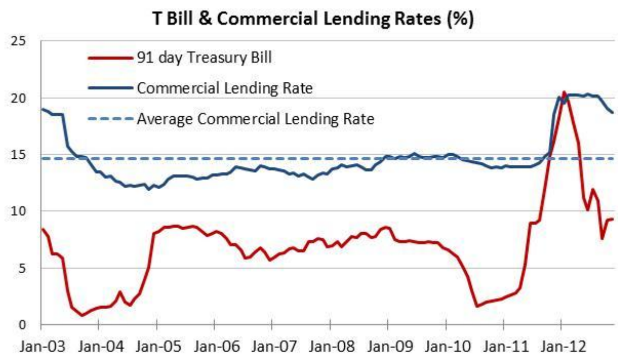


During the global crisis, Kenya witnessed rapid inflation which returned to below its target level by mid-2010 without any monetary policy action. However, in 2011 similar inflationary weakness was successfully countered with aggressive monetary tightening resulting in achievement of the inflationary target of the central bank. January 2013 inflation was 3.67 percent.

3. Interest Rates

Historically Kenyan interest rates have remained insensitive to the overall inflation rate. While in recent years monetary tightening shows a strong relationship between government borrowing (Treasury bill) rates and inflation, commercial lending rates show little correlation with inflation except in times of extreme weakness.





It is assumed that lower Treasury rates will result in a lowering of the commercial lending rate to the ten year historical average of 14.65 percent. Local bank loans have floating interest rates. Based on market surveys of local banks and an assumed credit spread for water service providers of 2.0 percent above the average 15% bank base rate, an average local currency borrowing cost of 17 percent has been used in the analysis.

4. Cash Flow and Debt Recovery

Tariff increases: the model uses selected tariff increases unique to the needs of each utility in order to hit sufficient IRR, minimum free cash flow level to operate the company and maintain a minimum Debt Service Coverage Ratio (DSCR) of 1.5 to satisfy lenders.

Collection efficiency: Assumed target rate of 90 percent.

Creditor days: Assumes the current level of creditor days remains constant unless they are over 120 in which case they are gradually brought down over the project period.

Cash flow: during the project excess cash is recycled to replenish the revenue account used to make the mandatory payments (levies, debt service O&M etc.).

Loan terms: there is a grace period on principal repayments for the 2-year construction period and the loan repayments are over 8 years. The target DSCR level is set at 1.5.

Finance sources: 60% of the capital costs are met from the OBA grant (which is initially funded through loans) and 40% from a commercial loan.

Consumer willingness to pay is significant given that the targeted consumers often pay higher amounts for vended water. The utilities financed under the project will charge regulator approved tariffs. Ensuring tariff affordability and consultation with consumers before tariffs increases is a key part of the regulator's tariff approval process. The rising block tariff policy used in Kenya ensures that basic consumption needs are supplied to consumers at affordable rates.

A detailed financial analysis of each utility applying for funding under the program will be carried out as part of the loan application process. These records will be analyzed during the mid-term review and after project completion to ascertain the financial returns accruing to utilities from the project.

B. Economic Analysis

Investment in water supply and sanitation is related to a high level of economic return. The recent WHO Global Study on Costs and Benefits of Water Supply and Sanitation Interventions to Reach the MDGs[10] estimates global economic return for spending to achieve universal sanitation is US$5.5 per US$1 invested, while for water supply it is US$2.8 per US$1 invested. The benefits calculated included health (primarily, averted cases); health economics (costs related to health care, productivity and mortality); and, time value. The Global Study's result on Kenya is a US$2.8 return for every dollar spent for water supply and US$2.11 return for sanitation.

As the utilities to be financed under the project need to be appraised by the WSTF and lenders after the project is under implementation, the economic analysis is based upon the assessment of four utilities carried out by Economic Consulting Associates in a pre-feasibility study. The benefits calculated in the economic analysis included health (primarily, averted cases); health economics (costs related to health care, productivity and mortality); and, time value.

Based on the assumptions discussed below, the ERR for this project is 34%.

The following assumptions and benefits were considered:

Aspect	Benefits Considered	Basis/Assumptions
1.Health	a. Avoided treatment cost of children under age 5	a. # of diarrheal cases per diarrheal disease x exposure rate per WHO (0.82)[11] b. Unit cost per treatment

[10] World Health Organization. "Global costs and benefits of drinking-water supply and sanitation interventions to reach the MDG target and universal coverage," (2012).

[11] WHO Exposure Scenario for improved water supply and no basic sanitation in a country which is not extensively covered by those services, and where water supply is not routinely controlled is given a corresponding risk of exposure of this value. This allows for estimating health benefits from improving water and sanitation for populations that start on different points on their WSS levels of services.

	b. Productive days gained	a. Days off work per case b. Assumed adult working population c. Opportunity cost (30% of hourly monetary income, using GDP per capita as the proxy for time value)
2. Pollution	a. Avoided treatment/clean-up cost for water ways	a. To be confirmed
3. Income	a. Productive use of time for fetching and waiting	a. Time for fetching b. Opportunity cost (30% of hourly monetary income, using GDP per capita as the proxy for time value)
	b. Reduced/avoided cost of water/sanitation services	c. Compared to cost of alternative sources per cubic meter

Health Benefits - Exposure to diarrhea-causing agents is frequently related to the use of contaminated water and to unhygienic practices in food preparation and disposal of excreta. The 2008 Demographic and Health Survey for Kenya reports the incidence of diarrheal diseases in children under the age of 5. The report notes that there is only a small variance in the prevalence by wealth quintile. It will be, thus, assumed that the prevalence rate of 17 percent applies equally to low income areas and that 10% of the population are children under 5 years of age. The assumption will use the treatment cost for oral rehydration. A similar estimate for incidence in the general population age group is not readily available. In order to estimate the productive days gained, it is assumed that the incidence of diarrhea for the working population between 15-64 years old (54.8%) is the same as those under 5.

Pollution Benefits – Wastewater including feces, released into the wider environment, such as rivers and drains, causes environmental damage. Polluting components of wastewater includes microorganisms (leads to illnesses), organics (leads to foul odors and oxygen depletion of water courses), solids (leads to turbidity), nutrients (leading to eutrophication), gases and other pollutants. The most common would be microorganisms and organics. As the benefits to health are already considered in the first group, it is proposed that this benefit focus on organic pollution. Sub-projects investing in sanitation, wastewater collection and treatment will reduce the levels of biochemical oxygen demand (BOD) of wastewater disposed of in the environment. While it is possible to estimate the level of BOD reduction from the intervention, quantifying the avoided costs of pollution is more difficult.

Income Benefits – The analysis considered the direct benefit of reduced spending on water from alternative sources and of increased productive hours that would have normally been spent on fetching for water.

Other Effects - Other important effects such as such as energy savings and reduction in water losses will have already be internalized through the financial analysis as these benefits will directly link to the revenues of the water service providers. Distal effects such as better health leading to increased attendance in schools will not be included given the difficulty to collect data and to isolate the links.

A 20 year asset life was assumed and a social discount rate of 10 percent was used to calculate the ERR and Net Present Value (NPV).

Based on these assumptions and using the specific data from four utilities analyzed by Economic Consulting Associates at the pre-feasibility stage (Ruiru Juja, Meru, Muranga and Mathira), the project will have a positive economic NPV of US$7.4 million and an expected ERR of 34 percent. Consumer surplus from switching from costlier vended water accounts for most of this value - in this case 85 percent of the net present value of benefits.

ANNEX 7 - MAJIDATA POOR ASSESSMENT METHODOLOGY[12]

MajiData is an on-line pro-poor database mapping the urban low income areas of Kenya prepared by the Ministry of Water and Irrigation and the Water Services Trust Fund in cooperation with UN-Habitat, Kreditanstalt für Wiederaufbau (KfW), Google org. and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). The database can be found at *www.majidata.go.ke*. To collect the required data, the MajiData team developed data collection tools and established data collection teams to conduct household and area surveys. In addition to the tools, the team also developed a set of typologies and definitions.

Kenya's cities and towns are complex socio-economic and cultural entities characterized by marked patterns of economic differentiation. In some cities and towns, low-income areas can be easily identified, such as well delineated informal settlements. In other towns, however, the urban poor reside in small formal estates or in rented accommodation which are surrounded by commercial plots or by high income housing. In order to make an informed decision there is need to provide detailed description of the various types of urban low-income areas. The survey criteria are based upon: 1) A study carried out in Kitale, Webuye and Bungoma (KfW, November 2006), and 2) Discussion with a number of NGOs, active in the WSS Sector and with staff of the German Development Service (DED).

The decision to include or exclude an area in the pro-poor database was made on the basis of a set of wealth and service level indicators such as legal status, quality of housing, housing materials used, area layout, condition of roads and drainage, the solid waste situation and the water supply situation. These criteria were used to prepare a set of area typologies and definitions. The data collection tools are complex but are based upon a basic criteria and characteristics, such as:

Water supply and sanitation:

- Areas lack or have limited access to basic services such as safe water, and sanitation.
- The existing infrastructure is usually in poor technical condition, not user-friendly and poorly managed.
- Where water supply and sanitation services are available they are usually shared. Residents use community stand pipes and shared ablution blocks.
- Many residents rely on informal water and sanitation service providers (i.e. water resellers) or on illegal connections.
- The price residents have to pay for water is not regulated.
- The quality of water fetched from sources within the area (boreholes, protected open wells, etc.) is poor.
- Lack of space (due to poor planning and high population densities) required for the provision of basic infrastructure/services such as roads, safe water, adequate sanitation, drainage and solid waste management.

Population, layout and infrastructure:

[12] Source: Water Services Trust Fund, *Toolkit for Urban Water Supply Projects Module: Target Areas for WSTF-Funded Urban Projects* and www.majidata.go.ke.

- High population densities.
- Many low income areas have not been constructed according to a proper layout plan.
- Plots usually accommodate more than one household (in some informal urban areas a single plot can accommodate up to 35 households).
- Most low income areas are located on marginalized land (areas with a high water table or situated on top of hills, etc.).
- Most low income areas have poor infrastructure (roads, drainage) and services (solid waste collection).

Land ownership:

- Many residents lack security of tenure.
- The areas are either planned or unplanned. Planned (formal) low income areas are mostly found on Government or Council land.
- Many residents are renting their accommodation.
- Many tenants live in a “flat” which they share with other tenants. Quite often the landlord resides on the plot.
- Landowners often lack the financial resources to construct proper houses and to invest in adequate water supply and sanitation.
- Land is object of speculation of power-brokers, who are not really interested in developing it.
- Obtaining land for the construction of WSS infrastructure (such as water kiosks and public sanitation facilities) is usually a challenge.

Type of housing:

- Housing in informal settlements, can be either permanent or temporary. The quality of housing often depends on the land ownership. Residents who own the land they occupy are often willing to invest in permanent buildings, whereas residents who do not own the land tend to put up temporary structures.

Socio-economic situation:

- Most residents (but not all residents) have low income levels.
- Unemployment levels - and youth unemployment levels in particular - are high.
- Many residents are active in the informal sector of the local economy and derive an income from small-scale businesses, trade and casual labor (piece work).
- Residents in formal employment are mainly Government or Council employees, shop attendants, security guards, drivers, (etc.) with low incomes.
- Residents of low income urban areas often lack information on matters which are important to them (water supply, supply of electricity, social and health services, etc.) and as a result many do not know their rights.
- Mixed social economic make-up of the urban low income areas. Although the majority of the population can be categorized as “poor” we do find well-to-do people living or operating businesses in low income areas.

Community characteristics:

- Low income areas often lack of social cohesion. This can often be attributed to the mobility of their residents. In informal settlements social cohesion tends to be higher than in planned low income settlements.
- Community participation in low income areas is often lacking.
- Strong presence, in some urban low income areas of civil society organizations and registered groups.

Policy and development interventions:

- Policy negligence. Governments tend to ignore urban low income areas when preparing the national budget.
- Residents are often not consulted during the preparation of development interventions or the choice of technologies that aim to improve the living conditions in urban low-income areas.
- Wrong technologies or poor designs are often adopted to improve infrastructure in low income settlements. Adapted technologies and the preferences and priorities of residents are often not considered.13
- The authorities should also develop master plans and coordinate developments.
- Land owners are not involved in the planning and implementation of projects which require land and aim to improve the welfare of the residents. This means that beneficiaries should be ready to offer land and legal documents signed between the stakeholders.
- Development interventions tend to focus upon providing infrastructure instead of investing in people and improving capacities.

Public health:

- High population densities.
- Lack of safe water, adequate sanitation, drainage and waste collection systems.
- Poor hygienic practices of residents.
- Absence of community health education and sensitization programs.
- Lack of health facilities (clinics, hospitals, etc.).

[13] For example, in areas with high population densities that lack a proper layout, there may be need to develop an overhead piping technology for water supply.