

#2020FMM

# SWA Webinar

## Incentive Based Financing – An Overview

3-5 March 2020



Co-convened by



**SANITATION  
AND WATER  
FOR ALL**



**WORLD BANK GROUP**  
Water



**FINANCE  
MINISTERS'  
MEETING**

Washington D.C. – 17 April 2020

# Agenda

- Incentive based financing to end inequalities
- Question & Answer
- Climate financing for sanitation and water
- Green Climate Fund
- Ethiopia's Experience
- 6 Question & Answer

# Incentive Based Financing- An overview

Prepared and Presented by Bill Kingdom, SWA  
Senior Adviser



# What is Incentive (Results) Based Financing?

- **Results-based financing (RBF):** A mechanism that rewards the delivery of **outputs or outcomes** with an incentive, upon **verification** that the agreed result has been delivered. Often requires **pre-financing** of activities before payments are made.

As opposed to:

- **Input Based Financing:** Provides financing to deliver an asset – which may or may not deliver results. Traditional method of sector financing.



# Results Based Financing can be used at different levels and degrees of risk transfer.

## Different levels of RBF:

- Sector level – by IFIs to incentivize governments towards sector reform/sector performance improvements
- Sector level – by Governments to incentivize utility performance
- Project level – by utilities to incentivize delivery of project results

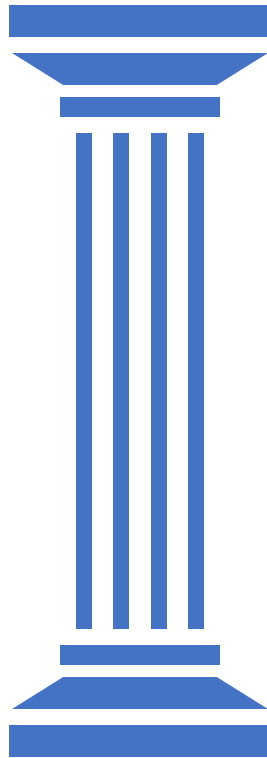
## Different degrees of RBF risk transfer:

- Minor – performance bonus for delivering particular results
- Major – substantive capital or operating costs at risk in event of non-performance

# Two Pillars of World Bank Program for Results Instrument (PfR): Programs and DLIs

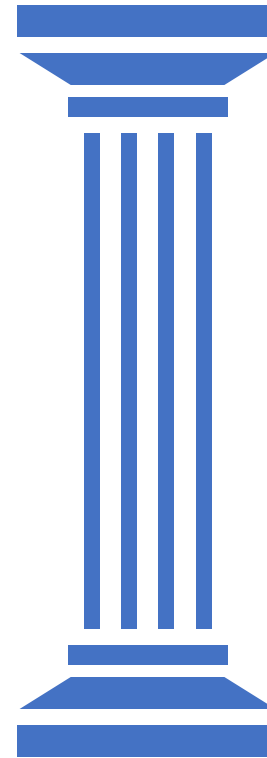
## Program Definition/Program of Expenditures

- PforR has supported a range of government programs
- The majority have supported sub Programs, either sectorally or geographically
- Program boundaries also define the scope of the assessments to be carried out



## Disbursement Linked Indicators (DLIs)

- PforR has supported a range of DLIs depending on the Program
- DLIs include **service delivery indicators, outputs and/or outcomes**
- DLIs also include **institutional indicators** including on fiduciary and environmental and social issues
- Each DLI has a specified **verification** protocol before disbursement



# Key to Incentives - Disbursement Linked Indicators (DLIs)

PforR operations disburse funds based on “Disbursement-linked Indicators (DLIs)”

- Depending on the Program, DLIs can be:



- DLIs should be:



- DLIs can be scalable, meaning disbursement is proportional to progress in achieving the DLI. This helps provide a more stable basis for disbursements than threshold-type conditions.

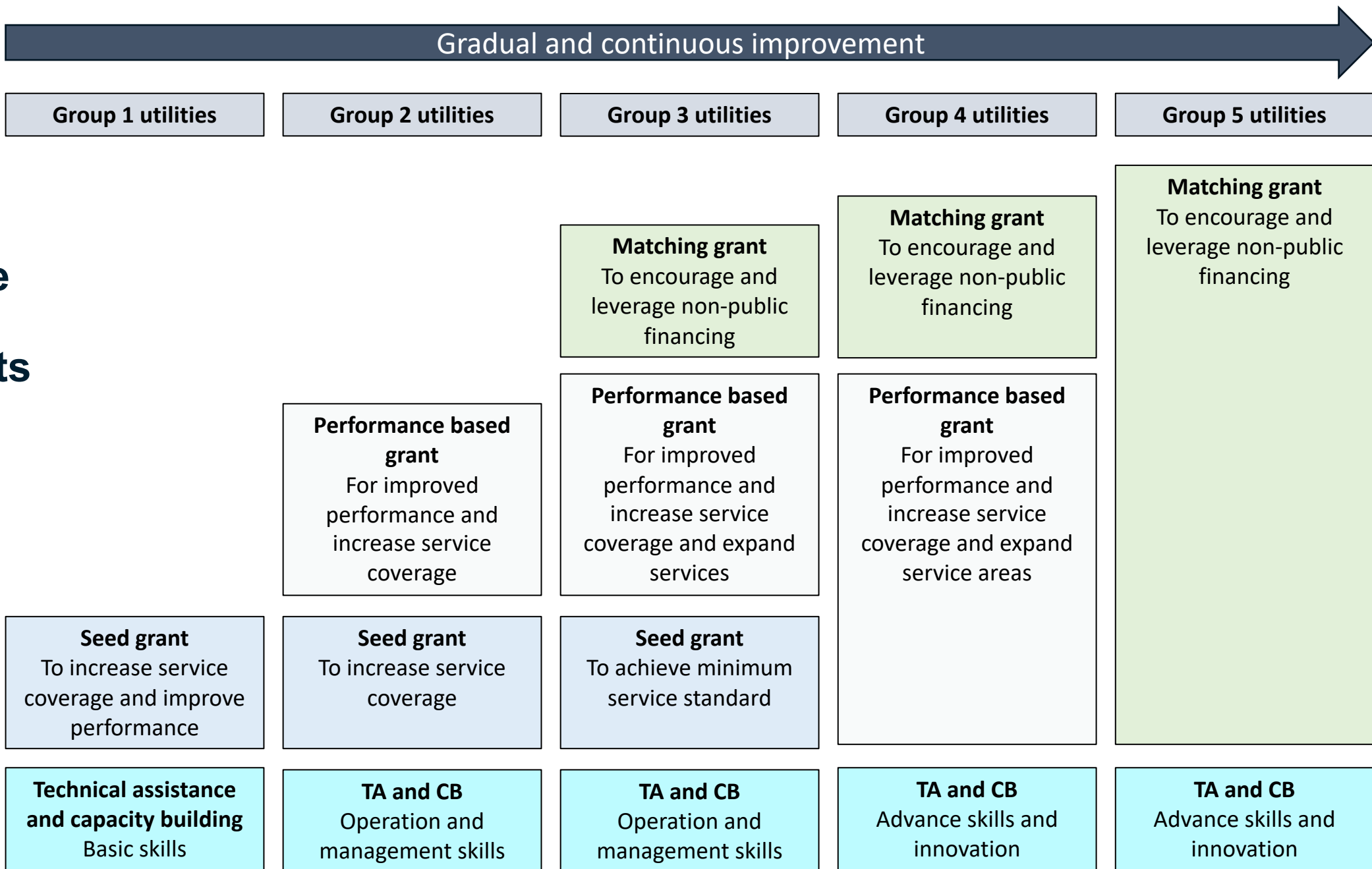
## DLIs (or any RBF model): Verification Mechanisms

- Credible verifications arrangements to be put in place
- Verification is typically handled by government independent entities (usually in charge of conducting audits) or by private firms contracted by the government
- Each DLI should have a specified verification protocol agreed upon during preparation and appraisal

## Example DLIs from an RWSS Project

- DLI 1: Number of people with **access** to an improved water supply
- DLI 2: Number of **sustainably functioning** water points
- DLI 3: Number of people with **access** to an improved sanitation facility
- DLI 5: Number of villages that **achieve and sustain** community wide sanitation status
- DLI 7: Number of entities **submitting accurate and complete** sector M&E data
- DLI 8: Rural support agency **established** and operationalized

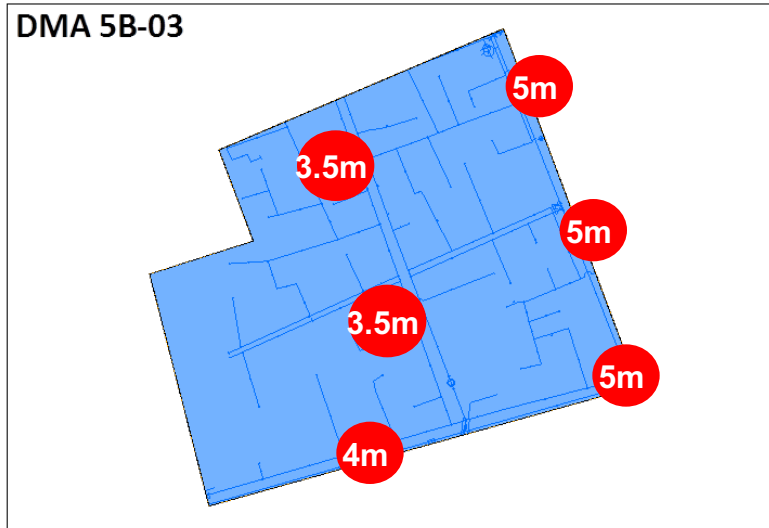
# National scheme to incentivize performance improvements and mobilization of market finance



# Project level RBF for improved efficiency through reduced NRW – HCMC, Vietnam

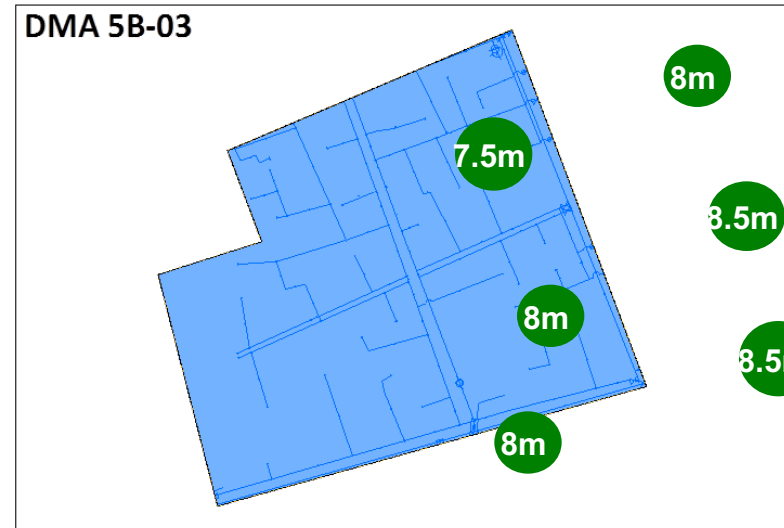
- Type of contract - Output-based: design, build, operate contract with strong performance element
- Payment:
  - Small fixed fee
  - 'Priced Activity Schedule' for DMA establishment (lump sum price per DMA established)
  - Performance fee per m<sup>3</sup> leakage reduction
  - BoQ (supply and installation) for unforeseen works and works to connect new customers
- Contract duration - 4 years + 1 year maintenance period
- Performance Indicator:
  - m<sup>3</sup>/day with a minimum level to avoid penalties
  - But with a special provision for adjustments driven by changes in pressure
- Monitoring: HCMC Water Supply Company supported by special consultants (regular construction supervision and periodical independent auditor)

# Benefits of leakage reduction



**Pressure Before**

| BEFORE (September 2010)           |       |
|-----------------------------------|-------|
| Supply (m <sup>3</sup> /day)      | 3,487 |
| Consumption (m <sup>3</sup> /day) | 1,461 |
| Average Pressure (m)              | 4     |
| NRW Volume (m <sup>3</sup> /day)  | 2,026 |
| NRW %                             | 58%   |



**Pressure After**

**NRW Reduction**

**1,718 m<sup>3</sup>/day**

| AFTER (October 2011)              |       |
|-----------------------------------|-------|
| Supply (m <sup>3</sup> /day)      | 1,891 |
| Consumption (m <sup>3</sup> /day) | 1,583 |
| Average Pressure (m)              | 8     |
| NRW Volume (m <sup>3</sup> /day)  | 308   |
| NRW %                             | 16%   |



# Summary results – HCMC, Vietnam

- What:
  - Service population of ~1 million people
  - Number of connections 140,811
  - Length of distribution system 662,063 m
- Result:
  - Volume of water saved = 92,000 m<sup>3</sup>/d (final amount ~100,000 m<sup>3</sup>/d)
  - Almost half the pre-project amount of leakage
  - Saved water could serve 500,000 people in HCMC
  - Saved power (23,000 kwh/d) could serve 2,500 HH in HCMC
- How:
  - Number of DMAs created: 114
  - < 1% of distribution system replaced
  - 8,535 connections replaced = 6%
  - 12,000 leaks fixed in 662 km of pipe = one every 50 m
  - Performance based payment: fixed + variable per m<sup>3</sup>/d saved

# Project level RBF for improved energy efficiency via ESCOs

## Overall approach:

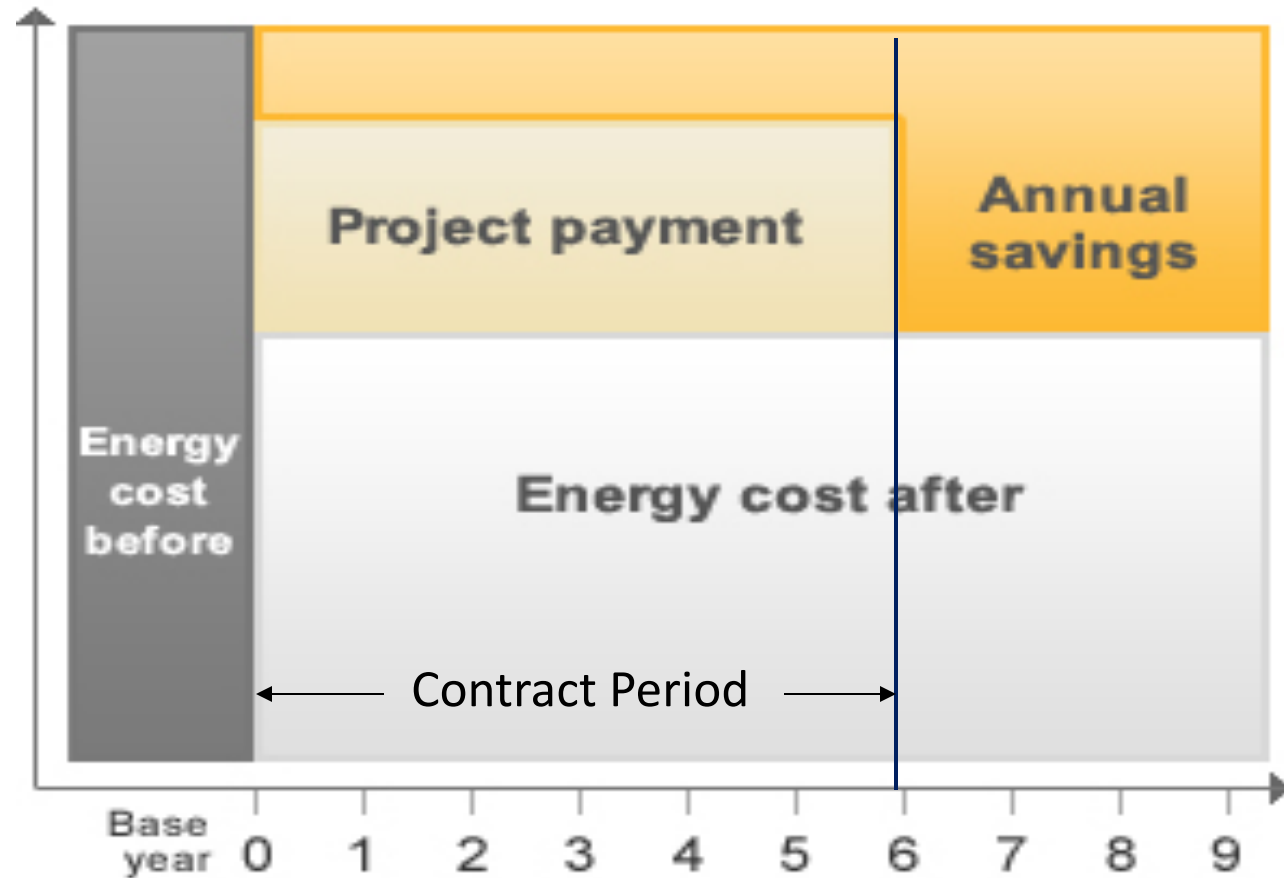
- Provide or arrange a complete package of services, including energy audits/analysis, design, installation, financing, and operation and maintenance; and provide guarantees of resulting performance
- Offer financing models under which urban water utilities can effectively pay for the investments in EE over time from a portion of actual energy cost savings achieved
- Payments to the ESCO are based on demonstrated and verified results (that satisfy the performance guarantees provided by the ESCO)
- Most of the project risks are assumed by the ESCO.

## Types of Services provided by ESCO:

- Power factor correction
- Variable speed drives
- Pump replacement
- Solar PV systems
- Energy management and control systems
- Rehabilitation of pumping systems
- Other

From Dilip R. Limaye

# A Win-Win Performance Based Model



# Output Based Aid to Incentivize Commercial Financing of Water and Sanitation in Kenya

## The Challenge

- WSPs face growing populations, increased investment needs, and lack access to finance for water and sanitation
- Investments in infrastructure exclude low-income areas (e.g., informal settlements)
- Market intelligence and perceived risk of lending/borrowing for water and sanitation

## The Solution

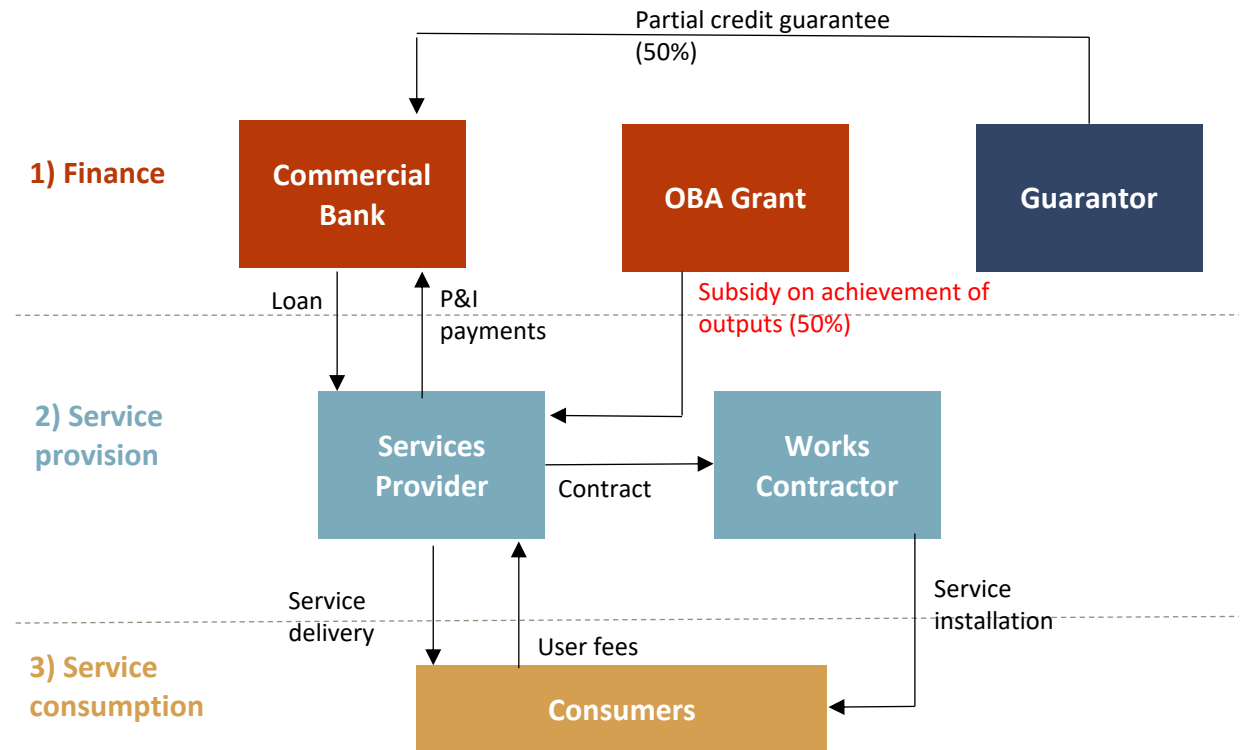
- Sector reforms created an environment conducive to commercial lending to help fill investment gaps (e.g. Kenya Water Act 2002 /16; autonomous WSPs; independent sector regulator; ring fencing revenues)
- OBA incentive to target low-income populations
- WSP creditworthiness assessments
- Technical assistance to assess financial viability and technical feasibility of projects/ improve bankability of WSPs
- USAID partial credit guarantee to mitigate lender credit risk

# OBA for Commercial Financing of Water and Sanitation in Kenya

## Outcome

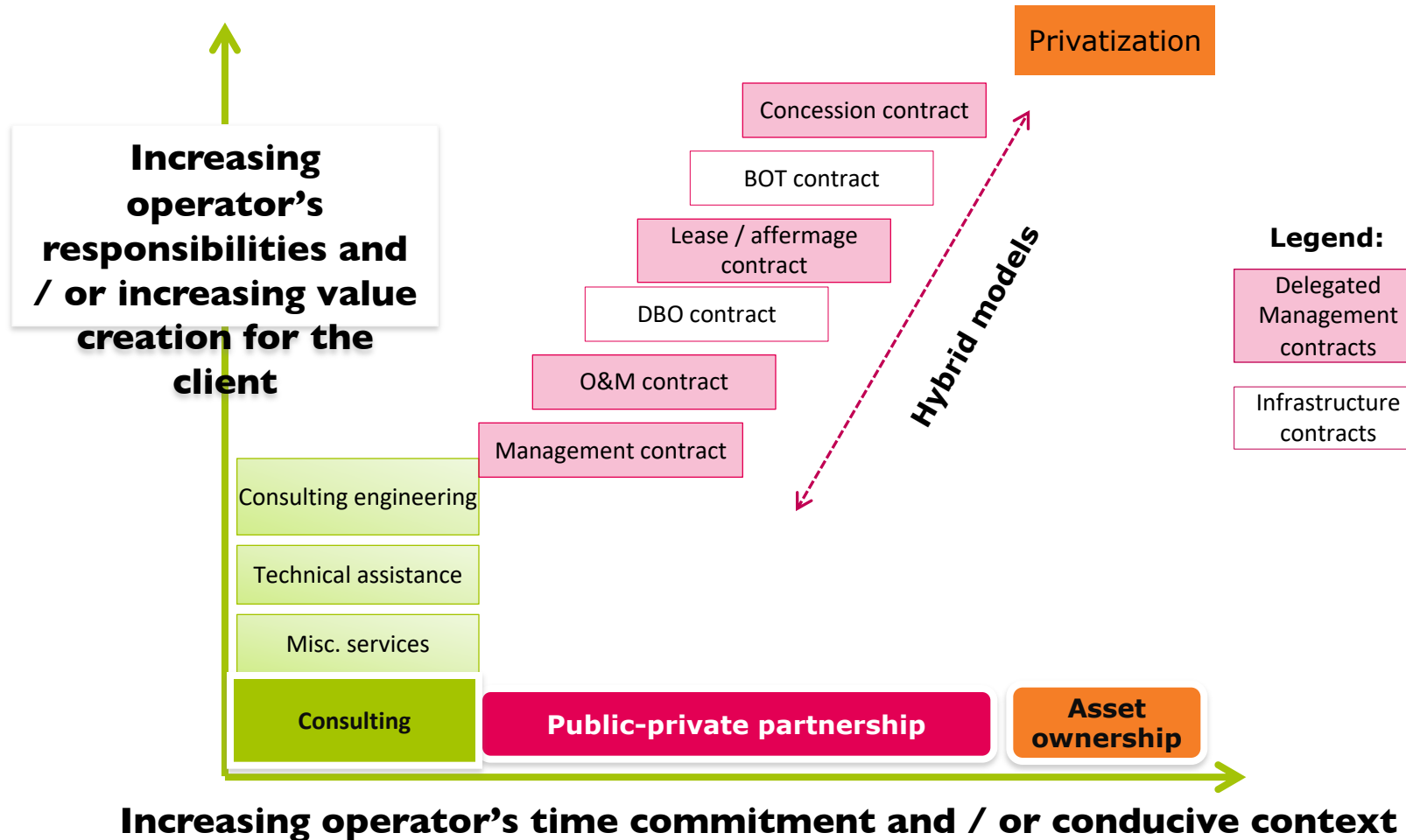
- Pilot: 35 communities borrowed **\$3.4 million** from K-Rep bank benefitting 200,000 people
- Ongoing projects: 9 utilities have accessed **\$20 million** in commercial loans from 4 domestic lenders on market terms, benefitting an expected 300,000 people
- Going forward: Establishment of a pooled water facility (KPWF) to mobilize local private capital to finance water and sanitation infrastructure
- **WSP had to pre-finance the investment and only received OBA grant on delivery of results**

## Project Structure (Kenya OBA Fund)



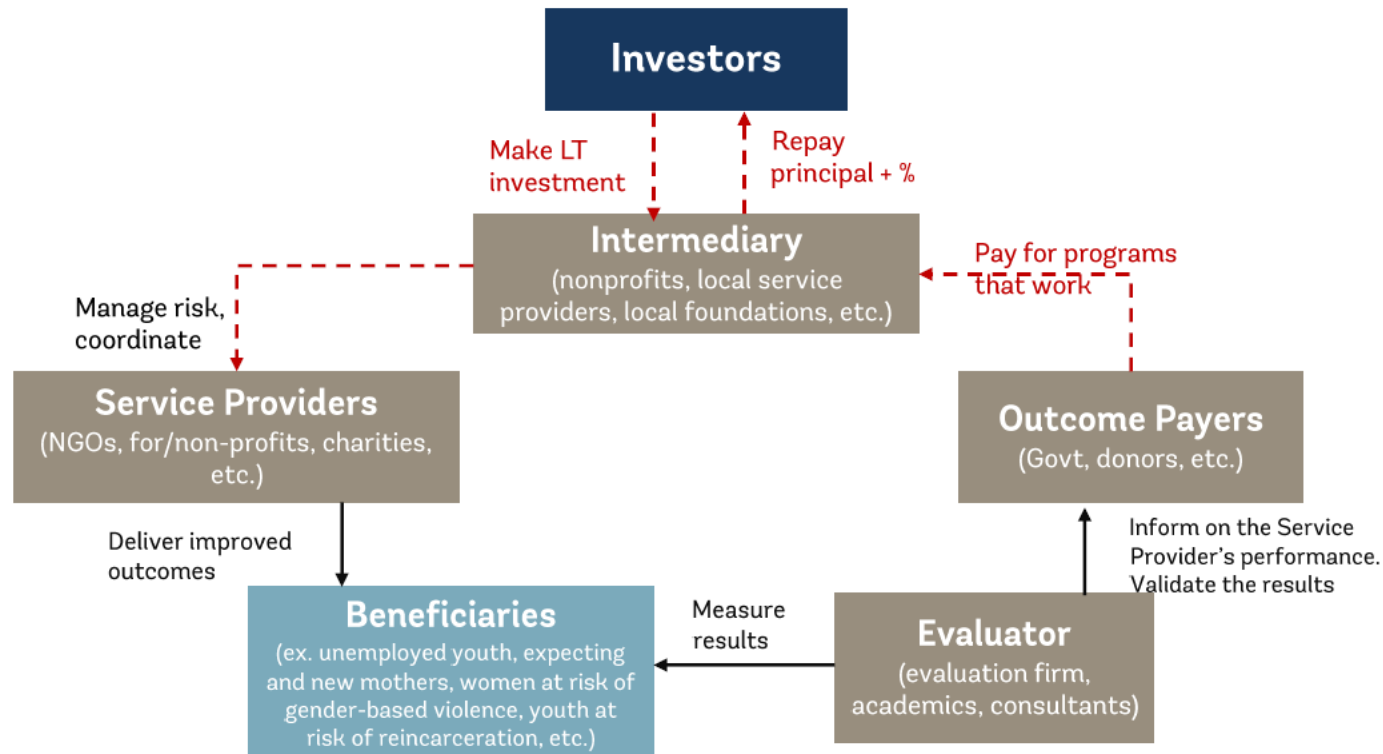
OBA subsidy combined with partial credit guarantee supports domestic lending to water service providers

# Results based financing can be applied to a wide range of PPPs



Source: Suez (2014)

# Impact Bonds: Financial Structure



Every impact bond is different, but all include the investor, service providers, outcome funder, and evaluator.

## In Summary

- Results Based Financing is a broad-based approach where part of a payment (to government, utility, contractor) is linked to delivery of verifiable results
- Results based, performance based, incentive based .....many terminologies
- RBF can be applied at the sector level and at the project level
- The degree of risk transfer can be wide ranging – from a “bonus” through to material risks linked to capex and opex payments
- Changes stakeholder mindset from “what shall we build?” to “what do we want to achieve from this investment?”
- RBF approaches will typically result in faster, more efficient, more effective and more sustainable solutions




# Question and Answer



# Climate financing for sanitation and water – An overview

Prepared and presented by John Garrett, Senior Policy Analyst – WaterAid

With support of Jose Gesti Canuto, SWA Adviser



# Climate finance for resilient and pro-poor water and sanitation services

**John Garrett**  
**Senior Policy Analyst – WaterAid**

# Climate finance and WSS

1. Climate change impacts the **sustainability** of water supply and sanitation services
2. Climate finance presents an **unexploited opportunity** to renew focus on resilient development
3. Changes are needed to ensure adaptation finance is of **sufficient volume, targeted at the poorest** and **spent effectively**.

# A complex landscape...

Global climate finance flows along their life cycle in 2017 and 2018. Values are average of two years' data, in USD billions

## LANDSCAPE OF CLIMATE FINANCE IN 2017/2018

Global climate finance flows along their life cycle in 2017/2018. Values are average of two years' data, in USD billions.

**579** BN USD  
ANNUAL  
AVERAGE



### SOURCES AND INTERMEDIARIES

Which type of organizations are sources or intermediaries of capital for climate finance?

### INSTRUMENTS

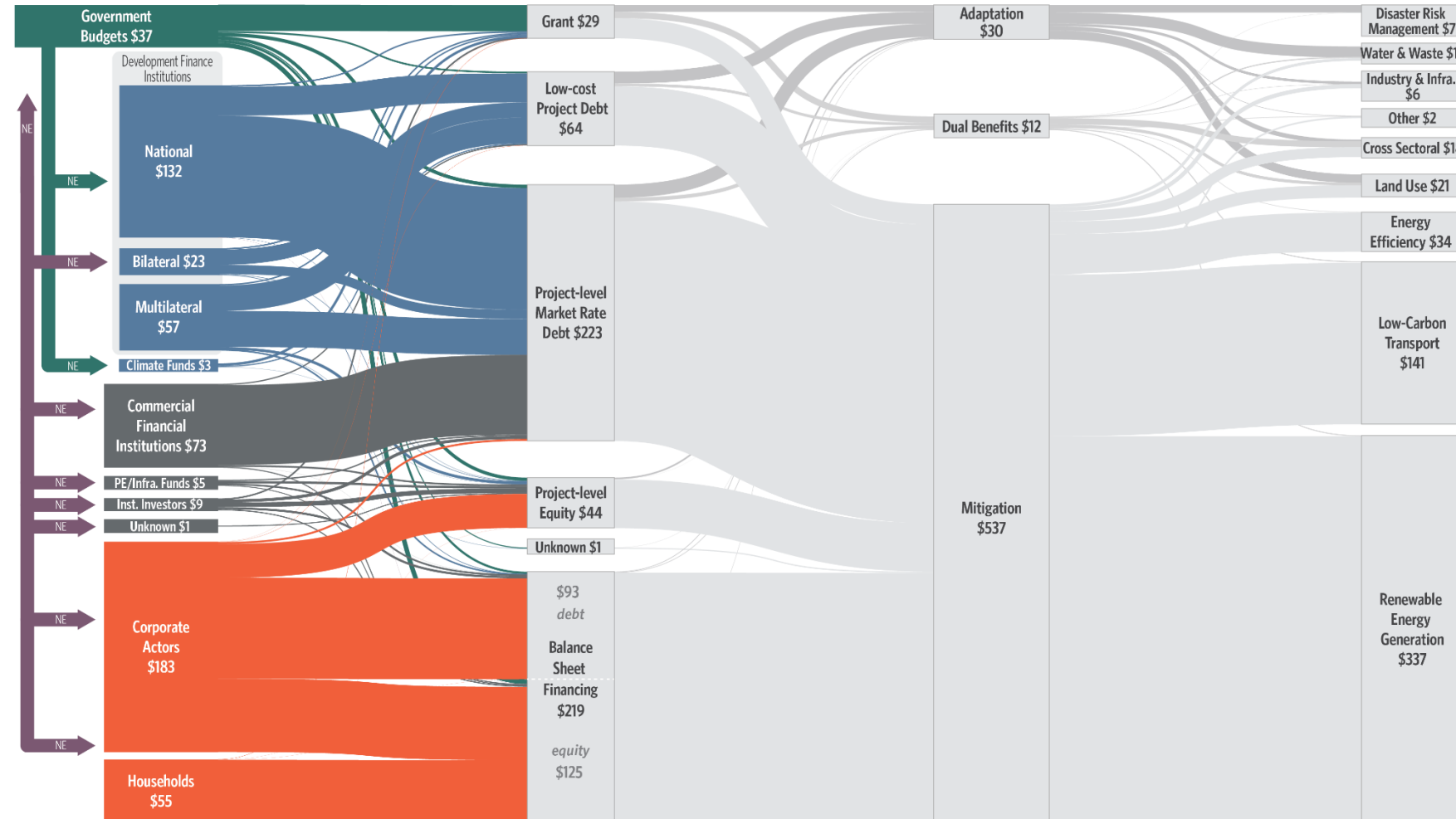
What mix of financial instruments are used?

### USES

What types of activities are financed?

### SECTORS

What is the finance used for?



Source: Climate Policy Initiative

KEY

PUBLIC MONEY

PUBLIC FINANCIAL INTERMEDIARIES

PRIVATE FINANCIAL INTERMEDIARIES

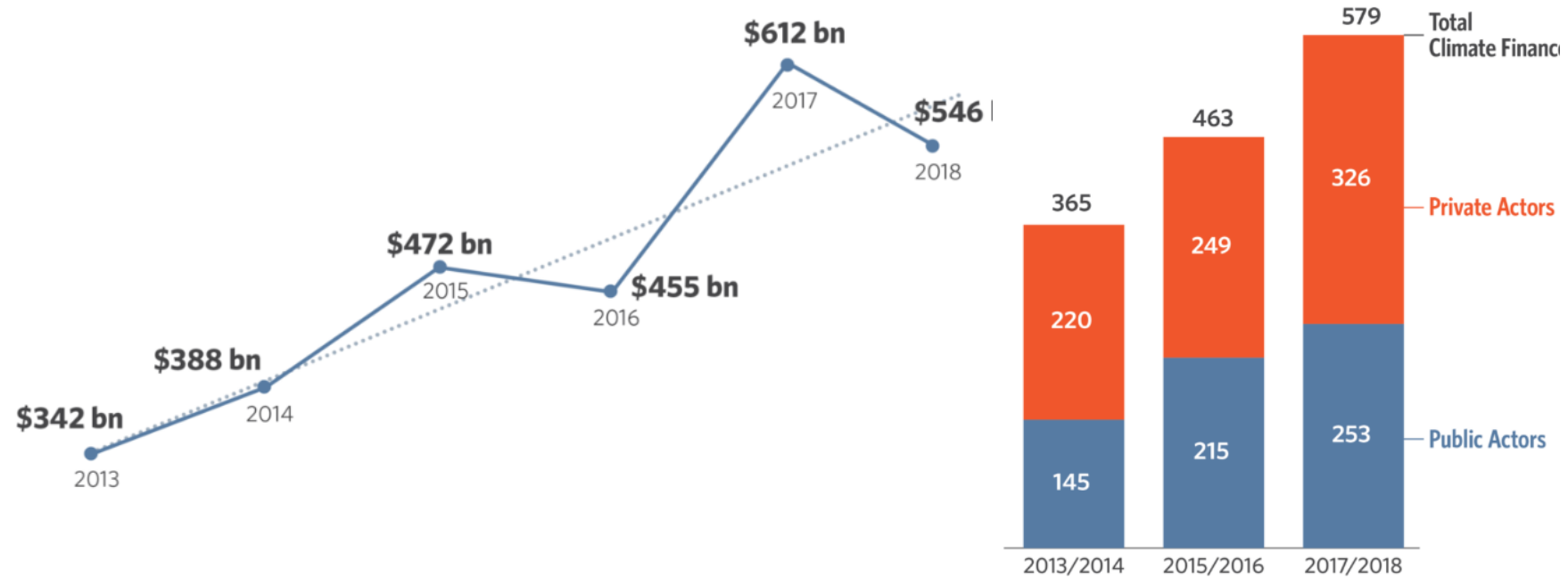
PRIVATE MONEY

FINANCE FOR INVESTORS & LENDERS

NE: NOT ESTIMATED

...but climate finance presents a powerful opportunity

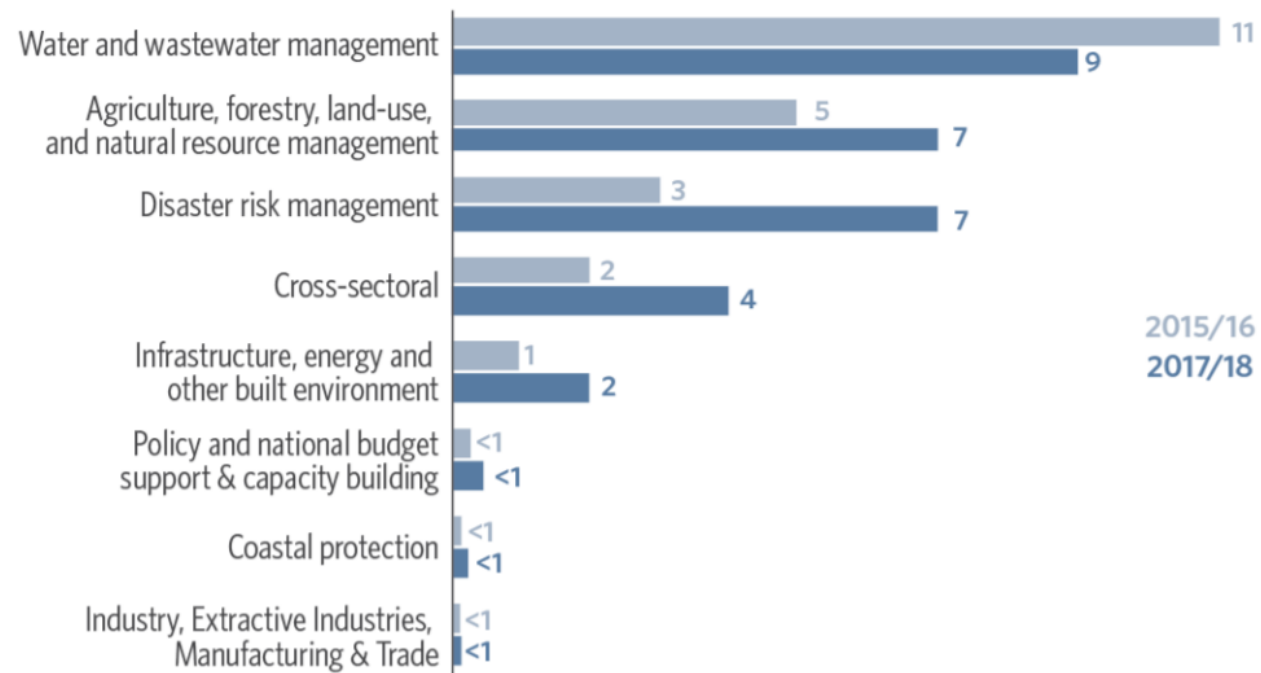
## TOTAL GLOBAL CLIMATE FINANCE FLOWS 2013 -2018



Source: Climate Policy Initiative

## WASH and Adaptation financing

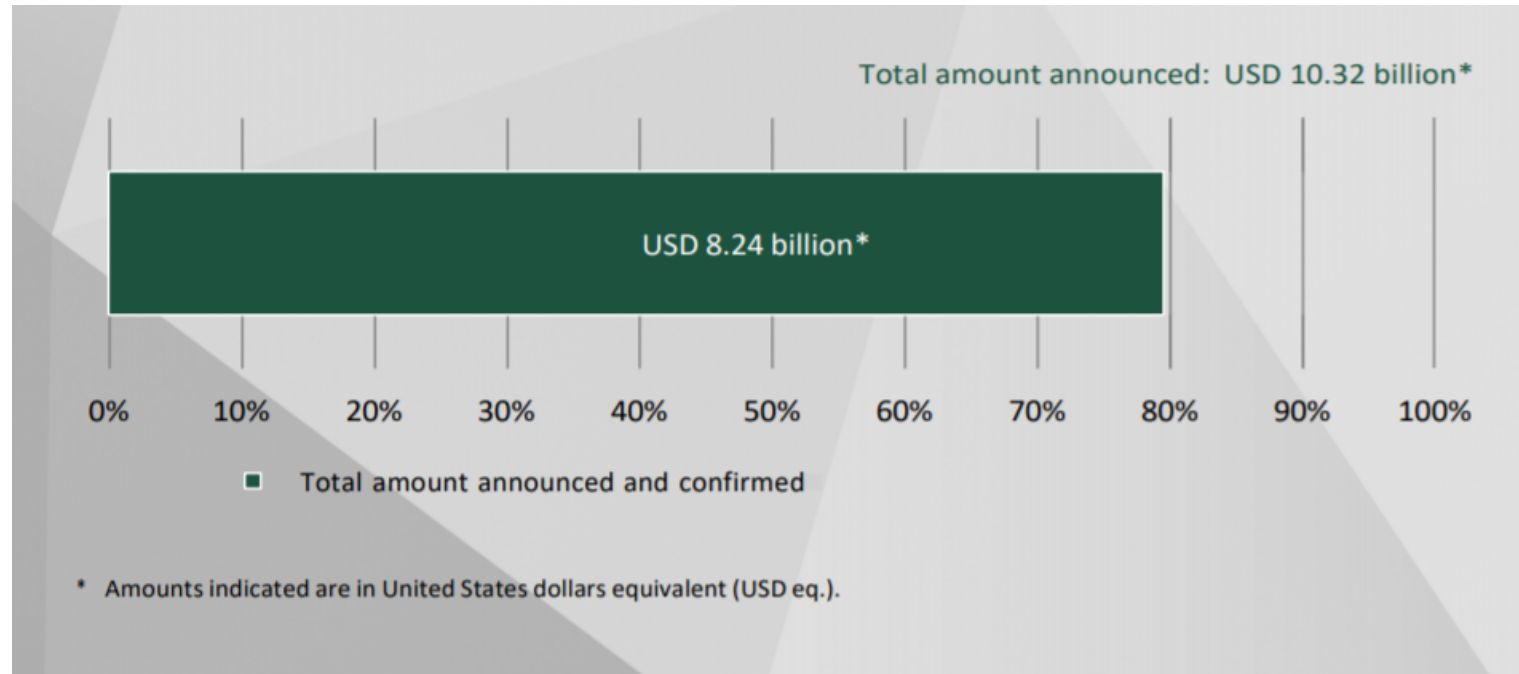
### PUBLIC ADAPTATION FINANCE BY SECTOR 2015 - 2018 (USD billion)



Source: Climate Policy Initiative

...money for climate action is taken  
from aid budgets (ODA)

**STATUS OF GREEN CLIMATE FUND PLEDGES AND CONTRIBUTIONS**  
(As of February 2020)



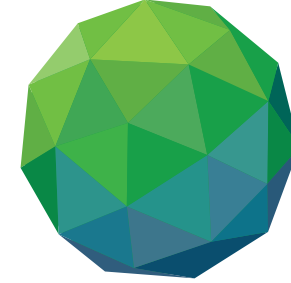


# Green Climate Fund

Prepared and Presented by Chibesa Pensulo, Water Specialist, GCF



# CLIMATE FINANCE FOR WASH - THE ROLE OF GCF



GREEN  
CLIMATE  
FUND

CHIBESA PENSULO  
GCF WATER SPECIALIST

SANITATION AND WATER FOR ALL (SWA) WEBINAR SERIES  
MARCH 2020



# GCF's MISSION

As an operating entity of the **UNFCCC financial mechanism**

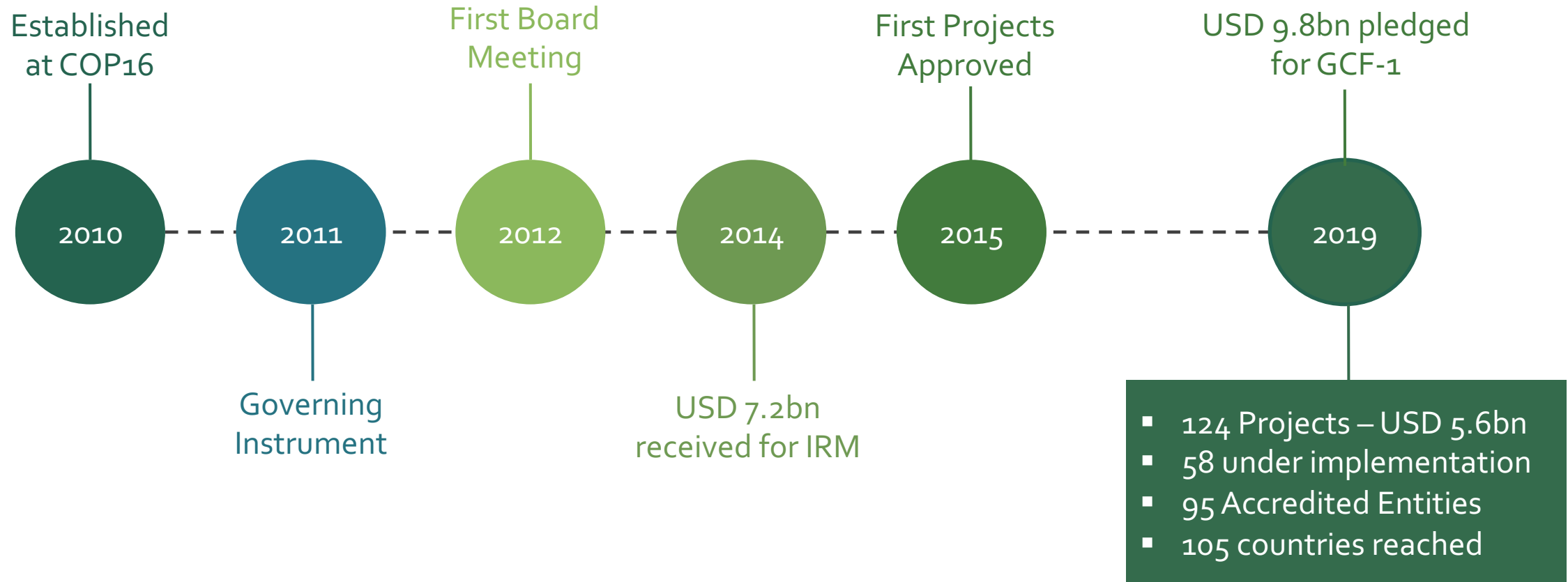


we help **developing countries** take ambitious action on climate change



to promote a **paradigm shift** to low-emission and climate-resilient development

# A BRIEF HISTORY





# BUILDING GLOBAL PARTNERSHIPS

A Diverse  
Network of  
Partners



Direct Access

Private  
Sector

International  
Access

95  
accredited  
entities

# CLIMATE IMPACTS ON WASH SYSTEMS

| Climate effect                               | Hazard   | Impact on WASH sector  |
|--|--|--|
| Decrease in precipitation                    | Drought  | Reduction in raw water supplies, reduced flow in rivers, less dilution/increased concentration of pollutants in water, challenge to hygiene practices.   |
| Increase in precipitation and severe weather | Flooding   | Pollution of wells, inundation of wells, inaccessibility of water sources, flooding of latrines, damage to infrastructure, landslides around water sources, sedimentation and turbidity, challenges to sustainability of sanitation and hygiene behaviours, and waterborne diseases. |
| Increase in temperatures                     | Heatwaves  | Damage to infrastructure, increase in pathogens in water leading to increased risk of disease.   |
|  | Melting and thawing of glaciers, snow, sea ice and frozen ground | Seasonality of river flows affected leading to a reduction in water availability in summer.  |
| Sea-level rise                               | Flooding and saline intrusion into freshwater aquifers           | Reduction in availability of drinking water, with high impacts on quality.   |



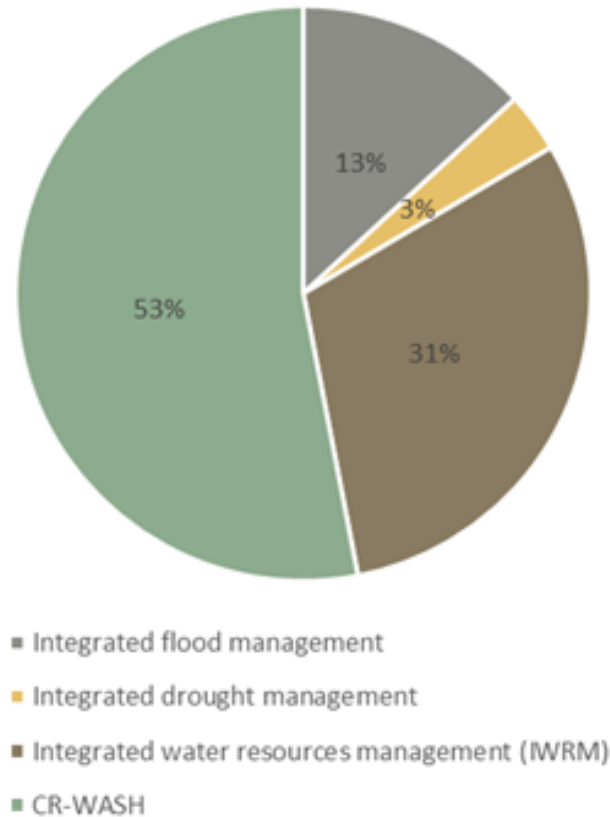
# GCF'S INTEREST IN WASH

GCF's interest in WASH is in enhancing the **climate resilience of WASH systems** and **maximizing emissions reductions** therefrom.

| Location               | Examples  |
|------------------------|---|
| Water quality          | Improving resilience of protected wells to flooding; small-scale systems for treating storm water; gully protection and rehabilitation; participatory water quality testing; treating water at the household level; water safety planning.  |
| Water quantity         | Increasing water storage, e.g. small multipurpose reservoirs and sand storage dams; rainwater harvesting technologies and artificially recharging aquifers; solar power water pumping; water conservation; increasing number of boreholes; water recycling and reuse.   |
| Sanitation and hygiene | Raised pit latrines; septic tanks; relocation of latrines; small-scale biological systems; climate risk informed pre-triggering in community-led total sanitation approaches.   |
| Enabling environments  | Capacity building, e.g. knowledge generation and dissemination; hygiene education; decentralised management; national and local WASH sector coordination platforms that address development, DRR and emergency issues; integration of climate resilience into WASH sector strategies and plans; promotion of integrated water resources management. |

# WASH IN THE GCF PORTFOLIO

Projects amount by subsector

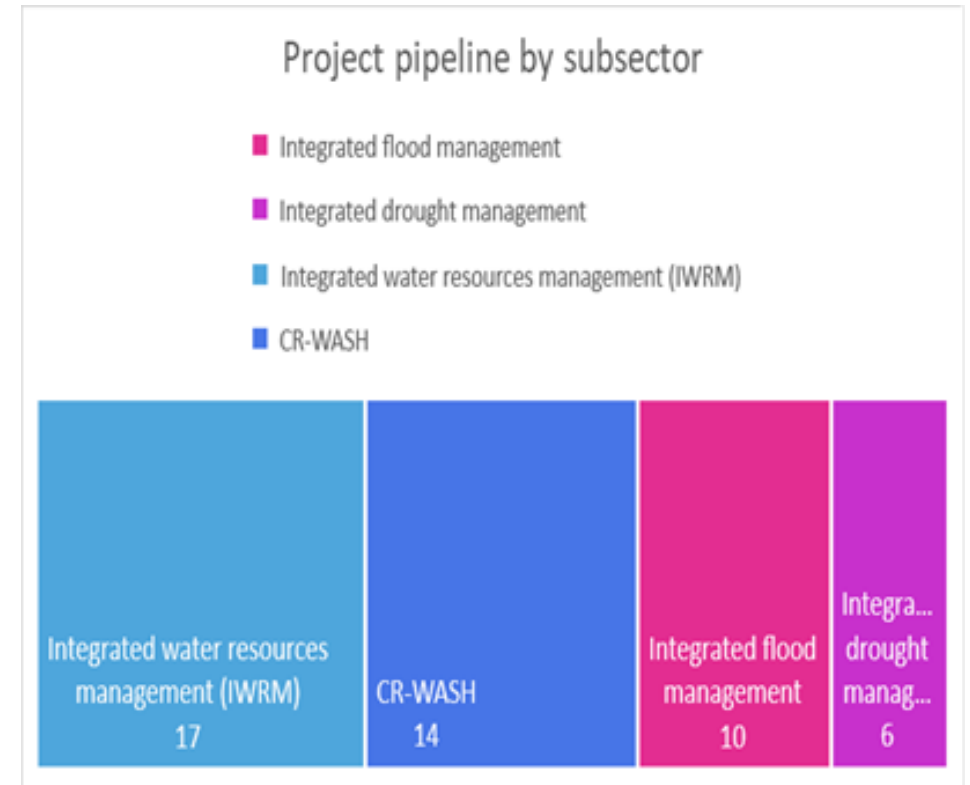


- CR-WASH projects make up 53% of GCF's water portfolio, with approximately **300 million USD** allocated to WASH projects, coupled with 485 million USD in co-financing.
- **Six of the seven projects are in SIDS**, where water supplies are threatened by multiple types of extreme weather events – floods, drought, hurricanes and storm surges.



# WASH IN THE GCF PIPELINE

- At the start of GCF-1, there are **14 CR-WASH projects** in the pipeline, **requesting \$622 million in GCF funding**.
- Half of the projects are in Africa, mostly in response to drought. The rest are spread across the Caribbean, South Asia and the Pacific, responding to different climate hazards.
- GCF is drafting sub-sectoral guidance for countries to develop CR-WASH projects that meet both climate and sustainable development objectives.
- Improved guidance for project design, enhanced country programming and NAP support, are expected to grow the pipeline for CR-WASH over GCF-1.





# KEY REQUIREMENTS FOR WASH PROJECTS

- Clear climate science basis – historical data and projections
- Quantifiable adaptation and/or mitigation impact potential, beyond 'business as usual' development project
- Paradigm shift – potential to transform the whole WASH sector in the target country
- Evidence that the project will not worsen future water scarcity
- Water projects should include sanitation interventions, and vice-versa
- Project design based on full water cycle – e.g. groundwater recharge as well as abstraction
- WASH system powered at least partially by renewable energy



For more information, visit [www.greenclimate.fund](http://www.greenclimate.fund)

Quick links:

[GCF 101](#)

[GCF project portfolio](#)

[Simplified Approval Process \(SAP\) guidelines](#)

[Project Preparation Facility](#)

Contact: Chibesa Pensulo

GCF Water Specialist

[cpensulo@gcfund.org](mailto:cpensulo@gcfund.org)



GREEN  
CLIMATE  
FUND



# Ethiopia's experience

Prepared and Presented by Abiy Girma, National  
ONE WASH Coordinator



**SANITATION AND WATER FOR ALL**



FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

# ONE WASH NATIONAL PROGRAMME

A Multi-Sectoral SWAp

***Financing to eliminate inequalities***

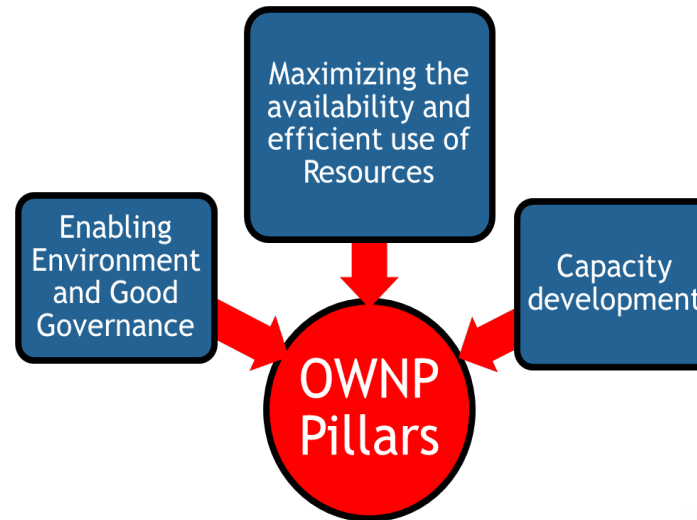
## General

- **One WASH National Programme (OWNP)**: Main instrument for GoE to achieve the GTP II and SDGs WASH targets.
- The **OWNP has become complex**, with more multi-sector interfaces; a **strategic approach is provided for reaching OOWNP objectives** (internal factors and external influences)
- Program's Development objective is **climate resilient improved WASH access and adoption of good hygiene practices in an equitable and sustainable manner.**
- Supported by DPs and CSOs is a basket funding instrument managed by Gov't in a consolidated WASH Account (CWA).

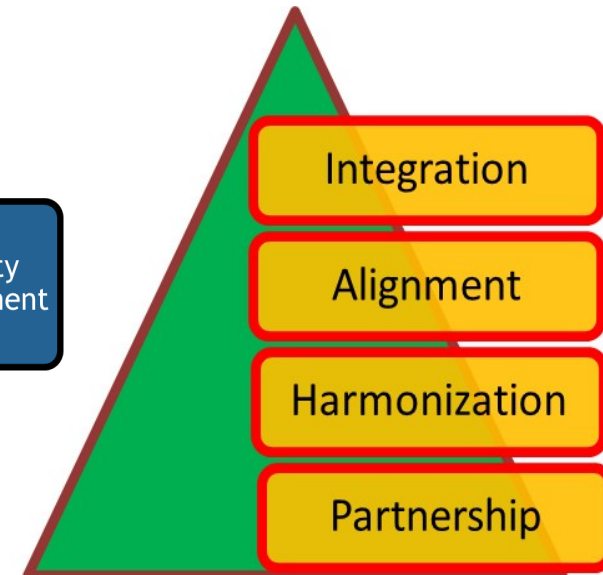
## Program Components



## Program Pillars



## Guiding principles





## Expansion or Elaboration of OWNP- Phase II

- **Sustainable Sanitation & Hygiene** for urban and rural areas is well elaborated emphasize on gender, equity, persons with disabilities and baby WASH
- **Elaboration on cross cutting issues** (water, quality, environmental safeguard, equity in WASH (gender, refugees, disability and other vulnerable groups))
- **Climate resilient WASH is elaborated with**
  - **Two pertinent approaches**
    - a. Securing water resource and improve sustainability
    - b. Management system and supply chain
  - **Three- sub components**
    - a. Water resources mapping, planning and monitoring
    - b. Climate resilient solutions
    - c. Emergency preparedness, early response and recovery

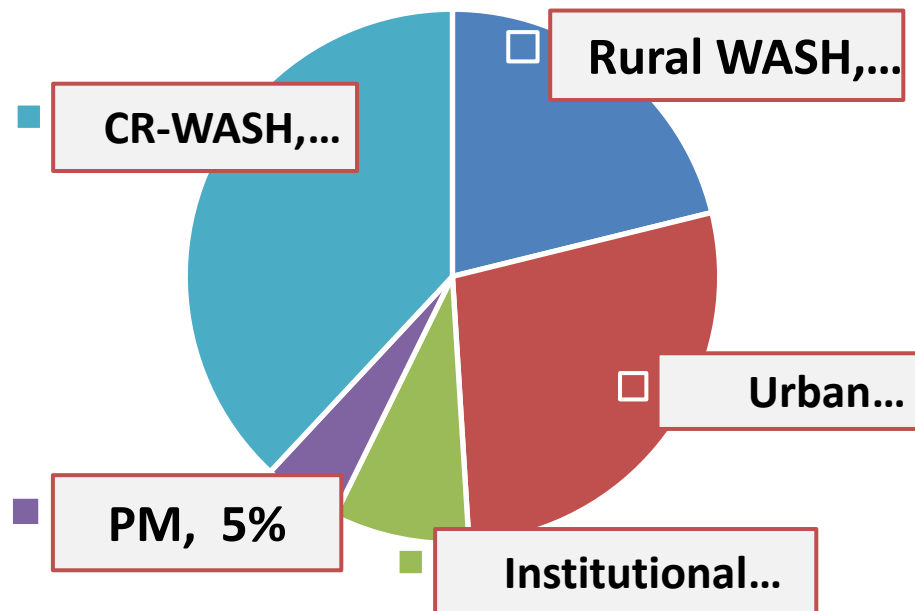


## ***Current Status of WASH Sector Financing in Ethiopia***

- Ethiopia requires **US\$ 3.4 billion per year** to achieve the WASH SDG targets
- **OWNP Phase II (2018-2020): US\$ 6.5 billion** is required of which a total of **US\$2.5 billion** is allocated for the CR-WASH ( **50% from GoE**)
- **Significant gap in cost recovery:** partial cost recovery (80 % max) is applied only in urban areas (rural areas pay part of O&M)
- Efforts are underway to **strengthen revolving fund mechanisms** under WRDF (strategy document under preparation)
- **GoE will continue the mutual accountability mechanisms** for proper coordination of stakeholders through JTR and MSF platforms

## Cost of the OWNP phase II by component

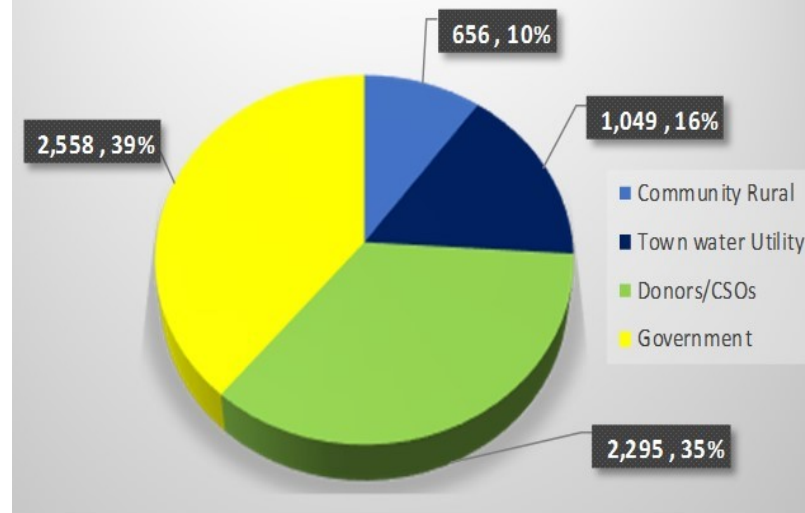
Estimated Total Cost for the **short-to-medium term** work for the five cost centers is estimated at **US\$6.5 billion**.



Annual expenditure to achieve SDGs (or equivalent Ethiopia standard) by 2030 is estimated at around **US\$3.4 billion per year**

## Cost Sharing by Stakeholders

Program cost sharing in Million USD  
USD Million



**Note:** Community contribution Rural 5% in Cash and 5% in labour and kind

## ***Proposed solutions to narrow financing gaps***

- **Diversification of financing modalities** (3ts – taxes, tariffs, & transfers)
- Tapping **climate finance and humanitarian nexus funding including GCF**
- Enhance **private sector investment through PPP** modality (PPP Proclamation is approved in 2018)
- **Accessing commercial loan & revolving fund** through -- WRDF & MFI
- **Apply sanitation levy fund**
- **Increased local financing mechanism including:**
  - **Improve tariff & revenue collection:** reduce high levels of NRW, poor tariff setting, business plan and operating costs
  - **Increase community contribution** (in-kind & cash) on capital investment

## What has worked & not worked on financing

- **OWNP and CWA** is functioning well and more DPs are joining in.....
- Due to increased popularity of OWINP, **public financing has doubled in 10 years**
- **WRDF is operating well** in terms of providing access to WASH financing to cities/towns but lacks funding for rural areas
- **Private sector investment and commercial loans are slowly increasing- challenges are:**
  - low tariff in urban water supplies
  - limited capacity to pay of the public
  - Lack of PPPs legal framework
- **Exploring PPP and private sector financing opportunities**

## OWNP –CWA Phase II components and % Allocation

| No | Major Components                           | %           |
|----|--|-------------|
| 1  | R - WASH                                   | 24%         |
| 2  | U - WASH                                   | 18%         |
| 3  | I - WASH                                   | 14%         |
| 4  | CR-WASH                                    | 31%         |
| 5  | PM   | 8%          |
| 6  | Unallocated/allocate<br>for best performed | 6%          |
|    | <b>Total Cost</b>                          | <b>100%</b> |



***Thank You!***

# Question and Answer



# SWA Webinar

Incentive Based Financing to end inequalities and Climate  
Financing for sanitation and water

3-5 March 2020

**#2020FMM**

