Governing local sanitation for lasting service
Research Brief

Effective governance is necessary for successful sanitation service delivery.

Local* scale sewage systems offer many benefits and can effectively provide ongoing sanitation services, *if adequately managed*. [*Local scale means decentralised community approaches serving 20-200 households.]

The Government of Indonesia (GoI) has invested heavily in local scale systems: they are a core component of the GoI target to provide sanitation access for all its citizens by 2019, with 14,000 systems funded for installation as of 2014 and as many as 100,000 systems planned.

To date, Indonesia's focus has been on financing, planning and constructing these systems. The program logic has been: (1) government and donors provide funds and training to communities; (2) a community-based organization (CBO) is established; (3) the CBO and community then build, own, and operate their local system in perpetuity, to improve human and environmental health. A 2013 World Bank review raised questions about this model's efficacy in practice, which provided the starting point for this research project.

The focus of this project is **governance** of local sewage collection, treatment and disposal systems. Fundamentally, governance is about: *what* needs to happen, *who* has responsibility for what, and *how* responsibilities are carried out. Our project adopted Kooiman's model where governance is: (1) the set of arrangements that enable effective delivery of the required day-to-day activities such as collecting fees or cleaning grease traps (first-order governance) and (2) the surrounding formal and informal institutional arrangements such as whether and how financial records are kept, or desludging occurs, or local governments support CBOs (second-order governance).

Here we present the project's major findings.

Little performance monitoring of local scale systems occurs.

In Indonesia the risk (hazard plus exposure) of faecal contamination is often high. Investment in sanitation is growing rapidly, but the capacity to deliver services is limited. Longitudinal performance monitoring is therefore essential to help assess the continuing delivery of health/environment outcomes.

However, monitoring is uncommon. Program design plays a strong role in determining what, if any,

monitoring occurs. The special allocation fund (DAK) mechanism is the largest program, responsible for about 80% of local scale systems funded for installation as of 2014. There are no requirements for testing, performance monitoring or reporting. The three other major programs that account for most of the remaining systems require only a post-construction functionality test.

The need to monitor effluent is recognized, but appears

KEY MESSAGES

On-going performance of local (community) scale systems is largely unknown at local and national levels. However, the health and environmental outcomes of existing investments are likely less than optimal:

- **Many community-based organisations (CBOs) responsible for O&M are failing financially and do not have the technical capacity to undertake major operational tasks.**
- **On average, systems are operating at 50% connection capacity.**

Local government has clear legal responsibility for sanitation servicing. However, within local governments there is confusion and misunderstanding about whether they can or should support local scale operation.

At a minimum, Local Government should:

1. **Map and maintain current records of location and performance (technical, financial, management and user satisfaction) of existing local scale systems.**
2. **Develop a priority list of new investments and corrective actions for systems/areas that have a high pathogen hazard.**
3. **Fund and support major costs for operation (e.g. extension, retrofitting communal systems to simple sewer systems, effluent monitoring, desludging, major repairs, etc).**
4. **Formalise tariff setting and fee collection in line with cost-recovery principles.**

challenging in practice. Challenges include lack of funds, skills, and laboratories, and uncertainty about responsibility. Effluent quality records were available for about 325 sites, representing about 2% of the systems.

Analysis of available data shows issues/opportunities:

- Technical performance declines as the rate and speed of implementation increases and depth of capacity building decreases, suggesting revisions are necessary in program design and delivery.
- On average, systems are operating at 50% of capacity, suggesting coverage could be improved by extending connections to existing systems.
- Most CBOs are failing financially, suggesting new models and approaches are required.

Longitudinal performance monitoring of effluent quality is essentially absent, so there is no data to confirm the extent of return on investment.

The cost distribution of centralised versus local scale appears inequitable.

A comparison of the scale and distribution of costs found:

- During construction, the required cash contributions from community can be significant and/or prohibitive: significant time is volunteered by communities (1 – 4 person years for each system constructed).
- During operation, typical users fees are insufficient to cover routine costs. Intermittent maintenance costs are additional, large and generally beyond CBO revenue. To run a system with public facilities typically requires volunteer time equivalent to one full time worker, which impacts the economically vulnerable.
- For centralised systems, government pays more per household to build, and funds operational shortfall.

Local government is legally responsible.

A review of the formal legislative and regulatory arrangements found sanitation is largely absent; however, it is clear that local government (LG) is legally responsible and can support operation of local scale systems financially, even when they do not own assets.

The rare examples of existing local legislation tend to link responsibility with system scale (i.e. local (community) scale means community management) and generally fail to enable local government support.

Barriers prevent local government from providing more support.

A political economy analysis of institutional arrangements found four dynamics conditioning the degree to which local government can support local scale systems:

- Uncertainty about public finance rules, and fear of sanctions for misuse of public finance
- Information deficit about system performance
- Perception that community 'owns' the system

- Prevalence of the community empowerment norm, and therefore hesitance for LG to get involved.

The *What*, *Who*, and *How* of Governance

Synthesis of our research provides guidance on the What, Who and How of Governance.

Four essential and intertwined domains describe 'What' should be governed for sanitation:

- Sustaining demand: maintaining effective community demand for the service over time
- Effective management: accountable and equitable administration and decision-making systems
- Sustainable financing: sufficient ongoing-revenue to cover all short and long-term operational cost elements
- Functioning technology: ensuring the physical system delivers the service

In regards to 'Who' and 'How', there is incredible diversity across Indonesia. There are more than 500 cities, each with widely differing capacities and attitudes to sanitation. That means our governance framework needed to acknowledge and work with what exists now, whilst making clear the types of shifts necessary over the long term to provide better outcomes for local scale systems. Synthesising these results with our wide-ranging field experiences, our tools identify and provide support for three forms of governance: (1) community-led, (2) co-management (LG and communities), and (3) institution-led (public or private entities).

METHODOLOGY

This mixed methods action research project, which was transdisciplinary and deeply participatory with national government, donors and programs, local governments, communities and NGOs, had four lines of enquiry:

Performance monitoring: What is the volume and quality of data for local scale system performance?

Legal arrangements: What are the formal and informal arrangements for local scale governance? What are the implications for operation and maintenance?

Scale and distribution of costs: For a range of sanitation models, what are the scale and distributions of costs; and what are the implications?

Management partnerships: What are the range of structures and institutional arrangements that could deliver the responsibilities for managing local scale?

Project outputs

Comprehensive and practical tools, guidance materials, reports, and reference materials are all available in English and Bahasa Indonesia on the project website:

http://communitysanitationgovernance.info

www.dfat.gov.au

www.isf.uts.edu.au