Effective governance for the successful long-term operation of local scale wastewater systems

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# Governance of local scale sanitation: Visual synthesis report for key stakeholders in Indonesia

PROJECT SYNTHESIS

COMMUNITY SANITATION GOVERNANCE

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This document is a synthesis of a three-year collaborative transdisciplinary action research project to improve the long-term governance of local scale wastewater services (see website: communitysanitationgovernance.info).

To monitor the impact of this synthesis, we are keen to gather feedback on what resonates and what is missing. If you have comments or suggestions, please contact us (see the last slide).

ASOSIASI KSM SANITASI AKSANSI SELURUH INDONESIA

BORDA Germany

CRPG Center for Regulation Policy and Governance

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# Abbreviations

| | |
|---|---|
| BUMD | Badan Usaha Milik Daerah (Local Government-owned enterprises) |
| CBO | Community based organisation |
| GOI | Government of Indonesia |
| HH | Household |
| IDR | Indonesian rupiah |
| KSM | Kelompok Swadaya Masyarakat (Community-based organisation, CBO) |
| LG | Local government |
| MCK | Mandi, Cuci, Kakus (Public Washing & Sanitation Facilities) |
| NGO | Non-governmental organisation |
| O+M | Operation and maintenance |
| PERDA | Peraturan Daerah (Regional regulations) |
| SSS | Simple sewer system |

# Acronyms for Indonesian sanitation programs

| | |
|---|---|
| SANIMAS | Sanitasi Berbasis Masyarakat (Community-Based Sanitation) |
| USDP | Urban Sanitation Development Programme |
| USRI | Urban Sanitation and Rural Infrastructure Project, funded by ADB |

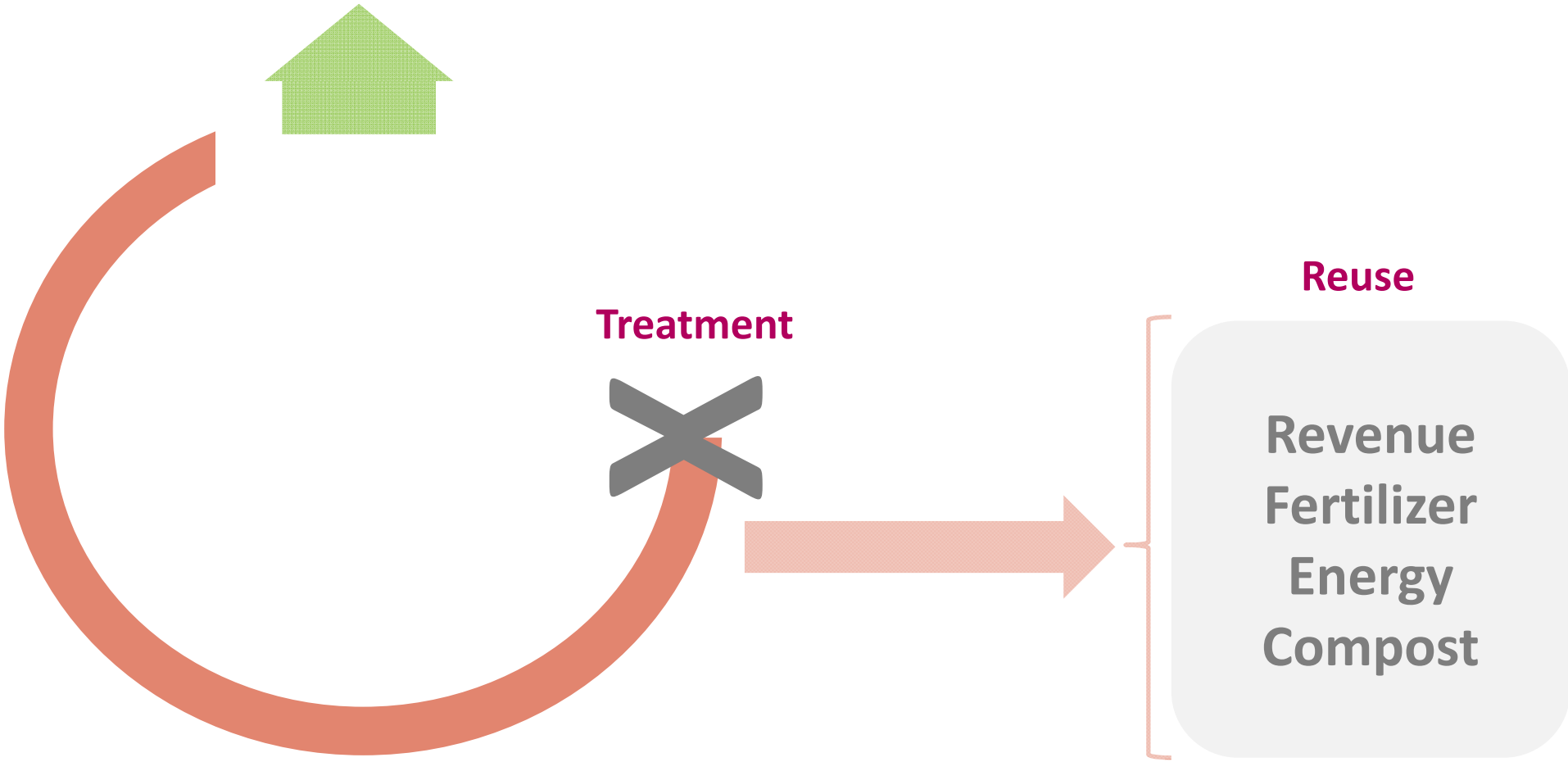
# DOCUMENT OVERVIEW

This document has five sections:

1. Introduction to project
2. Project methodology
3. Key research findings
4. Key recommendations
5. Supporting recommendations

# Introduction

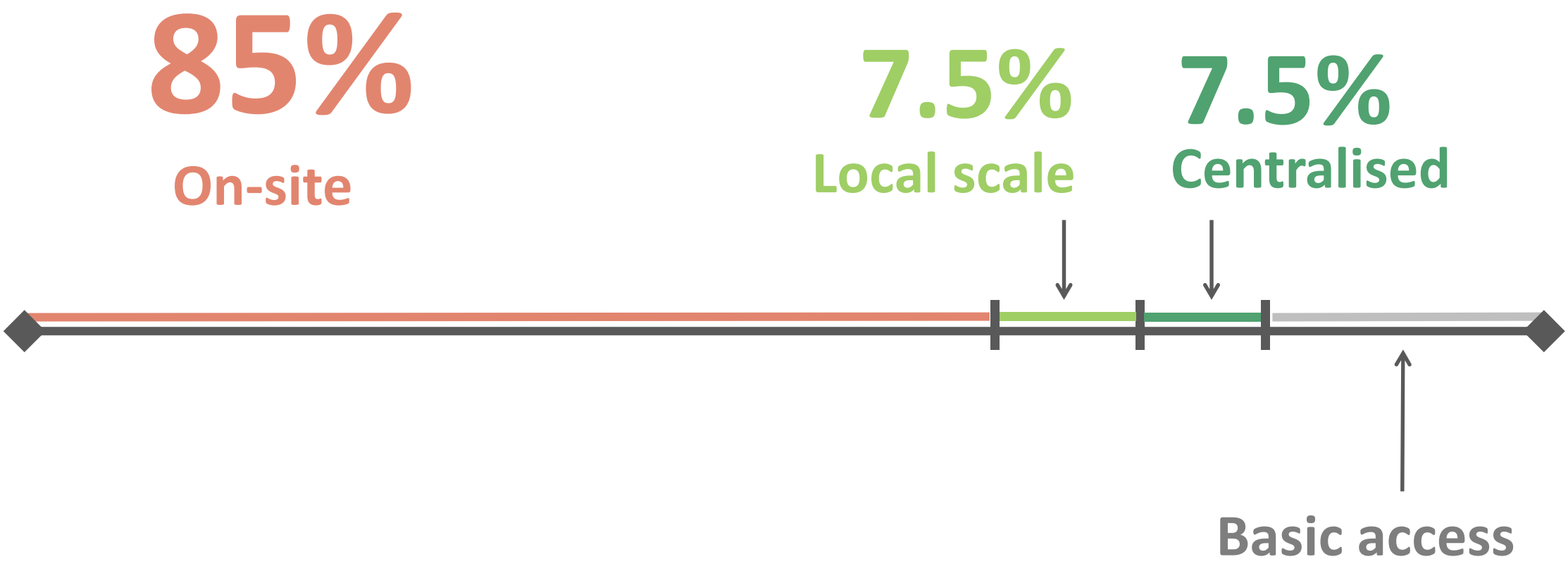
The fundamental outcome of sewage management is to separate people from harmful excreta pathogens, and protect the environment.




Increasingly, it also seeks to capture the value: nutrients etc.

# The Indonesia 2019 sanitation coverage target **for improved access** prioritises on-site.



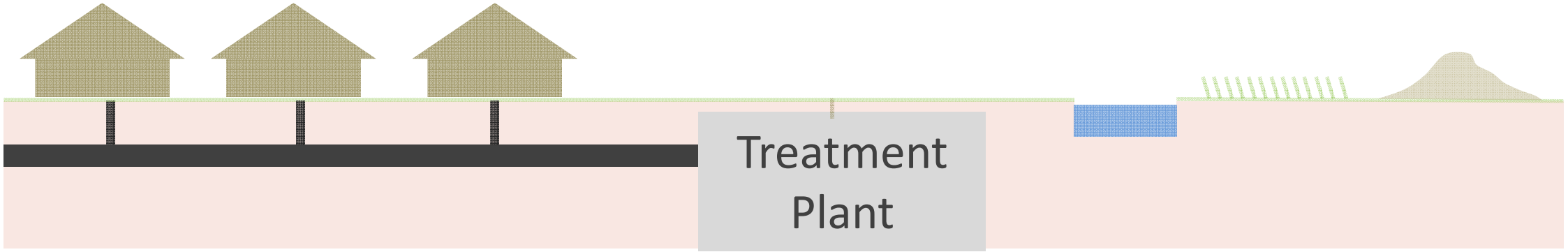



But local scale is significant. It will service the same number of people as centralised systems.

# Our focus is on local scale, which can be called many names.

- ❑ SANIMAS
- ❑ DEWATS
- ❑ Communal treatment

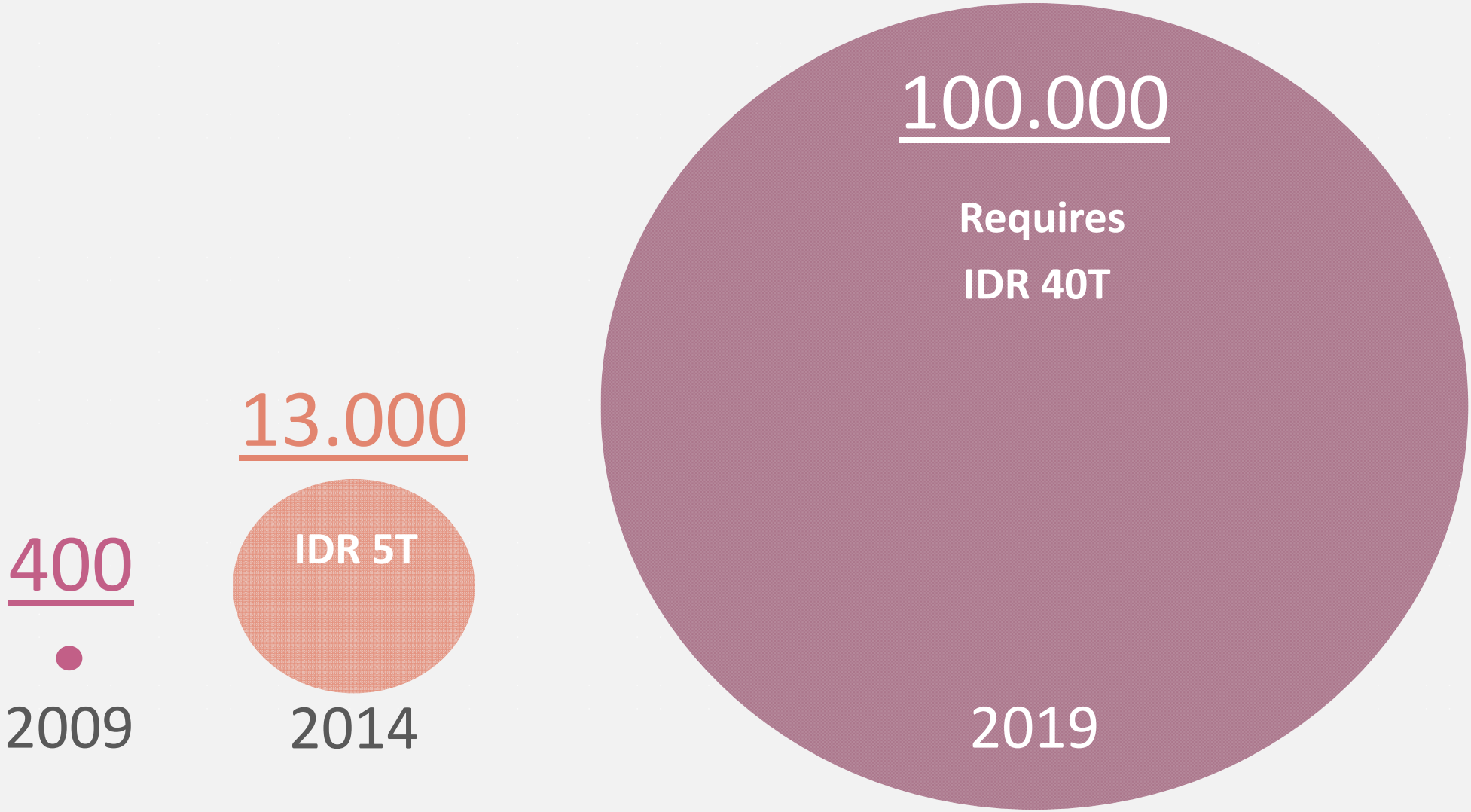
- ❑ Distributed
- ❑ Decentralised
- ✓ Local scale




The term ‘Local scale’ reminds us that other groups can Operate and Manage this scale of service along with, or instead of, community.

(Figure: T. Rosenqvist)

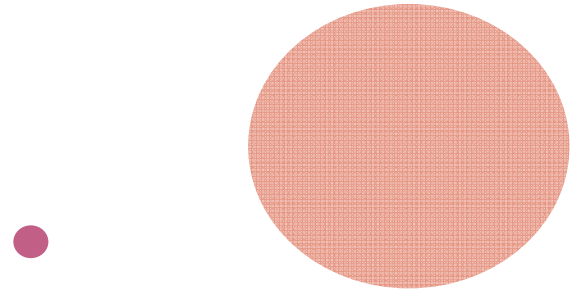
# Meeting the 2019 target means constructing many more local scale systems.



# What about operation?

*Whilst some community scale sanitation systems work well, many have challenges*

(Eales et al [WSP], 2013)



How do we ensure systems actually function in the long term?

# Project Details: Effective governance for the successful long-term operation of local scale sanitation systems



**Duration** May 2013 – June 2016

**Funding** Australian Aid Development Research Awards Scheme
Contributors: UTS, ISF, BORDA

**GoI Partners** BAPPENAS (Partnership Agreement)

**Methodology** Transdisciplinary Participatory Action Research

**Collaborators** Local Partner: AKSANSI
International Partners: BORDA Germany, ODI
Expert Advisors: Kathy Eales, Jeff Moeller, Chris Buckley

# Methodology

Our mixed method approach includes qualitative and quantitative data collection, analysis and synthesis. This involves:

- Semi-structured interviews and focus group discussions with diverse groups including:
    - communities and village leaders,
    - local NGOs,
    - Government of Indonesia (GOI) and local government (LG) staff and leaders,
    - representatives from the main funding programs of local scale sanitation systems (GoI and donor), and
    - the Jakarta-based national Project Advisory Group
- Observations during study site visits on Java and South Sulawesi (~30),
- Document and data set reviews and analysis.

Our fundamental framework is multi-level governance:

**Day to day activities** that ensure system functionality

+

**Formal and informal institutional arrangements** that help or hinder the day to day

That means our focus was on

1. **What** needs attention
2. **Who** has what responsibilities and **how** should those responsibilities happen in practice

(Kooiman 2003, Kooiman 2008)

# Our Global Practice Scan identified ‘what’ needs attention for long term success for local scale services.

**Functioning technology:** Ensuring the physical system delivers the service

**Sustainable financing:** Sufficient ongoing revenue to cover all short and long-term operational cost elements

**Effective management:** Accountable and equitable administration and decision making system

**Sustaining demand:** Maintaining effective community demand for the service over time

(Ross et al, 2014)

Then with partners, we carefully chose 4 areas of inquiry that together provide powerful insights and improvements.



## Performance monitoring:

What is the volume and and quality of available data on community-based sanitation performance?

## Legal arrangements:

What are the legal and informal arrangements for the Operation phase?

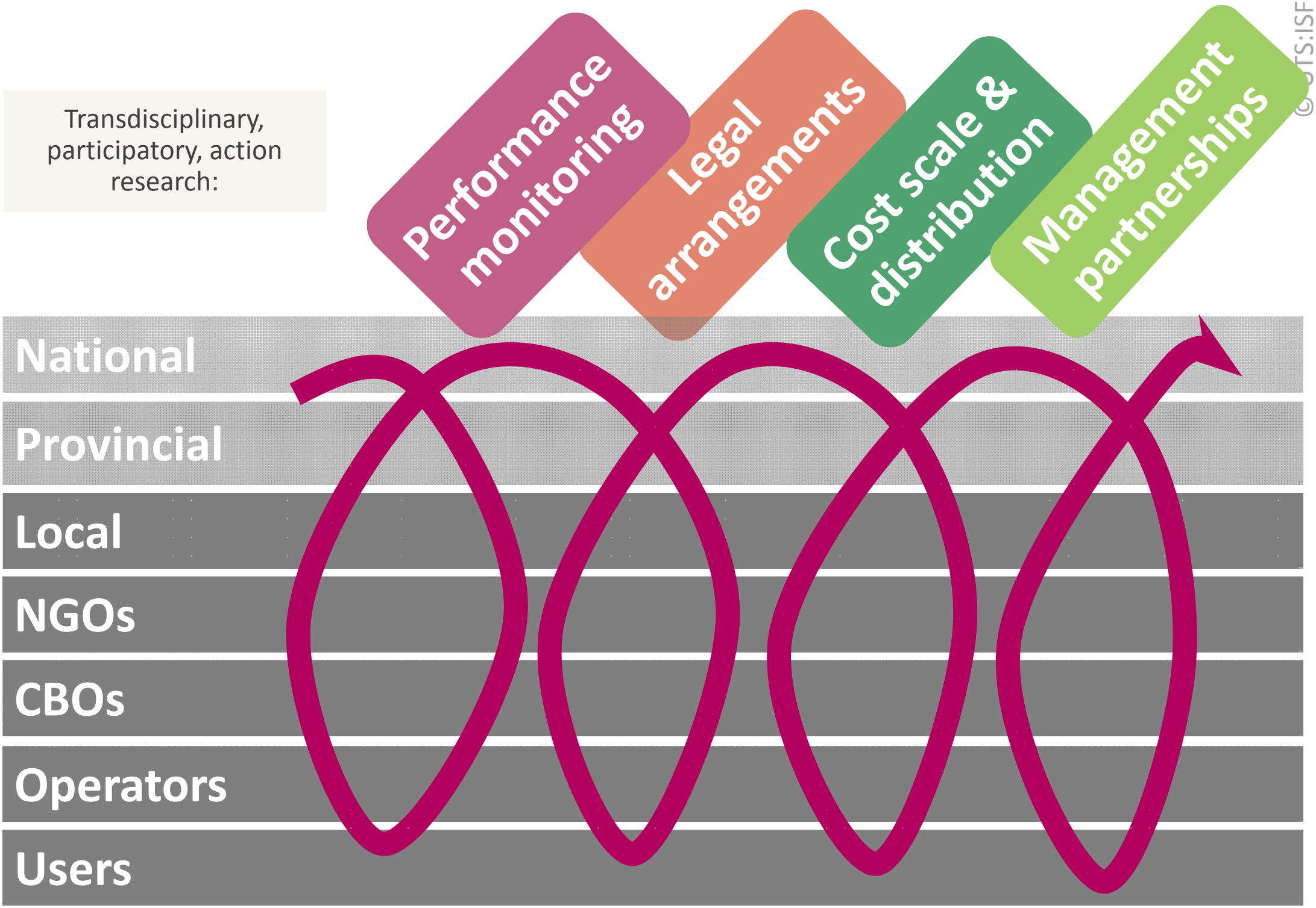
## Scale and distribution of costs:

For a range of sanitation service delivery models, what are the scale and distributions of cost?

## Management partnerships:

What are the range of structures and institutional arrangements that could deliver the responsibilities for managing community-scale systems?

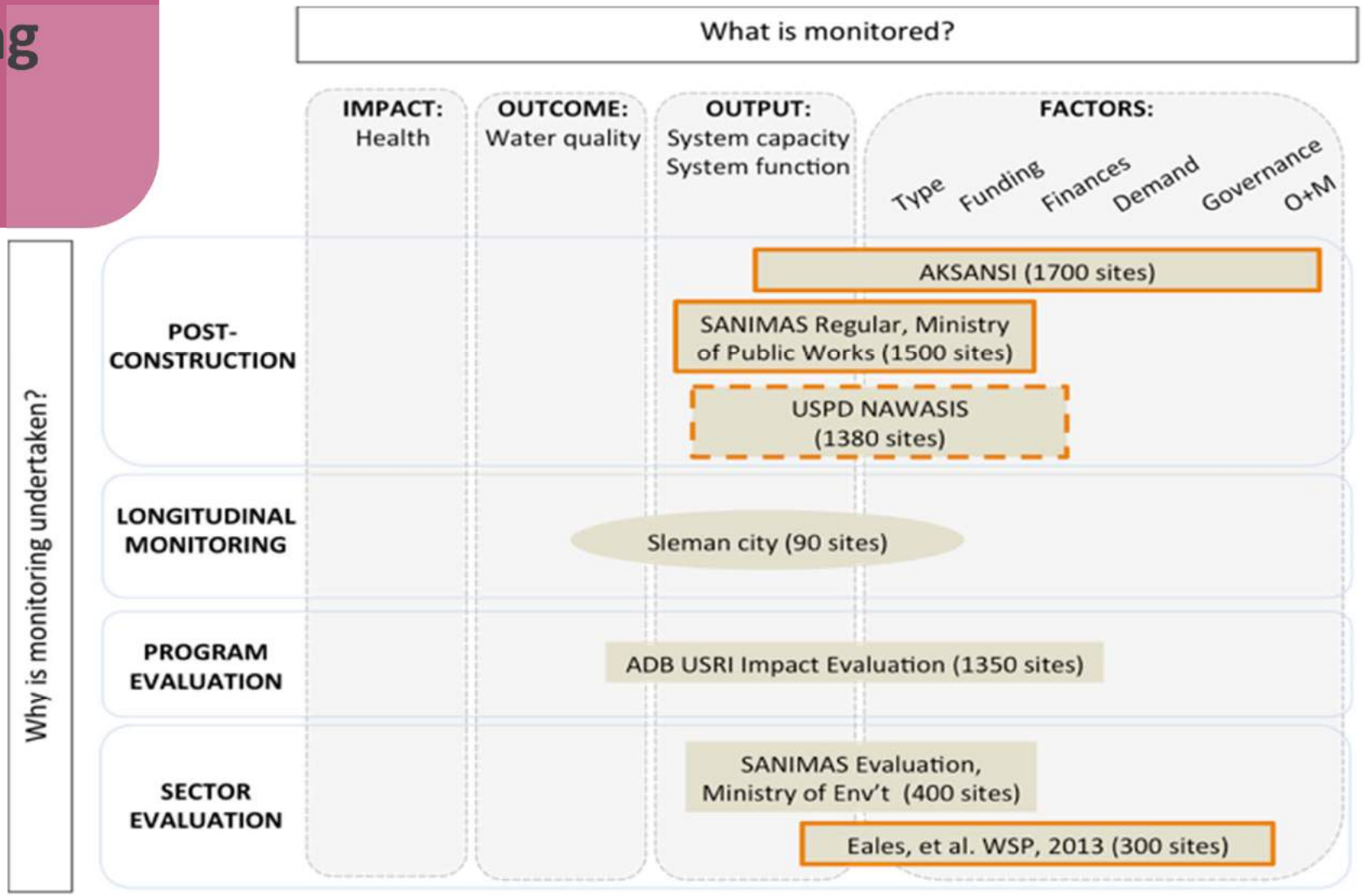
Transdisciplinary, participatory, action research:



# Performance monitoring

What is the volume and and quality of available data on community-based sanitation performance? (Oct – Dec 2014)






(Mitchell et al, 2016)

# Legal arrangements:

What are the *informal* arrangements for Operation? (Feb – May 2015, with ODI)

What are the *formal legal* arrangements for Operation? (April – Dec 2015, with CRPG)

## A. City Case Study:

Institutional arrangement analysis to understand limits to, and prospects for, local scale sanitation service

(Mason et al, 2015)

## B. Legal review:

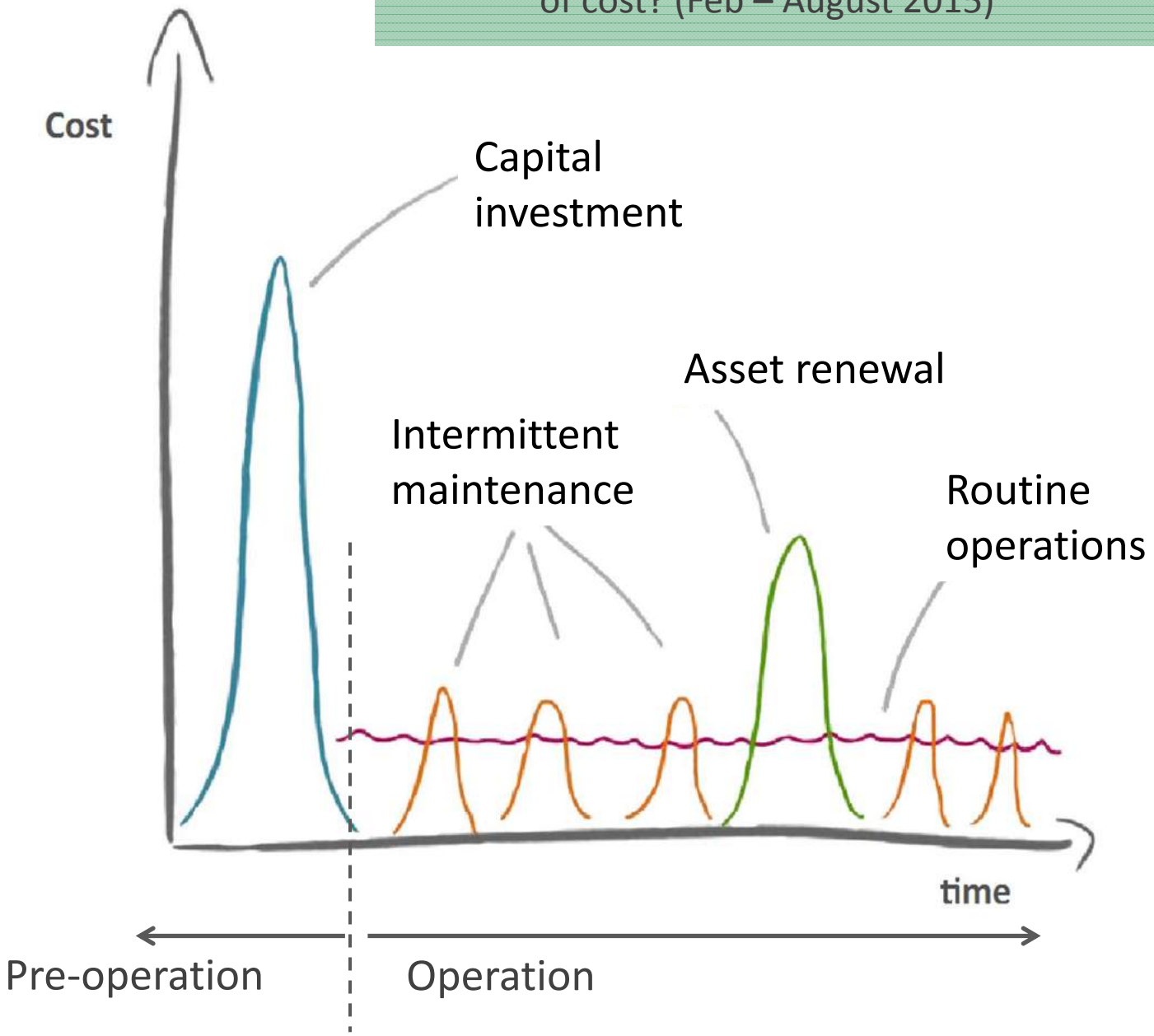
Review 55 docs on:

- National regulation
- LG regulation
- Ownership outcomes
- LG funding options
- Legal entities for CBOs

(Al'Afghani et al, 2016)

For a range of sanitation service delivery models, what are the scale and distributions of cost? (Feb – August 2015)

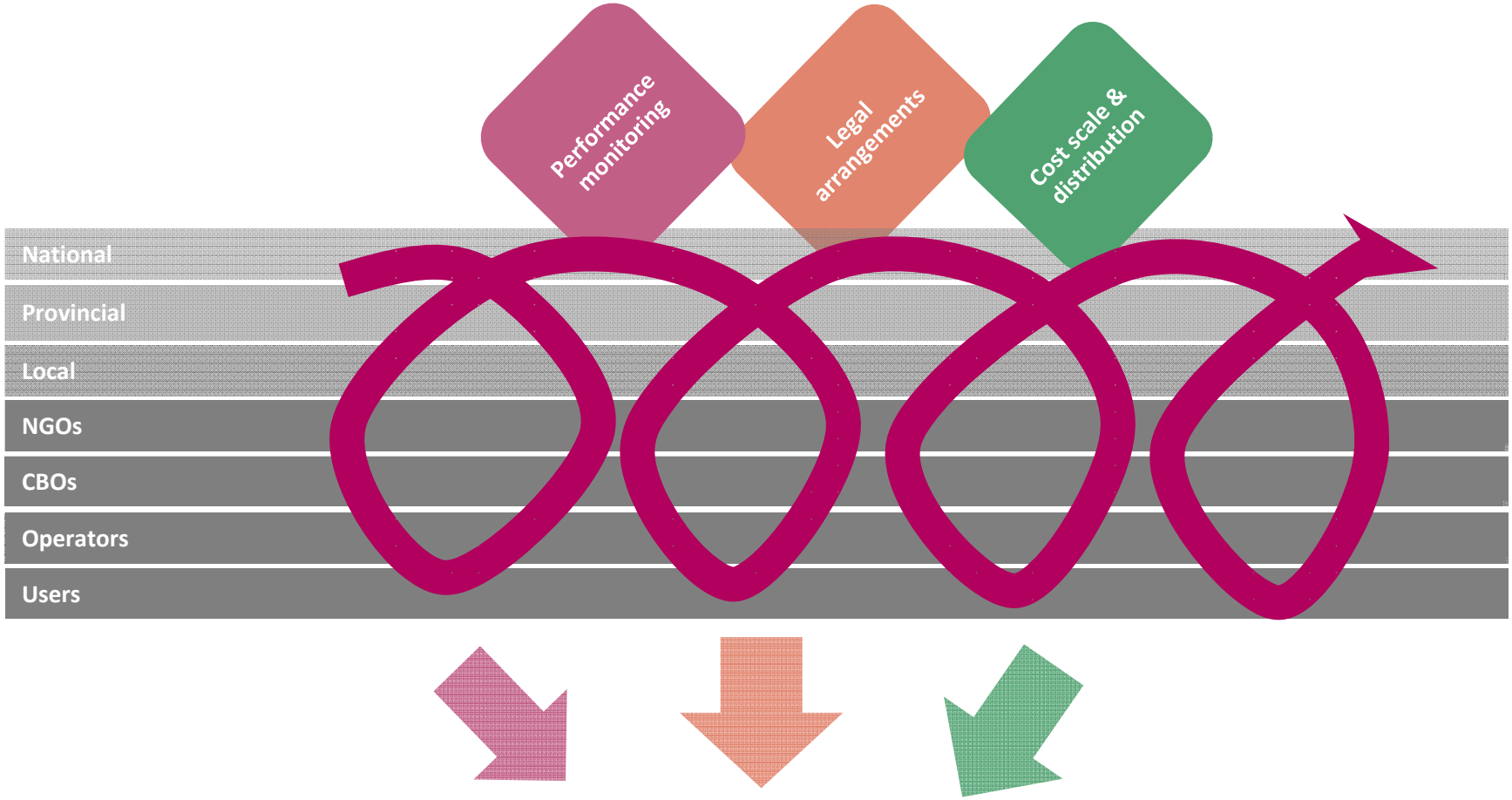
# Scale and distribution of costs:




Data sources:

- Documents
- Workshops

(Mitchell et al, 2016)




**SYNTHESIS**

## Management partnerships:

What are the range of structures and institutional arrangements that could deliver the responsibilities for managing community-scale systems?

(Ross et al, 2016)

# Key Findings

# Summary of key findings

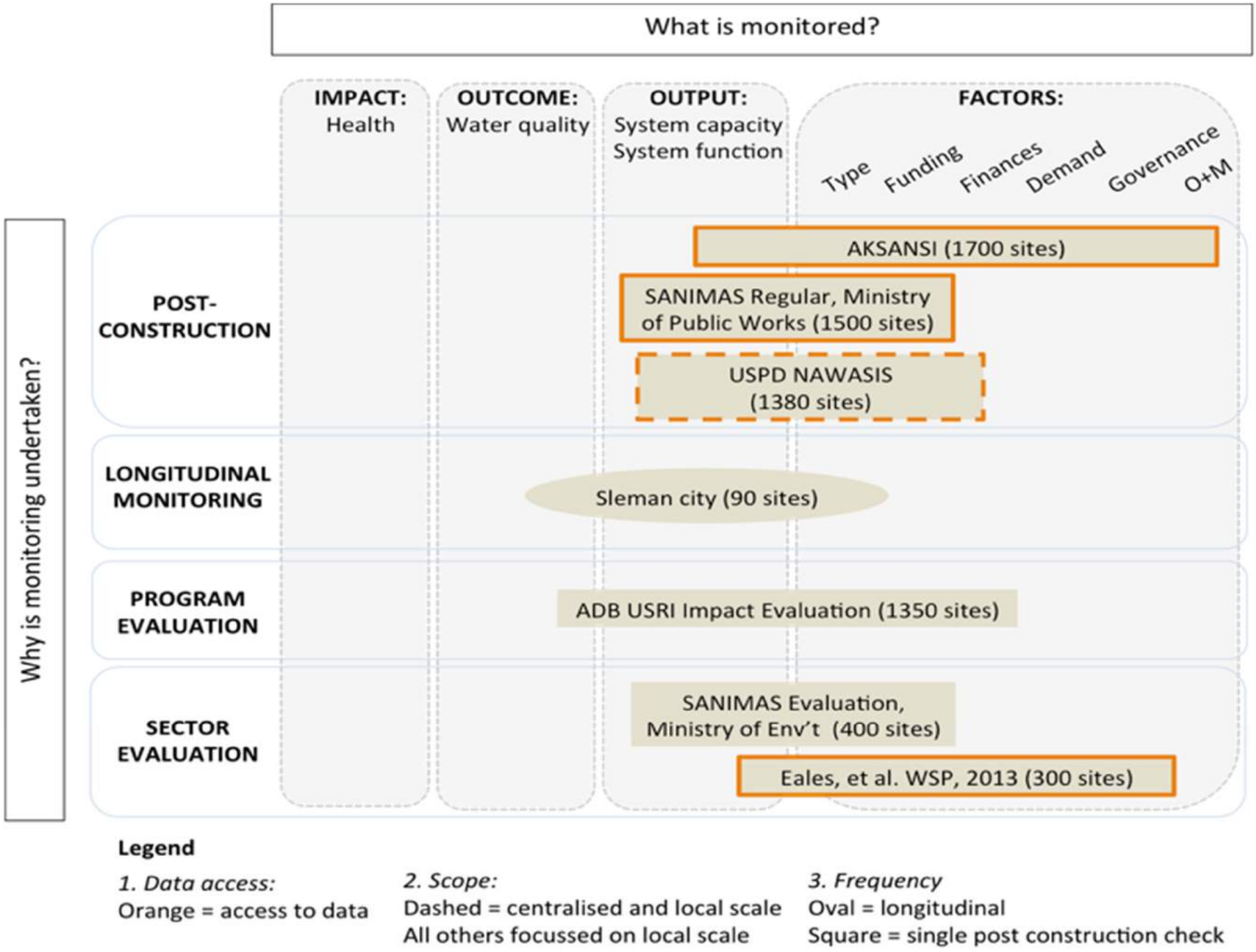
1. Little **monitoring** occurs in practice
2. Local scale sanitation service has many **challenges** in practice
3. There are legal, institutional, equity, and normative **drivers** for increased LG participation and responsibility
4. Some LG already provide financial and/or legal **support** to local scale sanitation systems, but it is not always helpful
5. LG can **fund** the operation and maintenance phase for assets it does not own
6. Several **barriers** limit LG support

# Key findings:

## 1. Little monitoring occurs in practice

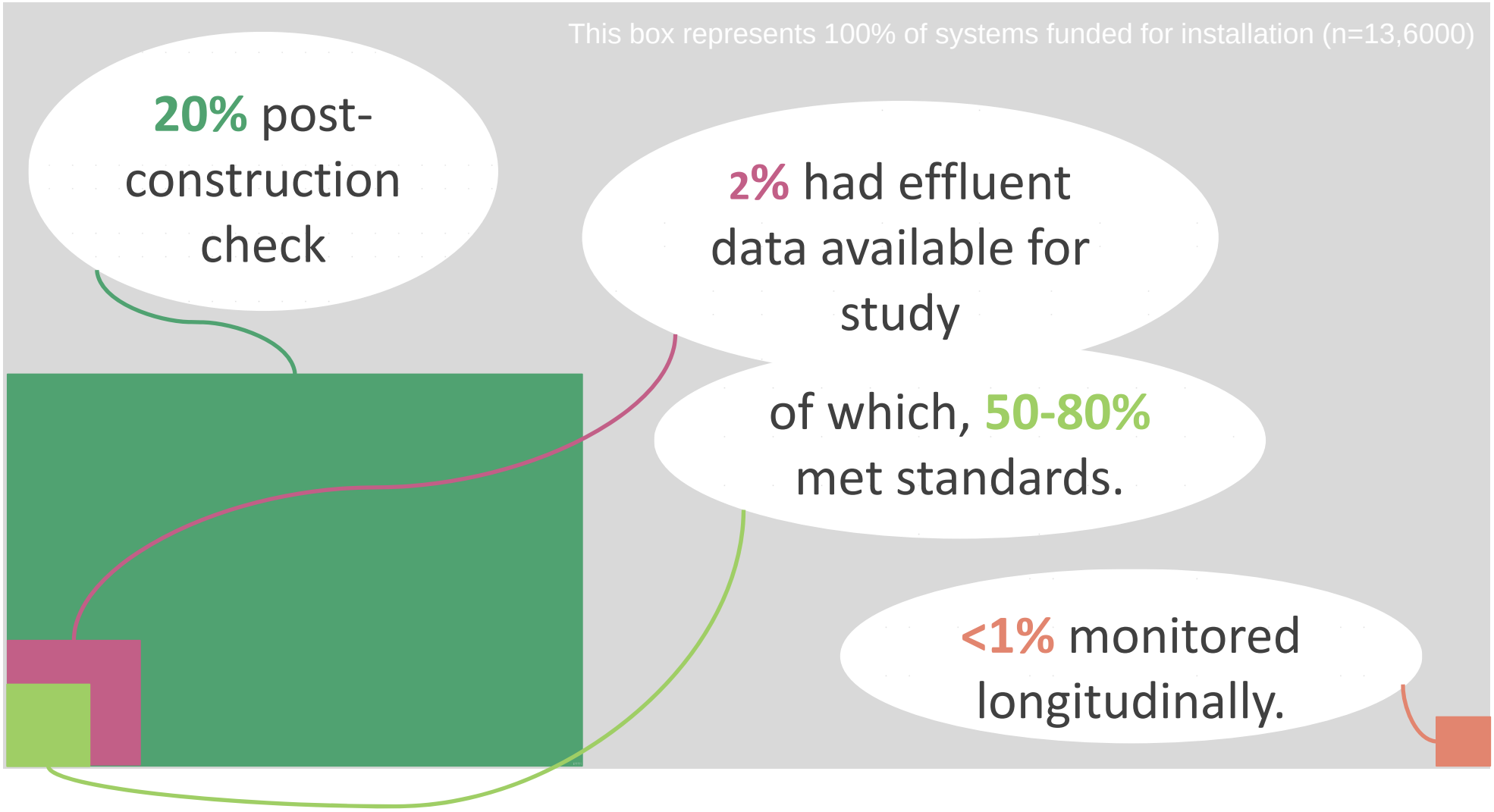
The need to monitor effluent is recognised, but is challenging in practice, because of e.g., lack of funds, uncertainty about responsibility, access to labs and the quality of the lab testing.

# Records are limited and disaggregated.




(Mitchell et al, 2016)

# The collective, long-term performance of these systems appears to be unknown at both local and national levels.




(Source: PU, ADB, AKSANSI)

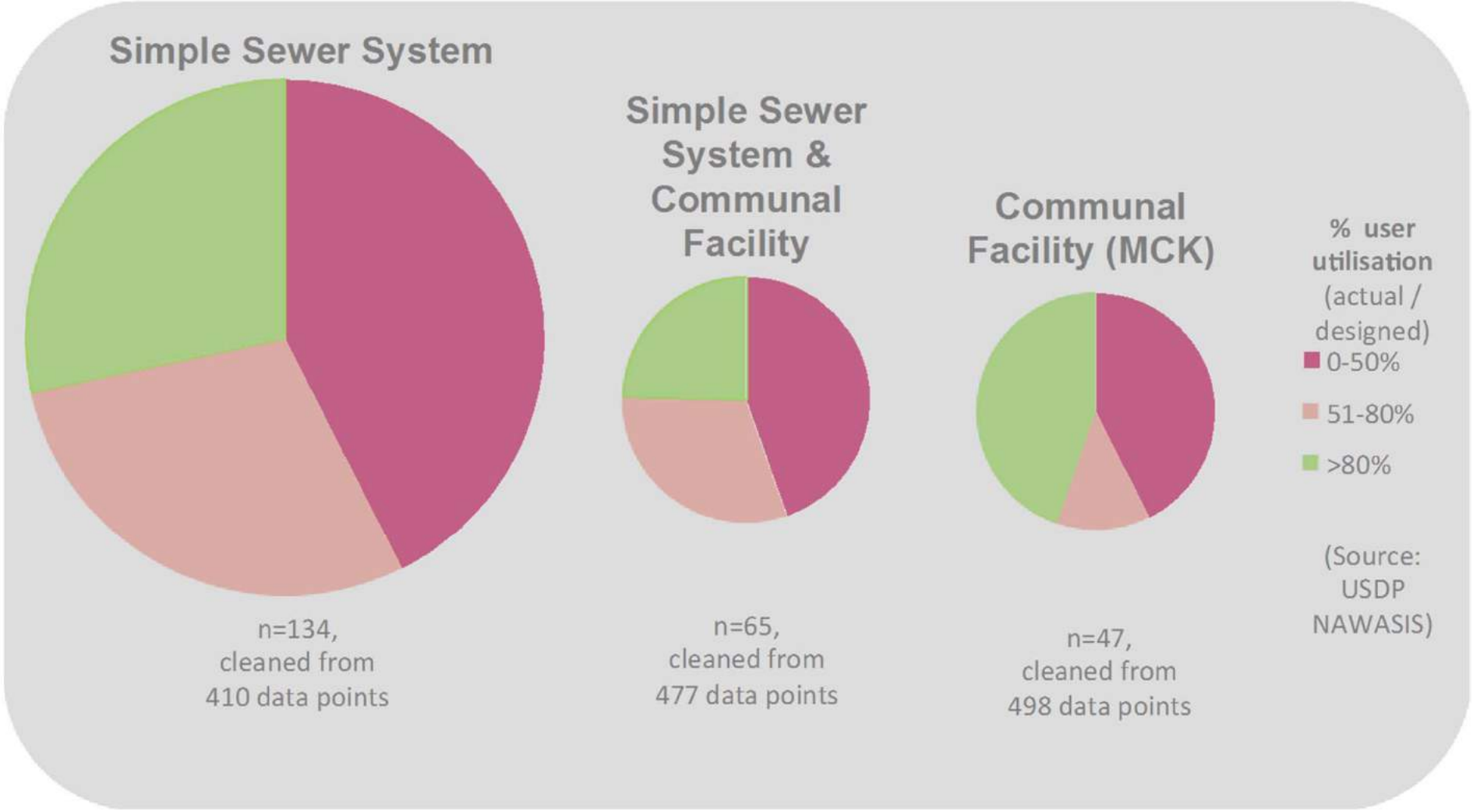
80% of systems appear to have had no assessment.

# Monitoring primary impacts (human health, water quality) and governance aspects does not seem to occur routinely.



| Components of post construction check: | Governance aspects: Financial sustainability | Governance aspects: Functioning technology | Governance aspects: Sustaining demand | Governance aspects: Effective management | Impacts: Human health | Impacts: Water quality |
|---|---|---|---|---|---|---|
| Funded by: DAK SLBM (77% of systems) | | | | | ? | ? |
| SANIMAS PU (11% of systems) | ✔ | ✔ | | | | |
| USRI (10% of systems) | ✔ | ✔ | ✔ | | | |
| Monitored by : AKSANSI | ✔ | ✔ | ✔ | ✔ | | ✔ |
| Reported in: NAWASIS | ✔ | ✔ | | | | |

# Data suggests average use of local scale systems could be about half of system design.

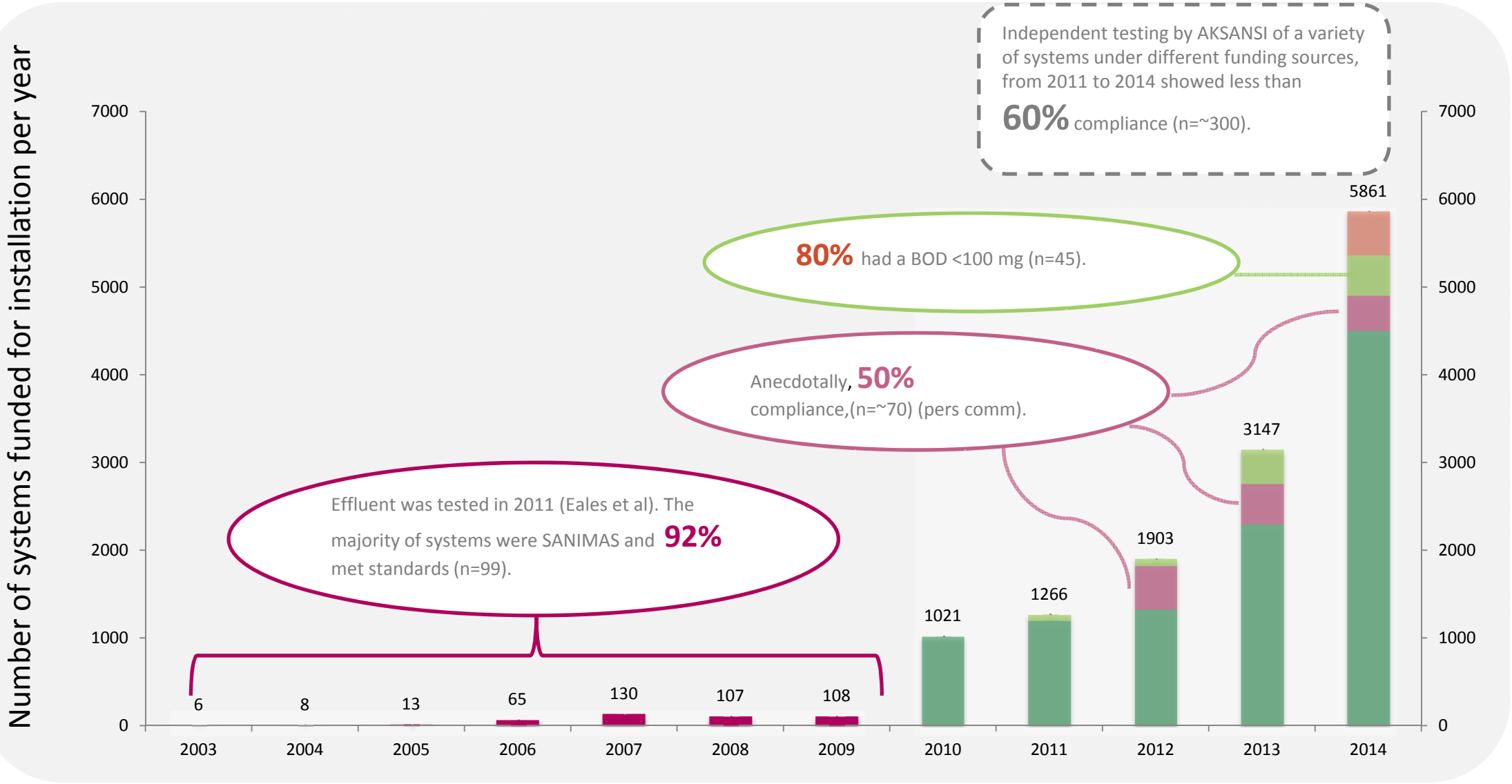


# Key Findings:

## 2. Local scale sanitation service has many challenges in practice

# Available data suggests declining technical performance is linked to rapid scale up and weaker capacity building.



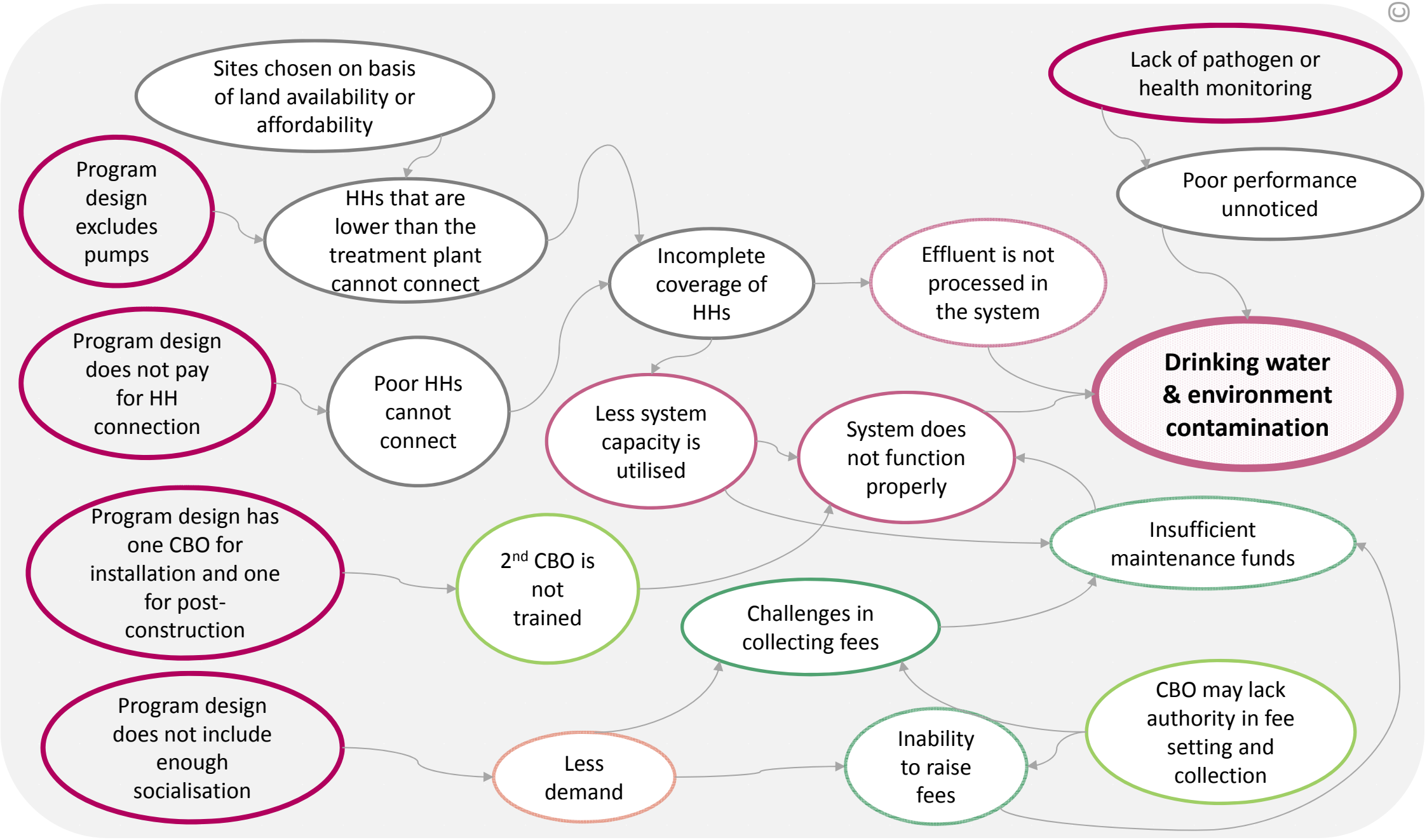


# Cash contributions in construction phase of local scale systems are required by GoI from community. Scale of contribution varies, but can be significant and prohibitive.

| **Cash** | **Cash**<br>Range (median) | **Who pays?** |
|---|---|---|
| Legal documentation for land security[1] | IDR 1.5M – 5M | community |
| Acquiring land[3] | IDR 30M – 150M | community or donor (mosque, individual) |
| CBO notarisation[3] | IDR 0.6 M | community |
| Pipework, treatment system | IDR 3M – 16 M (9 M) [1,4] | community |
| HH connection | IDR 0.3M – 3 M/hh (1 M/hh) | Often users, sometimes program |

Sources: [1] AKSANSI members; [2] BEST; [3] Bogor CBO workshop and agencies; [4]For SLBM Regular, 4% community contribution

# Program design may inadvertently prevent health outcomes.




[ In this systems diagram the arrows are to be read as “causes” or “contributes to” ]

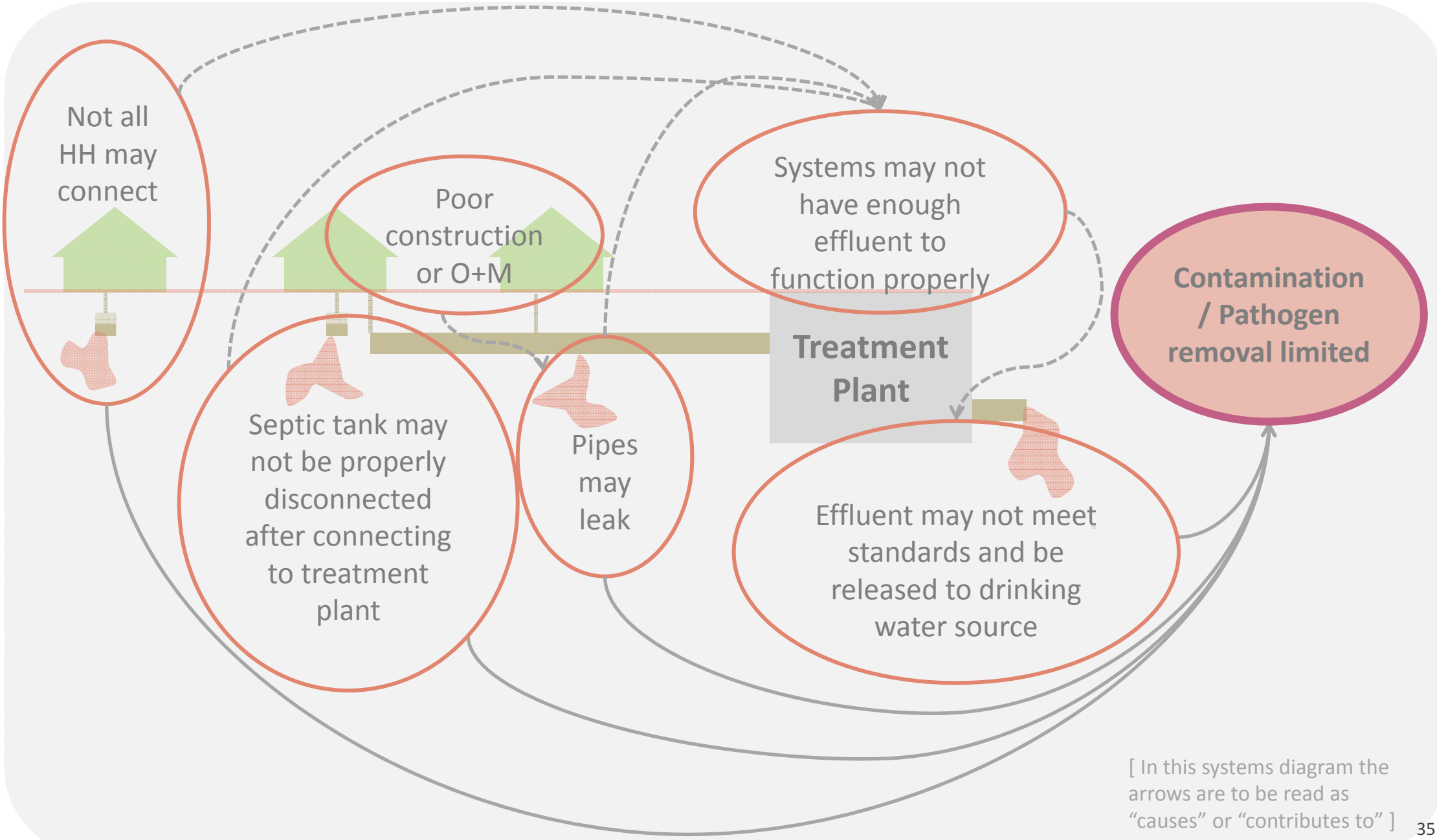
# Communities typically fail to legally secure the land: most CBOs have informal letters (*surat hibah*) at best.

| Type | Level of security |
|---|---|
| 1. Akta tanah (Land deed) | High |
| 2. Akta hibah (Grant act) | Middle |
| 3. Surat hibah (Letter & stamp) | Low |
| 4. Permit for govt land | Low |
| 5. Verbal | Low |

Reasons include:

- Cost
- Program design
- knowledge gap
- CBO is not a legal entity

# Contamination still occurs after system construction.




[ In this systems diagram the arrows are to be read as "causes" or "contributes to" ]

# CBOs has difficulty managing many important tasks.



| | Manageable tasks | Challenging tasks |
|---|---|---|
| **Successful operation** | ✓ Flush the system<br>✓ Check pipes for cracks<br>✓ Plan and track completed O+M tasks<br>✓ Fix blockages | ❑ **Major repairs and rehabilitation**<br>❑ **De-sludge every 2-4 years**<br>❑ **Monitor effluent**<br>❑ **Optimise unused facilities (communal & unconnected simple sewer systems)**<br>❑ Conduct biogas maintenance<br>❑ Deodorise the methane<br>❑ De-scum monthly |
| **Sustainable financing** | ✓ Keep records of group assets | ❑ **Collect user fees**<br>❑ **Plan & budget for major expenses, uncertainty, emergencies**<br>❑ **Source supplementary income streams**<br>❑ Manage the treasury book and bank account<br>❑ Prepare financial accountability report<br>❑ Forecast recurrent costs |
| **Sustaining demand** | ✓ Conduct health campaign<br>✓ Remind users of their responsibilities & provide support<br>✓ Conduct monthly users meetings<br>✓ Clean the communal systems | ❑ Educate about the benefits of the system |
| **Effective management** | ✓ Host regular management meetings<br>✓ Keep complaint recording mechanism | ❑ **Pay operator**<br>❑ **Ensure operator legitimacy in community** |

(Source: AKSANSI)

# Key findings:

## 3. There are legal, institutional, equity, and normative drivers for increased LG participation and responsibility

# Legal drivers

for increased LG participation and responsibility

Legally, local government is responsible.

According to a review of national law and legislation, sanitation is largely missing from national and local regulation.

However, sanitation is described as:

- A basic service (must be provided by regional government)
- Mandatory (every region must carry it out)
- A Concurrent affair (carried out by central + regional government)

(Al Afghani et al, 2016)

Legally binding ownership of systems is unclear post construction.

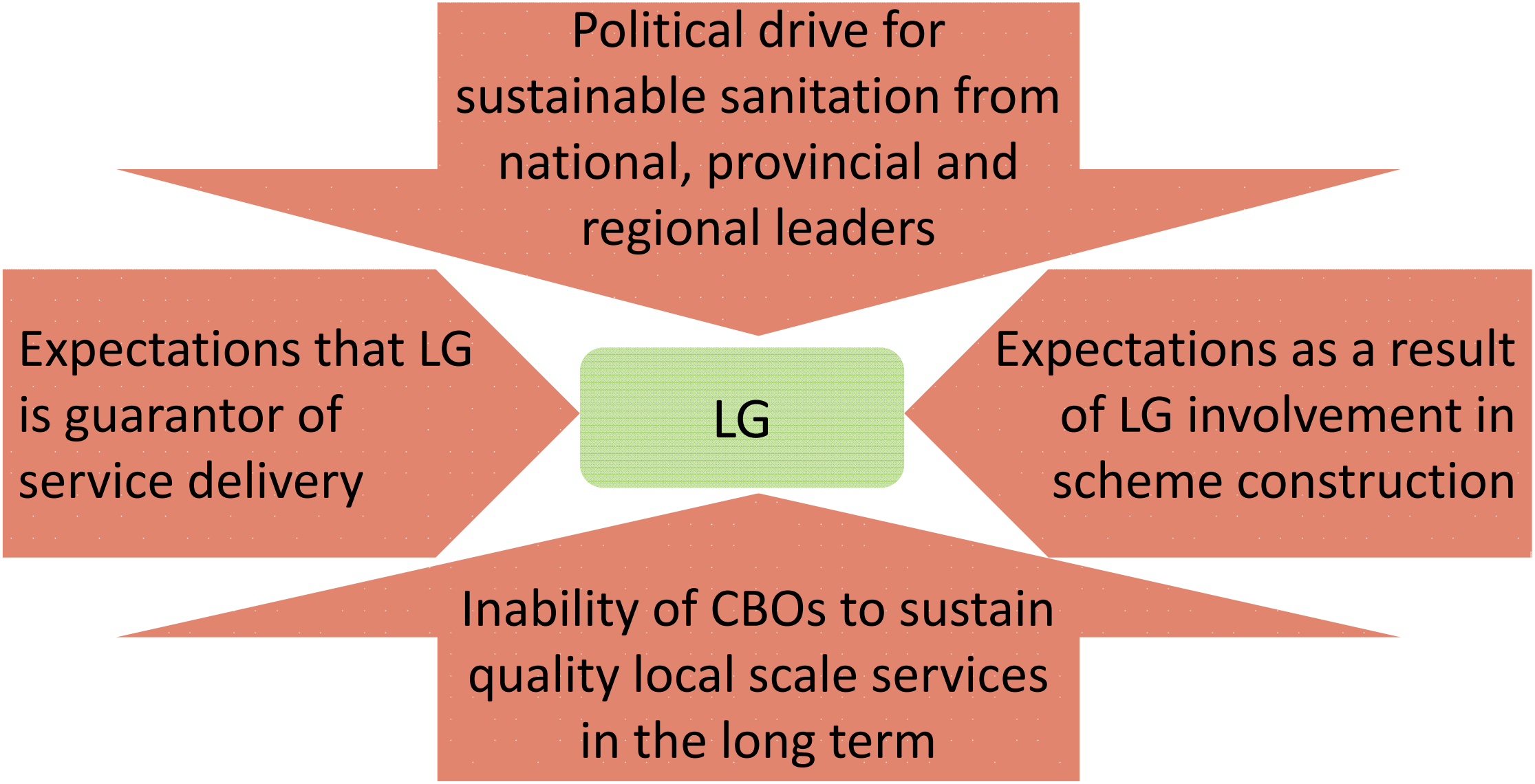

From a technical legal perspective, only a legal entity can legally own the assets (land and system). Community [‘masyarakat’] and operational CBOs are not legal entities. Current asset transfer documentation and processes are unlikely to be legally binding.

(Figure: T. Rosenqvist)

# Institutional drivers

## for increased LG participation and responsibility

# In the long-term, institutional arrangements put LG in a pinch for supporting local scale services



# Equity drivers

for increased LG participation and responsibility

# Voluntary contributions of time from community members during construction are significant, especially for economically vulnerable people.

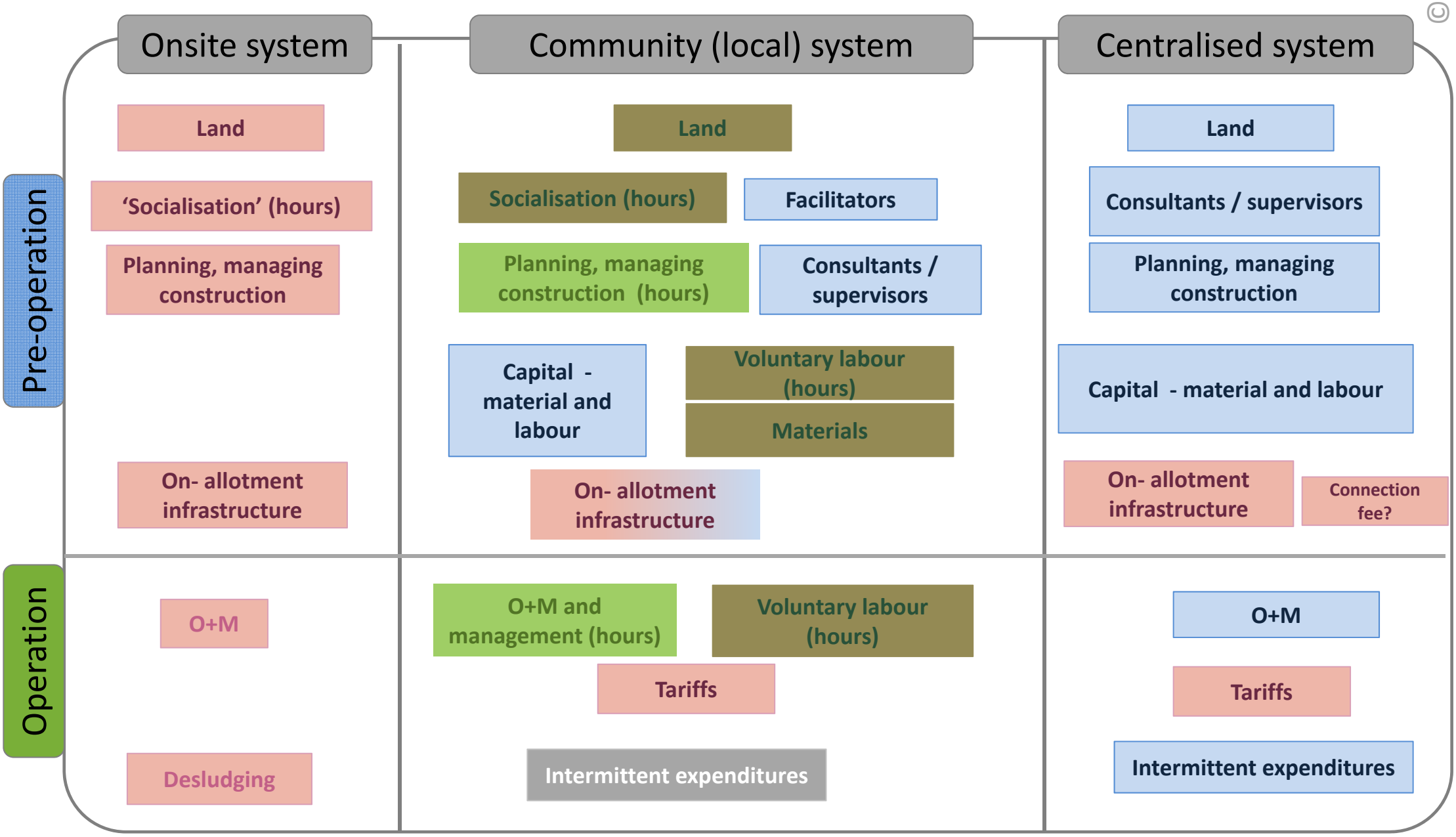
| | **Voluntary person days** Range (Median) | **Who pays?** | **Additional Donations** |
|---|---|---|---|
| Securing land | 25 [2] | community | |
| Socialisation | 4 – 11 [2] | community | |
| Planning, design, oversight, admin | 11 – 320 (100) | CBO | |
| Construction labour | 1070 [2]<br>34 – 2,500 (135) [1,3] | community | Food, rice from community |

**Median is around 250 days (1 person year) per system**
**Experienced delivery partners estimate 1500 days (5 person years)**
**CBO members bear significant load**

Sources: [1] AKSANSI members; [2] BEST; [3] Bogor and Sulawesi CBO workshops and agencies

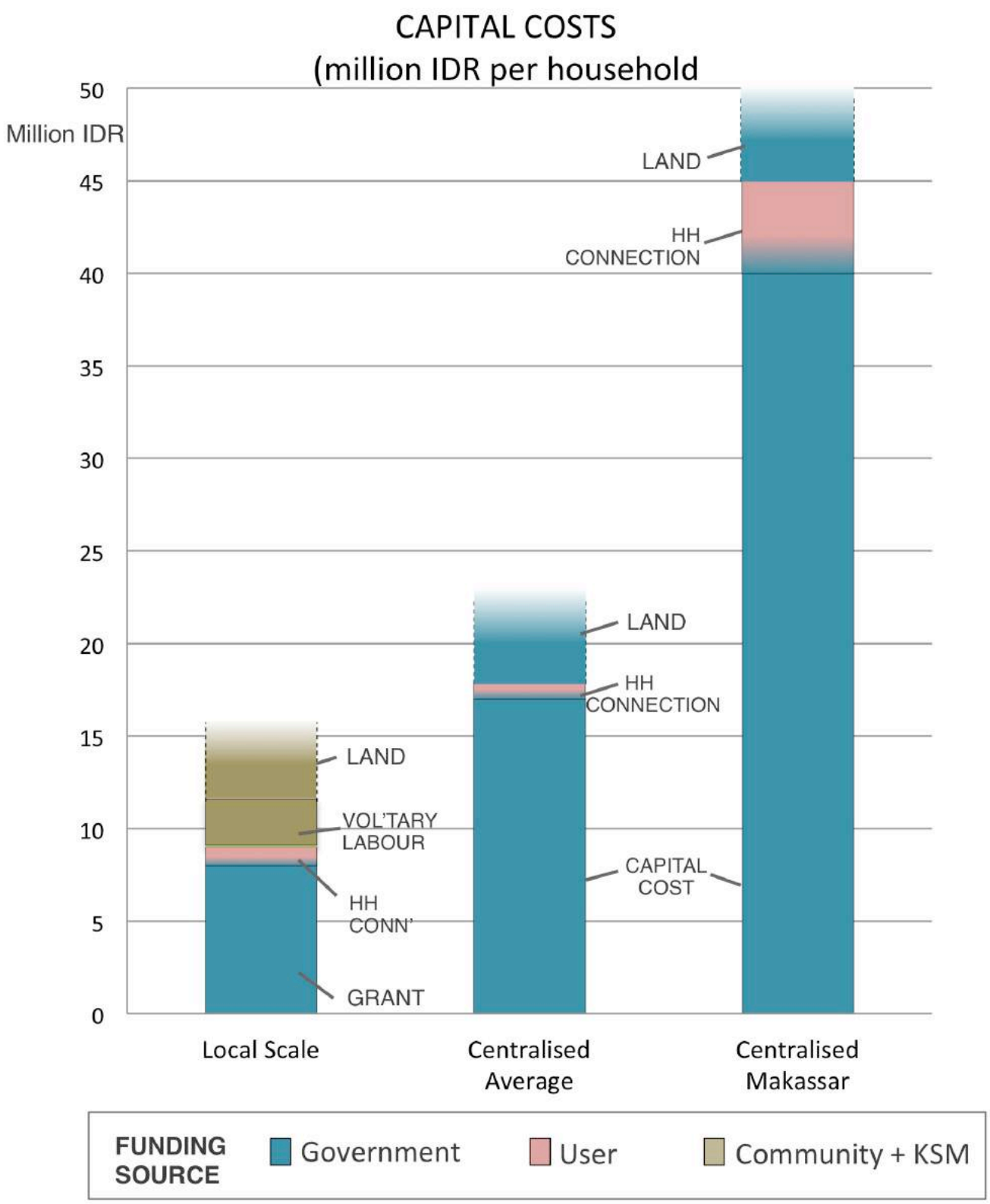
# Poorer communities are typically asked to contribute more.



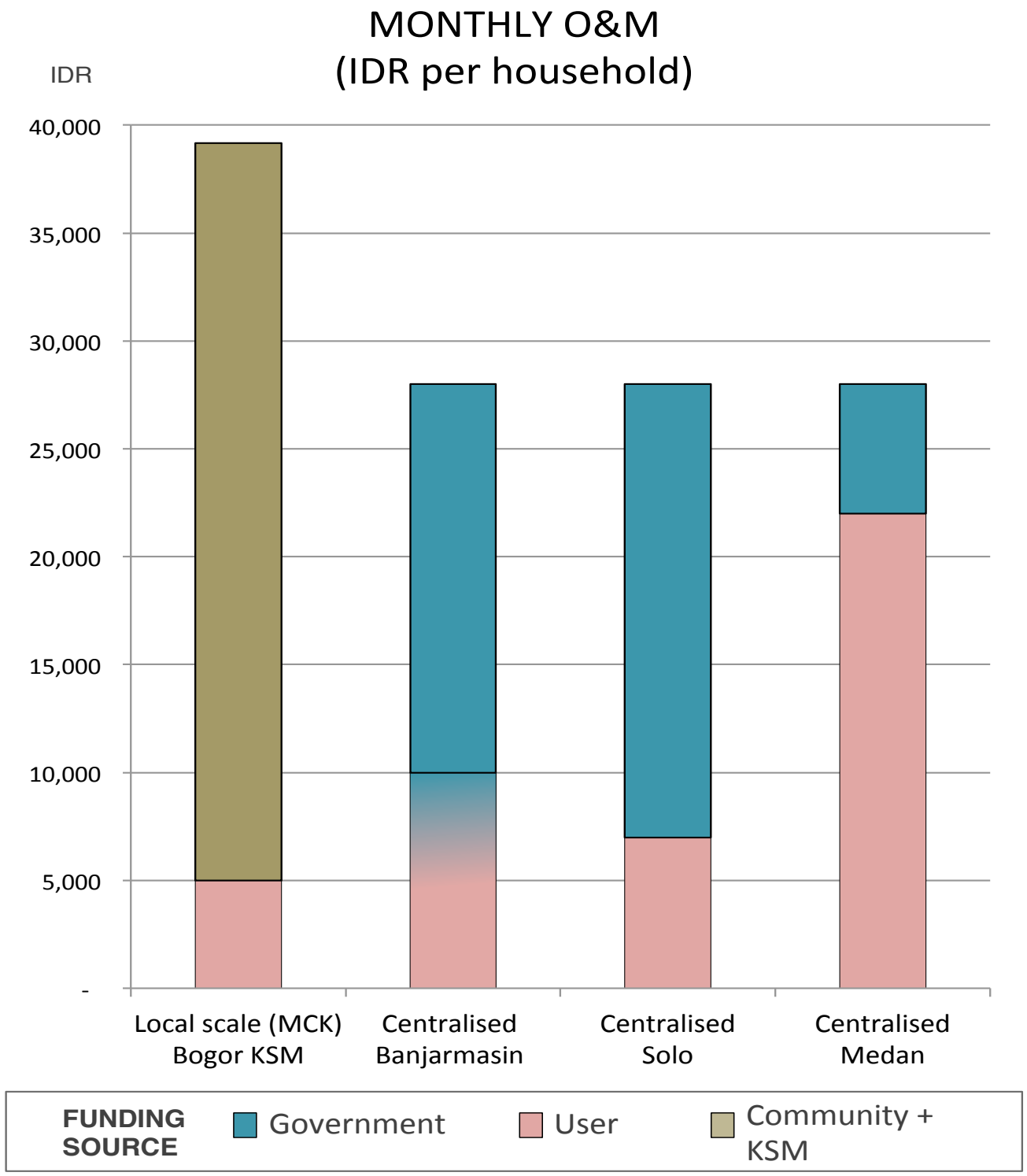



Colour code: Government | User | CBO | Community

Poorer communities may receive less capital support and be asked to provide more.



O+M costs are similar across scales, but poorer communities are expected to fill the revenue-cost gap.



# Typical user fees are insufficient to meet routine costs. Voluntary time equates to one full time worker.

| Monthly COSTS | **Costs (IDR/month)** Median (range) | **Voluntary time (days/month)** Median (range) |
|---|---|---|
| Administration | | 10 (1-90) CBO |
| Operations | Operator: 200,000 (30 k – 800 k) | 9 (1-75) community |
| Consumables | Electricity : 120,000 (50 k – 400 k)<br>Goods: 50,000 (10 k – 360 k) | |
| **TOTAL** | **IDR 370,000/ month or IDR 6,000/ household/ month** | **20 days / month** |
| **Monthly REVENUE** | | |
| Fees | IDR 5,000/household/month (2 k – 27 k) | |

Source: Bogor CBO Workshop. MCK focus.

# Normative drivers:

the community empowerment norm is changing in practice

# Initially community empowerment was a key outcome of community-based sanitation. However, two key features of 'community empowerment' have little relevance in practice



**1. Behaviour change**

SANIMAS original intent: discourage open defecation and encourage use of toilets and improved hygiene through Communal systems.

Now, only simple sewer systems (SSS) or mixed (communal/SSS) systems are built, not communal.

Where SSS built, people already have toilets. For people with toilets and onsite treatment or disposal, the next step is sewerage. For these people, SSS costs more in time and money, and provides lower level of service than centralised.

## 2. Community provides land

Because most system are now SSS, where all the infrastructure can be underground, from 2016, having land is no longer a GoI (Ministry of Public Works) pre-requisite for a community to receive a system.

Local government is now able to provide public land (e.g., under roads or other public lands) which creates both a need and an opportunity for strengthening LG engagement and capacity.

# Key findings

## 4. Some LG already provide financial and/or legal support to community or local scale sanitation systems, but it is not always helpful

In 2014, at least 19 LG were providing financial support, mainly for meetings and awards.

A few supported local system operations with intermittent and asset renewal costs e.g., site repairs (~ **IDR 170 M**); extending communal systems to new house connections (~ **IDR 150 M**). Some provided equipment that could not be used e.g., desludging units that cannot reach installed systems.


Some local governments are developing local legal arrangements (eg PERDA) to support sanitation service delivery. However, these efforts often discriminate against local scale systems.

Our legal review found existing PERDA:

- Are very focused on separation of roles and responsibilities by technology scale (centralised, decentralised, on-site)
- Have many gaps for local scale (objectives, licenses, service standards) which makes it hard to achieve accountability
- Refer to CBOs as primarily responsible for planning and development, which raises questions of fairness across technology scales

# Key findings

## 5. Local government can fund the operation and maintenance phase for assets it does not own

Our legal review and Focus Discussion Groups made clear that local governments can potentially use direct and indirect expenditure to fund local scale service.

- Direct: employee; goods + services
- Indirect: subsidy, grants for legal entities, social assistance

There are examples from other areas: the Governor of Jakarta funds people and consumables for solid waste management in a similar way.

# Key findings

## 6. Several barriers limit local government support

According to a case study of a City in Java, 4 groups of formal and informal factors appear to shape the ability of LG to support local scale systems:

- Unclear rules around public finance and fear of sanctions around misuse of public finance
- Unclear legal arrangements for ownership
- Prevalence of the community empowerment norm (e.g. communities should manage the systems in order to develop self-reliance and capacity)
- Information deficit and disincentive for oversight

# Unclear rules around public finance



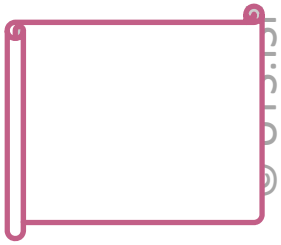
1

- Public financial processes are **complex**, including the process for determining regional-level budgets.
- Most stakeholders had **little clarity** on how to use public funds for post-construction local scale support

2

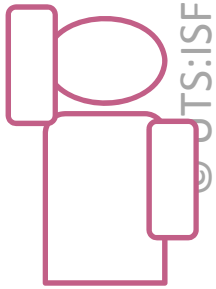
- **Severe sanctions** were expected for for non-compliance of public funds.
- This fear **discouraged financing** arrangements for local scale sanitation in the **operation phase**.
- It was perceived that allocating recurrent expenditure for assets **not owned by government can be treated as a criminal** offence.

# Unclear legal arrangements for ownership



- Land and asset ownership remains unclear in law
- Grants made by owners and witnessed by various officials (e.g. village head) are likely to be legally contestable.
- Perception that legal transfer of ownership to the CBO could further restrict ability of government funds to be allocated to O+M expenditure

# Expectations of self –reliance
# (Prevalence of the community empowerment norm)



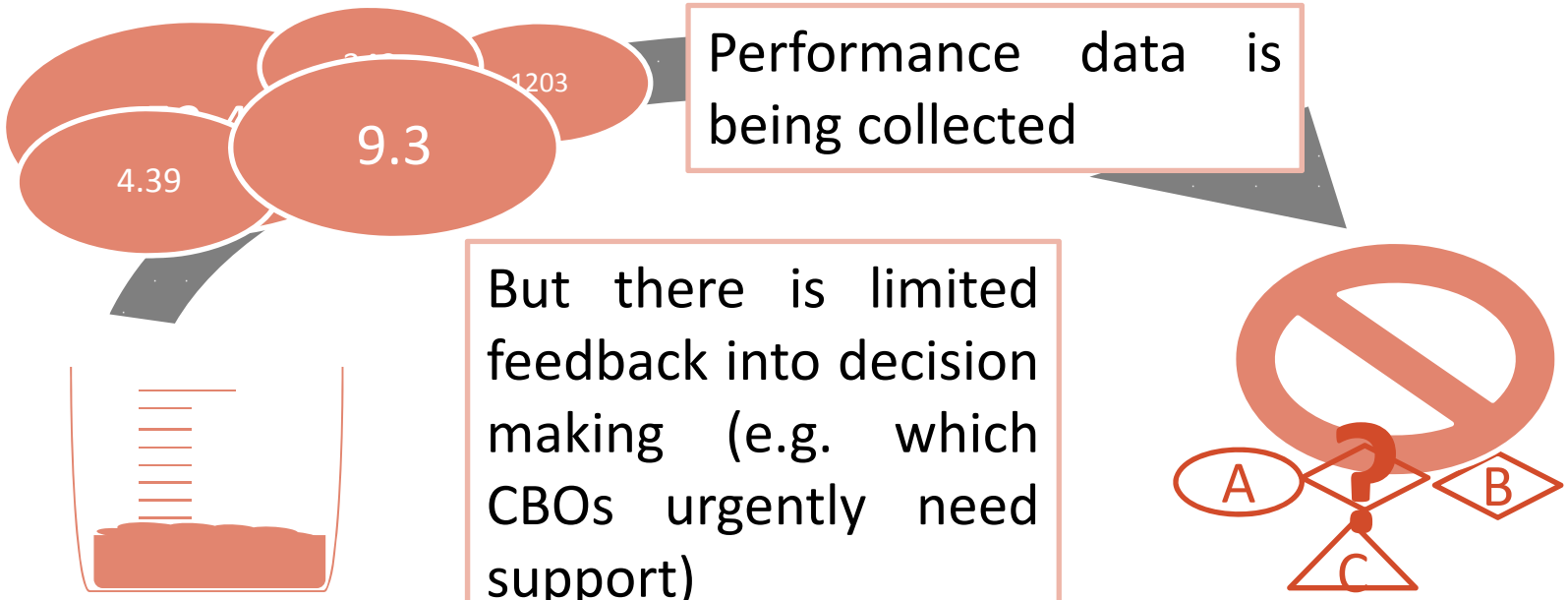

- Community scale is frequently associated with the ideal of ‘community empowerment’.

- This concept appears to be embedded in a set of norms around what the state should and should not support.

- Associating a programme or investment with ‘community empowerment’ has important practical ramifications. In particular, it appears to discourage routine public spending on post-construction capital costs, such as major repairs for local scale facilities.

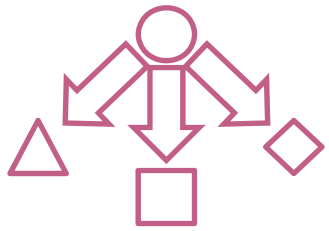
# Information deficit and disincentive for oversight

- Currently, LG appears to be able to ignore the externalised costs (health impacts of ineffective treatment)
- The scale of system failure is as yet un-quantified and largely invisible – limited sanctions from above or complaints from below. Consequently, there are not many personal or corporate incentives to invest in addressing a problem which hasn't yet been widely noticed.
- In this context, it is a 'low-cost' option for LG to defer the vast majority of post-construction responsibilities for services to CBOs. Addressing the factors mentioned above ('allowable actions, control over choice') would require significant individual effort.



Based on this case study, there are three plausible opportunities for local government support in the future.

- LG provides **no/minimal support** to local scale sustainability: Continuation of low-level equilibrium/ deterioration of local scale systems until failure becomes visible and higher level of government intervenes
- LG provides **modest support** on those issues which currently seem 'allowable': Tinkering with status quo, with a focus on specific operational responsibilities
- LG takes the initiative to **rethink what is 'allowable'**: Seizing windows of opportunity at the local level to tackle more systemic issues in the institutional arrangements



# Summary of key findings

1. Little **monitoring** occurs in practice
2. Local scale sanitation service has many **challenges** in practice
3. There are legal, institutional, equity, and normative **drivers** for increased LG participation and responsibility
4. Some LG already provide financial and/or legal **support** to local scale sanitation systems, but it is not always helpful
5. LG can **fund** the operation and maintenance phase for assets it does not own
6. Several **barriers** limit LG support

# Key Recommendations

# Key recommendations

1. Development clear minimum requirements for LG responsibilities for local scale
2. Policies and programs need to reflect all four of domains of governance
3. Use simple heuristics like the Pathogen Hazard Diagram to help direct investment
4. Use the Governance Spectrum to help LG improve governance in their area, based on their local strengths and opportunities.

# Key recommendations

1. Local government takes ultimate responsibility for ensuring successful local scale sanitation service delivery.
    - National government sets clear minimum requirements for local government in this role.
    - Each local government discerns its own path beyond these minimum requirements.

# The 2003 policy created a duality in national policy.



Institution-based Water and Sewage

Community-based Water and Sewage

Unfortunately…

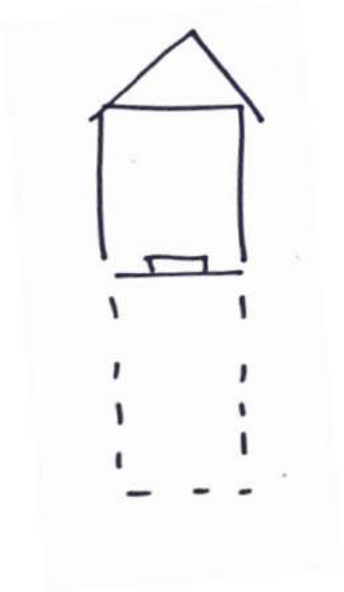
- Legal framework favours institution-based systems
- No ownership clarity for CB systems
- Challenges for enforcing CB service standards
- Equity implications of CBO-management

(Al'Afghani et al 2015)

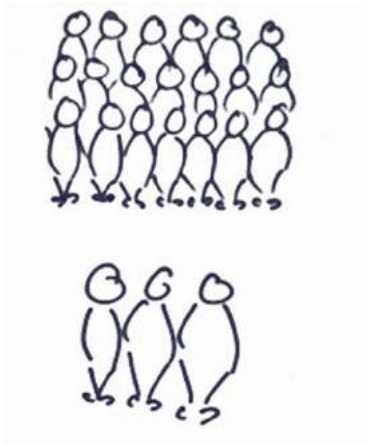
# Current ‘common’ understanding of sanitation service scales and responsibilities:

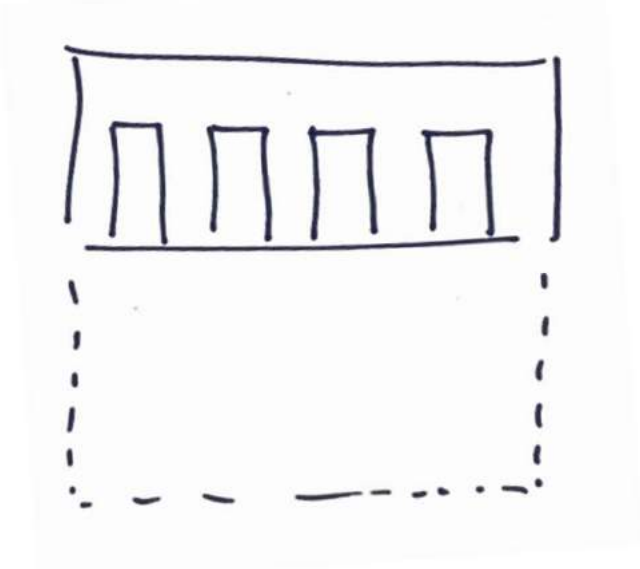


On-site

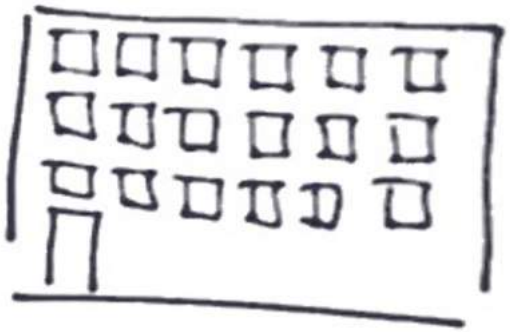


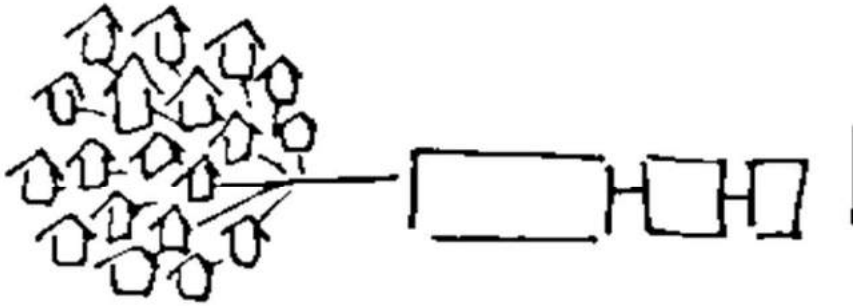
Local scale



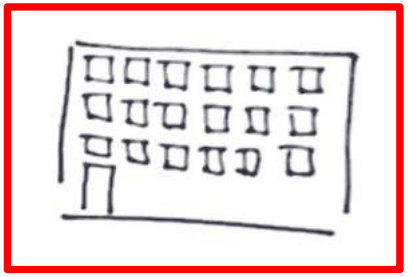


Centralised





(Figure: T. Rosenqvist)



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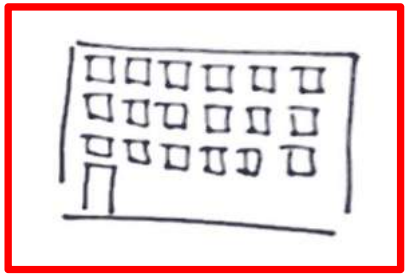
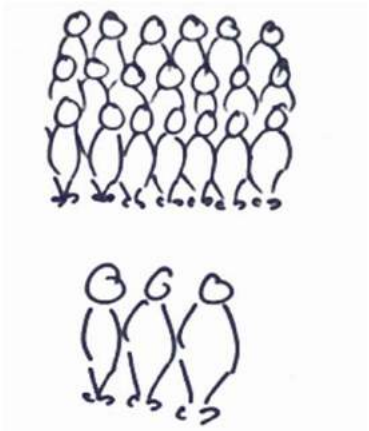
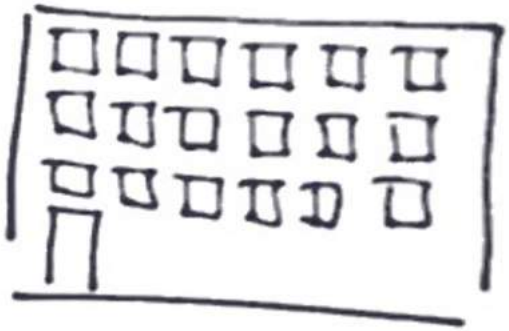
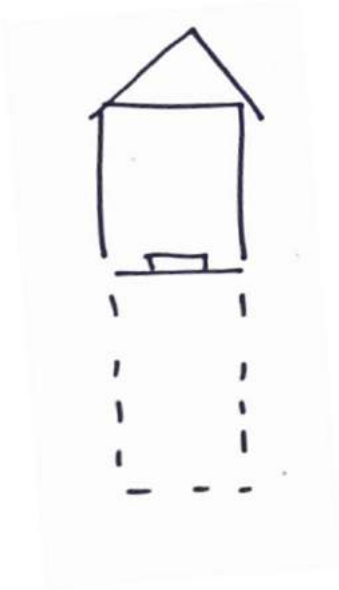
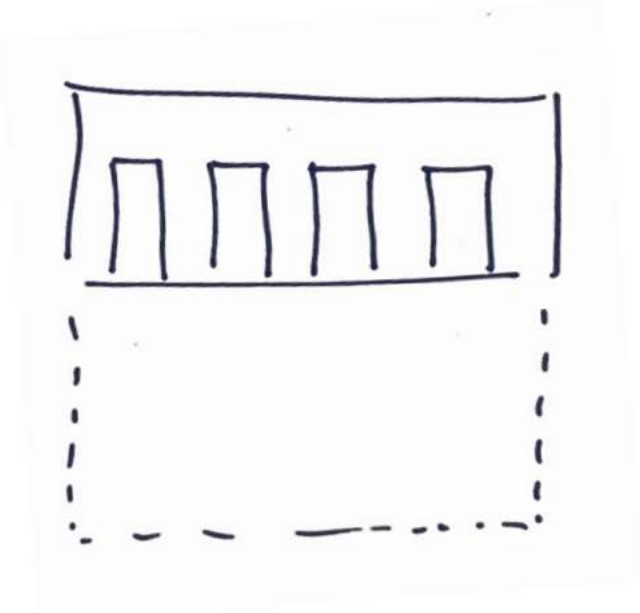
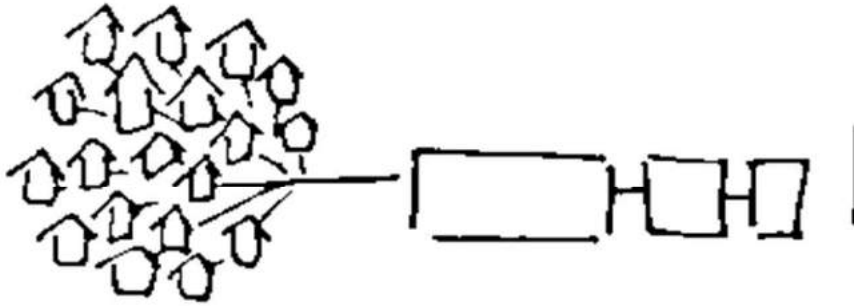












(Figure: T. Rosenqvist)

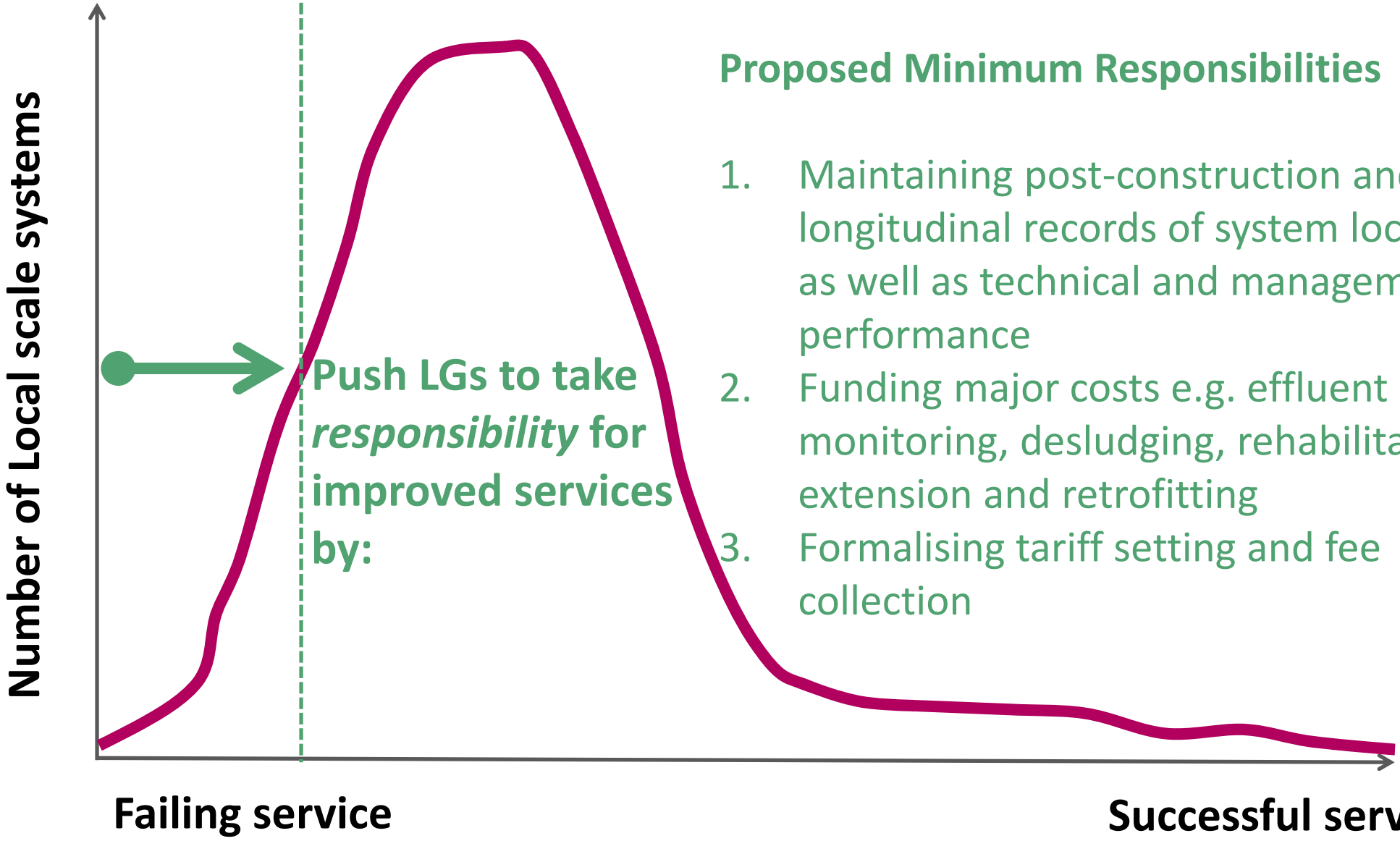
# The benefits of local scale systems can be realised with improved governance models, beyond CBO-led approach.



- ✓ Easier to install in existing areas
- ✓ Easier to finance
- ✓ Simpler to operate
- ✓ Less consequences when things go wrong
- ✓ Can be connected up as financial and institutional capacity improves

Program guidelines and regulations should be modified to include the following minimum responsibilities for LGs, to ensure all systems achieve intended benefits.






**Proposed Minimum Responsibilities**

1. Maintaining post-construction and longitudinal records of system location, as well as technical and management performance
2. Funding major costs e.g. effluent monitoring, desludging, rehabilitation, extension and retrofitting
3. Formalising tariff setting and fee collection

# Key recommendations

## 2. Policies and programs need to reflect operation phase, including all four of domains of governance

These four essential, overlapping, and intertwined domains spanning the 'what' of effective governance **are essential** regardless of which actors are involved and who takes on what responsibilities.

**Functioning technology:** Ensuring the physical system delivers the service

**Sustainable financing:** Sufficient ongoing revenue to cover all short and long-term operational cost elements

**Effective management:** Accountable and equitable administration and decision making system

**Sustaining demand:** Maintaining effective community demand for the service over time

# A definition for successful, long term service

Successful governance for sanitation results in adequate separation of people from faecal pathogens, and environmental protection, through:

- **Technology** functions
- There is sufficient **money** to pay for things that need to happen
- People **continue to use** the system
- **Management** decisions happen and actions follow

# Key recommendations

## 3. Use simple heuristics like the Pathogen Hazard Diagram to help direct investment

Where does it go?

The purpose of sewage management is to separate people from excreta, and protect the environment, so we need to ask what our technologies are doing:

What pathogens are coming in to the treatment system?

What pathogens are going out?

How much does it matter?

# Three questions for exploring the hazard

**A. How many pathogens are in the influent?**

**B. How many pathogens are leaving in treated wastes?**

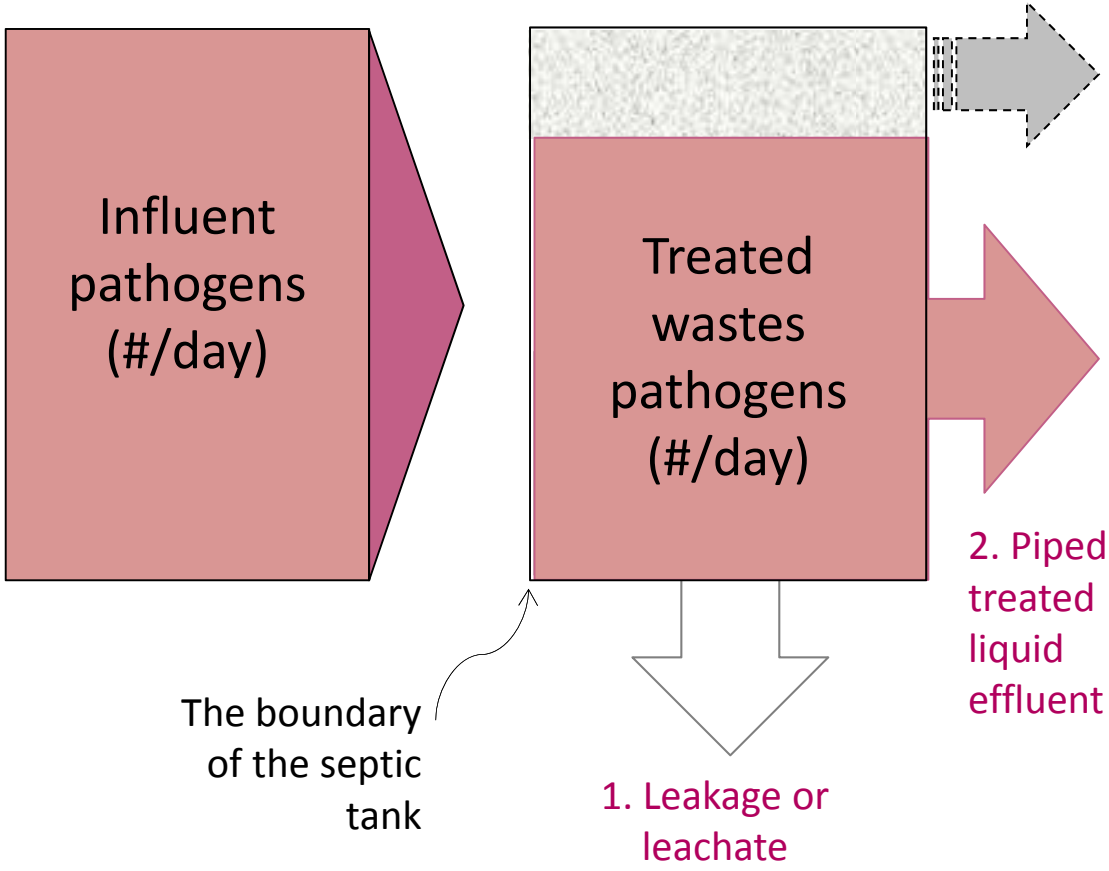
**C. How much do the remaining pathogens matter?**

# How to determine if further treatment is needed:



**A. How many pathogens are in the influent?**

**B. How many pathogens are leaving in treated wastes (1, 2, 3)?**



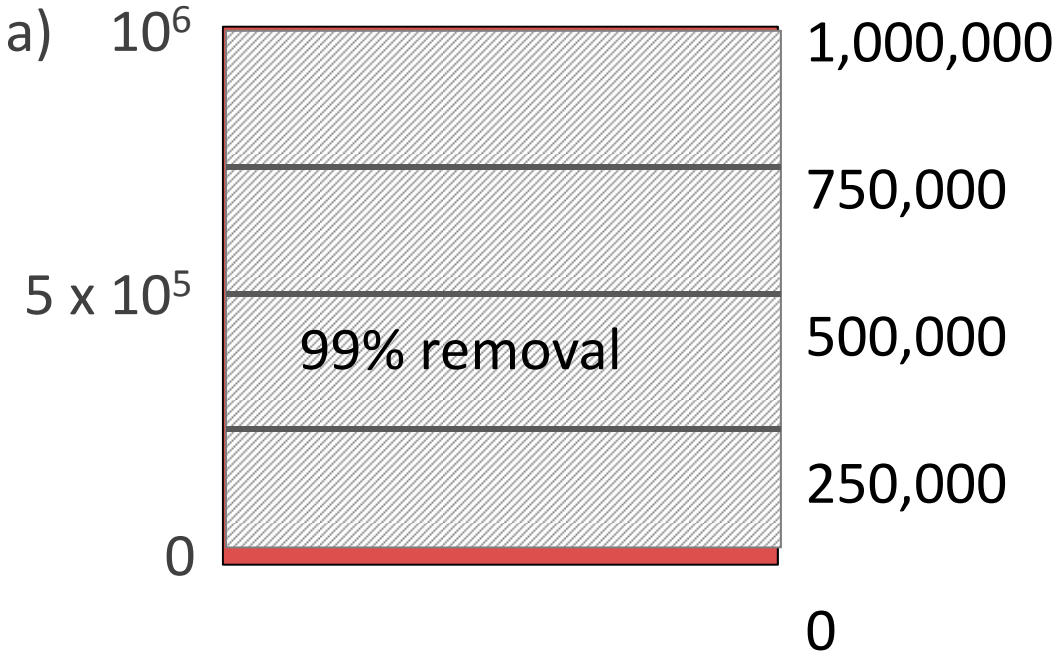

**C. How much do the remaining pathogens matter:**

| | What is the minimum infective dose[c] | Potential hazard: # doses in treated wastes? |
|---|---|---|
| bacteria | $10^2$ - $10^8$ | ? |
| viruses | $10^0$ - $10^1$ | ? |
| protozoa | $10^0$ - $10^2$ | ? |
| helminth eggs | $10^0$ - $10^1$ | ? |

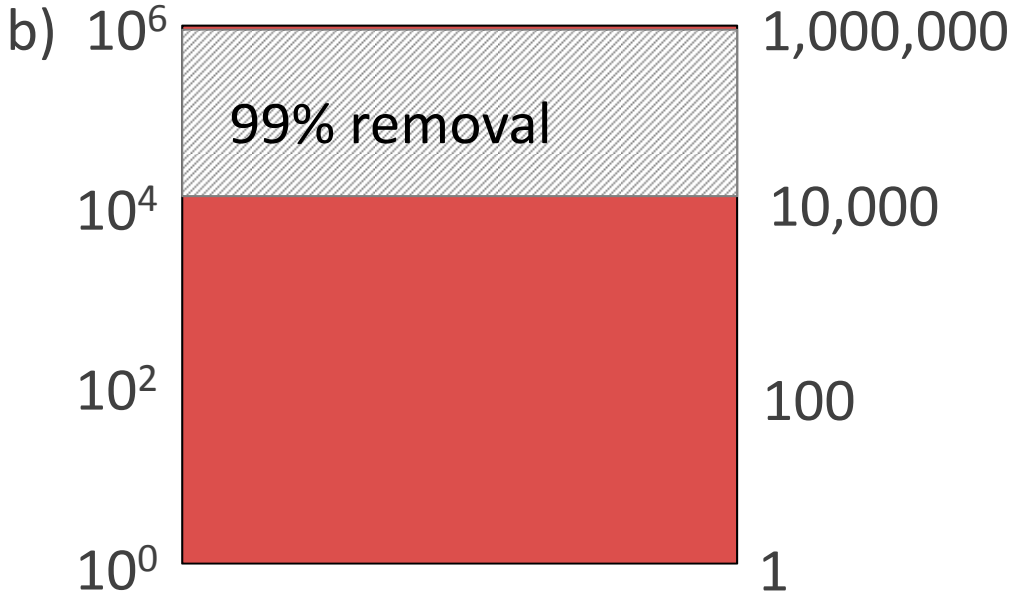
(Mitchell et al 2016, Waterlines)

# The significance of numbers: two representations of “99% removal of daily helminth production from infected individual”.






**Arithmetic** representation

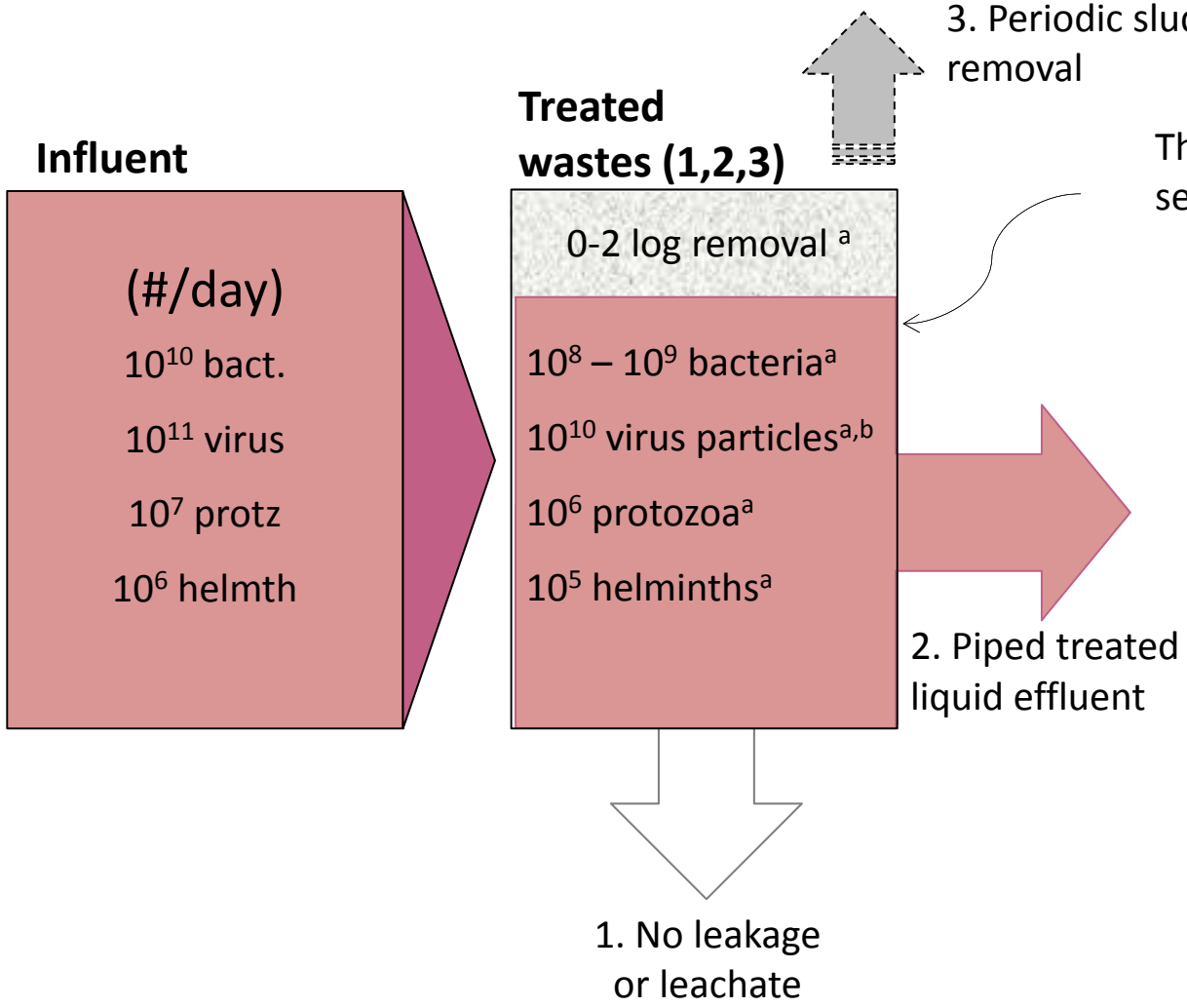



**Logarithmic** representation

(Mitchell et al 2016, Waterlines)

# Pathogen Hazard Diagram could help work out what matters, using only textbook data e.g. sealed septic tank with no secondary treatment






| | Minimum infective dose[c] | Potential hazard (# doses) |
|---|---|---|
| bacteria | $10^2$ - $10^8$ | Up to $10^7$ |
| viruses | $10^0$ - $10^1$ | Up to $10^{10}$ |
| protozoa | $10^0$ - $10^2$ | Up to $10^6$ |
| helminth eggs | $10^0$ - $10^1$ | Up to $10^5$ |

[a] After Feachem et al, 1983
[b] Leclerc et al, 2002
[c] See Table 1 in text

(Mitchell et al 2016, Waterlines)

# Key recommendations

4. Use the Governance Spectrum to help LG improve governance in their area, based on their local strengths and opportunities.

# Local governments have widely differing capacities.

- With respect to human excreta management, local governments **have widely differing capacities** (such as knowledge, resources, institutional arrangements) and attitudes to sanitation, and operate in widely differing contexts.
- **Assessing this variation is challenging** because it hinges on local individuals and local institutional arrangements: two cities may have the same level of documentation (e.g. City Sanitation Plan) but quite different levels of sophistication in local arrangements.

The research revealed a spectrum of governance.


Each box represents a different set of players and different type of effort

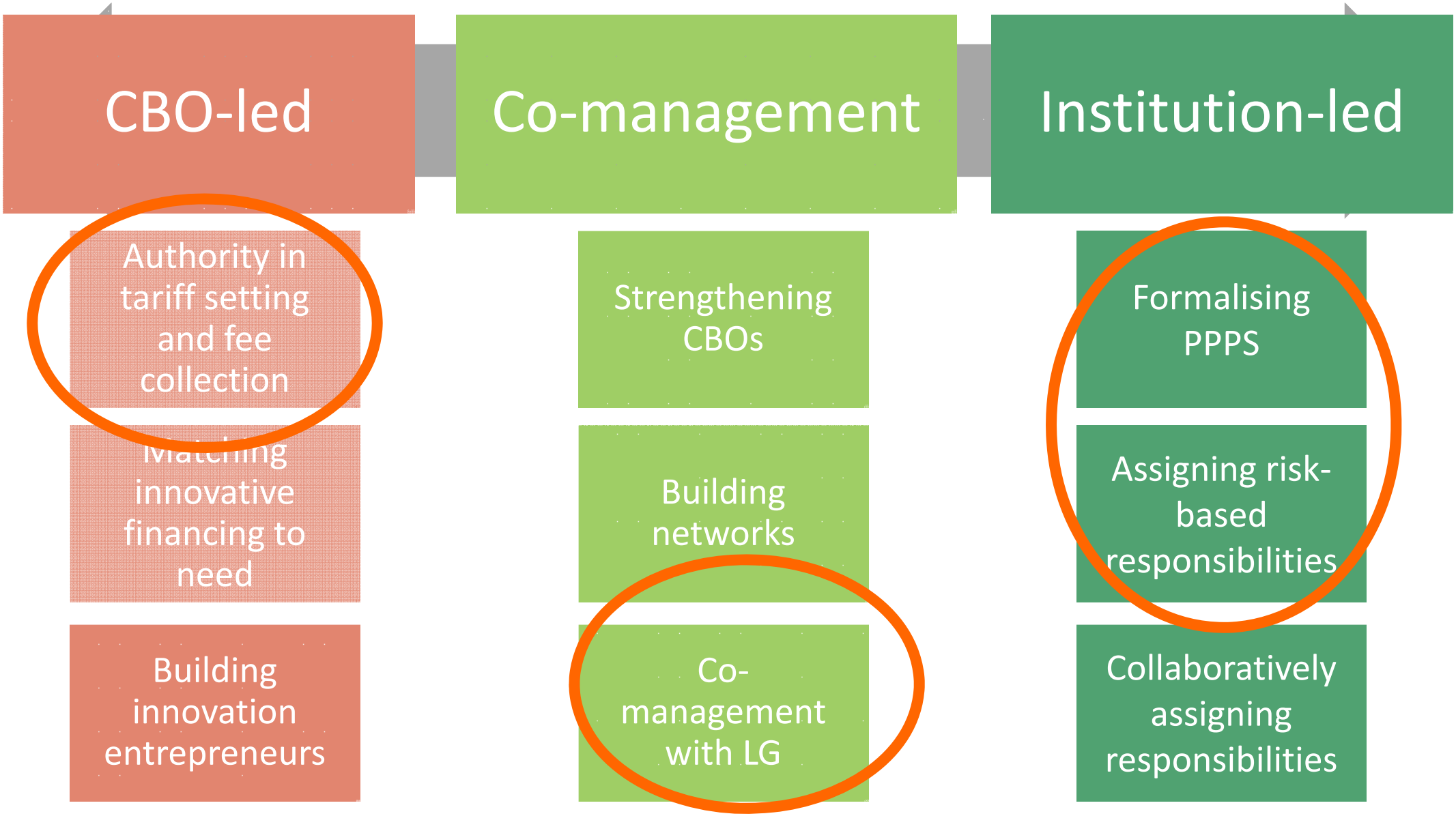
# The governance spectrum and 'toolbox'



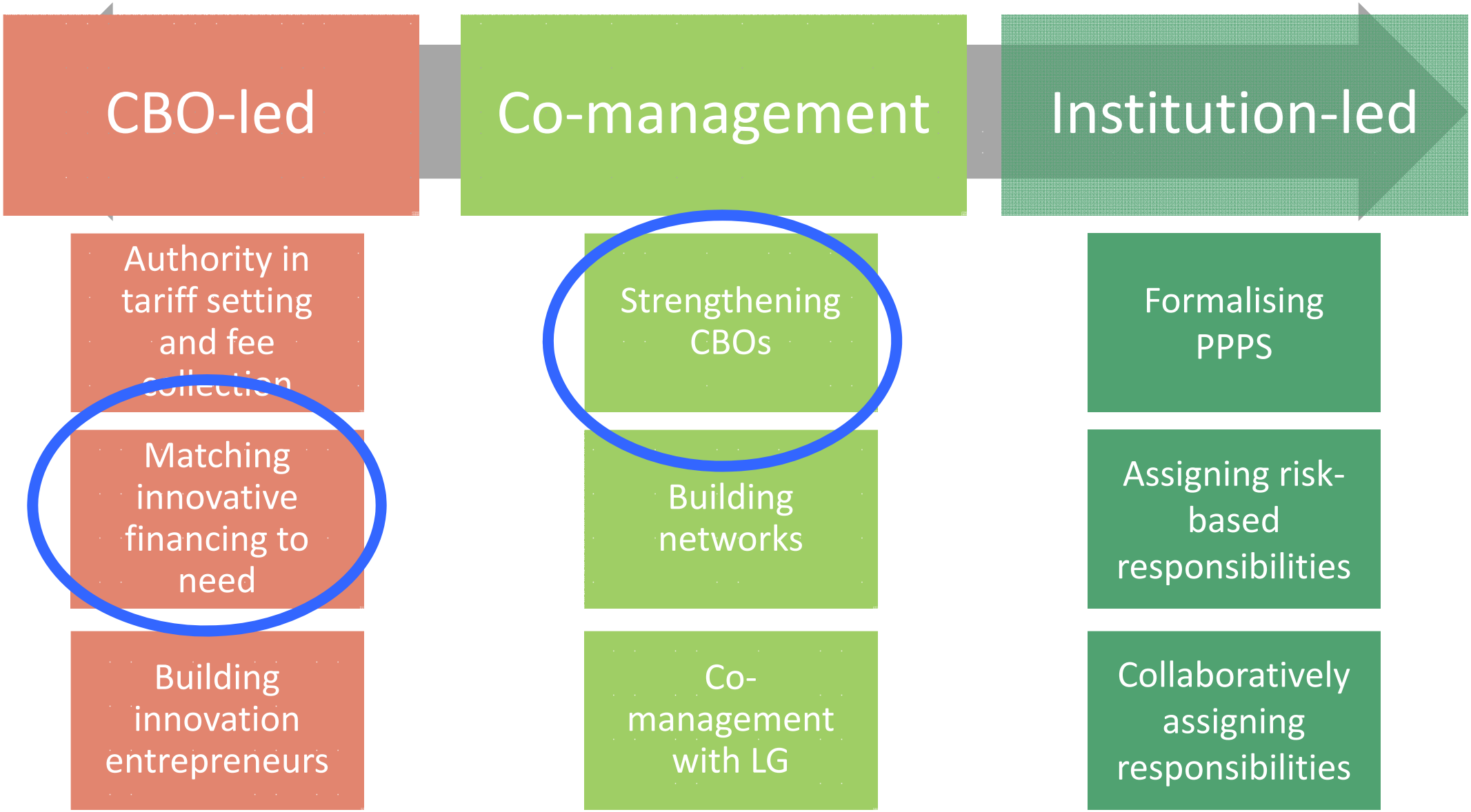
| CBO-led | Co-management | Institution-led |
| --- | --- | --- |
| Authority in tariff setting and fee collection | Strengthening CBOs | Formalising PPPS |
| Matching innovative financing to need | Building network a network of support | Assigning risk-based responsibilities |
| Building innovation entrepreneurs | Co-management with LG | Collaboratively assigning responsibilities |

# It's like a **toolbox**….One **Local Government** might try these approaches based on their needs and strengths.



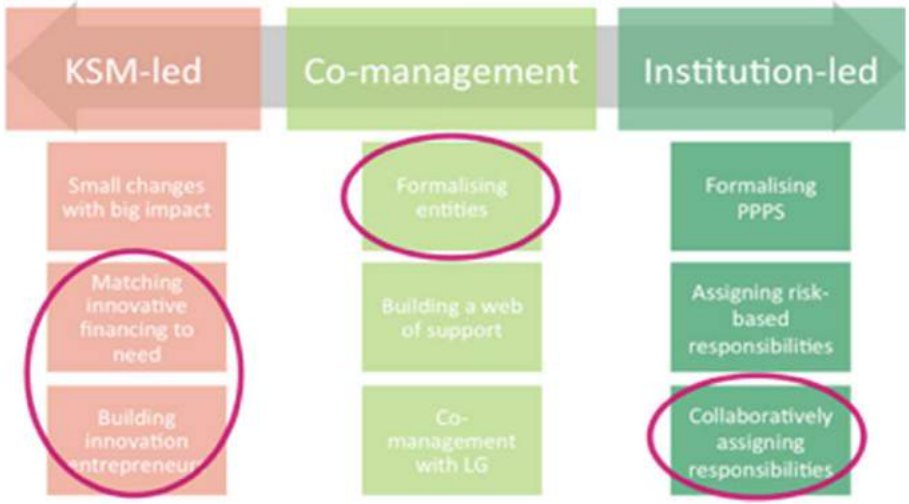


It's like a **toolbox**....Another **Local Government** might try these approaches based on their needs and strengths.

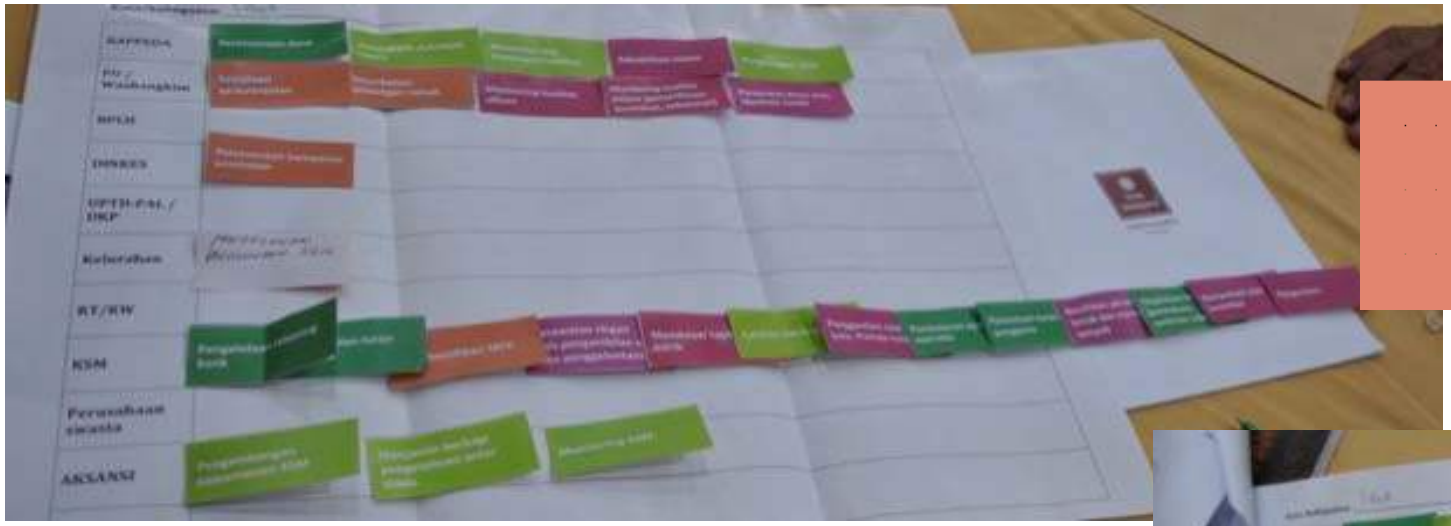


KEY MESSAGE

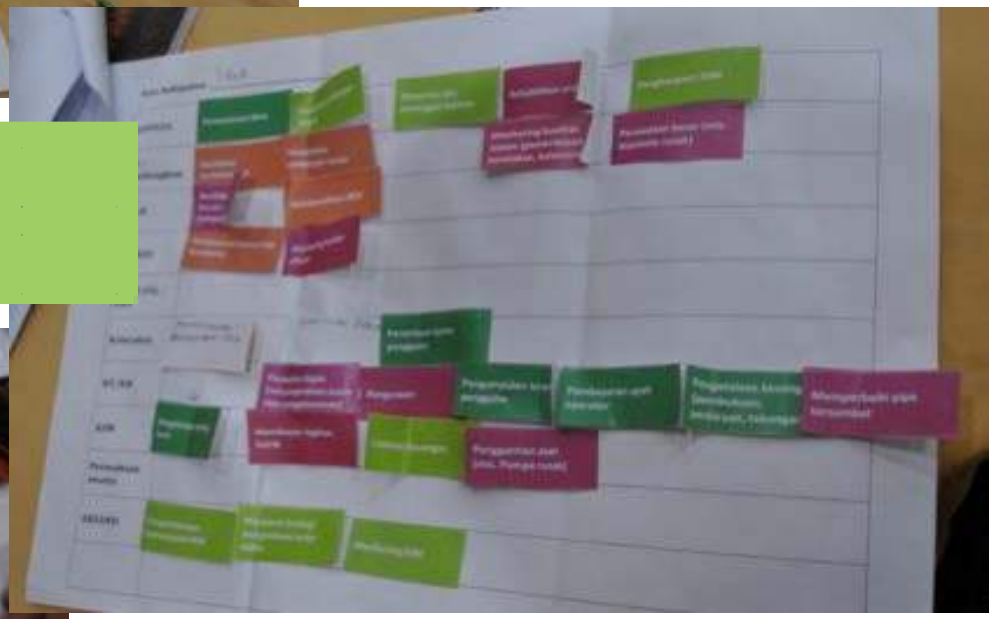
# The best approach is working out what fits in your context.



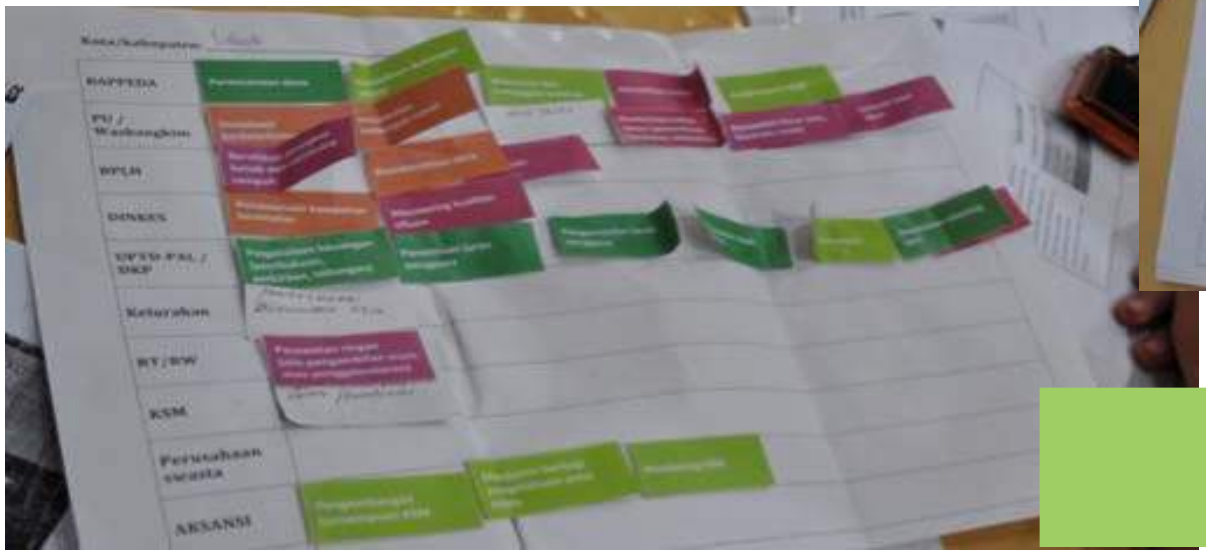
As part of our project and training, we developed a game to help local governments and CBOs explore different governance arrangements.



CBO-led



Co-management



Institution-led

# Institution-led



Formalising public / private partnerships

Collaboratively assigning responsibilities

Assigning risk-based responsibilities

# Institution-led



Collaboratively assigning responsibilities

Stakeholders?

- LG
- Mayor
- NGOs
- Users
- etc

Responsibilities?

- Desludging
- Fee collection
- Monitoring & corrective action
- Major repairs
- etc

How can these be linked appropriately based on the unique context in each space?

# Institution-led



## Formalising public / private partnerships

How can duty-bearers formalise O&M entity from the beginning?

- Build – own - operate (Blitar City)
- Build-operate-transfer
- Build – own – operate – transfer
- Lease / purchase

Engage private or **public post-construction service providers**:

- LG service delivery agency, BLUD
- LG-owned company, BUMD

# Institution-led



Assigning risk-based responsibilities

If the goal is to reduce risk, who would do what? How would risk be defined?

"*If I were mayor, the only thing that would move me would be risk*"

Ministry of Planning representative

# Case study of management based on risk – US EPA

Responsible Management Entity (RME) framework assigns responsibility based on risk to ensure decentralised sewage project's health and envt in long-term

## Management models

1. Homeowner awareness
2. Maintenance contracts
3. Operating permits
4. RME O+M
5. RME Ownership

# Co-management via partnerships



Strengthening CBOs

Building networks

Co-management

# Co-management



## Strengthening CBOs

- Formalise entities (cooperative, association, village-owned enterprise) (see Al Afghani 2015)
- Provide template and training for business model / work plan, as opposed to a volunteer plan (see Business Model Canvas)

CBOs could legally incorporate as (see Al Afghani 2015):

- Association
- Limited liability company
- Village business entity (BUM Desa)
- Foundation
- Cooperative

- No legal entity is perfect
- Cooperatives and associations would be easiest
- Multiple CBOs could be amalgamated into a single legal entity at District or City level to simplify paper and procedure (but this also increases complexity)

# Co-management



Co-management with LG

How can LG provide support for:

- Oversight
- Major repair
- Monitoring
- Training
- Incentives (awards)
- Legally securing the land
- Regulation

# Co-management



## Building regional and national networks

Why:

- Coordination across districts
- Achieve benefits of aggregating

Examples:

- AKSANSI national organisation
  (organisation supporting CBOs for sanitation)
- Brantas Watershed partnership
  (agreement among 16 LGs to address sanitation to improve the watershed)
- East Java association
  (regional community of practice for CBOs)

# CBO-led



Authority in tariff setting and fee collection

Matching innovative financing to need

Building innovation entrepreneurs

# CBO-led



Authority in tariff setting and fee collection

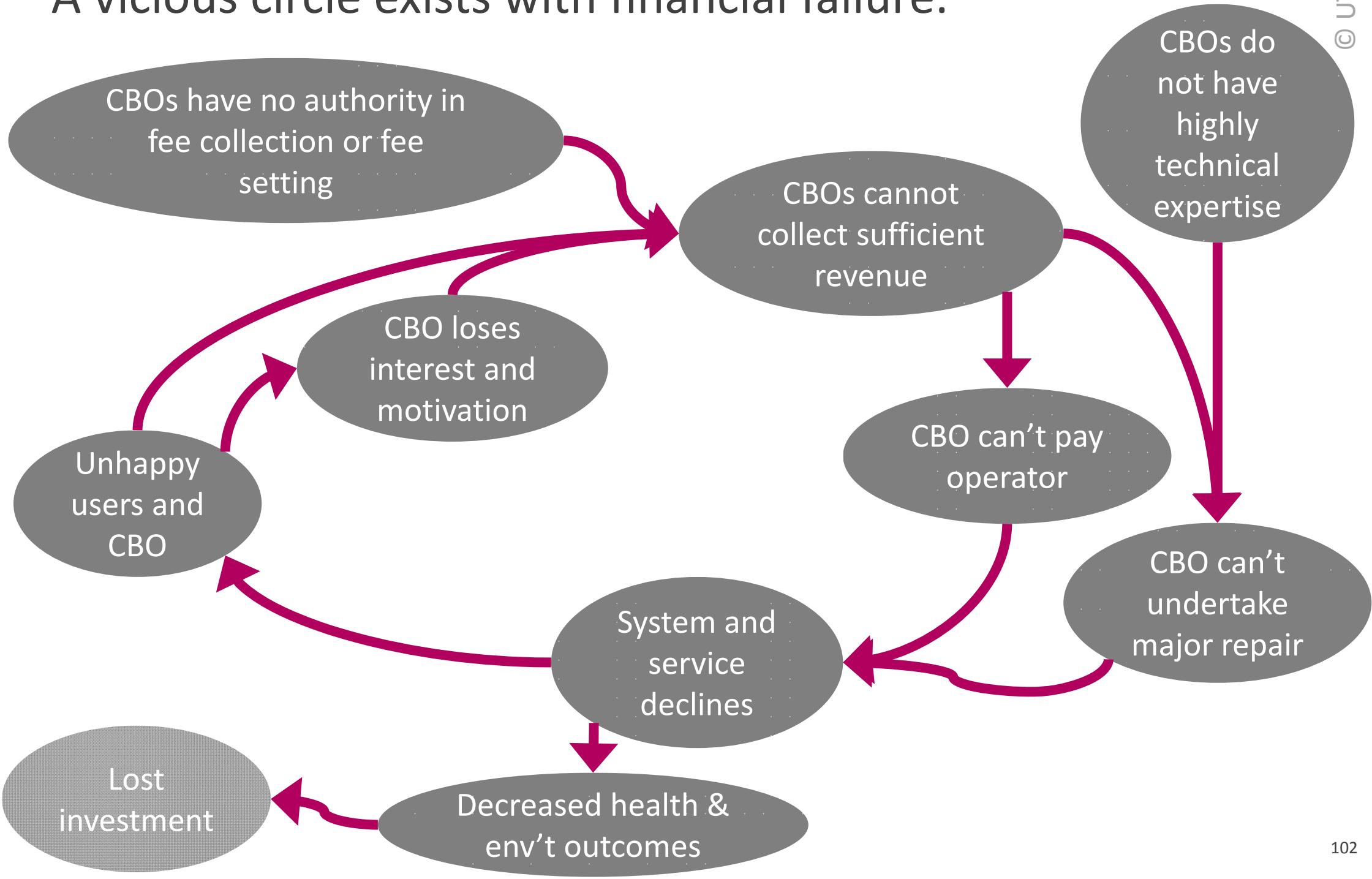
## Formalise fee levels:

- Who currently sets fees and how much authority do they have?
- Who has enough authority to set higher fees and incentivise users to pay?

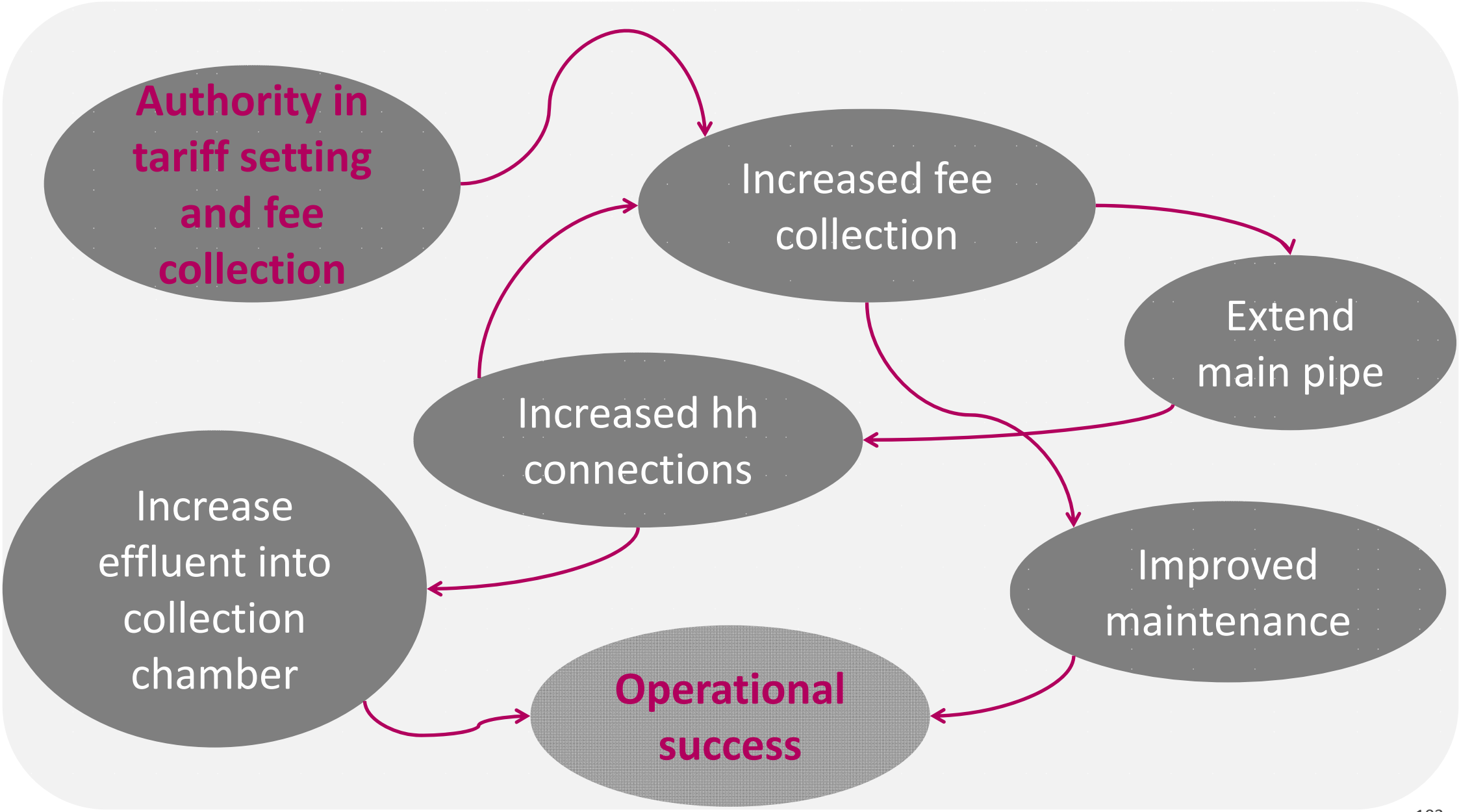
## Fee collection:

- Who currently collects fees?
- If a community member, what if someone else, with authority, collected the fee? What could that look like? Who could that be?

# A vicious circle exists with financial failure.



One suggestion is to **create authority** in tariff setting and fee collection. It can improve operational success in several ways.



# CBO-led



Matching innovative financing to need

Need/Opportunity

- Additional household connections connections
- Major repair
- Retrofitting communal to hybrid
- Revenue generation

Innovative financing

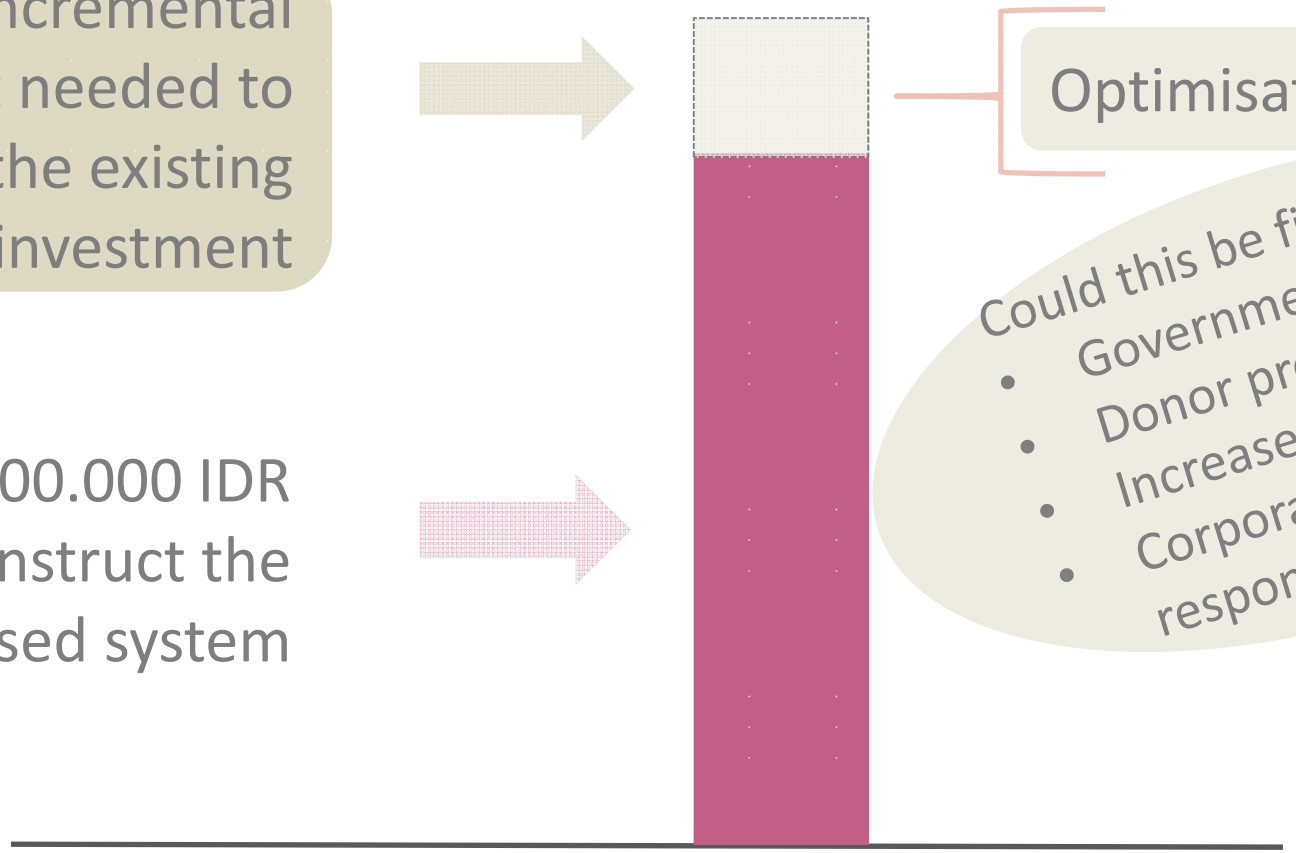
- Micro-finance
- Credit cooperative
- Arisan (pooling of community funds)
- Corporate social responsibility

These **simple interventions** could be funded in a variety of ways.



Necessary incremental amount needed to optimise the existing investment

Initial 425.000.000 IDR invested to construct the decentralised system




What is the value of the optimisation gap and who could pay?

# CBO-led



Building innovation entrepreneurs

- Renting additional stalls
- Micro-loans for fisherman
- Catfish ponds
- Fertiliser
- Services for others (desludging)
- Cassava and banana fields
- Biogas

# The governance spectrum and 'toolbox'




| CBO-led | Co-management | Institution-led |
|---|---|---|
| Authority in tariff setting and fee collection | Strengthening CBOs | Formalising PPPS |
| Matching innovative financing to need | Co-management with LG | Assigning risk-based responsibilities |
| Building innovation entrepreneurs | Building networks | Collaboratively assigning responsibilities |

For more detail see: Ross et al 2016

# Summary of key recommendations

1. Develop clear minimum requirements for LG responsibilities for local scale
2. Policies and programs need to reflect all four of domains of governance
3. Use simple heuristics like the Pathogen Hazard Diagram to help direct investment
4. Use the Governance Spectrum to help LG improve governance in their area, based on their local strengths and opportunities.

# Other supporting recommendations

Specific next steps for **national policy and programs**:

- Develop **SPM** (**minimum service standard**) for sanitation and advocate for national sanitation regulation
- Modify program guidelines to (1) include minimum LG responsibilities and (2) require post-construction checks for all systems, to be recorded locally and in the national database (NAWASIS).
- Consider cross-program evaluation to embed the lessons (e.g. if unexpected costs arise during construction, all for the request of additional funds to build the system as designed).

Specific next steps for **national policy and programs**:

- Use the outcomes of our legal review to draft and implement local regulations to specify minimum LG responsibilities for all scales of sanitation and required performance of the systems; and leave open how other responsibilities are distributed among qualified, registered entities in the future (i.e., sanitation services in line with co-management and institution-led).
- Develop a National Expenditure Policy to clarify how LG can financially support Operation of local scale, regardless of ownership.
- Explore guidance for LG to either take on asset ownership *or* facilitate the highest form of land ownership for CBOs

Specific next steps for **supporting LG**:

- Support LG to coordinate information and monitoring for improving efficacy of resource use and demonstrate performance. Create positive incentives for monitoring.
- Strengthen links between site selection and need: Explore potential guidance for LG to use the Pathogen Hazard Diagram to identify real risks from existing sanitation systems, including cesspits (*cubluks*) and identify where to locate SSS systems to reduce pathogen exposure risk.
- Create guidance for LG to help optimize existing investments (quick strategy to double coverage)

# Acknowledgements



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