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

Governance of local scale sanitation: How to design governance for lasting service? Explanatory notes to accompanying presentation

GUIDANCE MATERIAL: INTRODUCTION

COMMUNITY SANITATION GOVERNANCE

COMMUNITY SANITATION GOVERNANCE

'Community Sanitation Governance' is a joint research project led by the Institute for Sustainable Futures (ISF) at the University of Technology, Sydney, which investigates effective governance for successful long-term operation of community scale wastewater systems in Indonesia. Effective governance refers to the financial, stakeholder, organizational, regulatory, and technical support necessary for successful, long-term service delivery. The research is undertaken in collaboration with BORDA Germany, the Overseas Development Institute (ODI), AKSANSI (Association for Community Based Sanitation Organisations in Indonesia) and the Center for Policy Regulation and Governance at Universitas Ibn Khaldun Bogor (UIKB). The research has been funded through a research grant under the Australian Development Research Awards Scheme (ADRAS), an Australian Aid initiative.

ABOUT THE AUTHORS

The *Institute for Sustainable Futures* (ISF) was established by the University of Technology Sydney (UTS) to work with industry, government and the community to develop sustainable futures through research and consultancy. Our mission is to create change toward sustainable futures that protect and enhance the environment, human well-being and social equity. We seek to adopt an inter-disciplinary approach to our work and engage our partner organisations in a collaborative process that emphasises strategic decision-making. Our projects foster lasting change and we aim to build independent capacity in our clients by passing on knowledge and skills. We focus on innovation and our research often extends sustainability practice and contributes to current thinking.

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This research has been funded through a research grant under the Australian Development Research Awards Scheme (ADRAS), an Australian Aid initiative.

DISCLAIMER

Project background

Our starting point for this project is: Effluent management in dense, low-income urban areas in Indonesia is challenging. Local (community) scale systems offer an affordable way to manage the public health and environmental hazards of untreated wastewater in urban areas.

Local scale wastewater services refer to *sanitation services that utilise local scale infrastructure* (services that collect wastewater from 50-200 households and treat wastewater locally/close to where it is produced). Local scale wastewater services in Indonesia are predominantly delivered by *KSMs* (community based organisations) who are responsible for operation and maintenance of the local scale infrastructure – a model commonly known as SANIMAS. Our terminology is introduced to distinguish between the **scale** of technology and the **management model,** and management could be delivered by KSM, local government or local business, alone or in various combinations.

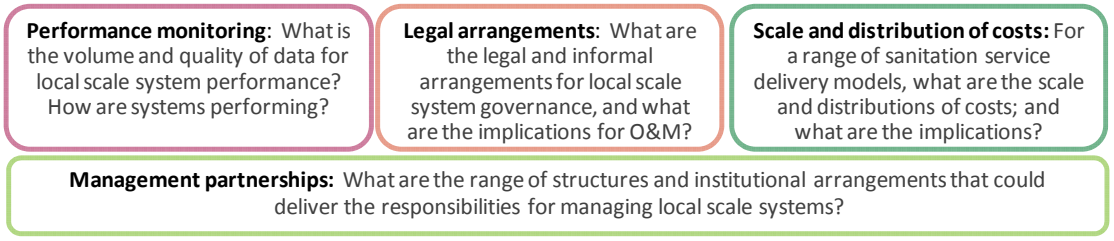
However, in order to operate in the long-term, systems need effective governance (Ross et al, 2014):

Finding pathways towards effective governance is especially timely. Reviews of local scale systems in Indonesia found that effective governance is difficult to achieve and the service does not always last as planned (Eales et al. 2013). In addition, connection numbers are as low as half of what was planned (Mitchell et al. 2015). Nonetheless, the Government of Indonesia has committed to local scale wastewater systems as a key component of its commitment to provide 100% of its citizens with access to sanitation. As of 2014, 13,600 of these systems were funded for installation, and as many as 100,000 more are needed to meet current targets for access (Mitchell et al. 2015).

In response to this situation, the Institute for Sustainable Futures (ISF) at the University of Technology Sydney (UTS) developed a three-year transdisciplinary action research project that seeks to improve the long-term governance of local scale wastewater services in Indonesia.

This project is a research partnership with the Indonesian Ministry of National Development Planning (BAPPENAS), and is conducted in collaboration with AKSANSI (Association of community based organisations for sanitation), Bremen Overseas Research and Development Association (BORDA) Germany, Center for Regulation Policy and Governance at Universitas Ibn Khaldun Bogor and the UK Overseas Development Institute (ODI). A Project Advisory Group (with members from seven Ministries and six international donors) provided guidance and validation for the research. The 2014-2016 study is supported by the Australian Development Research Awards Scheme (ADRAS). The research award includes a PhD project exploring how citizens experience local scale wastewater services and involving them and local government stakeholders in co-designing alternative service models.

The four enquiry areas for this project are:



This document forms part of the outputs of the management partnerships work. It summarises the research findings into flexible and pragmatic guidance material for improving sanitation governance. .

1 Introduction

The development sector has trialed community-managed approaches over the past 20 years as a means to quickly develop access to basic services via local scale (decentralised) water and sanitation services. Research has shown that this approach, while well-intentioned, has many challenges in maintaining on-going service delivery (Eales 2013, Mitchell et al 2015, Mitchell et al 2016, Claus 2015).

This guidance material seeks to improve the potential for ongoing service delivery by strengthening the governance of local scale sanitation systems. Strengthening governance is made possible by expanding the options for who takes on what responsibilities – including local government and private sector businesses as well as community based organisations in the ongoing delivery of services to communities. To do so, this guidance material introduces four tools for exploring and improving governance:

- *The Governance Dimensions: What should be governed?*
- *The Governance Spectrum: Who should be involved and how?*
- *The Governance Game: What would work well in your area?*
- *Role play scenario: What is it like to walk in others' shoes?*

The principal goal of this guidance material is to enable stakeholders (such as Ministries, provincial governments, local governments, donors, programs, NGOs, etc) who fund, implement or support local scale systems to determine which strategies best match the current context of their systems, based on local needs and strengths, through processes led or overseen by local governments who are ultimately accountable for service delivery. We recognize the significance of the presence or absence of political support for improving sanitation outcomes, so we provide arguments and examples around the legal, institutional, equity, effluent hazard, efficiency, cost, and community drivers for increasing local government's role in ensuring the ongoing functionality of local scale sanitation systems.

Two documents comprise this guidance material:

- *This explanatory document*
- *A rich visual presentation for structuring in-depth workshops, stakeholder discussions or individual reflection.*

Box 1: Key Definitions for Governance for this guidance material

Governance: arrangements for local scale sanitation service delivery that include day-to day activities ensuring functionality of the system (e.g. operational responsibilities), and formal and informal institutional arrangements that enable effective delivery of the required day-to-day activities (e.g. institutional arrangements) (Kooiman 2003)

Operational Responsibilities: activities relating to the day-to-day functionality of the service delivery system – referred to as first-order governance (Kooiman 2003)

Institutional Arrangements: the formal and informal institutional contexts that help or hinder the successful delivery of the day-to-day activities – referred to as second-order governance (Kooiman 2003).

1.1 Background

This guidance material arises mainly from research in the Indonesian context. As mentioned, Indonesia needs about 75,000 local scale sanitation systems to meet 2019 targets (Mitchell et al 2015), which is an average of 150 systems in each city or regency.

Currently, many existing community-based organisations (CBOs) responsible for Operation and Maintenance (O&M) are not operating local scale systems at 'full utilisation'. Most CBOs are failing financially and systems are operating at 50% connection capacity on average (Mitchell et al 2015, Claus 2015). Together, this means the health and environmental outcomes of existing investments are less than optimal.

Looking forward over the next five years and beyond, 100,000 CBOs as the sole service providers are unlikely to be an efficient, effective, or realistic 'management plan' for the working life, or ***operation phase*** of all local scale systems. This guidance intends to support more efficient and effective management of local scale system operation.

1.2 Foundations for guidance material

There are several starting points for this guidance material, which influence its contents.

Firstly, under Indonesia's decentralisation laws, the local government is legally responsible for providing sanitation services. In other words, local government is the entity ultimately responsible for sanitation service delivery, not the community. Therefore, this guidance material takes the view that local government should be the "backstop". This is in line with the Human Right to Sanitation, in which government is the duty bearer responsible for progressive realisation of this right. There are a number of minimum responsibilities that local government must do to ensure a successful ***operation phase*** (these are outlined below).

Secondly, the strategies for improving governance that are adopted at any location must be based on the particular strengths and needs of that location. There is a large range of ability and ambitions, constraints and opportunities across the 14,000 Indonesian CBOs currently responsible for sanitation service delivery. Similarly, there is widespread diversity within local government in terms of actors, capabilities, and intentions. Therefore, any initiative that seeks to improve the governance of local scale sanitation systems must account for this diversity.

Thirdly, the authors take the view that local scale systems are an important part of the long-term solution. Local scale systems can provide many advantages over centralised systems, such as being quicker to plan and build, having smaller consequences if they fail, and often having lower lifecycle costs. But to deliver the service successfully over the long-term requires a clear, delineated and appropriate management arrangement. This guidance seeks to help in this regard.

1.3 Audience, purpose and use of material

This document has been developed with and for those stakeholders in Indonesia who are interested in improving governance of local scale systems. This includes:

- *NGOs, civil society organisations and associations who support CBOs in charge of the **operation phase** and continued service delivery*
- *Interested local governments who recognise room for improvement*
- *Donor programs working with local government who view local scale systems as an important part of the whole sanitation portfolio.*

Through presenting a mix of (a) research findings, (b) questions for reflection and (c) processes for structured and exploratory conversations among stakeholders, this guidance material supports stakeholders to discuss, select and adapt options for governance improvement to their own context.

This guidance material can be used in various ways. For example, as:

- *A structure for a 1-3 day workshop with interested stakeholders from several areas*
- *A structure for a half day meeting with stakeholders from one local government area*
- *A review and reflection tool for stakeholders*

The principles and processes in this guidance material can also be adapted and trialed in other country contexts.

1.4 Genesis and validation for this guidance material

This guidance was developed from a synthesis of a three-year research project (for more details see the Project background section of this document and the project website www.communitysanitationgovernance.info). The project sought to find pathways towards effective governance to facilitate long-term operation of local scale systems. The project involved in-depth visits to 11 local governments, 30 CBOs, and over 100 interviews and focus discussion groups in Indonesia. After synthesizing the research findings, this guidance material was developed and tested at workshops with participants from over 45 local governments across Sumatra, Java, Sulawesi, Bali, Lombok, and Papua in April 2016.

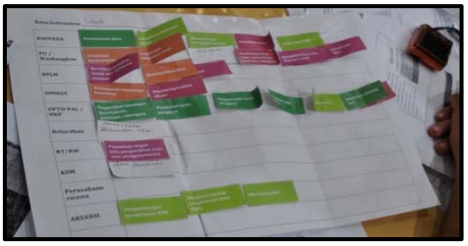
2 Key components of the guidance material

There are four key components in this guidance material: (1) The Governance Dimensions (2) the Governance Spectrum, (3) the Governance Game, and (4) a Role Play activity. These are explained briefly below and in more detail in the accompanying visual presentation (see Appendix 1 for an example timing and guidance sheet for facilitators using the visual presentation).

1. Governance Dimensions: What should be governed?

2. Governance Spectrum: Who should be involved and how?

3. Governance Game: What happens in your area now? How else could roles be assigned?



4. Role Play: What is it like to walk in others' shoes?

2.1 Governance Dimensions: What should be governed?

Adequate governance is essential for the successful long-term operation of infrastructure services. Achieving adequate governance in practice encompasses a messy set of overlapping, complex processes and relationships (Ross et al, 2014). When the services are to remove, treat and dispose of or reuse something that is unwanted (such as sanitary waste) rather than provide something that is desired (such as water or electricity), governance arrangements are even more challenging due to, for example, the relative perceptions about private versus public benefit from the service (Ross et al, 2014).

To keep delivering sanitation services over the long term, four distinct and intertwined dimensions need ongoing attention during the operational phase (Ross et al, 2014):

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

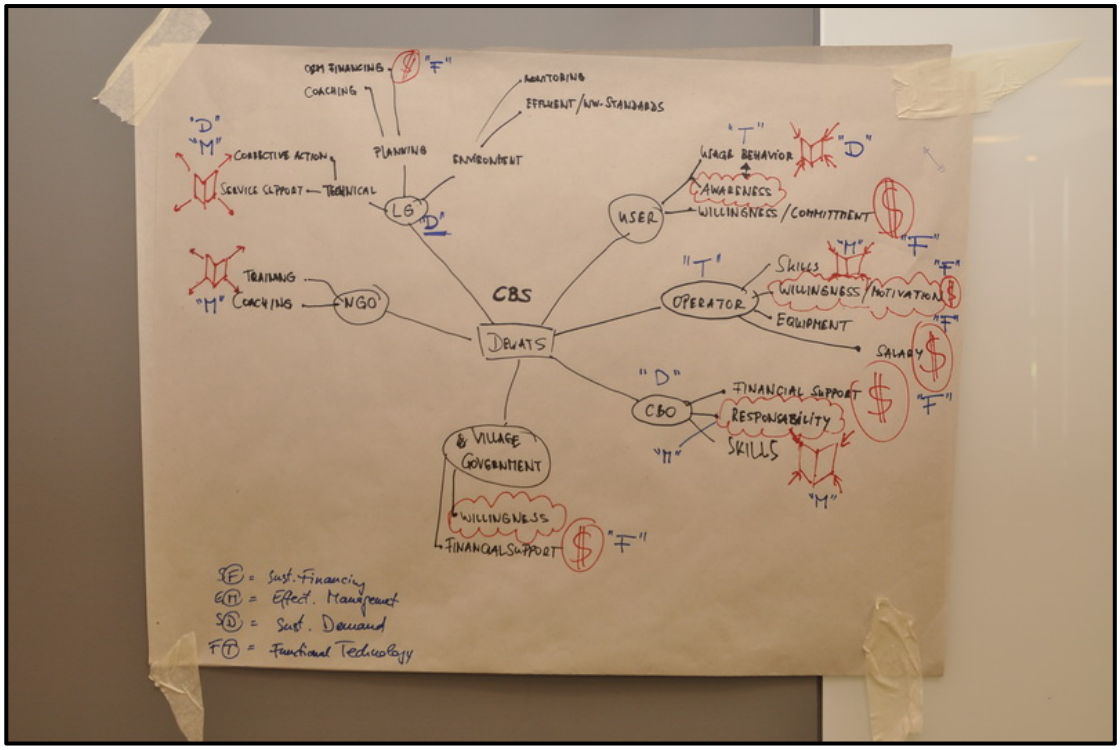
These four Governance Dimensions can be used both to remind stakeholders of what is important to pay attention to, and as a diagnostic tool for investigating issues during the ***operation phase***. The visual presentation contains a simple activity for exploring these key dimensions with stakeholders from a local government area (see Figure 1 for an example output of this activity in practice).

In addition, these dimensions can help CBOs and local governments develop goals and objectives for monitoring of the ***operation phase***, as a means of strengthening governance.

Based on these four dimensions of governance, a definition of successful governance for wastewater services could be "*adequate separation of people from hazardous excreta pathogens, and environmental protection, through*:

- **Functioning technology**
- **Sufficient money to pay for things that need to happen**
- **Management decisions that deliver necessary actions**
- **People continuing to use the system**

Figure 1: Workshop participants identify *operation phase* issues and categorise them according to the Governance Dimensions (see first Activity in accompanying visual presentation).



During the ***operation phase***, it is important to monitor if these governance dimensions are healthy, as a tool for investigating and improving governance. Example indicators for the health of these dimensions are presented below.

This starting list of indicators could be expanded and integrated into the monitoring and evaluation programs of donors, national government and local governments.

Table 1: Summary of the Governance Dimensions and the potential indicators for monitoring their health.

Governance Dimensions	Potential indicator area
Functioning technology: Are the operating entity and the regulating entity supporting the technical system operation as intended?	Systems operating as designed within acceptable loading range
	Systems operating as designed with effluent quality meeting requirements
	Regular and periodic maintenance (e.g. sludge and scum) occurring as required
	Regulating entity (e.g., local government) monitors system functioning
Sustaining demand: Do users find the system accessible, acceptable, available, affordable?	Accessibility: Planned vs actual users/connections (long term)
	Acceptability: Users satisfied with system
	Availability: System (e.g .communal facilities) always/sufficiently available.
	Affordability: System can be operated with user fees that users are willing and able to pay

Governance Dimensions	Potential indicator area
Effective management: Does the management entity have (and follow) accountable and equitable administration and decision-making systems?	Functional management structure (e.g. reasonable decisions are taken and actions follow)
	Structures for accountability to stakeholders are in place and used
	Scheduling, implementing, and monitoring operations (Systems in place for dealing with major repairs)
	Active and sufficiently skilled operator (responsive to issues)
Sustainable financing: Does the management entity have sufficient ongoing revenue to cover all short and long term cost elements?	Sufficient income to cover monthly expenditure
	Finance available for major repairs

2.2 Governance Spectrum: Who should be involved?

We have taken a multi-pronged approach to explore and define who should be involved in the governance of community or local scale wastewater service systems. One set of insights came from an in-depth institutional analysis case study conducted in Indonesia in 2015, which revealed three potential paths for how local governments might currently see its role in relation to the governance of local scale systems (Mason et al 2016):

- *LG provides no/minimal support to local scale sustainability: Continuation of low-level equilibrium/ deterioration of local scale systems*
- *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*

The second set of insights came from our fieldwork observations of the diversity of constraints, opportunities, capacities, and capabilities of communities and local governments. The third set of insights came through learning from related initiatives (e.g. community-based water service provision). The result is our Governance Spectrum, which identifies a range of possible governance **approaches,** distinguishing between CBO-led, Co-management and Institution-led (Figure 2).

Figure 2: Governance Spectrum.

For each **approach**, the accompanying visual presentation presents the relevant research findings, an explanation of **strategies and tools** to improve governance (see Table 1), and a series of reflection questions to help stakeholders consider the relevance of these tools to their context.

Box 2. Ultimately, local government is responsible for ensuring local scale sanitation services continue to be delivered in Indonesia.

Regardless of which approach and strategies along the Governance Spectrum are trialed or implemented by stakeholders, local government in Indonesia is legally responsible for sanitation service provision and ensuring safe management and treatment of sewerage, sludge and wastewater. That means local government, rather than community, is the backstop for ensuring ongoing functional sanitation services. Each local government should therefore provide some minimum set of support services, such as:

1. For existing systems, map the location and monitor and record the technical status/performance and the functionality of the CBO

2. For new systems, ensure a post-construction check occurs and record the results

3. Ensure support (financial, technical/physical) is available to optimise local scale systems (e.g. to achieve 100% connection capacity, to retrofit communal systems to include simple sewer systems, to monitor effluent quality, to desludge, to rehabilitate, to undertake major repairs, etc)

4. Formalise tariff setting in line with cost-recovery principles for the ***operation phase***, and formalise fee collection mechanisms to ensure funds are available.

The three approaches in the Governance Spectrum are not mutually exclusive. **The key thing is that a local government should work out what best meets their need and opportunity now, identifying combinations of strategies from within one, two or all three of the approaches.**

Table 2: Summary of three approaches in the Governance Spectrum and example strategies within each approach.

Institution-led approach	**For when a local government takes a leadership role in ongoing delivery of the sanitation service (i.e. in the operation of systems, rather than in their construction), and tackles the systemic issues in institutional arrangements and sanitation service provision as a whole. This approach helps avoid any potential pitfalls of assuming communities can deliver all components of the *operation phase*.**
Collaboratively assigning responsibilities	This is a process whereby local government leads a facilitated conversation with local stakeholders to revisit and reallocate the spectrum of responsibilities based on who is best placed to do what and when. It should include local private enterprises, local government departments, local NGOs, and CBOs. This strategy allows each local government to strengthen governance based on the strengths in their region. The Governance Game can help with this in practice.
Assigning risk-based responsibilities	Applying this strategy means assigning responsibilities according to levels of risk, by adopting and adapting international approaches such as from the USA, where the degree of human and environmental health risk determines the level of institutional involvement.
Formalising PPPs	There are numerous ways for local government to explore public private partnerships for the ongoing successful operation of community or local scale sanitation systems. This may be relevant in areas where strong private sector exists, and local government is neither willing nor able to undertake all Operation responsibilities. In Japan for example, there is an extensive network of thousands of licensed private organisations, providing operational and monitoring services for on-site and small scale sanitation systems

Co-management approach	For when a local government takes a modest support role in ensuring successful operation
Strengthening CBOs	Local government and designers of local scale programs can strengthen CBOs by facilitating their legal status and/or developing their business skills. This can help achieve security of the land, asset, as well as improve the ability of the CBO to access funds.
Co-management between LG and CBOs	In this guidance, co-management refers to a process where-by local government begins to increase their share of responsibilities, potentially prioritising those aspects of the ***operation phase*** that CBOs find most difficult, as well developing and promulgating clear access mechanisms for communities. *The Governance Game* can help with this in practice.
Building networks	Creating regional or provincial networks (e.g. associations, CBO communities of practice, any future group of operation facilitators, etc) can help develop coordination across districts and achieve efficiency benefits of aggregation.
CBO-led approach	**When CBOs want to be or are assumed to be the primary service provider**
Authority in tariff setting and fee collection	Many CBOs struggle financially. An essential step therefore is to provide authority and legitimacy for CBOs or local leaders at village, neighbourhood, or regional level to (a) set tariffs at real, local, operational cost-recovery levels and (b) formalize fee collection processes. Tariff-setting could happen, for example, through local regulation at the city level, through a Mayoral decree, or through a Walikota decree. Formalising collection could happen e.g., through linking with other accepted fee collection mechanisms at the village level, through issuing bills similar to water or electricity utilities, through providing 'official' shirts for fee collection agents, etc.
Matching innovative financing to need	Local government and designers of community-scale programs can help link CBOs and/or households with innovative financing mechanisms (e.g. micro-finance, credit cooperatives, corporate social responsibility). These funds can be used e.g., by households to fund their system connection, or CBOs to retrofit communal systems to simple sewer systems, to expand service delivery and therefore revenue potential, or for intermittent and asset renewal costs.
Building innovation entrepreneurs	Many strategies and initiatives are possible whereby CBOs improve the efficiency and desirability of the service, maximise benefits afforded by the presence of the system, and create additional revenue streams. This research uncovered many examples of such innovation (see accompanying Visual Presentation).

As noted above, the three approaches in the Governance Spectrum are not mutually exclusive. Each **local government should work out what best meets their current need and opportunity, identifying combinations of strategies from within one, two or all three of these approaches.**

2.3 Governance Game

The Governance Game was developed as a mechanism to articulate, make visible and discuss roles and responsibilities for sanitation service delivery. The game includes a list of all actions that describe activities necessary to ensure the successful Operation of local scale systems. These activities or tasks are the game pieces, and are mainly 'operational responsibilities', but also include several 'institutional arrangements' (Kooiman, 2008). The game also includes a set of actors common to local governments in Indonesia that do or could play a role in the ***operation phase***.

The game can be used to explore how various stakeholders view the current delineation of roles and responsibilities, as well as to explore and negotiate future delineations of roles and responsibilities in different scenarios.

The game is used three times in the accompanying Visual Presentation of the guidance materials to help participants explore the current arrangements (CBO-led approach), a Co-management approach, and an Institution-led approach. The game can of course be adapted to other scenarios that a facilitator or stakeholders would like to explore.

Table 3: Example of activities required for successful Operation of local scale sanitation systems.

Technical	Financial	Managerial	User support
Clean grease traps and dispose of material	Set user fee	Receive and address complaints	Extend household connections
Small maintenance (descum or flush)	Collect user fees	CBO monitoring	Ongoing socialisation and user education
Large maintenance (e.g. broken manhole)	Pay operator salary	CBO award	Conduct health campaigns
Unblock pipes	Manage finances (saving, accounting, forecasting,)	Provide technical support	Clean MCK
Asset replacement (e.g. broken pump)	Budget planning	CBO capacity development	[blank piece to be filled in by players]
Desludging	Manage bank account	Ensure knowledge sharing among CBOs	[blank piece to be filled in by players]
System rehabilitation	Pay electricity bill	Record keeping	[blank piece to be filled in by players]
Effluent quality monitoring	[blank piece to be filled in by players]	[blank piece to be filled in by players]	
System quality monitoring (checking for cracks, leakage)	[blank piece to be filled in by players]	[blank piece to be filled in by players]	

Table 4: Example of stakeholders

Stakeholder	Description
BAPPEDA	Local government department of planning
PU / Wasbangkim	Local government department of public works (infrastructure)
BPLH	Local government department of environment
DINKES	Local government department of health
UPTD-PAL / DKP	Technical unit within a local government department
Kelurahan	Urban village
Kepala RT (Rukun Tetangga) / Kepala RW (Rukun Warga)	Head of neighborhood group Head of citizen group
CBO	Community-based organization in charge of system
Perusahaan swasta	Private sector
AKSANSI	NGO supporting CBOs in operation phase
Other?	<Blank piece to be filled in by players/stakeholders>

Figure 3: Workshop participants (including local government representatives and CBO representatives) explore governance arrangements together (April 2016, Jogjakarta)

2.4 Role play scenario

Role play scenarios offer a chance to broaden perspectives and to 'walk a mile in the shoes of other stakeholders'. For this guidance material, a role play game was developed to create a scenario in which local government, civil society, users, management groups (e.g. CBOs) and private sector meet to discussion the delineation of governance roles. A role play scenario may be more helpful or interesting when conducting training with people who do not come from the same local government area (See Appendix 2 role play materials).

Appendix 1. Outline for accompanying visual presentation

This timing and guidance sheet is aimed at AKSANSI and other project stakeholders familiar with this work, and who would like to continue building upon it. The example sheet below can be lengthened or shortened based on the audience, purpose of workshop and time available. Facilitators should insert breaks as needed. The 'facilitator notes' column below include readings that the research team found helpful in preparation for the workshop, which future facilitators may also find useful to read, if time permits.

Time	Topic	Facilitator Notes
10'	**OVERVIEW** *What does this document cover?* *Definition of local scale* *Expectations for guidance*	
10'	**INTRODUCTION** *What is governance?* *Why improve governance?* *How do we improve governance?*	As preparation, read the project's Midterm Report (Mitchell et al 2015). Other useful background documents to read are Kooiman 2003; Kooiman 2008; Eales et al 2013.
10'	**WHAT TO GOVERN?** *Introduction of the Governance Dimensions (technology, finance, users, management)*	As preparation, read the project's Global Practice Scan (Ross et al 2014).
40'	**ACTIVITY**: Exploring What types of governance challenges exist	Need butchers paper and 3 different colors of pens for each group.
40'	**ACTIVITY**: How is governance currently arranged?	Review the activities list and stakeholders list in Section 2.3. Prepare and print a stakeholders list on A3. Prepare, print and cut up activity lists for participants. Groups of 3-4 are preferable.
60' – 90'	WHO SHOULD GOVERN? AND HOW? Strategies for strengthening the CBO-led approach. 10' presentation and 10' – 20' discussion of: • *Authority in tariff setting & fee collection* • *Matching innovative financing to need* • *Building innovation entrepreneurs* • *Reflection questions*	
20'	Drivers for increasing local government's role • *Legal reasons* • *Institutional reasons* • *Equity reasons* • *Effluent hazard reasons* • *CBO reasons* • *Efficiency reasons* • *Community empower norm reasons*	As preparation, read the project's: • *Legal review (Al Afghani et al 2015);* • *Analysis of institutional arrangements (Mason et al 2015);* • *Costing comparison (Mitchell et al 2016)* • *Mid-term report (Mitchell et al 2015)*
30 – 60'	ACTIVITY: Under a Co-management approach, how do you think responsibilities could be arranged?	Use the same Gameboard and game pieces from the previous activity.
30'	Strategies for Co-management approach. Presentation of: • *Strengthening CBOs* • *Building networks of support* • *Co-management with local government* • *AKSANSI case study* • *Reflection questions*	As preparation, read the project's Legal review, as well as about the Business Model Canvas
30'	Strategies for Institution-led approach. Presentation of: • *Formalising public/private partnerships* • *Collaboratively assigning responsibilities* • *Assigning risk-based responsibilities*	As preparation, read the project's "Making pathogen hazards visible: a new heuristic to improve sanitation investment efficacy." (Mitchell et al, 2016), as well as the US EPA's Responsible Management Entity framework (EPA, 2003)
30' – 60'	**ACTIVITY**: Under an Institution-led approach, how do you think responsibilities could be arranged?	Use the same Gameboard and game pieces from the previous activity.
~ 30'	**Making commitments** Wrap up	

Appendix 2. Role Play Scenario and Roles

Facilitator instructions

- *Introduce the idea of role play scenarios to the workshop participants and the purpose of the activity: to collaboratively decide on roles / responsibilities for the operation phase of local scale sanitation service delivery.*
- *E.g. Each stakeholder has their own strengths and constraints in delivering sanitation service delivery. This process explores what the strengths and constraints 'feels' like from other perspectives, by 'walking in their shoes'.*
- *Read the story out loud to the participants*
- *List out the different stakeholders who will be represented in the role play*
- *Hand each participant a copy of the story and each participant in a group of six, one of the stakeholder roles.*
- *Provide each group a pre-cut set of game pieces for 'activities required for successful Operation'*
- *Give participants 5 minutes to individually read through their own stakeholder brief and the background story*
- *Answer any remaining questions the group may have before they get started*
- *Give the groups 20-30 minutes to negotiate who will do what based on their briefs*
- *Keep at least 15 -30 minutes for a debrief after the process, because just as much learning takes place in the debrief. Potential debrief questions include:*
- *What did you think of this game?*
- *What surprised you?*
- *What was challenging or difficult about the dynamics between the stakeholders?*
- *How well do you think a process like this could work in a real setting – this process of collaboratively determining and delineating responsibilities/*
- *What was the biggest lesson for you as a result of this role play game?*

Handouts included below are:

- *The story (to be printed for each participant)*
- *The six role play briefs*
- *Community representative / advocate*
- *Village head*
- *Local government – technical department*
- *Local government – financial department*
- *NGO representative*
- *Small – Medium Enterprise (SME) representative*

The story

The national government in your country has started funding a new program for decentralised sanitation systems.

In this new program, national government is trialing a different form of funding – governance-based funding. This means, before the funding can be released for the decentralised systems, the sanitation and health stakeholders of each city will be required to meet and collaboratively determine who will be responsible for which activities of sanitation service delivery, based on their capabilities and interests and then provide a governance plan to national government. If the national government agrees with your proposed plan, they will award you with the system funds.

The City of Sanitopia already has 40 decentralised systems, and the national government has selected Sanitopia to be the recipient of 60 more decentralised community scale systems, bringing the total to 100 systems in the community.

The City of Sanitopia calls a meeting of stakeholders to discuss the new governance arrangements:

- Community representative / advocate
- Village government head
- Local government technical department
- Local government financial department
- Non-governmental organisation (NGO)
- Private business

Your goal is to listen to the needs and interests of all and determine who will do what so that you can share your governance arrangements with national government, and hopefully be awarded the 60 decentralised systems.

Community representative / advocate

You are a strong and trusted leader in your community. Community members often request that you to speak on their behalf, as they know you will represent their voice, needs and interests honestly and with conviction.

You have consulted your community members about these potential additional 60 systems, and the community is supportive. They see the benefit in reducing the amount of household wastewater that drains straight to waterways.

However, they are worried about the time commitment. Most skilled and able community members must work in order to keep food on the table and to reduce their economic vulnerability. The most skilled community members are already over-committed in many other volunteer positions. The strong preference of the community is to not have any more volunteer time required from them.

Your community always agrees on most issues without large controversies. Although, when it comes to money, you have previously experienced some challenges. Specifically in a previous solid waste program, it was difficult to collect user fees regularly.

However, the community has agreed that when dealing with local government and other powerful players that perhaps strong community leaders, such as yourself, can gather feedback and communicate on their behalf; meaning, for example, if any challenging operational tasks are required, the community thinks that you can negotiate support from the local government.

Village head

You as village head, take pride in working hard for your community. You also like to work hard for the community as you know it may mean a promotion to a higher position.

You as the village head believe that these types of funding opportunities offered by national government are really important. When national government offers you funding, you know it is in both your and the community's best interest to accept the funding as well as national government's requirements, without question. Or at least with as little questioning as possible. Your main goal is to make sure that government is happy and that the 60 systems are accepted.

Your village government is quite over-burdened. So while you want to make national government happy by accepting their offer of a sanitation system, you are only able to support these decentralised systems in small ways. For example, if there is a way in which you could coordinate with other community scale systems in your village, and act as the 'middle man' between communities and local government, you might have time for this type of responsibility.

Local government – technical department

You are the manager of the technical department. Your current role involves overseeing the desludging of on-site systems, as well as managing a small centralized system that connects 600 households. This includes managing the wastewater treatment plant.

You think you have been invited to this meeting to be given responsibility for the decentralised systems as well, but there are over 40 of these systems in your city and you are already short-staffed.

Your main issue is that you haven't been involved with the planning and construction of these systems, and so you question the quality of the construction. You know that some systems do not function because spending short-cuts have been made during the construction and the systems may not be installed correctly. You are worried that by taking on responsibility for these 60 new systems and 40 old systems, your department may get burdened with a large bill, and your budget is already heavily subsidized by the financing department.

While you have the equipment and the skills to oversee the systems, and are generally supportive of decentralised systems, you need to solve the issues of budget and staff before committing to anything.

Local government – financial department

You are head of the financial department unit, and make decisions over what types of expenditure other departments can have.

You are less convinced of the need for local government to be involved in decentralised scale systems. There is a clear national policy that says it's the community's responsibility to operate and maintain them.

However, for every staff member that is hired, your department's budget increases slightly, so you are happy to hire more staff.

All the technical departments are already subsidized, so you need new infrastructure investments to generate more revenue. You are reluctant to increase funding for technical works, unless it is shown that income will increase at least to a point where increase in recurrent funding is recovered.

NGO

You are leader of a local Water, Sanitation and Hygiene NGO. You have developed trust with the community and have a respected status among local government departments. While your NGO does not have resources or equipment to conduct major repairs, you have some technical ability.

While you don't require funding now for your work, because you are generating goodwill and building relationships, at some point, the bills need to be paid, so next year you will ask for payment for the support you and your team provide to the communities.

You are specialized in technical training. You conduct operation and maintenance of decentralised systems, for things like blockages, checking for cracks, and descumming. Usually you train operators and users.

SME entrepreneur

You have been a sanitation entrepreneur for the past three years. You offer desludging services to on-site systems. People tend to call you because you have a reputation for getting the job done quickly.

You have come along to the meeting because business is slow and you would like to find other ways to find a long-term, reliable job – potentially through a service contract with local government for some sort of technical jobs.

You have two desludging trucks, but no other equipment. Your 4-person staff have some general technical skills, are young and smart and learn quickly.

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