

# Leadership towards sustainable service delivery in Africa

Chris Heymans  
African Water Utilities Forum, 27 June 2016  
Kampala, Uganda



**WORLD BANK GROUP**  
Water

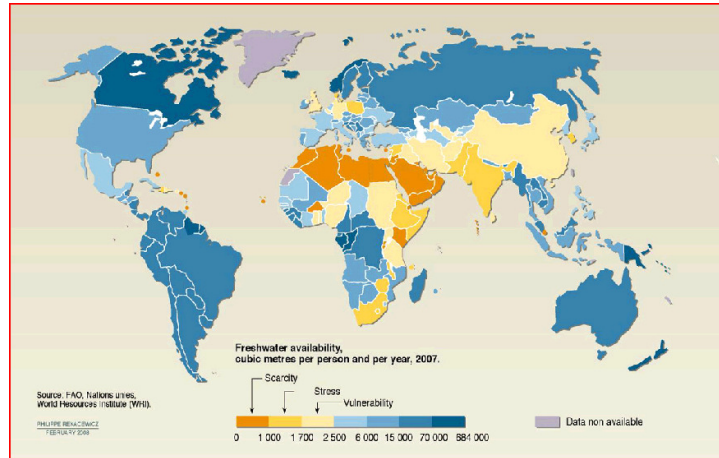


[www.wsp.org](http://www.wsp.org) | [www.worldbank.org/water](http://www.worldbank.org/water) | [www.blogs.worldbank.org/water](http://www.blogs.worldbank.org/water) | [@WorldBankWater](https://twitter.com/WorldBankWater)

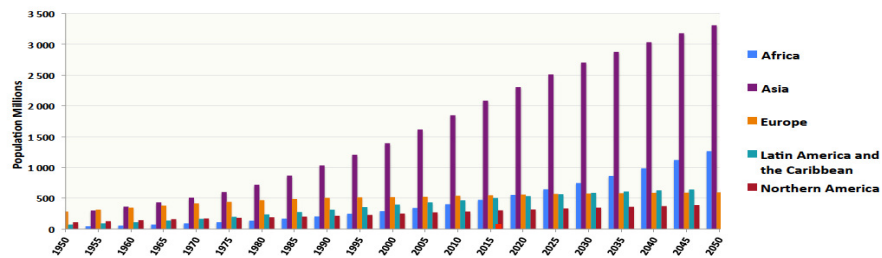
## What do we need leadership on?



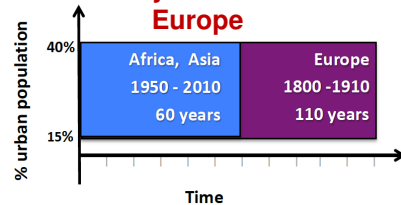
# Coping with water scarcity on a dry continent



# Dealing with massive urban population growth



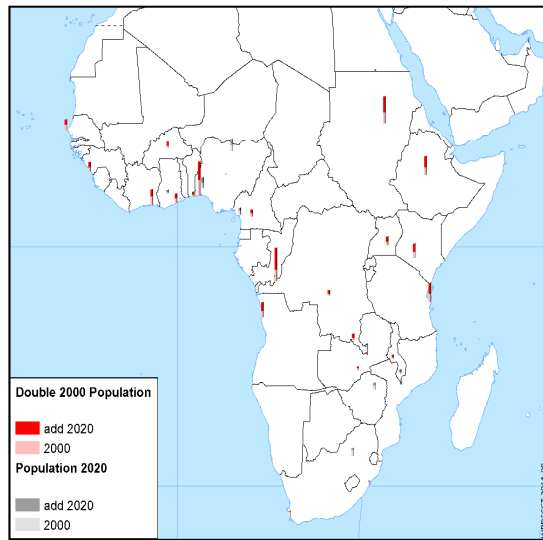
Asia & Africa grew from 15% to 40% urban nearly TWICE as fast as Europe



To continue in African cities...

- Urban population = 340m
- 1.1 billion by 2050 (3x)
- 49% in cities > than 500k
- High proportion in high density informal areas, with low incomes.

## 30 largest cities (2020)



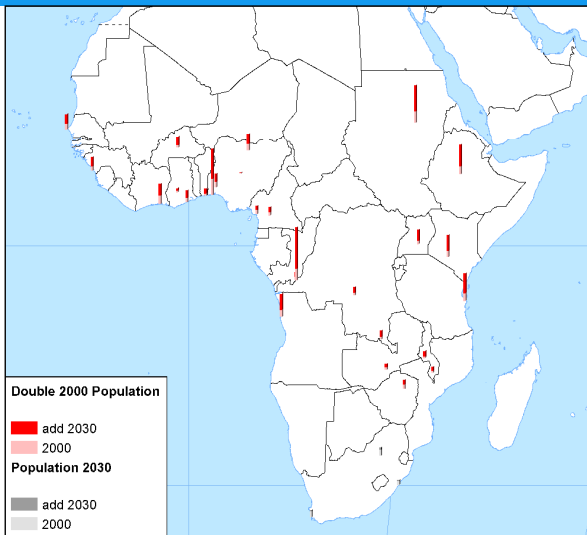
- Growth rates range from 3 to 5% per year
- At 4.7 % it means doubling in 15 yrs. Cities and towns of all sizes: large cities and small towns growing
- **Red indicates a doubling in city population since 2010**



WORLD BANK GROUP

WSP

## 30 largest cities (2030)



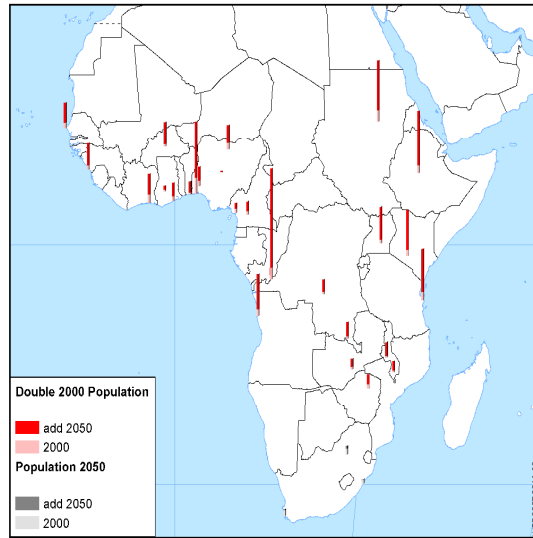
**Red indicates a doubling in city population**



WORLD BANK GROUP

WSP

## 30 largest cities (2050)



### Implications

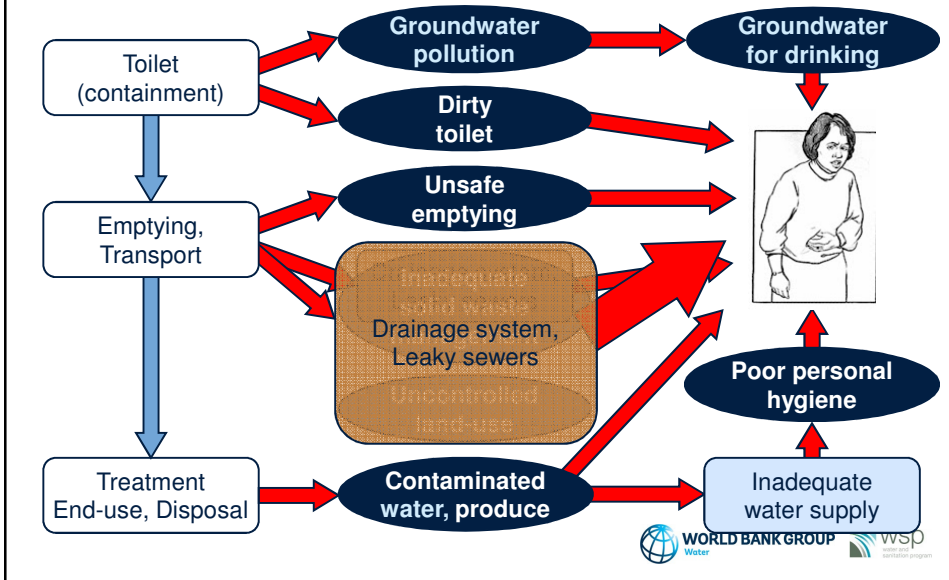
- Demand for housing, services, infrastructure
- Without tenure often no connections to services
- Risks of water insecurity and inequitable services
- Integrated approaches needed across all areas, linking services, planning and governance



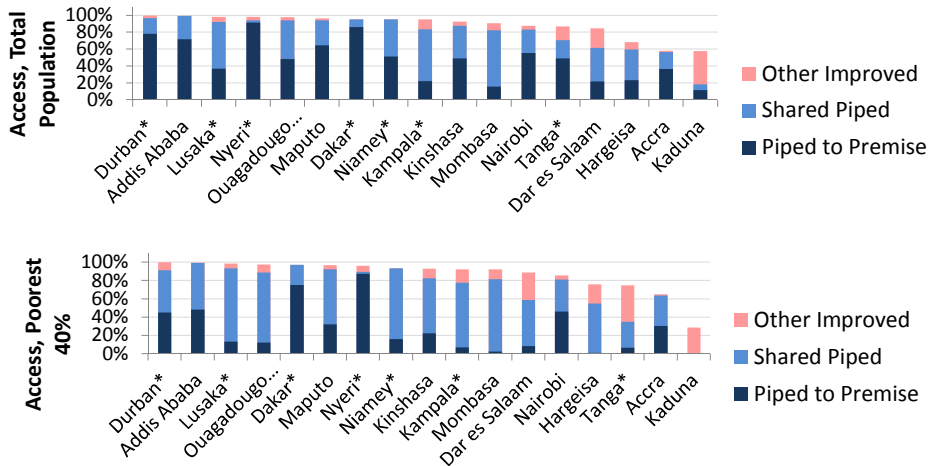
## Facing up to a complex and growing sanitation and health challenge (1)



## That has many dimensions (2)

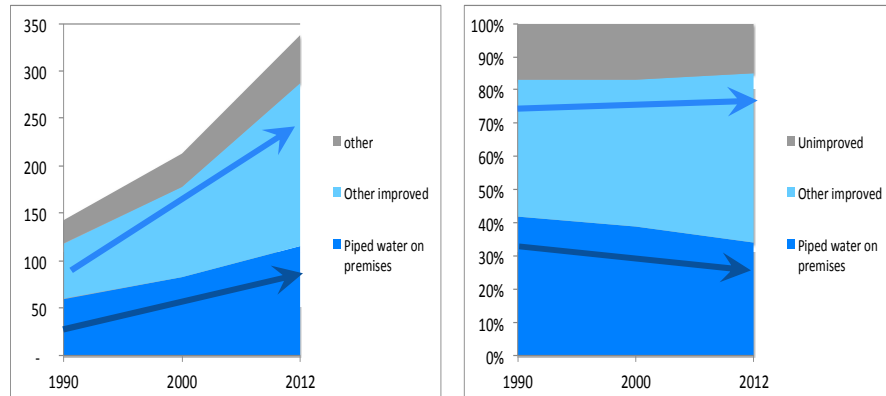


## Meeting the demand for water services: mixed trends currently, as this sample shows...



10 Sample of 17 cities in new W/Bank study (IBNET and h/h surveys data)

## Although access to improved water rising, but not on-site



Source: JMP 2014 Update



## Some's strategies (like Kampala, Nairobi, Lusaka) consciously use stand posts

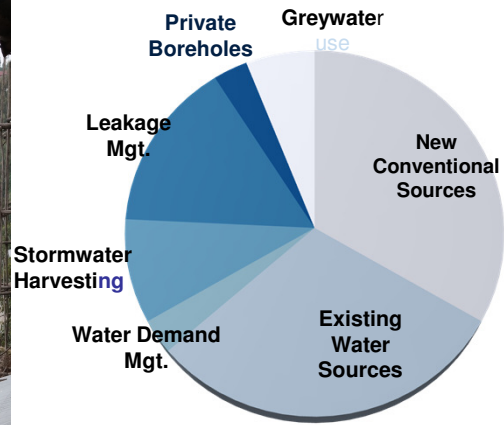


- Cost considerations
- An expand faster on scale
- Strategic deployment of prepaid meters enhances payment for services





## Due to water insecurity, several have been develop an integrated portfolio of options



See Jacobsen, Webster et al (2012) The Future of Water in African Cities  
([water.worldbank.org](http://water.worldbank.org))



WORLD BANK GROUP



## But many utilities remain under-resourced



- Tariffs don't recover costs and weaken market interest
- Grant dependence
- High water losses (NRW)
- Poorly performing infrastructure
- Limited networks that disproportionately favor the rich



WORLD BANK GROUP



## Growing evidence of good leadership to learn from

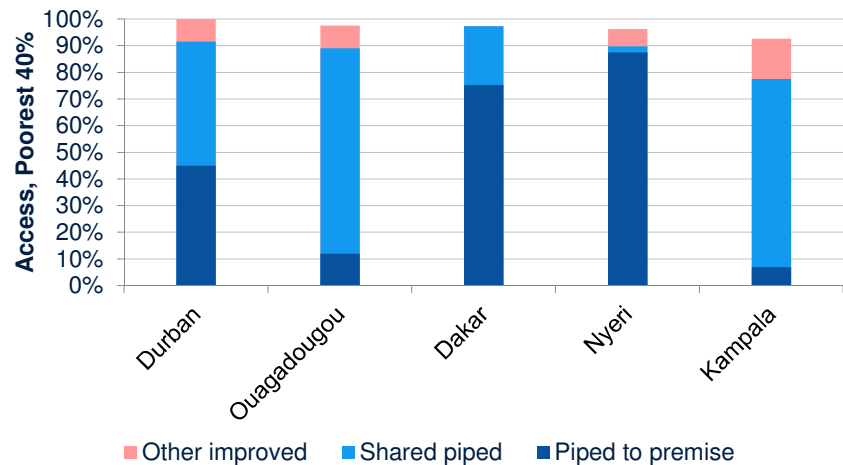


### 17 case studies show a relationship between service to the poor and management effectiveness

Service	Aggregate utility management effectiveness score*		total
	Typical (Less than 80)	Good (Greater than or equal to 80)	
Good (Greater than or equal to 90% access to improved water for poor, and reliability 18 hours per day or more)	Lusaka	Dakar Durban Kampala Niamey Nyeri Ouagadougou	7
Typical (Less than 90% access to improved water for poor, or reliability less than 18 hours per day)	Accra Addis Ababa Dar es Salaam Hargeisa Kaduna Kinshasa Maputo Mombasa Nairobi Tanga		10
total	11	6	



**Five examples: utilities providing good services, and especially to serve poor well.**



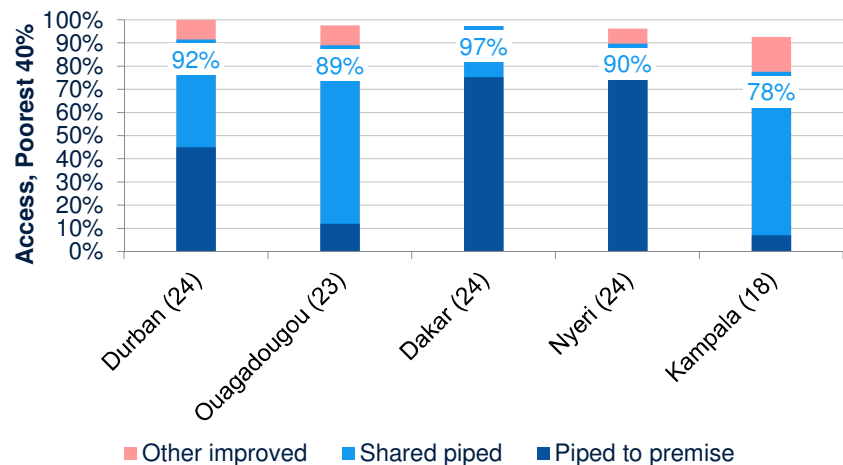
17



WORLD BANK GROUP



**These water utilities proved that it is possible serving poor people even if GDP is not high**



Number in parentheses is hours of water supply per day, on average

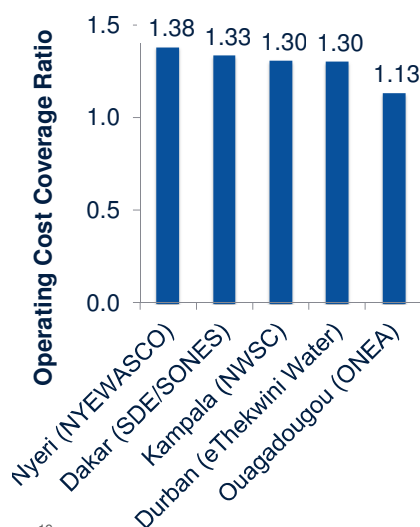
18



WORLD BANK GROUP



## Improve efficiency and general performance...



Utility	NRW	Staff Prod.	Coll. Ratio
Dakar (SDE/SONES)	20%	2.4	94%
Durban (eThekweni)	39%	3.5	98%
Kampala (NWSC)	35%	5.3	96%
Nyeri (NYEWASCO)	18%	3.2	107%
Ouagadougou (ONEA)	18%	2.9	97%

NRW = non-revenue water

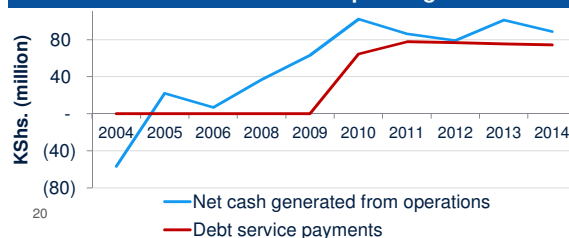
Staff prod. = Staff per 1,000 connections

Coll. Ratio = collection ratio

## Improved access & services through financed from multiple sources, not grants alone

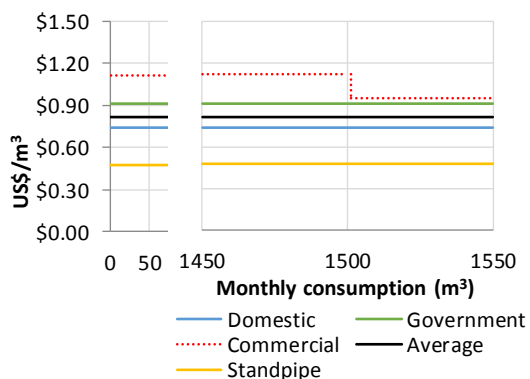
	NWSC (2002-2011)	NYEWASCO (2005-2014)	ONEA (2002-2013)	SDE/SONES (1996-2013)
Estimated total capital investment	US\$100 million	US\$19 million	US\$600 million	US\$770 million
Percent grant-financed	28%	5%	52%	29%
Percent financed by internal cash flow	52%	14%	19%	23%
Percent financed by loans	16%	80%	29%	47%
Capital investment/ person served /year	US\$4	US\$22	US\$23	US\$10

### NYEWASCO services debt with operating cash

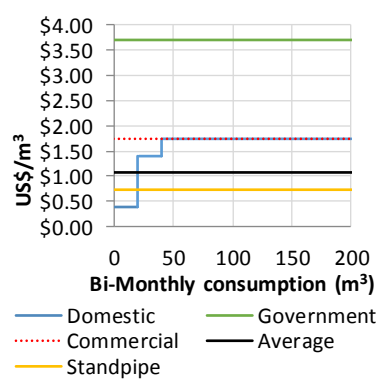


## Achieve affordability and higher costs recovery

**NWSC tariff structure, 2013 (Kampala)**



**Senegal tariff structure, 2014 (Dakar)**

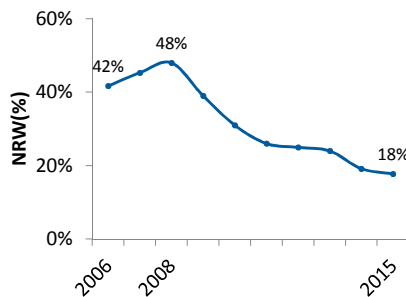


**eThekwini (Durban)**

- Basic needs level of water (9m³/mo. or 50 lpcd for family of 6) is provided for free to poor
- Electronic water bailiffs are machines that dispense this amount, then cut off supply

## Existing assets managed: NRW controlled

**NYEWASCO (Kenya)**



- **2008:** Implemented a 10-technician unit to manage NRW, which had increased from 2006 to 2008 due to upgrading of the water supply system.
- Purchased leak detection equipment and upgraded piping material. Analyzed NRW regularly.

## Managing investments strategically

### Extend the network

Three measures of network extent...

1. *Connection density (connections per 100 people in service area)*
2. *Infrastructure density (population density-adjusted ratio of meters of pipe per household in service area)*
3. *Percentage of population living within 70m of the network, calculated using GIS*

... are all correlated with access to piped water

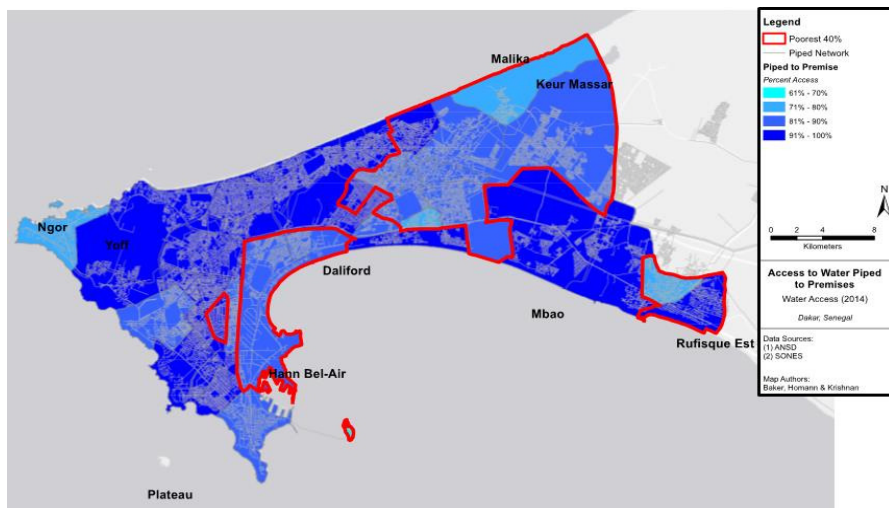
### Utility examples:

Develop or secure access to bulk water resources

- ONEA, SDE and NYEWASCO invested in major bulk water supply projects to ensure sufficient water supply to a growing customer base

23

## Dakar has high network extent, providing piped water to (almost) all residents



24

## They care for customers, and treat the poor as such

### Techniques:

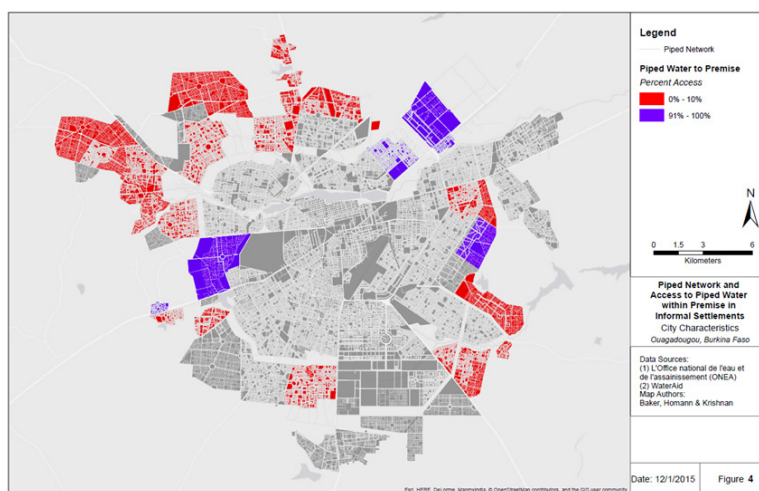
- Provide service at levels that relate to needs and willingness to pay
- Use technology to improve customer care
- Dedicated teams focusing on the poor, but mainstreamed in an overall effective organizational system – hence not an add-on

### Utility examples:

- In line with national policy, eThekweni delivers free basic water (up to 9m<sup>3</sup>) to poor households
- Kenyan utilities use a mobile phone technology in which the customers can report their own meter reading, and then pay the bill using mobile money
- ONEA has delegated service provision in informal settlements to small entrepreneurial providers
- NWSC offers a reduced tariff for water purchased at standpipes (38 percent lower than regular domestic tariff)

25

## And ONEA is shifting to piped to premise water in informal areas in Ougadougou...



26

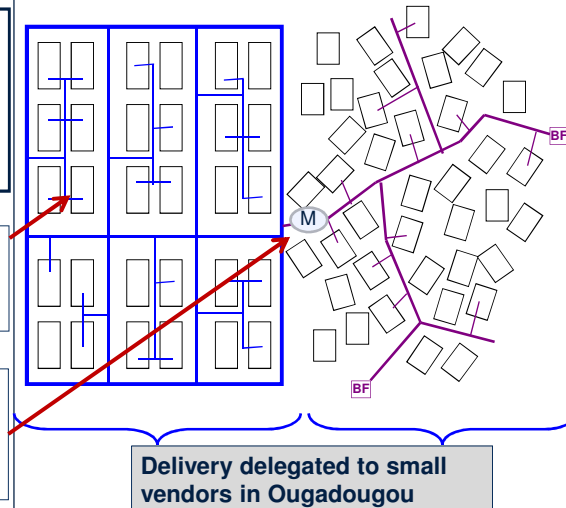
## ...working with small providers to get piped water to informal areas

Reducing poverty is government and ONEA policy...

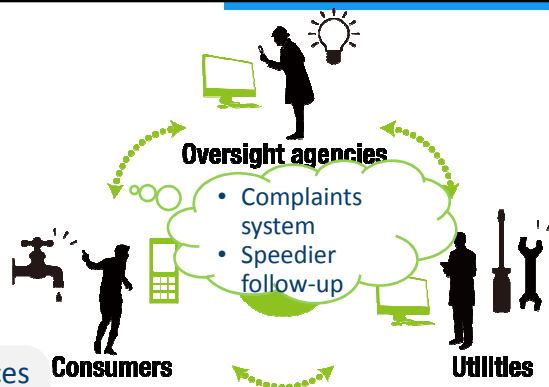
...but innovative solutions needed to improve supply in informal areas

Conventional piped water supply from ONEA to households in formal areas

ONEA piped water supply to informal areas through bulk meter at the boundary



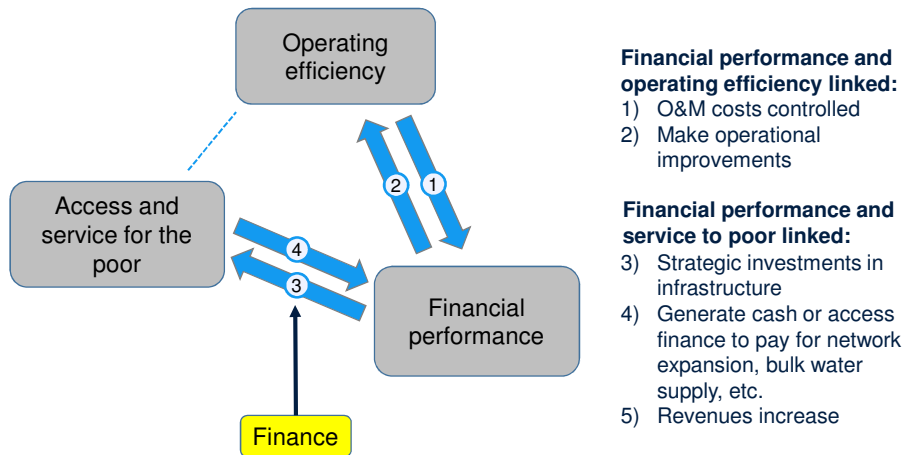
## Customer care (e.g. NWSC, eThekwini, Nyeri: metering, payment. complaints etc.)



Immediate interfaces easier

- Cellphone metering
- Cellphone payment in manageable portions
- Prepaid meters

## Serving the poor is therefore related to a virtuous cycle of performance



29

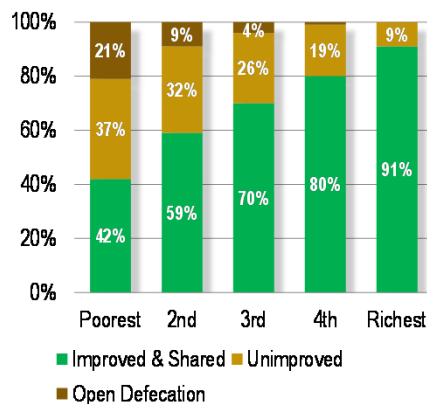
## Paradigm shift needed on sanitation



## Need to shift sewerage narrative to on-site action

- ❑ **Most urban dwellers with sanitation access use on-site:** <10% of urban Africa has sewer access
- ❑ **Virtually all poor people** use on-site sanitation – if they have any sanitation at all
- ❑ On-site sanitation is **rarely managed as an integrated system including transport and treatment**, resulting in major environmental pollution.

Urban Sanitation in Sub-Saharan Africa by Wealth Quintile



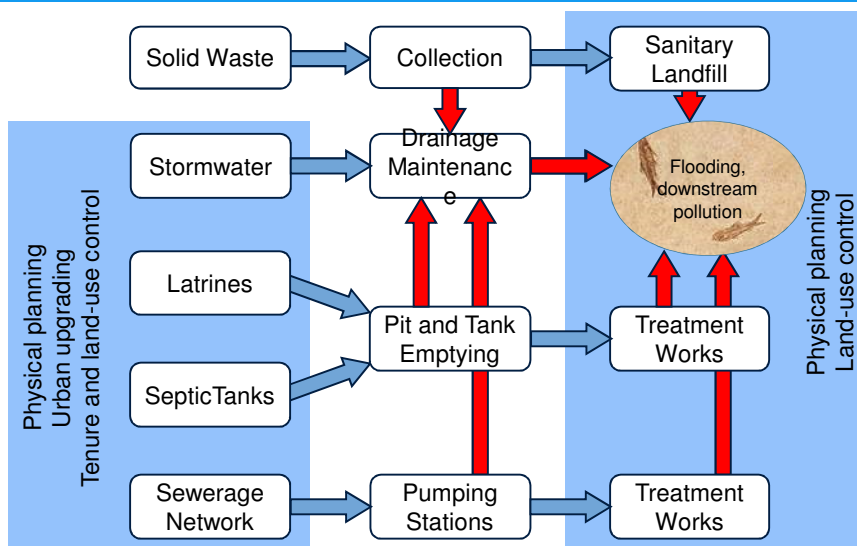
Sources: Africa Infrastructure Country Diagnostic Background Paper 13 (2008) Elvira Morella, Vivien Foster, and Sudeshna Ghosh Banerjee  
UNICEF/WHO Joint Monitoring Program (2012) Progress on Drinking water and sanitation 2012 update



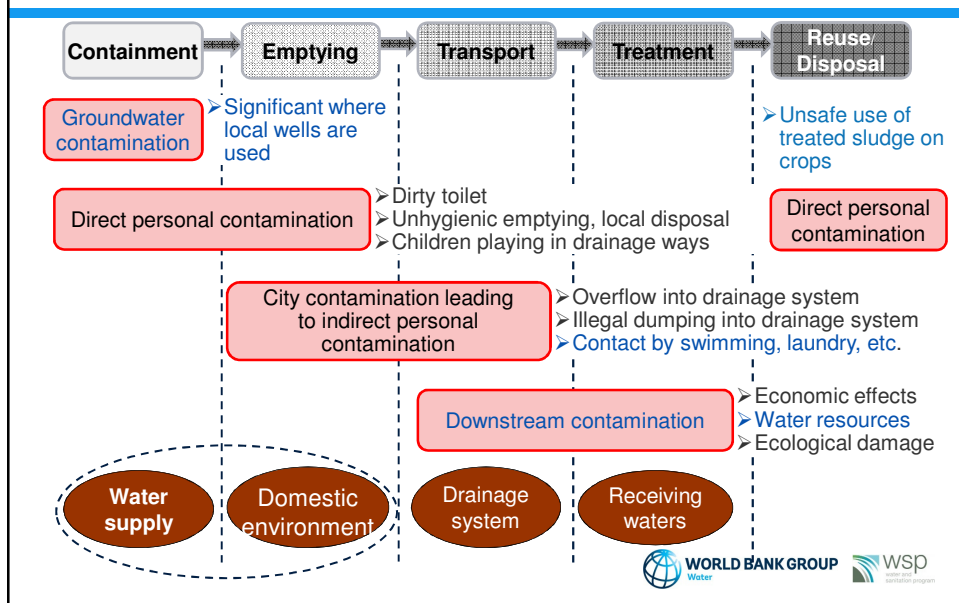
WORLD BANK GROUP



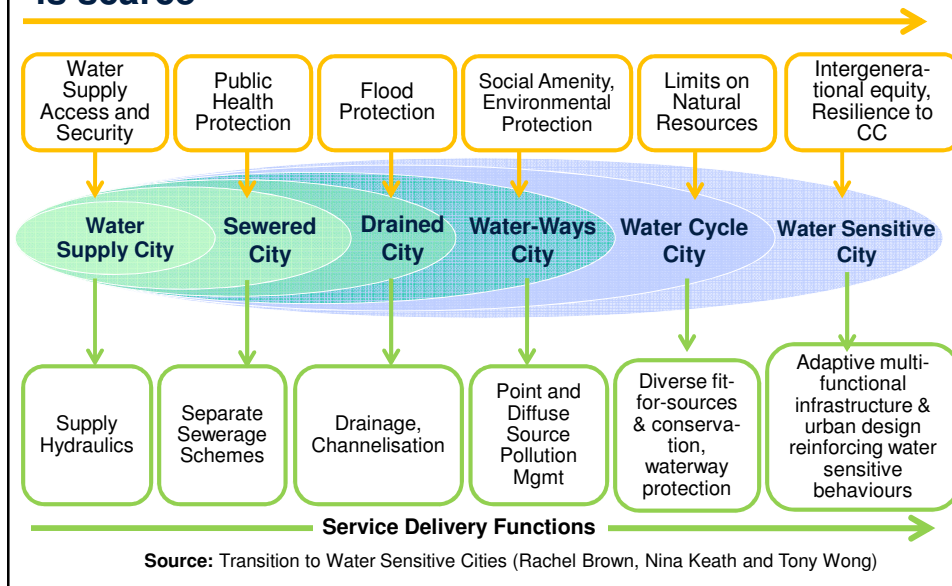
## Need to Integrate Urban Sanitary Services...

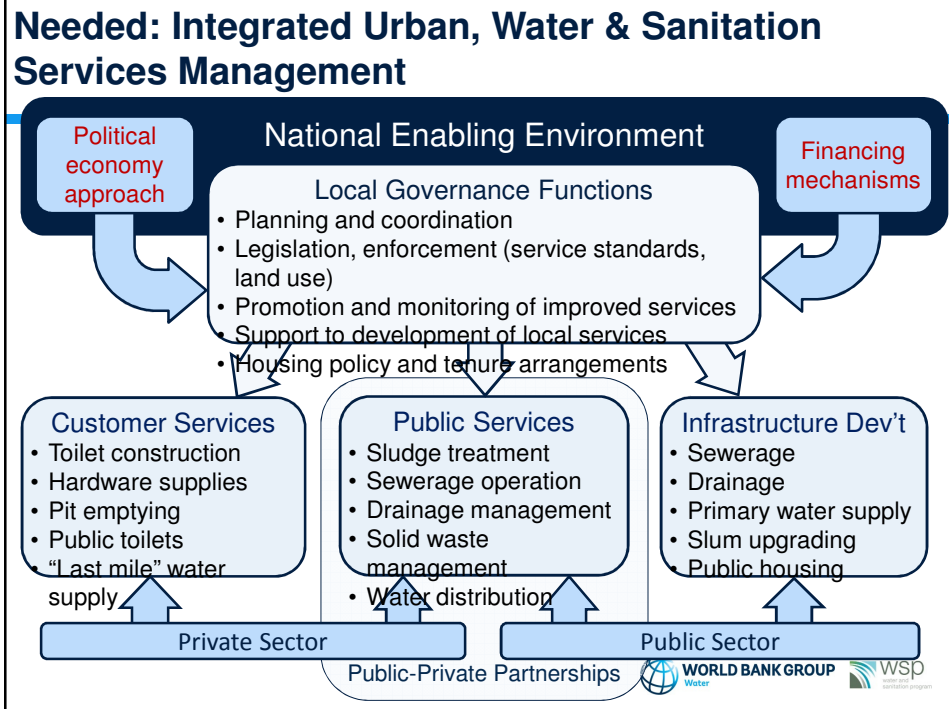


## ...that addresses key risks in the sanitation service chain



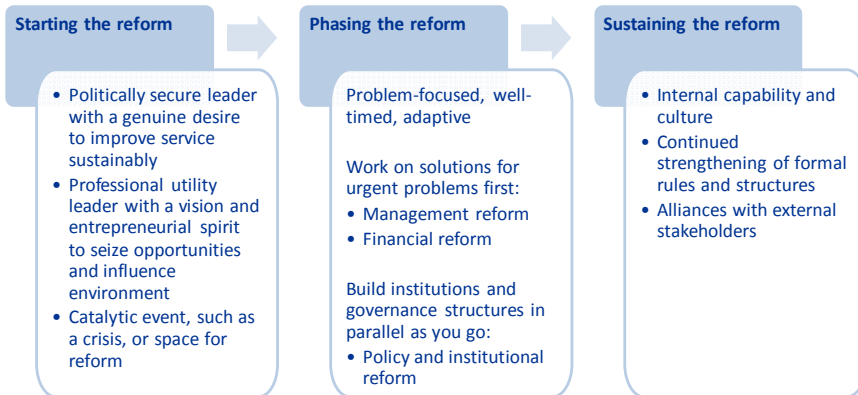
## Also think services and beyond – water is scarce





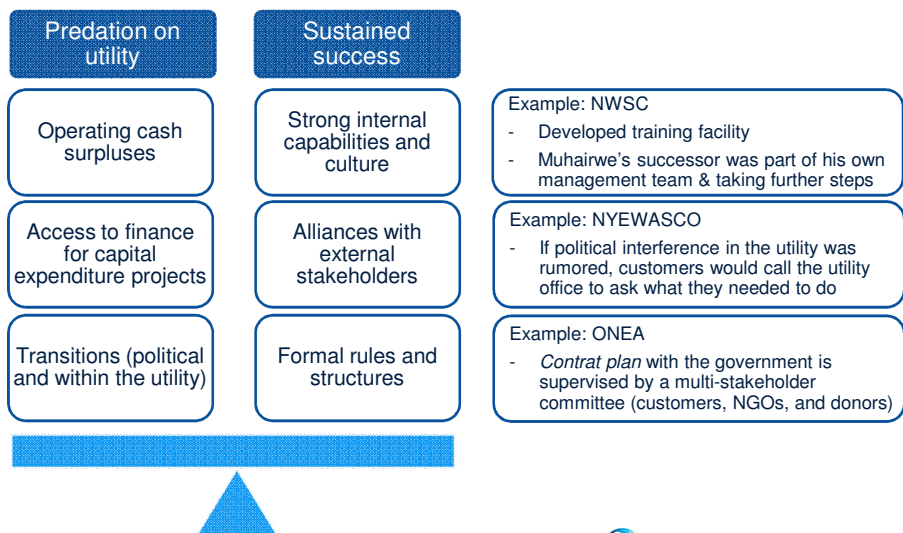
**Strategizing and leadership closely linked**

## But change needs leadership : Starting, phasing, and sustaining reform



37

## Paradoxically, as performance improves, benefits of predation increase – need mitigation



38

## Lessons and opportunities

**There is success in Africa which can be learned from in all regions.**



**Technical /managerial and financing solutions have worked well in several contexts**



**The 'answers' lie in the realm of strategy  
Solutions organic and context specific; cannot be imposed from outside.  
Drivers: strong political & utility actors, catalytic event, coalitions**