

Water and sanitation service models for the urban poor:

*Defining stakeholder relations,
achieving sustainable finance*

WEDC Conference - Side Event
6th July 2011

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WSUP
Water & Sanitation
for the Urban Poor

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Water and sanitation service models for the urban poor:

*Defining stakeholder relations,
achieving sustainable finance*

Content of session

Introduction: Challenge and strategy

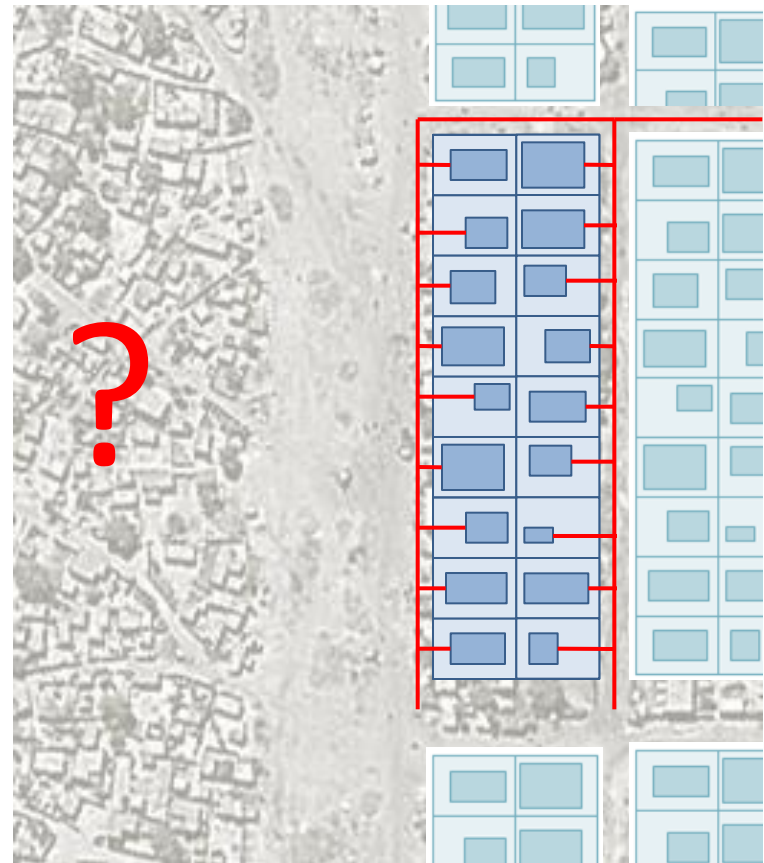
Case studies: Ghana, Mozambique, Kenya

Group-work on delegated management



1. The challenge > complex environments

**Expanding watsan services in poor urban zones:
a major challenge for utilities**



1. The challenge > complex environments

Rising demand in complex settings:

- Lack of space and access
- Administrative barriers
- Low income population
- Loose social fabric
- Illegal interferences

Lack of capacity and understanding:

- Insufficient expertise in utilities
- Lack of appropriate model



1. The challenge > close the provision gap

► There is a major provision gap:

Millions of people without access to services of official providers (up to 50% in Africa)

Alternative service providers fill the gap:

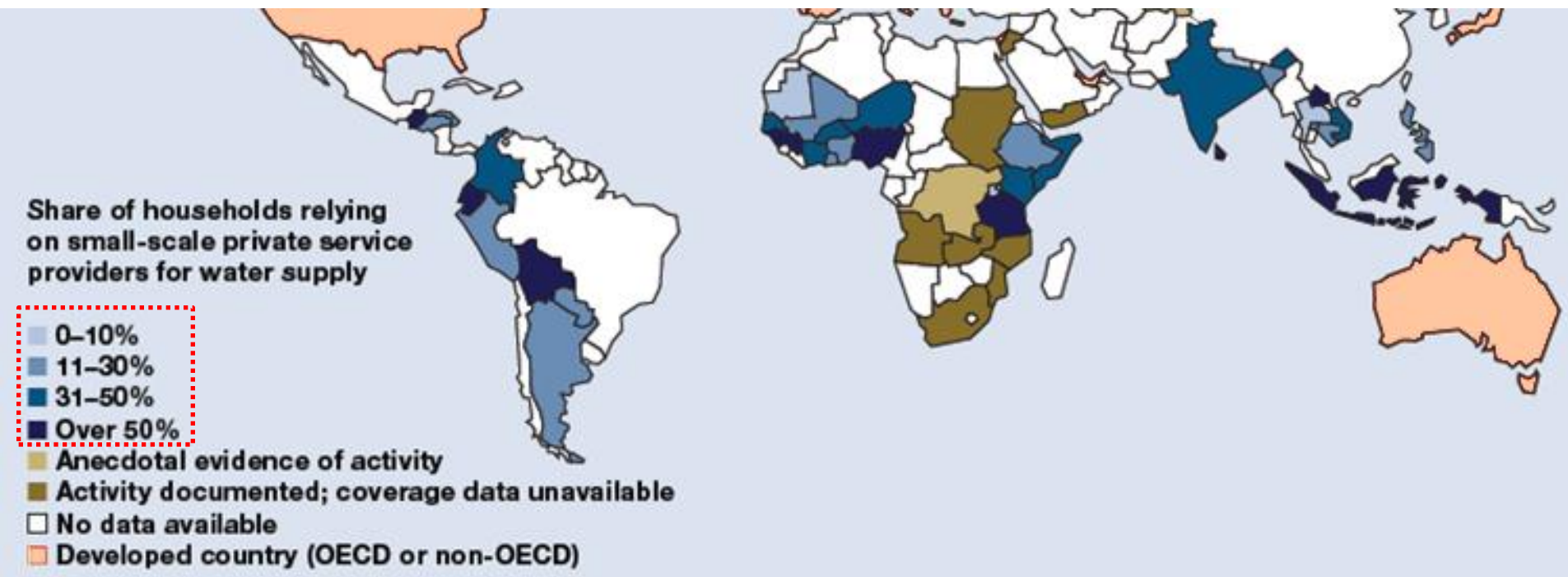
-They play a very significant role



1. The challenge > close the provision gap

Figure. In some countries many household rely on small scale private service providers for water supply

(Kariuki and Schwartz 2005)



1. The challenge > close the provision gap

Alternative service providers:

- Play a very significant role
- **Provide different types of services...**







<http://www.flickr.com/photos/gtzeccosan/4357570302/>



http://www.wateraid.org/international/about_us/oasis/springsummer_08/6318.asp



www.ideas-at-work.org



http://www.dfid.gov.uk/r4d/images/articles/R7819_Latrine_builder.jpg





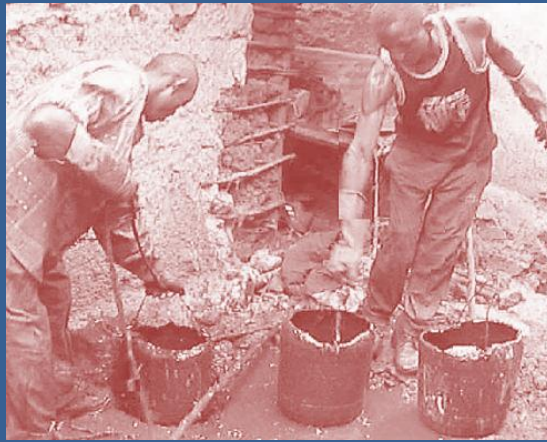
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http://www.dfid.gov.uk/r4d/images/articles/R7819_Latrine_builder.jpg



www.ideas-at-work.org



1. The challenge > close the provision gap

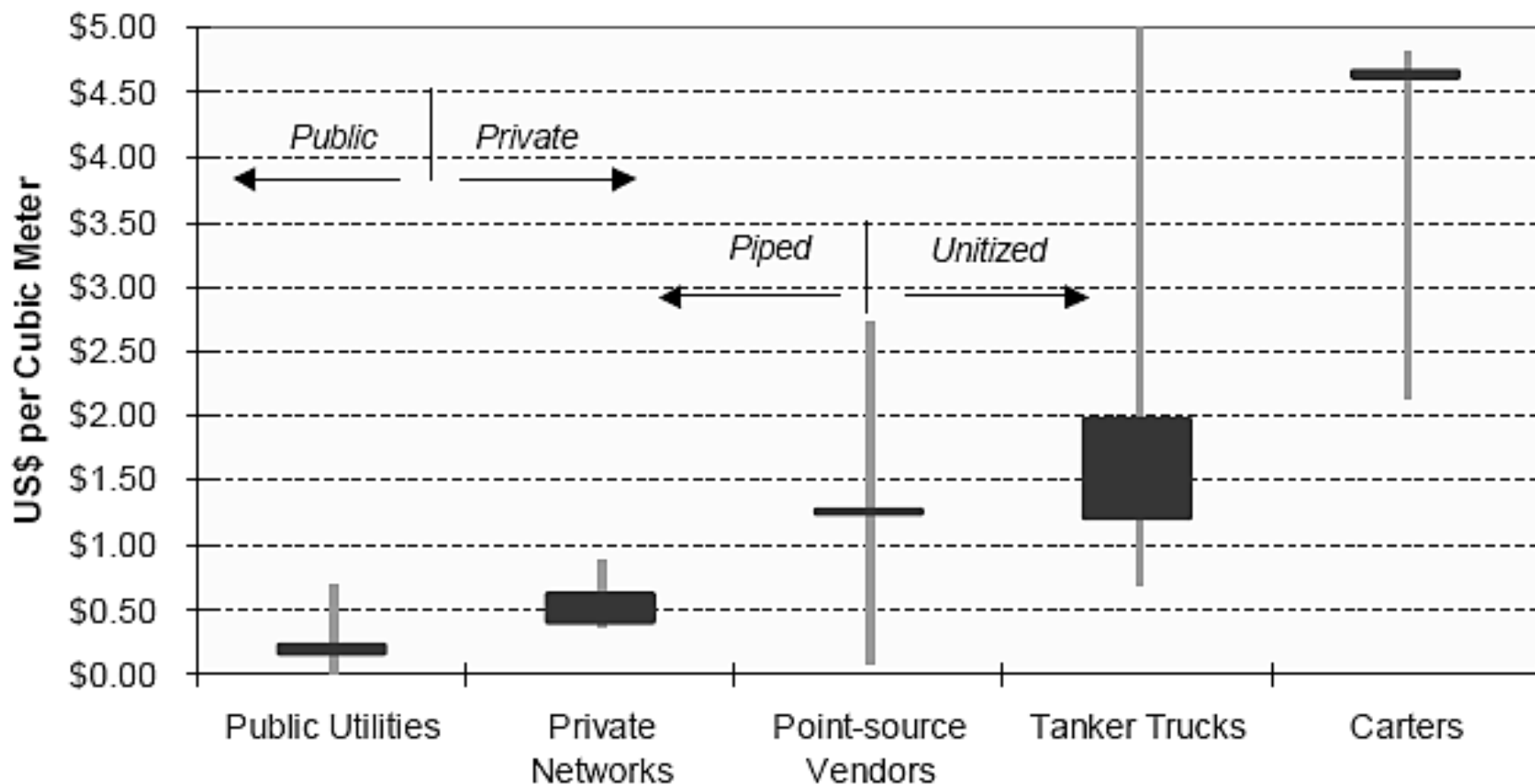
Alternative service providers:

- Play a very significant role
- Provide different types of services
- **Are often informal, rarely regulated**



1. The challenge > close the provision gap

Price of Water by Type of Service Provider



Kariuki, et al, Small-Scale Private Service Providers of Water Supply and Electricity
A Review of Incidence, Structure, Pricing and Operating Characteristics, 2004

1. The challenge > close the provision gap

Alternative service providers:

- A very significant role
- Different types of service
- Often informal and rarely regulated
- **Have various status: entrepreneurs, CBOs, NGOs**



2. Strategy

To serve the urban poor better requires:

- ▶ **Supporting utilities** in helping them respond in the short/medium term to this rising, complex demand.
- ▶ **Designing scalable solutions** adapted to the context of poor urban settlements (constraints/opportunities)



2. Strategy

Scalable solutions build on:

- ▶ Appropriate technologies
- ▶ Effective approaches
- ▶ **Financially viable models**
- ▶ **Sustainable management models**
 - a) Accountable relationships
 - b) Delegated management



2. Strategy > accountable relationships

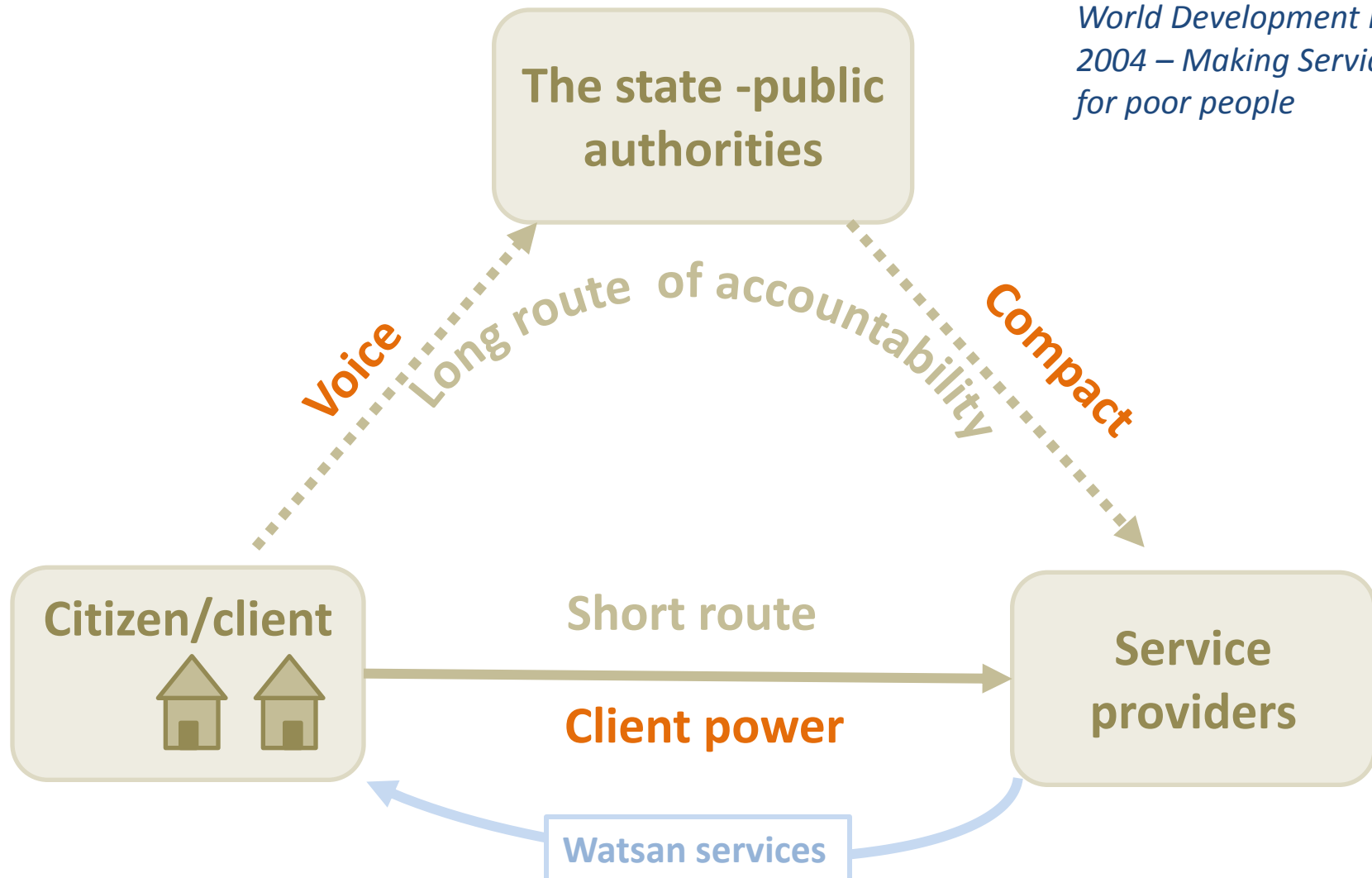
Forms of accountability:

- ▶ Compliance (being held to account)
- ▶ Transparency (giving an account)
- ▶ Responsiveness (taking account of)

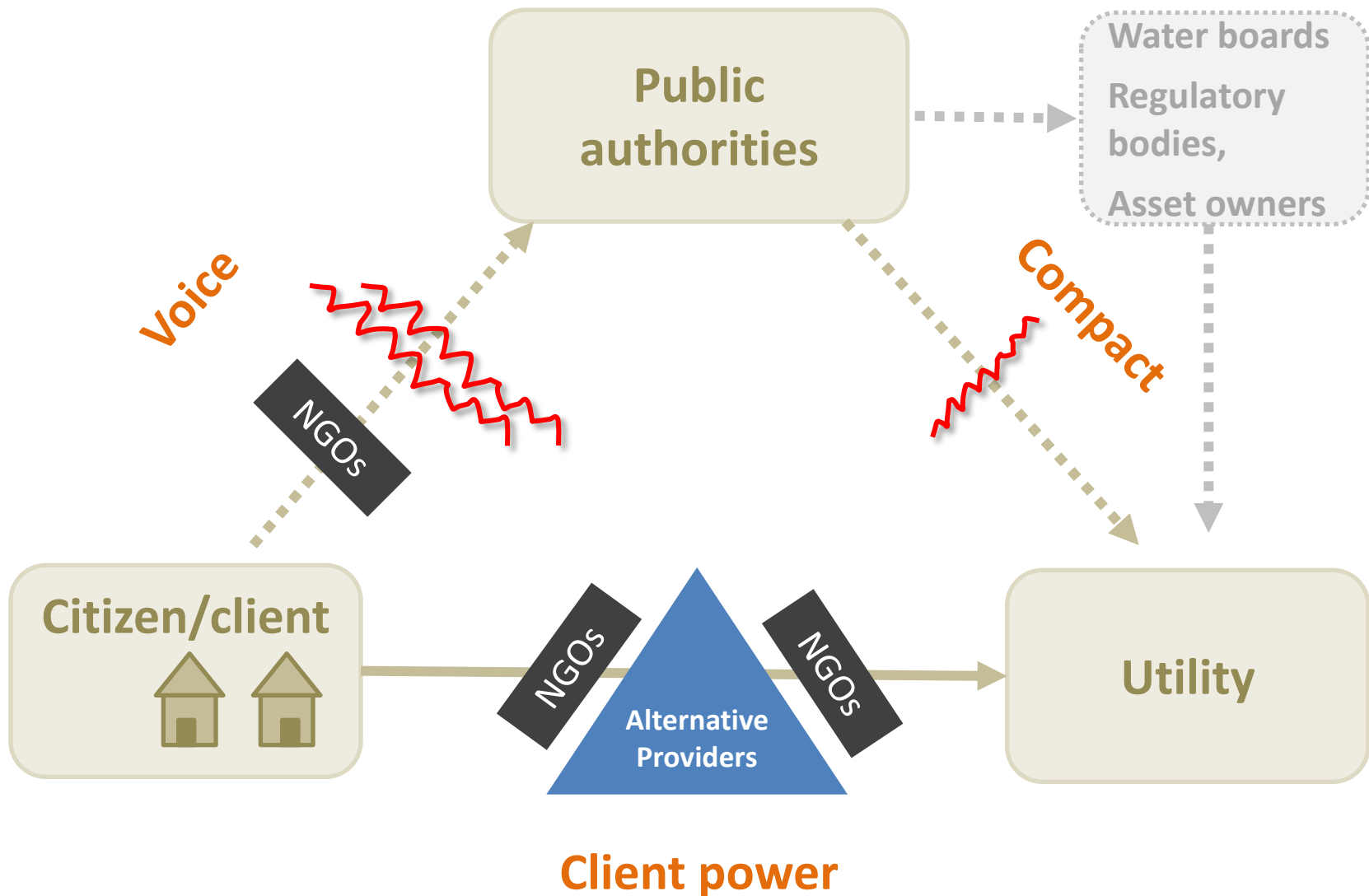
*Adapted from
www.AcountAbility.org*

2. Strategy > accountable relationships

*World Development Report
2004 – Making Services work
for poor people*



2. Strategy > accountable relationships

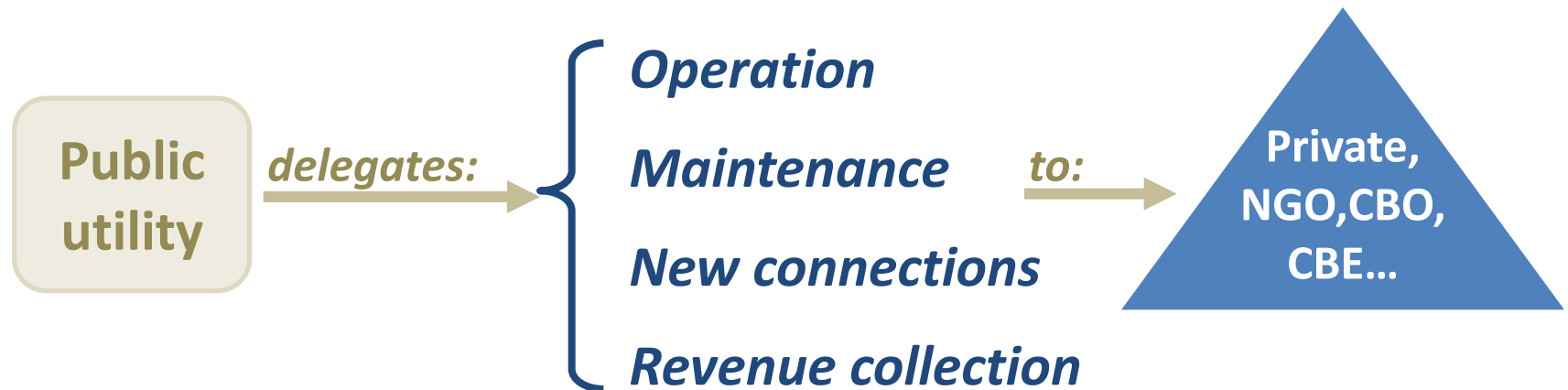


2. Strategy > delegated management

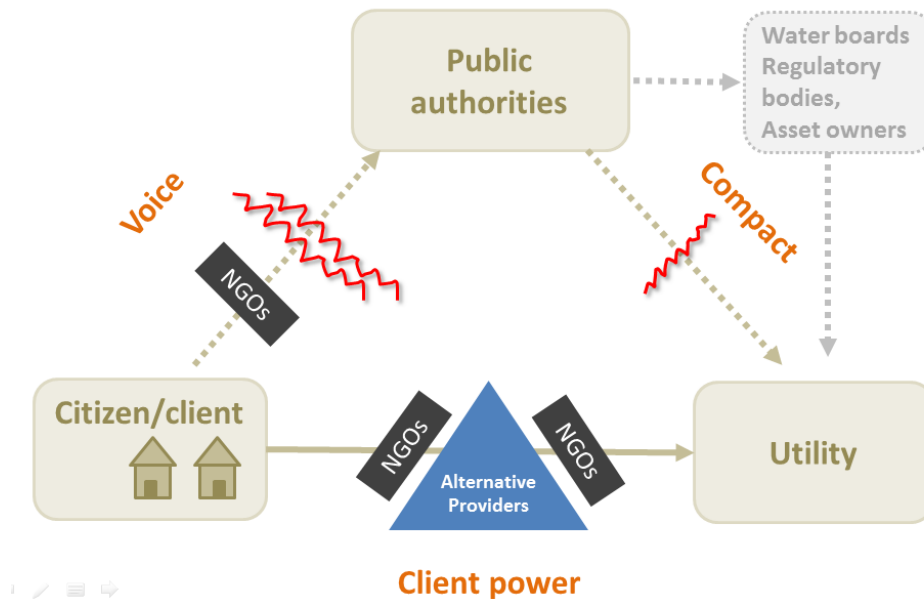
Delegated management (DM)

The process of assigning or transferring authority, decision making or a specific administrative function from one entity to another.

In poor urban zones, typically:



2. Strategy > delegated management



Three important issues:

1. DM as interim solution vs. long-term solution
2. DM in greenfield sites vs. sites with existing services
3. DM with CBO vs. local private operator

3. Case studies > Ghana: Kumasi

Delegated Management for Water: Kotei, Kumasi

- ▶ City has grown rapidly, swallowing up what were villages only a few years ago.
- ▶ Ghana Water network does not reach Kotei, and is not likely to in the short to medium term.
- ▶ Existing supply:
 - ▶ Shallow hand-dug wells.
 - ▶ Purchased at high price from on-sellers

3. Case studies > Ghana: Kumasi

Delegated Management for Water: Kotei, Kumasi

- ▶ New local boreholes are the only alternative to improve supplies in the short to medium term.
- ▶ But who will own it and who will run it?
- ▶ Is it urban or is it rural (CWSA or GWCL)?

Ghana Water Company
(AVRL)

“If you want us involved ...
...we must own it.”

Community
through the CMC

“We don’t trust Ghana
Water.”
“USAID gave the money for
us not them.”

3. Case studies > Ghana: Kumasi

Delegated Management for Water: Kotei, Kumasi

- ▶ Extensive consultation process with all stakeholders
 - Traditional Leaders, Community, Ghana Water.

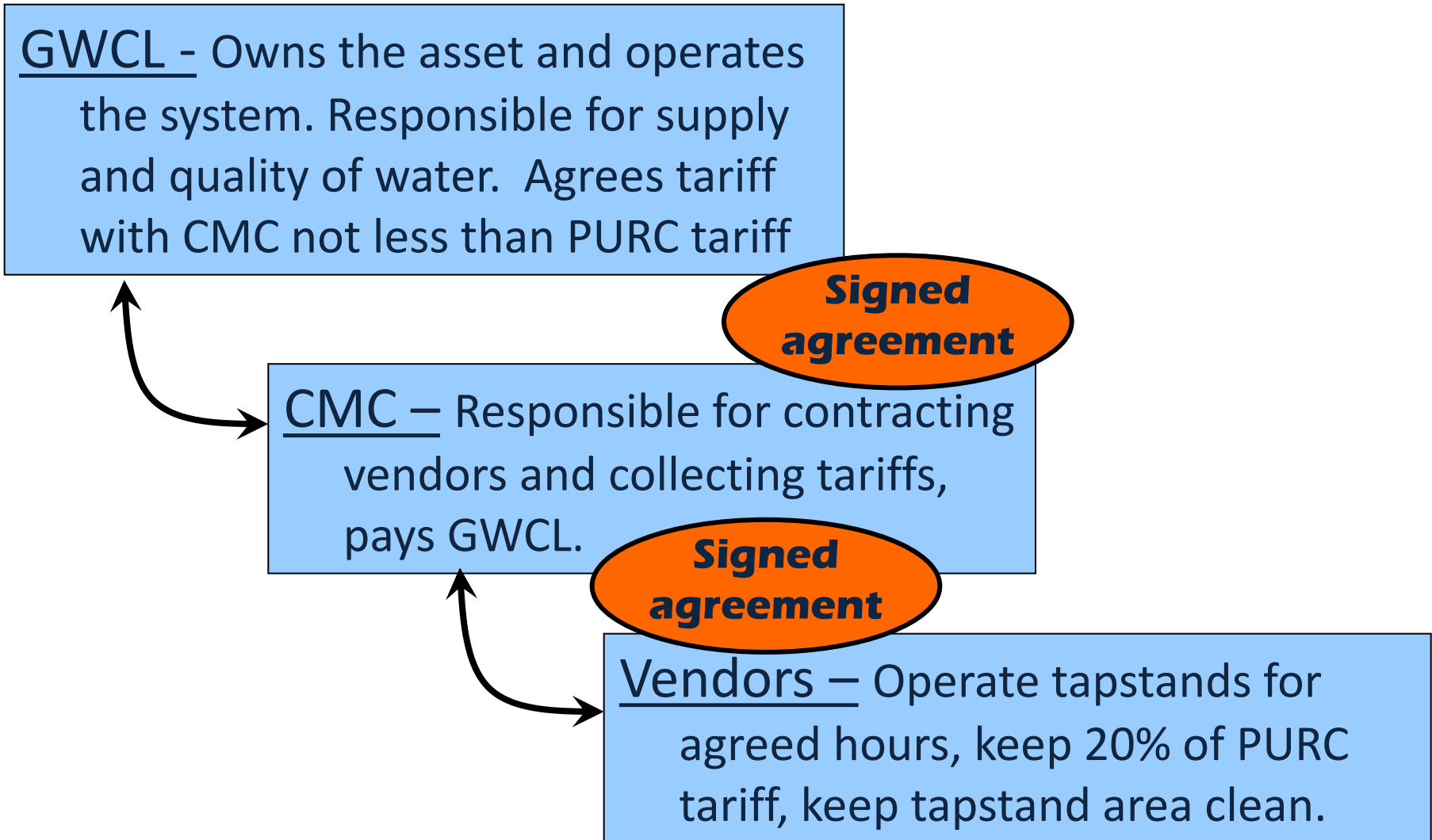
Ghana Water Company
(AVRL)

Offered to drill the boreholes with their rig at their cost.

Community Management
Committee

Understood what was involved to manage and maintain the asset in the long term.

3. Case studies > Ghana: Kumasi



3. Case studies > Ghana

Alternative delivery mechanisms?

Not just tapstands or household connections.

- ▶ Question put to MD of AVRIL – “What motivates you to server the urban poor”.
- ▶ Answer – “The business case”.
(There is nothing in his contract with GWCL about extending services to the urban poor)
- ▶ Built a financial model that enables comparison between different delivery mechanisms.

3. Case studies > Ghana

Alternative delivery mechanisms?

Pre-paid meters

Household meters

Meter clusters

Volume limited free (e.g. Durban)

Private sellers operating tapstands

DM piped local area (e.g. branch lines in Kisumu)

DM piped wide area (e.g. EMA sub-concession)

Etc.....etc.....

3. Case studies > Ghana

- ▶ Capex
- ▶ Opex
- ▶ CapManex
- ▶ Cost to alternative providers
- ▶ Cost to consumers
- ▶ Revenue (inc NRW)

Microsoft Excel - AVRL fin modelling RFFINAL 15Jun11

Please note that cells highlighted in yellow are unlocked for alternative assumptions

Financial Modelling of Alternative Delivery Mechanisms							AVRL managed direct delivery			AVRL delivery (or separate sourced) to delegated management			
Alternative Delivery Mechanisms	option classification			1.1	1.2	1.3	2.1	2.2	2.3	2.4			
				1.1	1.2	1.3	2.1	2.2	2.3	2.4			
Total COST to consumer per m ³	GHC/m ³			12	12	11	24	19	17				
Total COST to consumer per m ³ relative to target COMPARATOR				1	1.0	0.9	1.9	1.6	1.3				
Total net revenue to utility per m ³	GHC/m ³			0.02	0.2	-0.01	0.0	-0.28	0.27				
NET BENEFIT to utility per m ³ relative to target COMPARATOR				1	7.7	-0.4	0.6	-12.1	12.1				
Site specific examples	Please note that cells highlighted in yellow are unlocked for alternative assumptions to be made Sheet protection password: WNSUPAVRL			AVRL	Kanatale	Melilla	Kumasi - Atefi Ishashank	Kumasi - Atefi (Bipari)	Ghana compound housing	Melilla			
Assumptions							Assessment	Technical	Assessment				

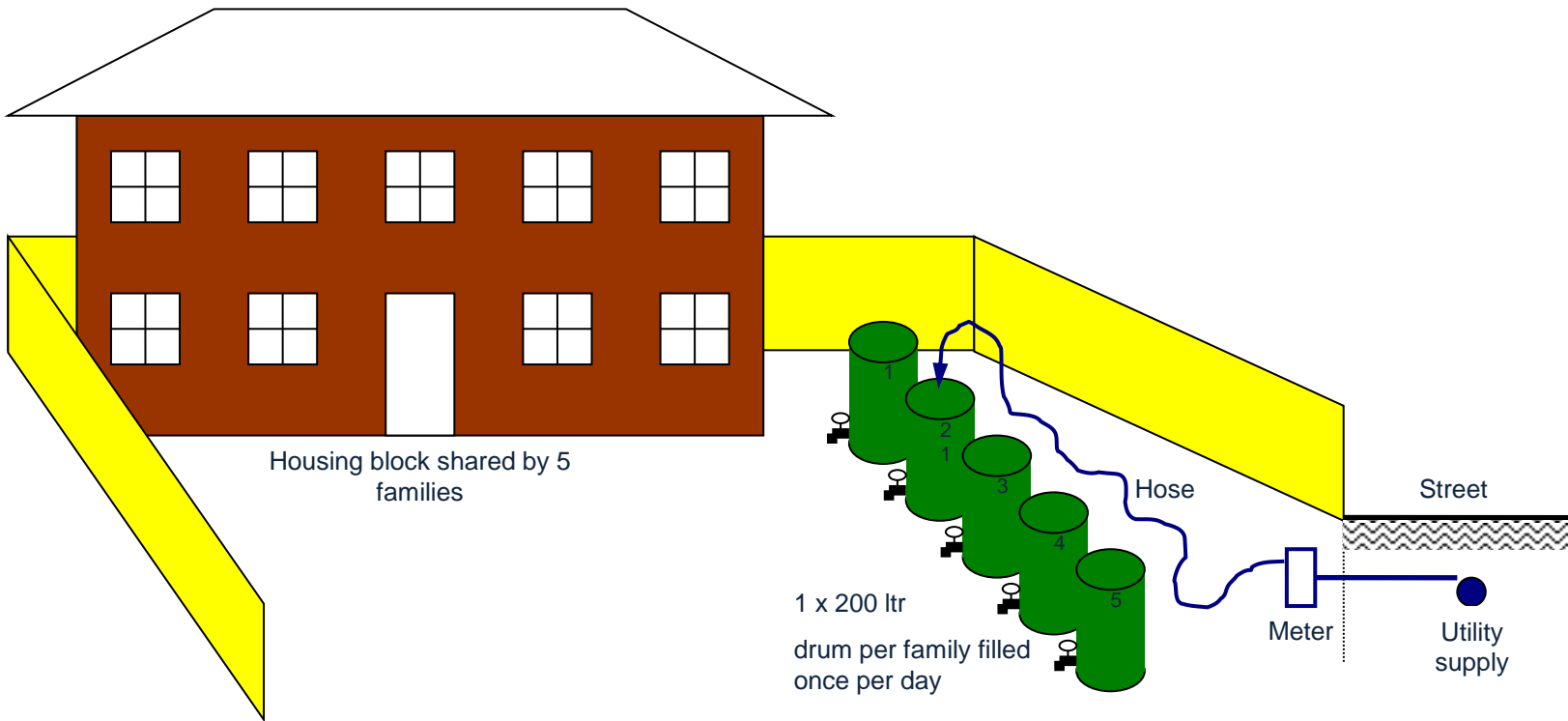
NUM

3. Case studies > Ghana

- ▶ Benefits of the approach:
 - ▶ Stimulate GWCL to consider and trial different delivery mechanisms.
 - ▶ Basis for discussions between the utility (GWCL) and the regulator (PURC).
 - ▶ Helps address some of the anomalies such as life-line block that doesn't help the poor!!

3. Case studies > Ghana

Compound supply model



3. Case studies > Mozambique: Maputo

Communal latrines: Tchemulane Maputo

- ▶ Communal i.e. shared by a number of households.
- ▶ Area of rented single room dwellings very low income.
- ▶ Very poor existing facilities.



3. Case studies > Mozambique: Maputo

Communal latrines: Tchemulane Maputo

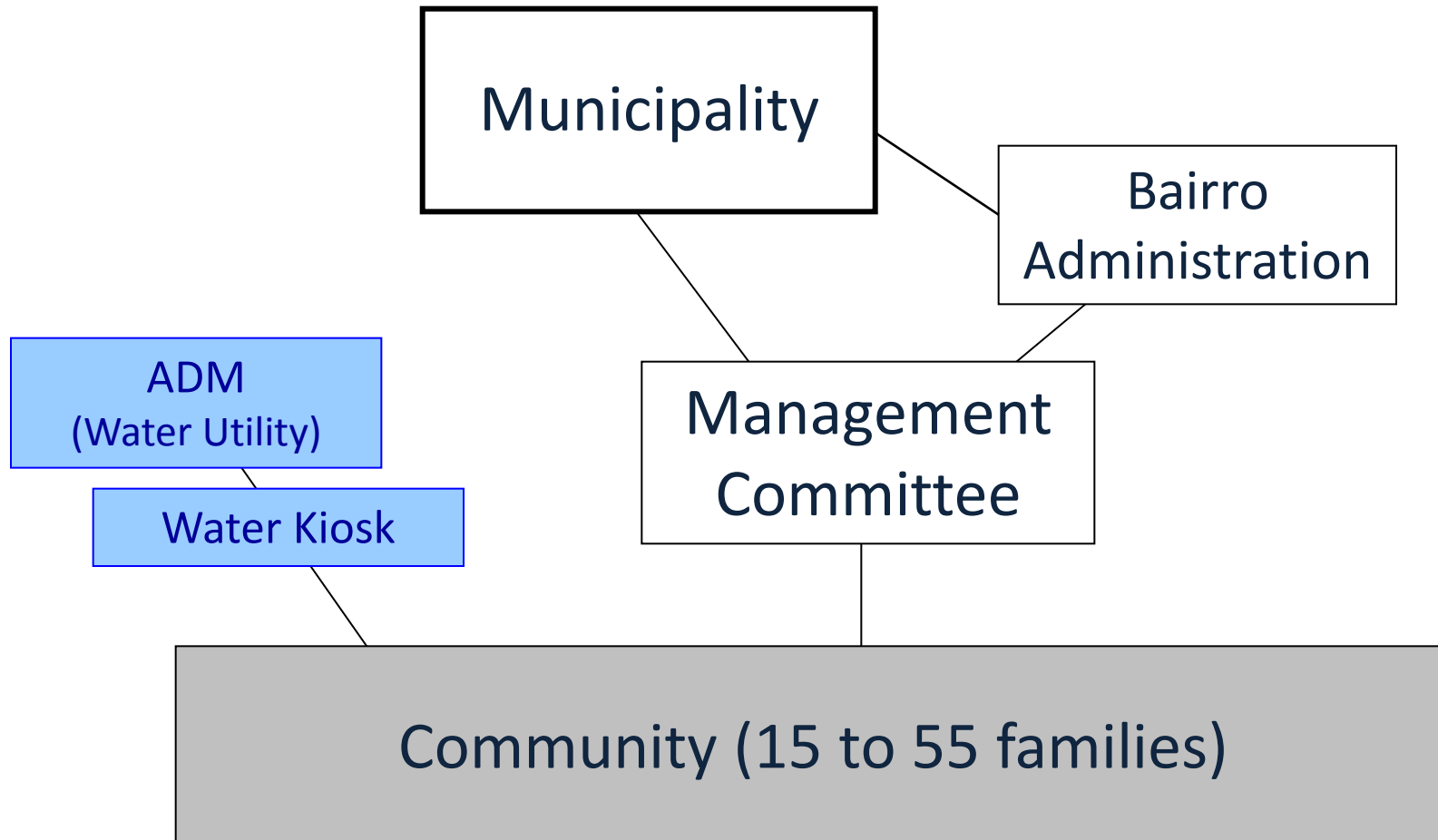
► Properly managed communal facilities can work and can be viable



► 5 have been working well for the last 9 months.

3. Case studies > Mozambique: Maputo

Institutional arrangements:



3. Case studies > Mozambique: Maputo

Institutional arrangements:

Municipality.

Provided the land, approved the design, re-ordered boundaries to allow vehicle access, is the asset owner.

Management Committee

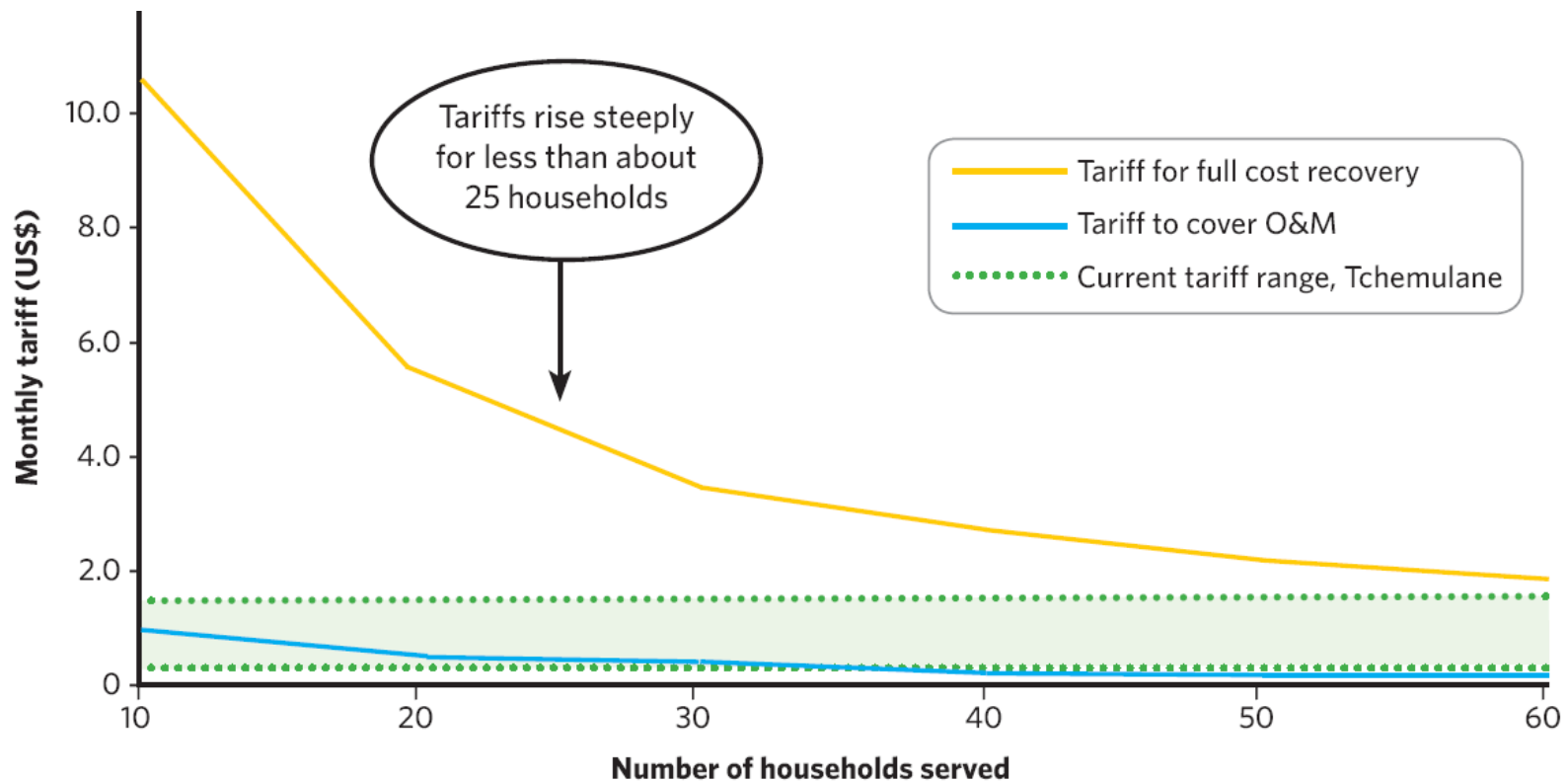
Elected by community and trained by WSUP, have a formal agreement with the Bairro administration who monitors performance, sign up to a formal statement of their function, sets the monthly tariff.

Community

Elects the MC, cleans the facility on a rota basis, pays a monthly fee to the MC for maintenance and desludging.

3. Case studies > Mozambique: Maputo

Finances:

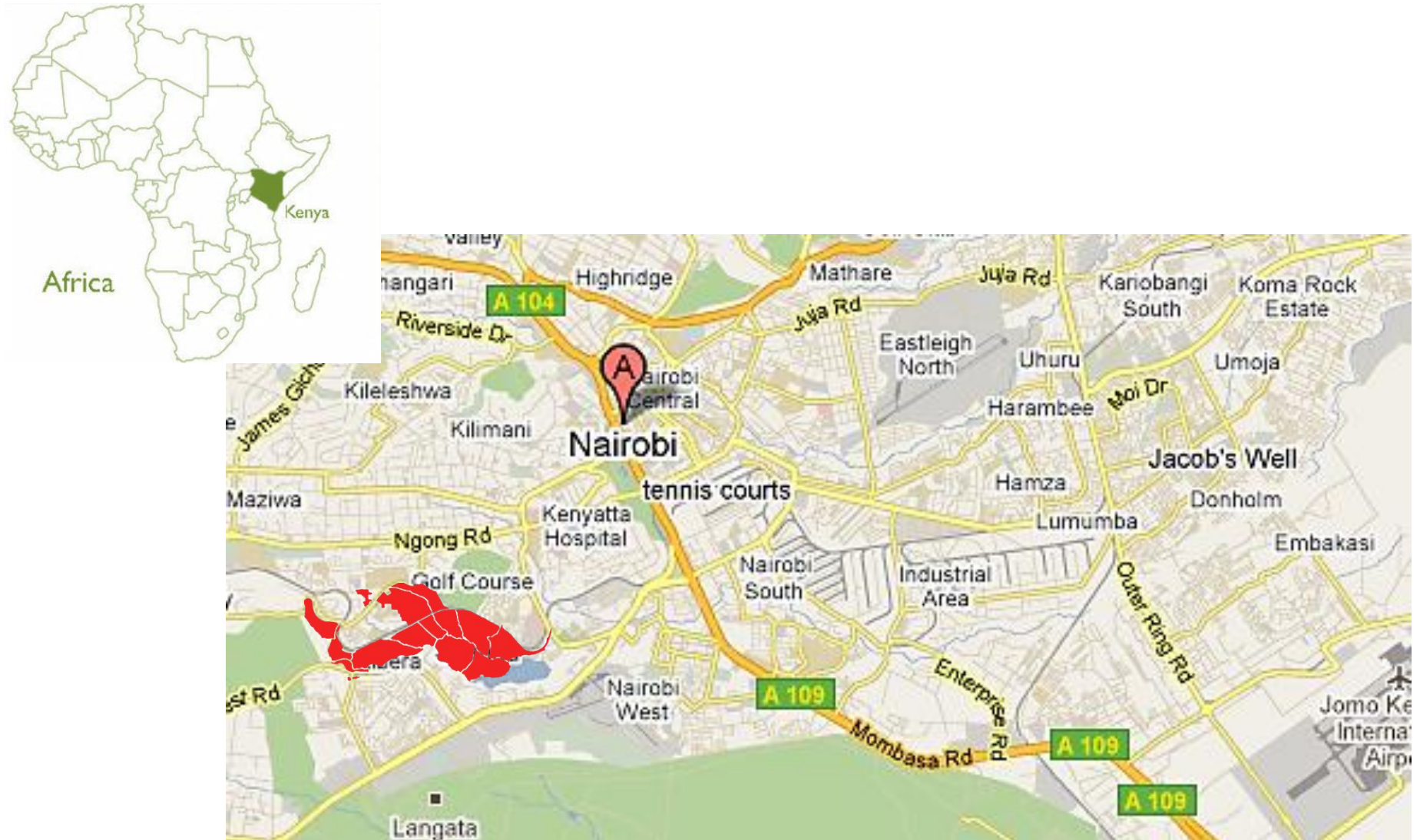


3. Case studies > Mozambique: Maputo

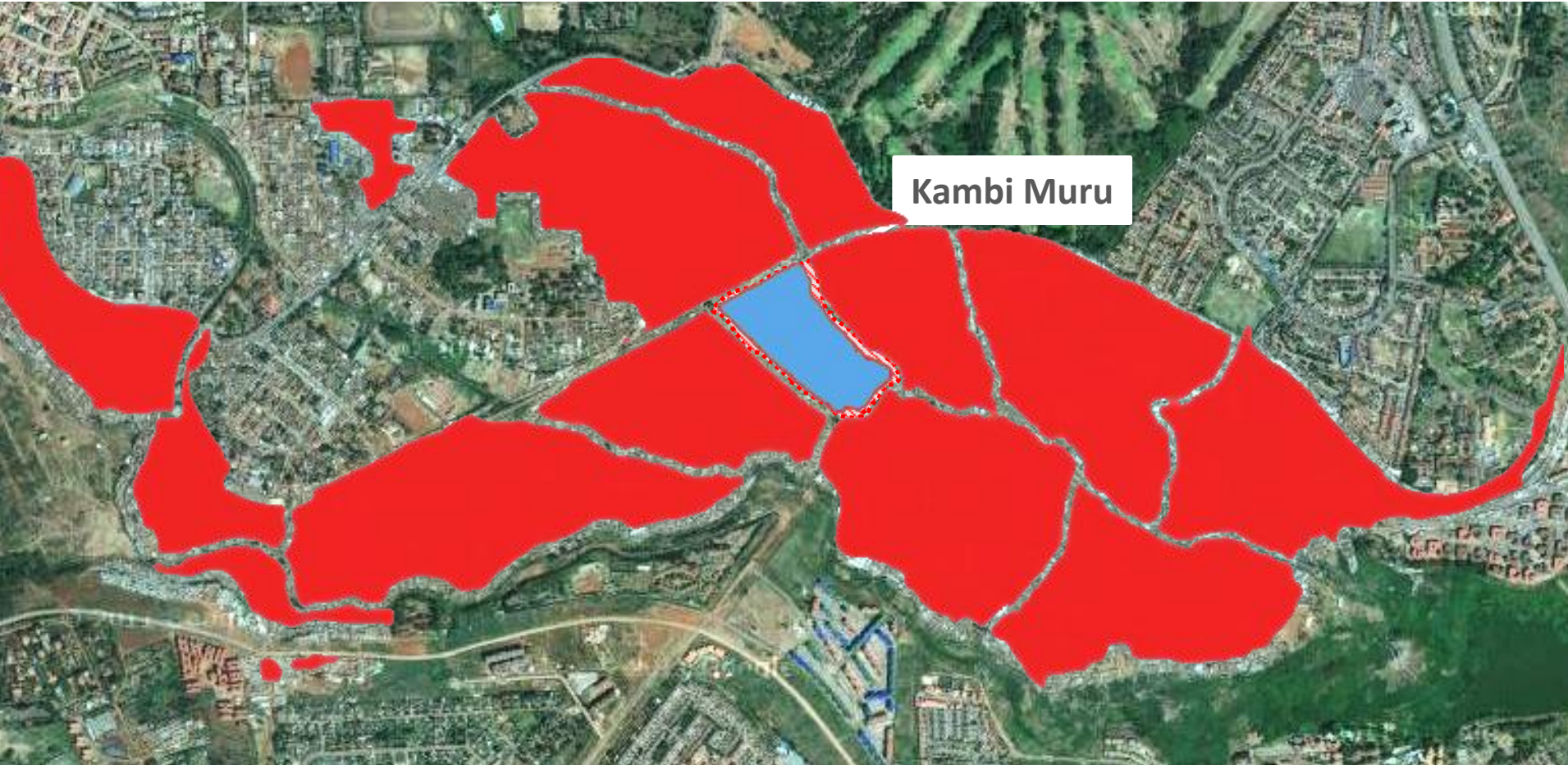
Lessons:

- ▶ Realistic but affordable tariff
 - ▶ Tariffs have been set by the MC and some are too low. This could be regulated by the municipality.
- ▶ Efficiency of design
 - ▶ Smaller septic tank and beneath the structure

3. Case studies > Kenya: Kibera, Nairobi



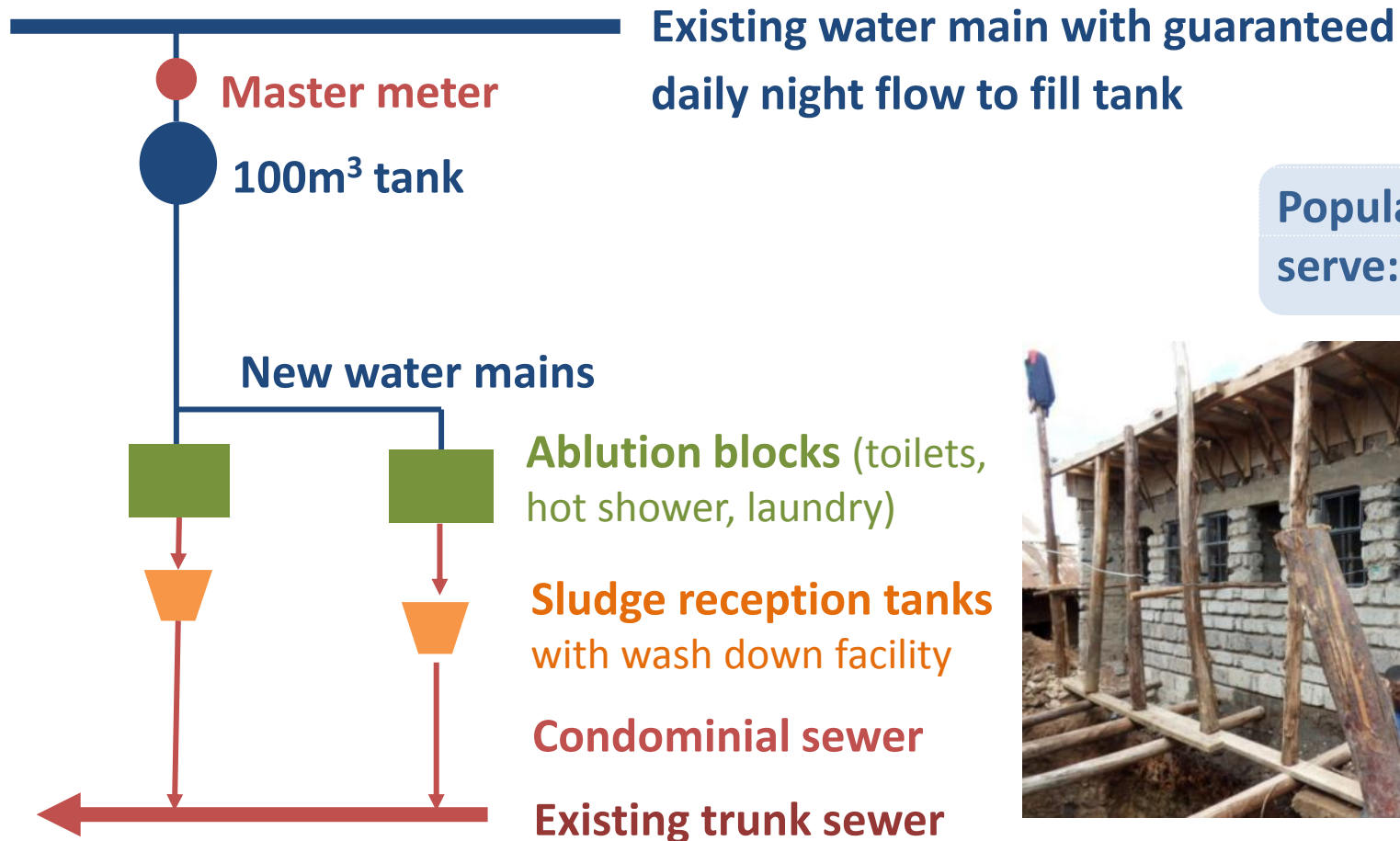
3. Case studies > Kenya: Kibera, Nairobi



Estimated population of Kibera: 350,000 – 1million
WSUP's project area: Kambi Muru village

3. Case studies > Kenya: Kibera, Nairobi

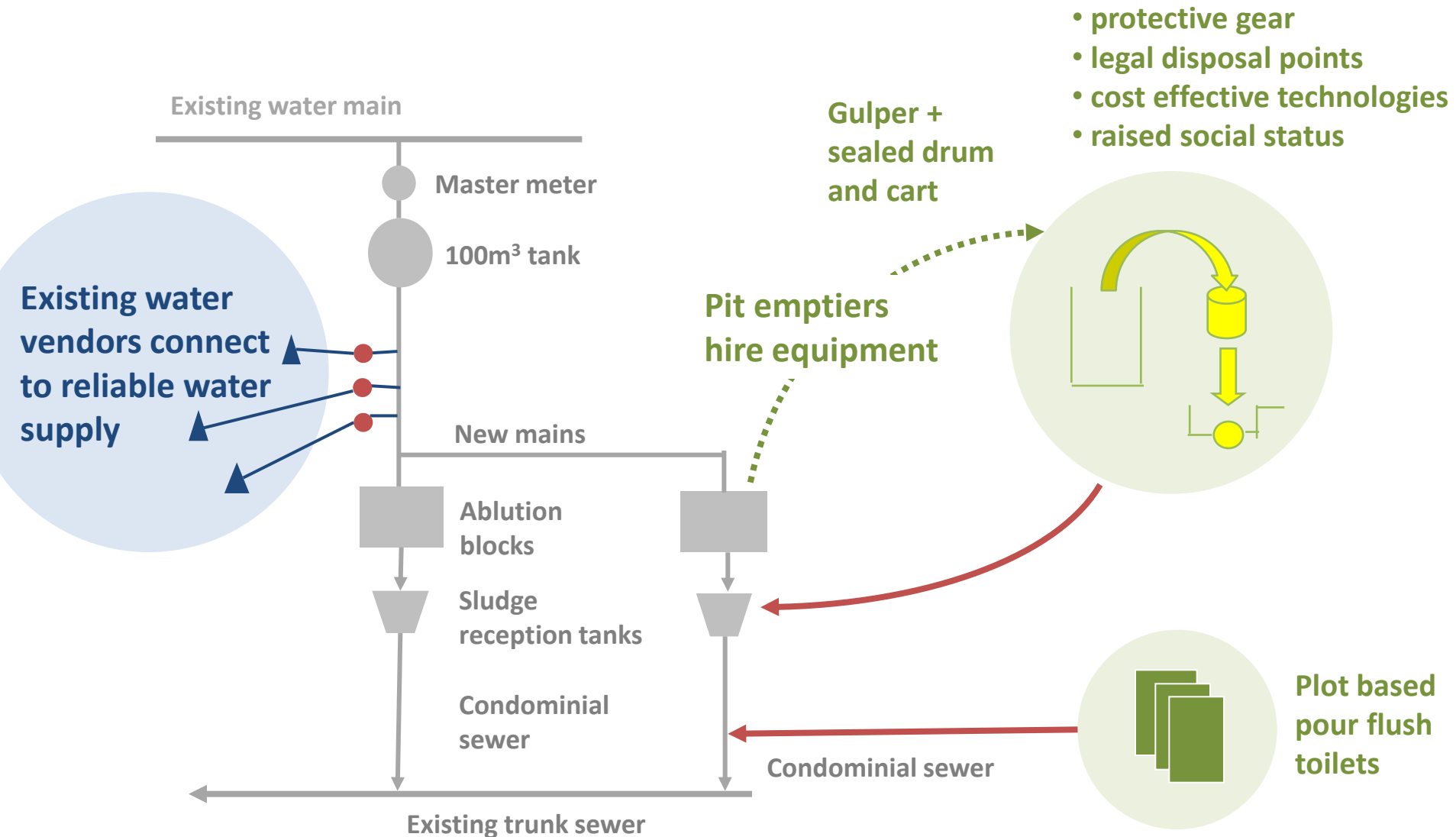
Planned physical model



Population to serve: 10,000

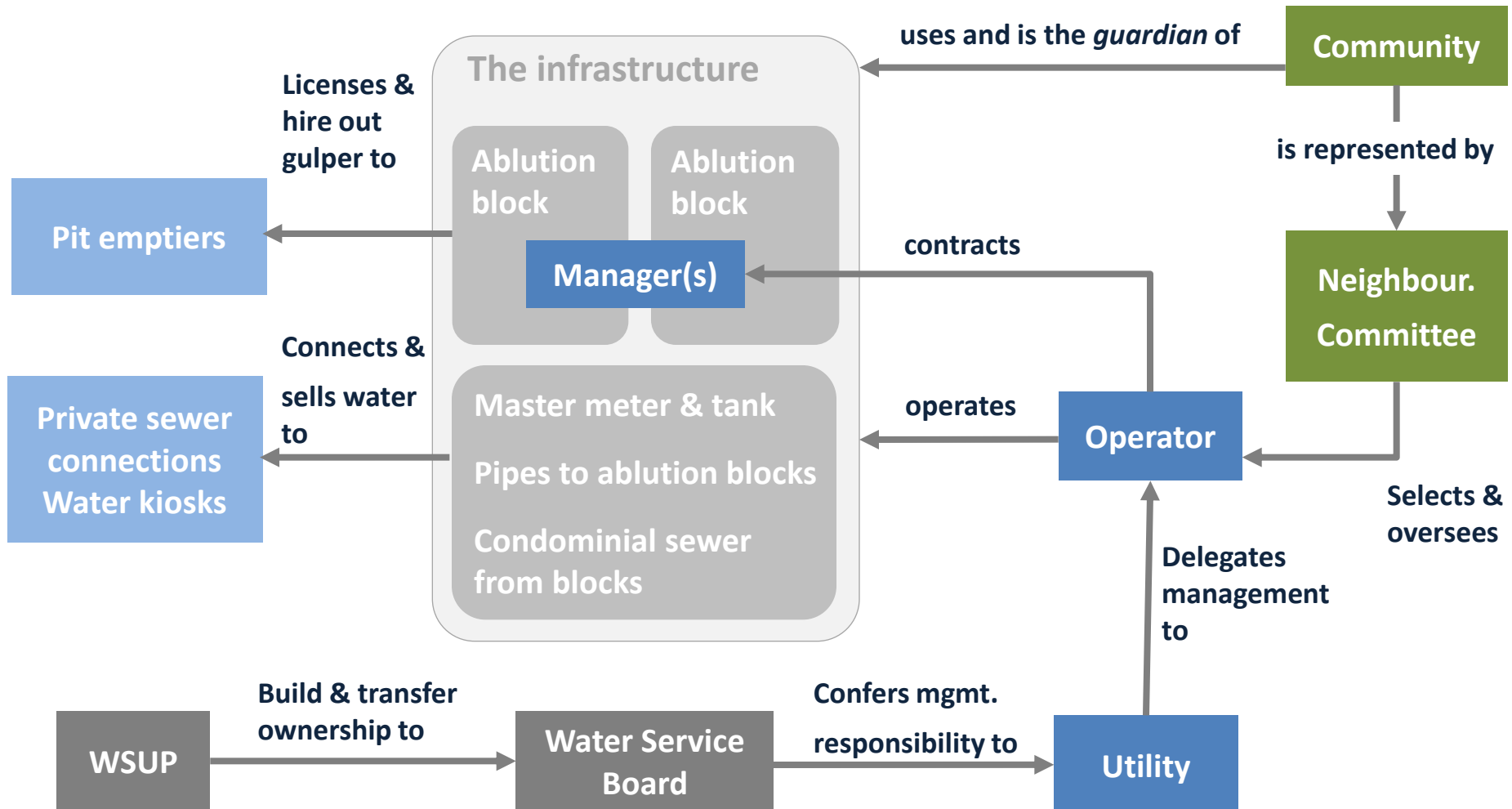


3. Case studies > Kenya: Kibera, Nairobi



3. Case studies > Kenya: Kibera, Nairobi

Proposed mgmt. model



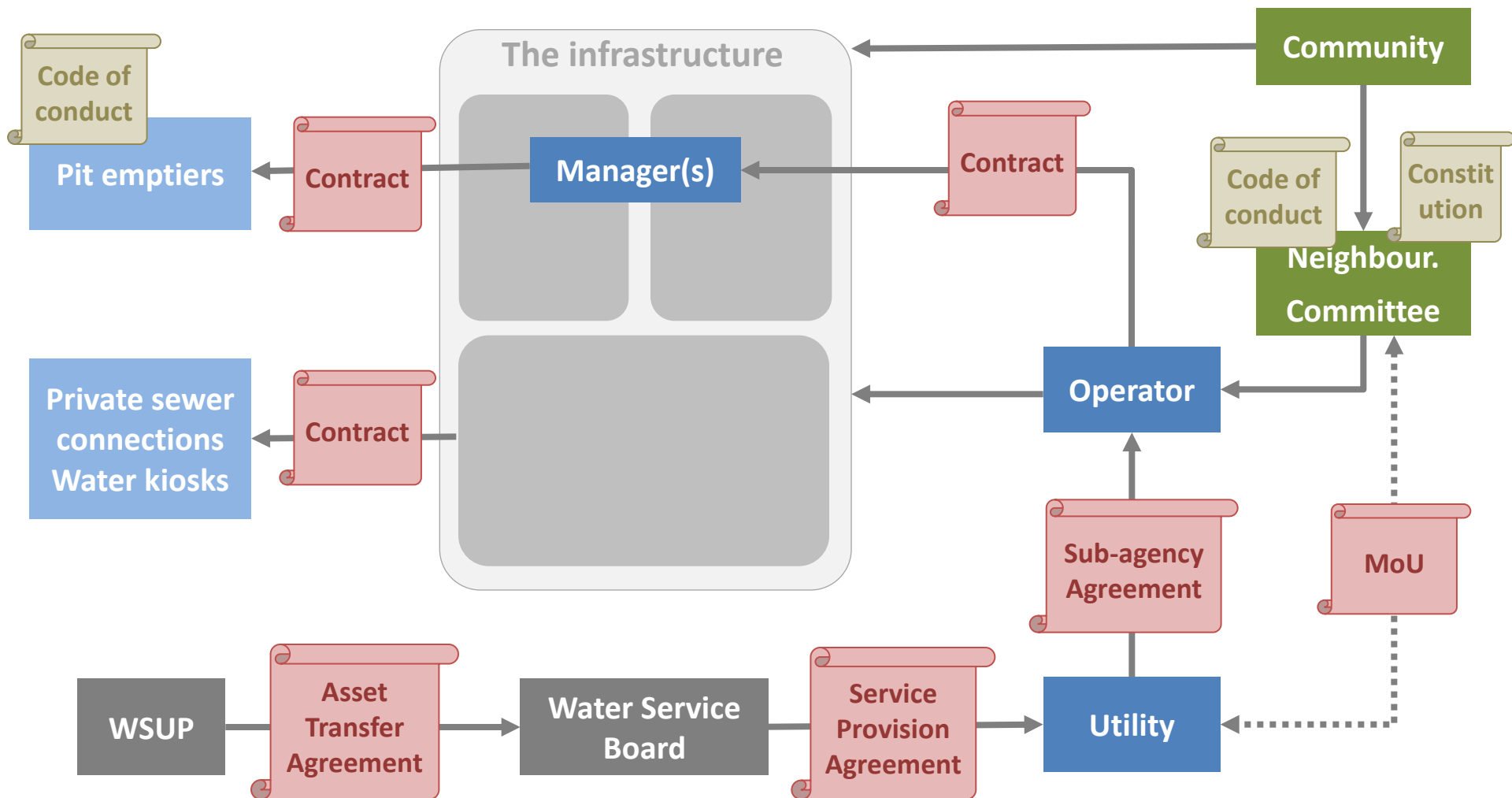
3. Case studies > Kenya: Kibera, Nairobi

How to make these relationship accountable?

- ▶ Design and formalisation of agreements clearly defining roles and responsibilities (R&R). Needs to be participatory and flexible

3. Case studies > Kenya: Kibera, Nairobi

Suggested arrangements



3. Case studies > Kenya: Kibera, Nairobi

How to make these relationship accountable?

- ▶ Design and formalisation of agreements

What levels of compliance and enforcement?

e.g. Will the utility supply water reliably and stop illegal connections? Will the oversight committee apply penalties?

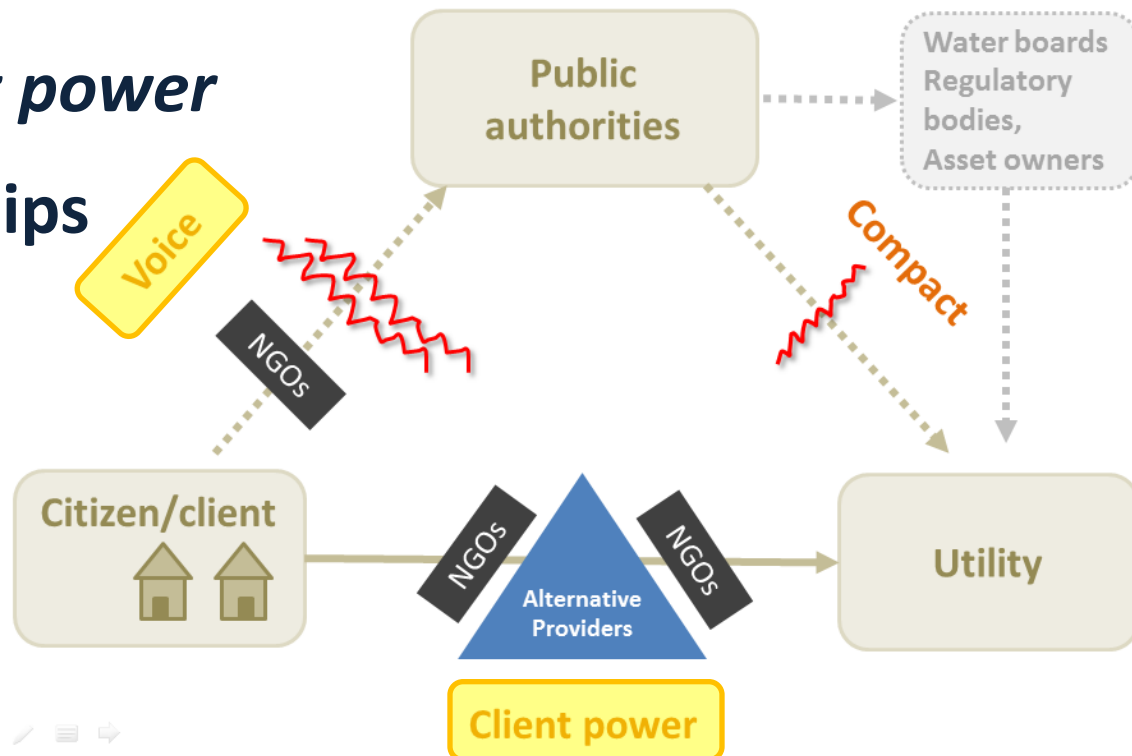
▶ **Work on incentives:** what levels of incentive? vs. incentives/status quo

e.g. utility (\searrow NRW, \nearrow revenues)? oversight committee (\nearrow revenues, expand role)? operator (\nearrow clients, utility threat)?

3. Case studies > Kenya: Kibera, Nairobi

How to make these relationship accountable?

- ▶ Design and formalisation of agreements
- ▶ Work on incentives
- ▶ **Strengthen *client power* and *voice* relationships**



3. Case studies > Kenya: Kibera, Nairobi

- ▶ **Strengthen *client power* and *voice* relationships**
- **Transparency**
 - Operator selection process
 - R&R of operator & oversight committee (public signs)
- **Responsiveness**
 - Representativeness of committee
 - Communication channels and grievance mechanisms
 - Higher authority appeal (municipality, court, mediator)

3. Case studies > Kenya: Kibera, Nairobi

On-going project: DM is the preferred model yet there are pending issues:

- **Ownership:** legal vs. community feeling of ownership
- **Management:** CBO vs. entrepreneur, pioneering initiative, enabling envir.? Market distortion/cartels?

- **Oversight:**

sufficient incentives?

let go of management

role? Internal cohesion?



3. Group-work on Delegated Mgmt. Model

Group-work

3. Group-work on Delegated Mgmt. Model

DMM for Water Supply

Interim vs. long-term solution

Greenfield vs. existing services

CBO vs private operator

DMM for Sanitation

Interim vs. long-term solution

Greenfield vs. existing services

CBO vs. private operator

3. Group-work on Delegated Mgmt. Model

1. Under which circumstances should delegated management be considered as an interim solution instead of long-term solution? What are the implications?

a) Water

Intended temporary solutions may become permanent. It depends on the reliability of the service provider.

b) Sanitation

If there is a long-term plan to bring sewer lines into the area then any on-site sanitation options may be only temporary.

Overall, the solution needs to be what the customers want, and its success depends on whether the community have confidence in the delegator and the delegatee to deliver what is agreed. Some parts may be delegated, some parts may not, and there may be some options in between. Decisions will be made on what is working at the current time – if the current operator is working well then this may continue, but if it is not then a new solution needs to be sought. There may be no planning beyond current needs.

The municipality may be keen to delegate sanitation services and write contracts, but neither the private sector nor CBOs may be keen to take it on. If the context is such that waste is a keenly felt issue then this may be different, but if drainage is easy it may be harder. In fact CBOs may be keen to pass the responsibilities back to the municipality. However if wastewater is valuable for irrigation then CBOs may see managing it as a profitable business.

2. What do we need to be aware of (or to consider as a priority) when implementing a delegated management model in greenfield sites (without previous investment in water supply/sanitation services) as opposed to areas with existing services?

a) Water

In greenfield sites there is the potential to phase in options gradually, and there is more space to explore a range of options, assuming that there is sufficient water and drainage. However, it may be difficult to identify community leaders and there may be uncertainty with land tenure.

If services already exist there will be existing skills and capacity, but there may be vested interests.

b) Sanitation

If new infrastructure is provided there will be a capital cost that needs to be recovered. But are new customers willing to pay?

If a delegated management model is used in an area with existing services, there needs to be integration of the existing and new services. Existing providers may need to be regulated and undergo quality control. They will have vested interests, and there may be reprisals if they feel they are losing out. Any services need to be affordable.

3. Group-work on Delegated Mgmt. Model

3. What are the pros and cons of delegating management to a CBO as opposed to a private operator ?

a) Water

CBOs are closer to the community, and self management can be more sustainable. CBOs can also guarantee against outside interference. Well managed CBOs can upgrade to CBEs. However, CBOs are fragile and can collapse if they are badly managed. They may lack technical expertise or leave out marginalised groups.

The private sector is more skilled, professional and dynamic. There was disagreement as to whether they would be more or less political. They are more concerned for their financial sustainability, although this may lead to overcharging. They may be less responsive to actual community needs and less accepted by the community.

b) Sanitation

CBOs are more directly accountable to the community and can be more responsive to demand. They are run on a not-for-profit basis and can empower social capital. However, they may not be legal and they may lack technical capability and professionalism, especially regarding corruption. They operate a monopoly. Emptying pits also carries a social stigma, which they may not want within their own community.

Private operators can be more responsive to demand, and have greater technical capacity, managerial capacity and professionalism. The service provider has a clear identity, for example a name, and cannot be confused with other organisations. Private operators may compete on service and price and create jobs. However they may not be regulated and there is a greater risk of poor quality work with no accountability

An ideal solution may be to have private service provision, overseen by CBOs, although this may become overly complex. Where there is money to be made the private sector will want to get involved.



Thank you

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