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City Sanitation Planning Through a Political Economy Lens

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ABSTRACT: While citywide sanitation planning is perceived to be an enabler of coordinated improvements in sanitation services for developing countries, intended outcomes have often been elusive. In order to illustrate how political economy, chosen planning approaches, and ideas about change and development have acted as determinants of outcomes, this paper draws on three case study countries that took qualitatively different approaches to sanitation planning – Indonesia, the Philippines and Malaysia. The analysis found that the assumptions informing the planning methods were often not valid, which then undermined the potential for successful implementation. Based on the analysis, the paper argues that urban sanitation planning and implementation in developing countries needs to be transformed to reduce the emphasis on comprehensiveness and instead emphasise flexibility, a learning orientation and strategically chosen incentives. This approach demands tighter cycles of planning and action, direct testing of assumptions, and an in-depth understanding of the local- and national-level political economy and the links between them. It requires innovation to be enabled, with funding mechanisms that focus on outcome rather than input. In this way it would be possible to shift away from the typical emphasis on prescriptive procedural planning steps and towards delivery of the much-needed improved sanitation outcomes.

KEYWORDS: Urban sanitation, sanitation planning, political economy, developing countries, Southeast Asia

INTRODUCTION

Citywide sanitation planning is widely recognised as an important way to meet aspirations and goals for increasing access to sanitation. The absence of a strategy to meet long-term objectives can lead to piecemeal, ad hoc and opportunistic sanitation developments that frequently fail to consider the needs of poor and vulnerable people (WaterAid, 2016a). Sanitation planning is identified as one of three enabling pillars for adequate sanitation services, together with supportive regulatory environments and sanitation budgets (AMCOW, 2011). Significant investment has been made in the development of guidelines and frameworks for sanitation planning, such as Sanitation 21 (Parkinson et al., 2014), the

WHO Sanitation Safety Planning manual (2015), and Community-Led Urban Environmental Sanitation Planning (CLUES) (Lüthi, Morel et al., 2011), and individual country-level guidance for City Sanitation Strategies (SSKs) in Indonesia (Pokja AMPL, 2012) and City Sanitation Plans in India (Government of India, n.d.).

Despite considerable investment in sanitation planning, the much-needed and substantial improvements in access to adequate long-term services have not yet been achieved. For example, the final evaluation of the Dutch government's four-year, €14 million programme of support for the Indonesian government's SSK programme (Koppen et al., 2015) concluded that the primary outcome had been "[success in] raising awareness on sanitation importance among the stakeholders" with "minimal to insignificant" impact on the implementation of plans in the programme timeframe. There is therefore an urgent need to reflect on how to improve sanitation planning and outcomes. The rate of progress of improvements in sanitation needs to increase sharply in order to meet the Sustainable Development Goal (SDG) for universal access to adequate and equitable sanitation[1] by 2030. By some estimates, achieving this goal would require a threefold increase in the currently projected rate of global progress (Nicolai et al., 2015). It thus becomes critical to identify and learn from factors that have helped or impeded progress in the past and then to apply what is learned to improving sanitation planning and implementation. A historical review of sanitation planning practices (Kennedy-Walker et al., 2014) and analyses of case study countries that have made significant advances in sanitation service provision (Northover et al., 2015; WaterAid, 2016a) contribute to this effort. Similarly, in a previous paper (ISF-UTS and SNV, 2016) the authors examined assumptions underlying approaches to sanitation planning in five case study countries in Asia, suggesting that greater awareness of these assumptions and how well they match realities could lead to better-targeted approaches to sanitation planning.

In this paper we build on our previous analysis (ISF-UTS and SNV, 2016) by considering the political economy as a critical influence on the effectiveness of sanitation planning. We focus on three case study countries – Indonesia, the Philippines and Malaysia – each of which have taken qualitatively different approaches to sanitation planning and service delivery. Local governments are responsible for sanitation and other municipal services in both Indonesia and the Philippines, as they do in many other developing countries. While city sanitation planning by local governments is directed and driven by the national government in Indonesia, in the Philippines the national government takes a more hands-off approach. In contrast to both of these, Malaysia has a government-owned enterprise that is solely dedicated to providing urban sanitation services to most of Peninsular Malaysia. The three diverse case studies, in combination, contribute to a broad discussion and yield insights applicable to a range of different country contexts. This journal paper is structured around three key aspects of sanitation planning, the examination of which illustrates the underlying assumptions and the influence of political economy: (i) the interplay of national and local dynamics, (ii) leadership and collaboration, and (iii) financing.

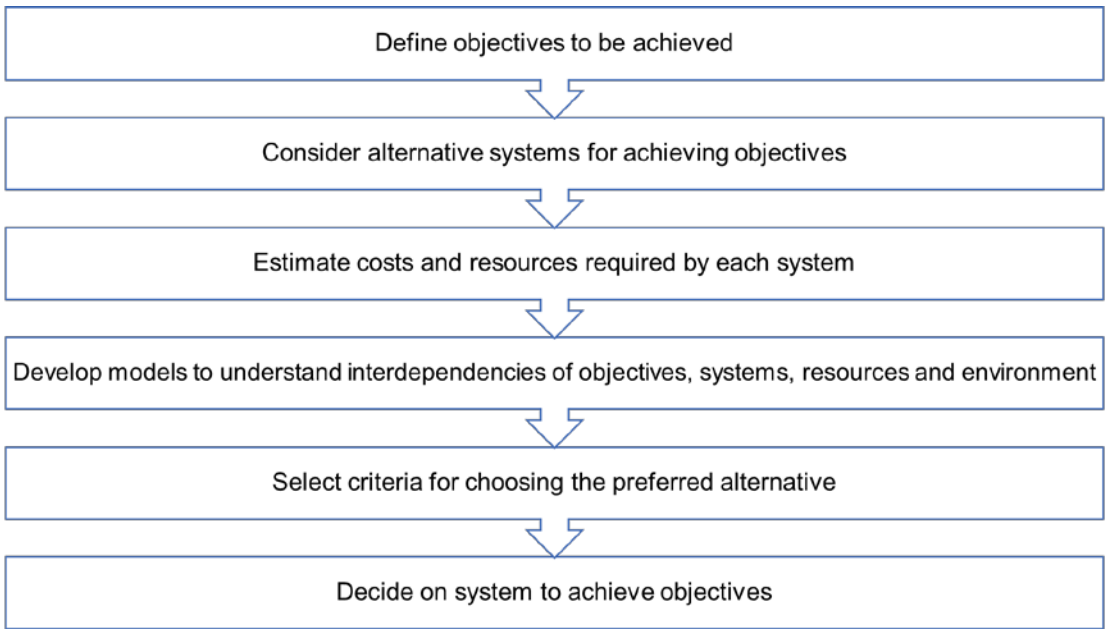
We focus on political economy because it is recognised as a key determinant of outcomes (Harris and Wild, 2013; Garbarino et al., 2011). The political economy dictates how social, political and economic processes and actors influence each other, which in turn conditions the effectiveness of sanitation planning and service delivery outcomes. Despite awareness of very significant economic benefits resulting from investment in sanitation (Rodriguez et al., 2008; Napitupulu and Hutton, 2008), the rational response of prioritising resources for its development and maintenance has not followed. Gabarino et al. (2011) state that the limited focus on sanitation is not so much the result of technical or economic considerations but is mainly driven by low political motivation because of competing demands for resources. The political will to move beyond the 'Plan' – the product of the sanitation planning process – is often assumed to be already in place or may only exist rhetorically, so outcomes are not achieved (ISF-UTS and SNV, 2016; WaterAid, 2016e). Applying a political economy lens to city sanitation planning

[1] Although sanitation planning frameworks commonly adopt a wider definition of 'sanitation' which combines drainage and solid waste management with excreta management, our focus is on the latter. This aligns with the definition of sanitation in SDG 6.

can therefore provide insights into the reasons for successes and failures in different contexts and can act as a precursor to establishing sanitation planning approaches that have a better chance of being effectively translated from planning into action.

We propose that a further key determinant of sanitation planning outcomes is the underlying thinking – the epistemology – that drives the chosen urban sanitation planning strategies and approaches (ISF-UTS and SNV, 2016). The disciplinary practice of Planning and the design of development assistance programmes have been dominated by the 'rational comprehensive' approach that Hudson et al. (1979) observe as being well suited to the planning mandates of government agencies. It is based on "a firm belief that we can solve enormous problems with a little application of foresight and coordination in the public sector", an approach which has its roots in systems analysis methods first developed by RAND Corporation. It provides a structured approach to solving well-defined problems (as summarised in Figure 1), but it is less suited to complex and rapidly changing contexts (Checkland, 2001).

Figure 1. A systems analysis framework designed to find the most efficient and effective means for realising specified objectives, that underlies the rational comprehensive planning approach (based on Checkland, 2001).



Approaches to city sanitation planning in developing country contexts have transitioned through several traditions over the last four decades (Kennedy-Walker et al., 2014; WaterAid, 2016a). The rational comprehensive approach has remained the underlying guide in most cases despite some early authors noting a need for a stakeholder engagement focus (Wright, 1997). The limitations of this type of expert-led technocratic master planning have been recognised, and attempts have been made to address these limitations through complementary processes such as stakeholder participation, focusing on specific vulnerable groups, and planning based on addressing specific problems. However, these complementary processes have not addressed the underlying issue, which is the assumption that once 'the plan' is made, implementation will follow. This is reflected in the common perception of sanitation planning as consisting of "universal steps (…) of (1) Problem Identification, (2) Define Objectives, (3) Design Options, (4) Selection Process, and (5) Action Plan for Implementation" (Lüthi, Panesar et al., 2011), a template which remains grounded in rational comprehensive planning, as represented in Figure 1.

Recent reviews of sanitation planning find that the Plan that results from sanitation planning processes often fails to influence decisions about investment and service delivery (WaterAid, 2016a; Chong et al., 2015; Koppen et al., 2015). This raises key questions about the value of sanitation planning, and whether and how it can be made more relevant and useful for local agencies that have responsibility for service provision. Some of these reviews recommend less focus on the production of the Plan, and greater focus on the planning *process* (WaterAid, 2016a; Chong et al., 2015). WaterAid (2016a) recommends that, as a preamble to citywide implementation, sanitation planning be integrated with phased implementation in an iterative process that incorporates small-scale pilot implementation and learning. We seek to contribute to the above discussion by questioning the relevance and usefulness of current conceptions of sanitation planning, and by presenting issues for sanitation sector participants to consider in moving forward.

METHODOLOGY AND APPROACH

The case studies were based on document review, using sources from ISF-UTS and SNV (2016), supplemented by targeted literature with a political economy orientation.[2] A review of key literature from the Political Economy Analysis (PEA) discourse was used to identify levers for analysis and discussion. The case studies have been presented with an eye to identifying when and where these levers were evident in the three case studies, and then reflecting on their effect on sanitation service outcomes.

Our earlier research (ISF-UTS and SNV, 2016) found that rational comprehensive approaches were dominant but did not flow through to outcomes. This analysis has therefore actively sought to approach the issue from a PEA perspective which recognises the complexity and political nature of sanitation planning. The approach drew on Rocha Menocal's (2014) ideas on thinking and working politically and seeking to approach the topic of interest with due consideration of "multiple contending actors [seeking] to assert their interests".

Core concepts for our levers for analysis and discussion are drawn from Ostrom's (2011) Institutional Analysis and Development (IAD) framework and from recent research on PEA that is relevant to urban sanitation. We have *italicised* these levers, below and throughout our analysis, so that they may be identified easily by the reader, particularly those readers who are less familiar with the key elements of a political economy approach.

Ostrom (ibid) perceives the system as one of "Actors interacting in Action Situations generating Interactions and Outcomes that are affected by and affect a Resource System, Resource Units, Governance System, which then affect and are affected by Social, Economic, and Political Settings and Related Ecosystems". More simply, it is an action situation described by:

- the set of *actors*,
- the specific *positions* to be filled by participants,
- the set of *allowable actions* and their linkage to outcomes,
- the *potential outcomes* that are linked to individual sequences of actions,
- the *level of control* each participant has over choice,
- the *information available* to participants about the structure of the action situation, and
- the *costs and benefits* – which serve as *incentives and deterrents* – assigned to actions and outcomes.

[2] The case study literature was up to date as of 2016 in the case of Indonesia, while more recent newspaper sources were sought to supplement information for the Philippines and Malaysian case studies.

We acknowledge debates in the literature as to whether Ostrom's institutional analysis provides a sufficient basis for a truly 'political' analysis or whether it requires a greater recognition of power (Brisbois et al., 2019; Kashwan, 2016; Hudson and Marquette, 2015; Clement, 2010).

As such, we draw on further literature to provide a basis for our analysis, choosing problem-driven political economy perspectives recently developed in the context of the water sector. According to Mason et al. (2015), institutional arrangements and service delivery outcomes are conditioned by the *particular characteristics of the local sanitation sector* and the *relationships between stakeholders* (e.g. the power balance between policymakers, service providers and service users) and the *underlying incentives to act or not act. Sector preoccupations* with particular aspects of services (e.g. open defecation) and the *visibility and attributability of benefits and failures* are of particular relevance (Mason et al., 2013) and have also been included. A further set of levers – "possible entry points for analysis" – provided by Harris and Wild (2013) were taken into account in the analysis, including the *credibility of political commitments*, the *strength of oversight systems*, *coherence* (between policies and processes for implementation), and *capacities for local problem-solving and collective action*.

Our study was largely based on secondary data that did not explicitly consider *political corruption*, *moral hazard* (factors that might insulate actors from the consequences of their decisions) or *rent seeking* (securing privileged access to advantage), though these were also mentioned as important entry points for analysis by Harris and Wild (2013). As such, we have not included these areas within the scope of this paper. We acknowledge this as a limitation of the study.

OVERVIEW OF CASES: STRUCTURE OF THE ACTION SITUATION

According to Ostrom (2011), the 'action situation' enables the immediate structures affecting sanitation planning to be isolated in order to enable an explanation of "regularities in human actions and results, and [to] potentially reform them". We therefore begin our analysis by introducing the action situation of current sanitation planning in our three country case studies. The background for each case in this section provides a high-level context, while sections that follow elaborate on other elements of the action situation according to their relevance.

Indonesia

Local governments of cities and regencies (LGs) are responsible for delivery of key services under Indonesia's 1999 regional autonomy laws, with roles for sanitation updated in 2014 so that they aligned with national laws and regulations (Al'Afghani et al., 2015). Local governments' affairs are under the purview of the Ministry of Home Affairs, which sets the operating and expenditure rules (*allowable actions*) for local government (Chong et al., 2015), conditioning the LG's *authority and autonomy to act*.

The Government of Indonesia's programme for Accelerated Sanitation Development for Human Settlements (PPSP) aims to achieve universal access to sanitation within the term of the current Medium-Term National Development Plan (RPJMN 2015-2019). The programme is led by a National Water Supply and Environmental Sanitation Working Group (*Pokja AMPL*) made up of key ministries. Under the programme, LGs develop City Sanitation Strategies (*Strategi Sanitasi Kabupaten/Kota*, or SSKs) to meet the national programme goals for delivery of wastewater, stormwater drainage and solid waste services. Guidance and manuals are provided from the national level to assist with the preparation of city sanitation strategies and plans to meet the 2019 goal.

SSKs are designed with a five-year planning horizon, with objectives and selected options that are consistent with each city's or regency's Medium-Term Development Plan and Regional Spatial Plan. The model for sanitation development aligns with the rational comprehensive planning process, which follows a nationally consistent, comprehensive and systematic planning process conducted over a two-year period, with implementation commencing in the third year.

Although 446 out of the 507 cities/regencies in Indonesia had produced SSKs by the end of 2014, the quality of planning documents produced by LGs was low, with a few notable exceptions. The main outcome is reported as being "mostly on raising awareness on sanitation importance among the stakeholders", with "minimal to insignificant" impact on the implementation of plans (Koppen et al., 2015).

The influence of external agencies has been important in driving the Indonesian sanitation sector (Garbarino et al., 2011). The World Bank Water and Sanitation Program (WSP) has been especially influential in programme design, and the Dutch-funded Urban Sanitation Development Program (USDP) has had an important impact in the form of technical support, which continues at the time of writing. The current phase of USDP is focused on supporting the translation of plans into implementation, recognising that without additional support the majority of plans would not progress to that stage.

The Philippines

In the Philippines, in contrast to Indonesia, the central government has a more light-handed approach to achieving the national goals of its Philippine Sustainable Sanitation Roadmap 2010 (DoH Philippines, 2010) through city governments which are responsible for local services. The Department of Public Works and Highways (DPWH), in collaboration with other national-level agencies, acts as the lead agency in the coordination of sanitation activities.

Each city is expected to develop plans and programmes for its own local sanitation service model and to provide enabling legal support by passing local government ordinances that are consistent with national policy guidelines (ibid). A model local ordinance is currently being promoted to local government units (LGUs) by the Department of the Interior and Local Government which is responsible for strengthening the capacities of local governments (ISF-UTS and SNV, 2016).

City sanitation planning processes across the country take diverse approaches to service delivery as a result of this policy. For example, different cities have developed different locally appropriate institutional models for faecal sludge management (Robbins et al., 2012). These include public-public partnerships between an LGU and a local public water district (e.g. Dumaguete City), public-private partnerships (e.g. San Fernando City), and concessionaire agreements between a private company and the national government (e.g. Manila).

The policy operates on the assumption that the national target for universal access to sanitation by 2028 will be met through enabling each LGU to develop its own approach to sanitation. However, only a limited number of larger cities have implemented sanitation services so far, indicating that the efforts of the national government in encouraging and enabling local governments to deliver sanitation services may have been insufficient (ISF-UTS and SNV, 2016).

Malaysia

Malaysia adopted a distinctly different approach to urban sanitation service delivery when, in 1994, a private company named Indah Water Konsortium Sdn Bhd (IWK) was awarded a 28-year concession to manage, operate, and maintain sewerage and septage services, which had previously been the responsibility of local authorities (Narayana, 2017). Sewerage services were regarded by most local authorities as a "problematic role" (Mohd Din, 2010; Narayana, 2017), and in 87 out of 144 cases these services were transferred from local management to the federal government for handover to IWK. However, there was insufficient *information available* to IWK about the state of assets and operating costs, making it difficult for it to discharge its role in the initial years (Tan, 2008). IWK's operational viability was affected by challenges in setting and collecting sanitation tariffs, resulting in several changes in ownership that culminated with the Malaysian government taking full ownership of IWK in 2000 and covering revenue shortfalls (ibid).

As a government-owned company, IWK has become a successful and technically competent provider of sewerage services over time, supported by the government's decisions and its passage of enabling acts and laws (McIntosh, 2014). Through systematic improvements to dilapidated infrastructure inherited from local governments, and through strengthening regulations and standards, IWK has achieved significant improvements in wastewater treatment and river water quality (Mohd Din, 2010). A key success factor has been the effectiveness of IWK's sewerage strategy, the result of learning through experience. They undertook a "staged plan: start small and simple and make incremental improvements", providing time and space for learning and adaptation (Narayana, 2017). 'Sanitation planning' occurs at multiple levels in accordance with regular business management practices for infrastructure services. Three-year business plans define key focus areas for the business, while specialised departments focus on detailed planning of specific aspects such as asset management, systems operation, staff enablement, financial performance, customer relations etc. (IWK, 2013). It is likely that the single focus on sanitation with no competing priorities has also enabled IWK to effectively deliver sanitation service outcomes.

ANALYSIS OF THREE KEY ASPECTS OF CITY SANITATION PLANNING

Here we discuss three aspects of sanitation planning and related outcomes, to illustrate the assumptions embedded in the design and implementation of sanitation planning and the way in which outcomes have been shaped by political economy:

- The interplay of national and local dynamics in determining outcomes,
- Leadership and collaboration in both theory and practice, and
- Adequate financing and the influence of power dynamics.

Each aspect is introduced in general terms and then discussed specifically as it affects each of our case studies. We have identified relevant *levers* that have emerged from applying a political economy lens in considering the drivers behind institutional, political and social structures that contradict or confirm the assumptions underlying practice. We invite readers to extend the approach to other aspects of sanitation planning (e.g. as discussed in ISF-UTS and SNV, 2016). While it is necessary to discuss these three aspects of sanitation planning separately for clarity in communication, it should be noted that these aspects influence one other and, more broadly, are all influenced by the available knowledge, skills and capacity within the given contexts.

Interplay of national and local dynamics in determining outcomes

The primary driver of sanitation planning generally comes from the national government which – irrespective of the entities responsible for the actual planning and delivery of services – sets national targets and signs up to global commitments such as the SDGs. The Human Rights Council (2013) stresses that national governments bear most of the responsibility for ensuring the realisation of the human rights of their citizens. Sector development and planning relies on national governments' commitment and prioritisation of sanitation and on drivers in the form of policies and regulations.

In each country, it is the governance arrangements and political economy that determine the power relations between the national government and local entities. This is manifested in the interplay of national-level definitions of allowable actions and the autonomy with which local governments/entities can respond innovatively to local conditions. Top-down approaches completely driven by central governments or centralised authorities lie at one end of the spectrum and bottom-up approaches driven by autonomous local actors (e.g. local governments, communities) are at the other end. In practice, pure bottom-up approaches to sanitation planning rarely exist without national drivers for sanitation; in general, various combinations of bottom-up and top-down dynamics are found.

Ostrom (2011) observes that there are often unexamined assumptions about the variables defining the situation and the motivations of relevant actors. In the case of urban sanitation, it is assumed that the local agency that undertakes city sanitation planning has the political will and motivation to do so and to deliver on the commitments made by their national government. Our case studies illustrate that one cannot take for granted that the local-level commitment or internal motivation is in place to undertake city sanitation planning and follow it through to action.

Indonesia's centrally controlled and locally undertaken planning model was designed for the *potential outcome* of "local ownership of sanitation challenges and improvements", through giving "special attention to city-level planning, strengthening sector strategy and institutional arrangements, and advocacy and awareness-raising at all levels" (WSP, 2009). The provision of facilitators, guidance documents, decision tools and templates for sanitation planning (SSK) was intended to support local agencies in following a participatory process for achieving national goals. The process was designed nationally, and it was assumed that by including awareness-raising activities the necessary motivation and political commitment to sanitation at the local level would develop through the mechanics of the programme.

In practice, as the programme has been rolled out at scale it has been observed that many LGs had little sense of local ownership of the process or products; members of the local sanitation working group were in some cases even unfamiliar with their plan's contents (Chong et al., 2015). While specifications from the central level that have driven LGs to undertake sanitation planning have been well-intentioned, in practice the *level of control* by LGs has been undermined and has consequently limited local drivers and incentives. It also reflects weak *coherence* with Indonesia's status as using a decentralised model of governance, which in theory allocates autonomy to LGs but, in practice, is not consistent with the actual design of planning processes and budgetary allocations (Willetts et al., 2014; Nasution, 2014).

Although the level of autonomy experienced by local governments may have a critical impact on their 'ownership' of city sanitation plans, the Philippines case study indicates that complementary national direction and oversight is still important. Light-handed direction from the central level may reflect an assumption in the Philippines that local people are best placed to decide on what is required and suited in their particular local context; however, the *incentive to act* was weakened by the absence of an explicit 'push' from central government, so little has been achieved in sanitation at the city level in the country overall (ISF-UTS and SNV, 2016). *Information asymmetries* between national and local levels are also apparent in the overly complicated documentation required by the DPWH – the coordinating agency – on implementation of rules and regulations for sanitation development. Because of this unnecessary complexity, documents are rendered unusable, setting back implementation by several years (ibid). While it may be true that local people understand their contexts best, progress is difficult without complementary support from the national level.

The relationship between the Malaysian national government and its state-owned enterprise IWK reflects a *power balance* that has been effective in the Malaysian context, resulting in significant improvements in urban sanitation outcomes. First, under the concessionaire agreement IWK is strongly accountable to the national government through contractual service obligations and performance targets. The *governance system* includes a strong regulatory framework and institutional arrangements clarifying roles (Narayana, 2017). Furthermore, IWK is motivated and proud to maintain its positive reputation as a competent service provider in the region and recipient of various awards (IWK, 2013).

The *strength of oversight systems* is another determinant of outcomes (Harris and Wild, 2013). It is played out in the national and local dynamic in the form of systems of accountability and oversight imposed by higher levels of government on LGs and/or entities responsible for service delivery. This can be seen across the three case study countries. Ironically, the scope of oversight from the Government of Indonesia appears to be more focused on control of LGs' *allowable actions* than on seeking accountability for actual *outcomes*. Although public services laws and other legal instruments have the power to impose

sanctions for failure to deliver services to the required standards, it is unclear how extensively they are imposed in practice (WaterAid, 2016d). Systems for accountability are weak with no consequences for low quality plans or non-implementation, thus are tolerant of non-action. Similarly, there is no agency in the Philippines for independent regulation and oversight of service provision by local governments. This has impeded the delivery of adequate, reliable services and has allowed poor performance to continue unchecked (WSP, 2015). Malaysia stands in contrast to this, with stringent regulatory oversight complemented by internal monitoring and control by IWK to ensure well-controlled operations and identify weaknesses that may then be addressed (Narayana, 2017).

The *credibility of local-level political commitment* is identified by Harris and Wild (2013) as a further governance factor for enabling action. While national-level political commitments to sanitation are on the rise globally, driven by initiatives such as the SDGs and the Human Right to Water and Sanitation, WaterAid (2016c) concludes that in order to move beyond rhetoric to delivery of results on the ground, prioritisation of sanitation needs to cascade to all levels of government. Likewise, the need for local-level application of the human right to water and sanitation is stressed in recent work that attempts to translate these concepts for local government audiences (Pati and Neumeyer, 2018).

Commitment and prioritisation by the Government of Indonesia was greatly influenced by national economic development drivers (Garbarino et al., 2011). Its commitment was made credible by substantial increases to the national sanitation budget and rollout of its PPSP programme for accelerated achievement of universal access to sanitation. While LGs' declarations of commitment are a prerequisite to participation in the PPSP programme, they appeared less credible in many instances.

National-level commitment in the Philippines – in the form of approval of the National Sewerage and Septage Management Program (NSSMP) in 2012 – may have been catalysed by episodes of waterborne disease including outbreaks of cholera earlier that year (Robbins et al., 2012), which brought to light sanitation failures that effectively provided "spikes in visibility" (Mason et al., 2013). Despite the Philippine Sanitation Roadmap's vision for 70% of LGUs to have "local sanitation plans and budgets in place" by 2016 (DoH Philippines, 2010), the failure to increase budgets for sanitation (WSP, 2015) and the absence of explicit initiatives to achieve the vision do little to support the credibility of the national-level commitment. Local commitment by leaders who emerged as local 'champions' were essential to the progress made by individual cities (Robbins et al., 2012; WaterAid, 2016a).

In Malaysia, national-level commitment is evident in the role of the federal government in championing sector reforms which united regulators and ministries driven by a common purpose; federal commitment is also demonstrated by its continued allocation of significant financial support enabling IWK to deliver and improve service outcomes, including capital investment funds and tariff subsidies (Narayana, 2017). Commitment to sanitation at the level of the implementing agency is credible because it is IWK's very reason for existence.

Characteristics of the local sanitation sector shape political commitments at the local level, where overall demand for services from citizens is low and local governments face competing priorities for limited resources. These two factors in combination weaken local political commitment to sanitation in both Indonesia (Winters et al., 2014) and the Philippines (McCluskey, 2011). Sanitation service provision is further impeded by local politicians' preference for infrastructure projects with greater *visibility and attributability of benefits* over out-of-sight sanitation infrastructure (Garbarino et al., 2011; Winters et al., 2014). The lack of citizen demand and low willingness-to-pay in Malaysia has largely been addressed through large tariff subsidies (Tan, 2008), while IWK's awareness-raising efforts are likely to have increased demand and paved the way for acceptance of higher tariffs (Narayana, 2017).

In a more general comment on the sector, Harris et al. (2013) note that organisational complexities, weak professionalism and low public awareness can reduce *visibility* and *incentives* to provide sanitation services. These issues are avoided in Malaysia because of an approach that combines a strong regulator with devolution to an independent apolitical entity with no competing priorities. IWK has also undertaken

intensive capacity building programmes that over the years have created substantial technical and professional expertise (Narayana, 2017).

The counter-intuitive picture that emerges from the above is that in contexts where local authorities have a low capacity, low interest and weak incentives, rapid improvements in sanitation might be achieved through strong leadership from a technically competent centralised state and the involvement of the private sector. It cannot be guaranteed, however, that this will always be the case since in many countries the wider dynamics of decentralisation preclude the opportunity to exercise such central control. In the interplay of national and local levels it is thus better to consider accountability mechanisms that monitor outcomes and to focus on processes to address citizen demand, without which securing local political commitment is likely to remain elusive.

Leadership and collaboration in theory and in practice

It is argued that the cross-sectoral nature of sanitation requires planning to be a collaboration between relevant stakeholders in service provision (Kvarnström and McConville, 2007). Diverse actors have various stakes in sanitation service provision in different countries, including government agencies at the national, provincial and local levels (e.g. health, public works, environment, community empowerment, finance etc), private sector actors, donors, communities and civil society organisations.

The complexity of multi-stakeholder decision-making is often not sufficiently appreciated. Clarity of roles and responsibilities with respect to undertaking or overseeing the sanitation planning process are critical, as are clear lines of accountability. Choices as to who is best placed to lead and who is best placed to participate in and contribute to a planning process depend on the institutional arrangements in different countries and cities. How leadership and collaboration has played out in practice in our case studies may be framed by questions about motivations, incentives, capabilities and capacities.

Indonesia's approach has been for the national government to specify broad cross-sectoral collaboration to be undertaken by relevant stakeholders at the local government level. A circular from the Ministry of Home Affairs (MoHA, 2012) prescribes the composition and roles for cross-departmental sanitation working groups (*pokja Sanitasi*), who hold responsibility for the coordination and oversight of the preparation and implementation of city sanitation strategies. Working group membership is specified according to staff positions within the local government divisions of planning, public works, health, environment, and financing and budgeting, while the district secretary – the most senior bureaucrat in the LG – is specified as the chairperson. This approach assumes that the specified staff representatives from different sections or agencies have the capacity and willingness to cooperate and work together to create a mutually agreed upon coordinated multisectoral sanitation plan that they are all committed to implementing. Furthermore, it is assumed that the process of reaching consensus among representatives from different agencies with different views and incentives will result in commitment to the decisions made.

Overall, neither assumption has held true in practice. Bringing together staff from defined LG departments has not ensured interest or *capacities for problem-solving and collective action*, with little evidence of effective collaboration or empowered decision-making so far (Chong et al., 2015). Members designated in the circular frequently delegate their responsibilities to lower-level staff who lack the *authority* to generate the required commitment or to oversee the implementation process. There is little *incentive to act* beyond what is minimally required to demonstrate compliance with the ministerial circular. Progress in sanitation services has been made only in those instances where working group members were internally motivated to embrace a shared vision (Chong et al., 2015), a committed vision that goes beyond the 'vision statement' required by the SSK template.

Local governments in the Philippines, on the other hand, are left to manage sanitation planning and service provision in a manner appropriate to their contexts, including collaborating with relevant stakeholders if they choose. An underlying assumption appears to be that local governments are aware

of the importance of sanitation and will take the necessary steps to plan and ensure effective sanitation service delivery. Several different models of collaboration in service provision have developed, depending on local stakeholders (Robbins et al., 2012), although these are in place in only a very small proportion of cities in the Philippines. Low overall progress on urban sanitation may be associated with weak incentives to take a leadership stance at the local level. Cities that have seen improvements have benefitted from factors such as politically influential city-level 'sanitation champions', support from development partners undertaking demonstration pilots and enabling local skill and capacity building, and increased 'visibility' of sanitation (WaterAid, 2016b; Robbins et al., 2012). In these cases, progress was made by seizing opportunities that chanced to emerge (WaterAid, 2016a), rather than from collaboratively undertaking city sanitation planning. Elsewhere, limited demand by the public for sanitation services results in the essentially self-regulated LGUs being minimally accountable for their actions (McCluskey, 2011). When local government stakeholders weigh up the *costs and benefits* of proceeding proactively on sanitation (rather than remaining inactive) non-action typically wins because 'nobody cares' about the planning or implementation of services and there are no consequences for inaction.

As the legal entity responsible for delivering city sanitation services in Malaysia, IWK leads the planning process for service delivery. The significant positive outcomes achieved confirm the underlying assumption that leadership by a single accountable agency provides clear lines of authority for effective sanitation planning and implementation. It is unclear from the literature whether, and to what degree, different divisions within IWK communicate and collaborate on sanitation planning and implementation. Standard project management practices may be followed that may see each project pass through different specialist divisions as it reaches different development stages, a process similar to that followed by utilities in developed countries (see Fam et al., 2013).

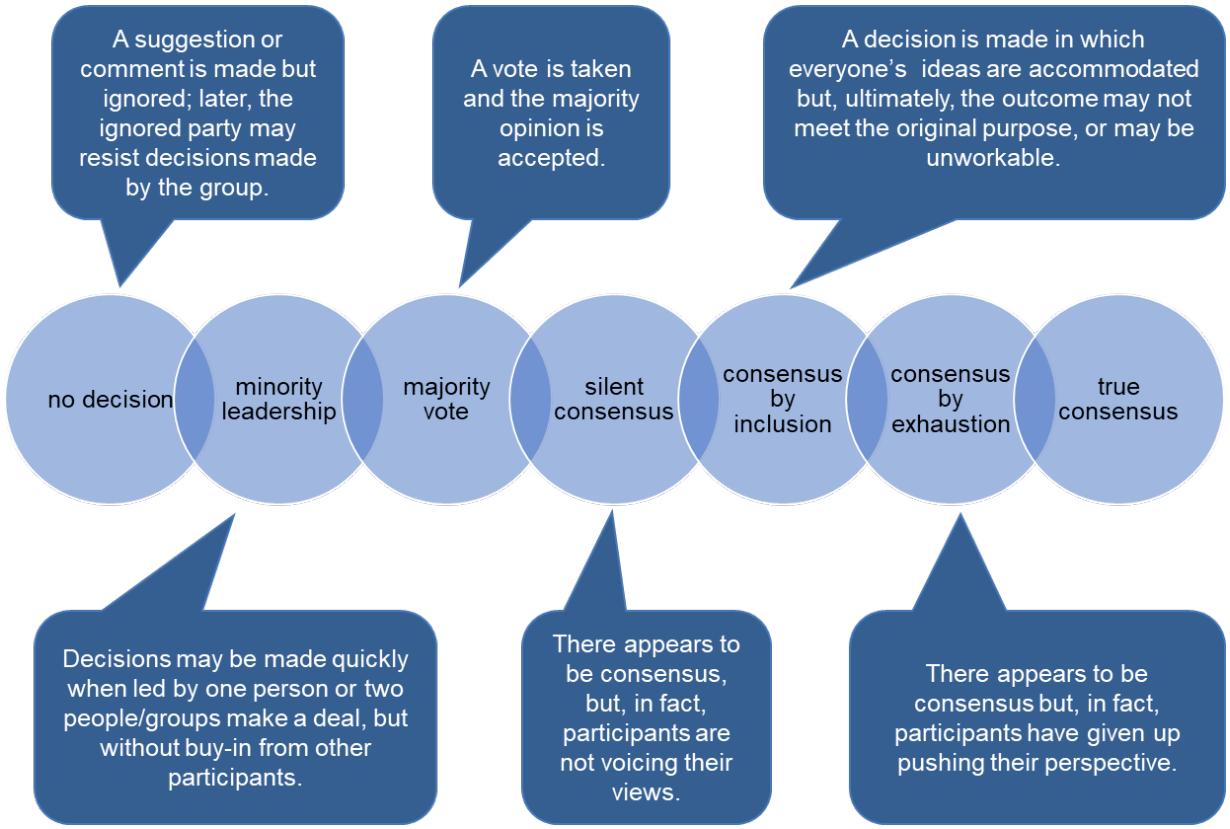
IWK collaborates with external agencies such as policymakers and infrastructure developers on specific aspects of planning and service delivery, including sewerage catchment strategies, developer guidelines, controls and certification regimes (McIntosh, 2014); this enables *coherence* between policies and sanitation implementation. However, it has been noted that greater collaboration with state and local governments would be beneficial as the federalised approach to sanitation has resulted in their being largely left out of the process and their roles greatly diminished (Narayana, 2017). State and local governments not only control access to the local land required for treatment plants and sludge disposal sites, but state water companies provide reticulated water services (Tan, 2008). Collaboration with water companies is key to enabling volumetric tariffs for wastewater, while joint billing would ease tariff collection for IWK. Collaboration is also necessary for the enactment of the *Water Services Industry Act (2006)*, which stipulates a gradual restructuring of water and sanitation services into integrated state-based service provision. This process may lead to the disaggregation or break-up of IWK, but this has not commenced as yet (Narayana, 2017).

Most sanitation planning frameworks identify users or beneficiaries as a key stakeholder group that should participate in the planning process (Kennedy-Walker et al., 2014; McConville et al., 2014). This recommendation on shaping the *relationship between stakeholders* is underpinned by a range of stated assumptions. It assumes, for instance, that participation will create greater demand for sanitation (and increased willingness-to-pay), will lead to better decisions about locally appropriate technology, and will build the community's technical capacity and motivation for subsequent community management of systems (Lüthi and Kraemer, 2012; McConville et al., 2014; Kennedy-Walker et al., 2014). Many contemporary approaches to urban sanitation expect some degree of community participation in long-term management and service delivery. In some cases, communities have been left with the full responsibility for managing their sanitation systems, including below-ground infrastructure that is beyond their capacity (Eales et al., 2013; Mills et al., 2017). There are ethical and practical reasons for eliciting community input into the aspects of sanitation planning that are relevant to it, but when meaningful input is expected from the community, its members must first be empowered with knowledge and understanding. The roles of different stakeholders may wax and wane through different

phases of sanitation planning, depending on the different planning frameworks, yet there is scant guidance on how to conduct collaboration and engagement in order to arrive at equitable outcomes (McConville et al., 2014). Most importantly, there is currently little evidence-based research on the degree to which the assumed benefits of community collaboration are realised (Lüthi and Kraemer, 2012; McConville et al., 2014).

In considering collaboration and collective decision-making in sanitation planning, planning frameworks may be taking an oversimplified view of the process of engaging participants and the *level of control of participants*, whether they be different local agencies, civil society groups, or users. While the intentions of a collaborative approach are positive, there are reasons why true collaboration is rarely realised in practice including power relations, competing priorities and competing interests. These may be mitigated to some degree through careful design and expert facilitation (Fung and Wright, 2003), but this is not easy to accomplish at scale, particularly within large government bureaucracies. Equally, one should appreciate the complexity of how political economy shapes the way in which individuals and groups interact when attempting to make decisions by consensus (see Figure 2). Collective decision-making is a process of entertaining the many ideas and possibilities generated by participants and is affected by the various personalities and behaviours of those present and the power relations between them. Recognition of how the political economy impacts on collaboration and decision-making can help explain why supposed agreements and decisions may not, in the end, be implemented.

Figure 2. Continuum of dynamics and involvement in decision-making and consensus (ISF-UTS and SNV, 2016).



Power dynamics in financing sanitation

Implementing city sanitation plans at the local level requires upfront financing for infrastructure investments and ongoing financing to sustain operations for service provision. Traditional sources of financing are tariffs (user payments), taxes (government funds collected through taxation) and transfers (donor and social assistance schemes) that must, in combination, cover all costs over the lifetime of the service, including repayments for repayable financing that has been accessed to fund upfront investments (ISF-UTS, 2014). Where local governments are responsible for sanitation, government funds come in the form of transfers from the national government and revenues raised through local taxes. There are different views and preferences about the most appropriate or practicable levels of contribution from each funding source, with a dominant view being that upfront costs should be covered through taxes, transfers and/or repayable financing, and operating costs through tariffs (with subsidies if required). The *coherence* between national policies and processes for accessing sources of financing depends on the dynamics of the *power balance* between national governments, local governments and service providers as discussed below.

In Indonesia, decentralisation and fiscal balance laws require progressive devolution of funding (Coucouvinis, 2014), implying that local governments have the authority to plan their own use of operating revenues including transfers from the national government. In practice, however, sanitation financing processes are largely controlled from the central level. Although national budgets for sanitation have increased about tenfold in the last decade (World Bank, 2013), non-inclusive funding processes mean that the funds controlled by central ministries are around eight to ten times greater than the funds provided directly to LGs through special allocation funds for sanitation (Coucouvinis, 2014). As the national – local *power balance* plays out, line ministries seek to retain power and control rather than devolve control to the local level (WaterAid, 2016d; Willetts et al., 2014).

Budgeting and planning for implementation of SSKs takes place in the second year of the planning process, after the SSKs are completed; this reflects an assumption that funds will flow once the plan is completed. In reality, it is difficult to allocate funds for implementing the SSK due to a *lack of coherence* with LGs' annual budgeting processes. The Ministry of Home Affairs imposes a budgeting nomenclature that affects *allowable actions* by tightly defining what items can be funded. This was found to be misaligned with the needs of the SSK, which have to also compete for funding against all other LG services (Chong et al., 2015). Although possibilities for innovative sanitation financing solutions may exist, Mason et al. (2015) observe that LGs have an *incentive not to act* for fear of being accused of misusing public funds, a situation that comes with severe penalties as a result of Indonesia's Corruption Eradication Commission's (KPK) rise in power and visibility. Further, in the few cases where LGs have a dedicated sanitation service provider in the form of a state-owned enterprise (PDAM or PDPAL), investment is stymied by complex and long processes – which must be passed through local parliament – to establish local regulations permitting investment of equity into these service providers (Willetts and Howard, 2017).

Sanitation funding programmes that enable LGs to develop plans that are disconnected from implementation may inadvertently provide further *incentives not to act*. Special sanitation funds and several donor programme funds are contingent on a completed SSK (WSP, 2009), which frequently leads to local governments taking a 'tick box' approach to completing their SSK, simply as a formality to gain access to funds (Chong et al., 2015). While these funding sources require a completed SSK for eligibility, there is no monitoring or oversight to ensure that spending is aligned with the SSK, so investments may be disconnected from the priorities identified in the SSK and may even lead to perverse outcomes. For example, a special allocation transfer fund from the central government requires the community to provide land for sanitation infrastructure, resulting in investments in areas where community land is available rather than where public health risk is highest and the need therefore greatest (Chong et al., 2015).

Financing ongoing post-construction operations in Indonesia is also challenged by a range of *incentives not to act* that is characteristic of many large bureaucracies. While line ministries 'assist' LGs with infrastructure investments to fulfil their statutory obligations for sanitation, they retain ownership of assets. As evidenced by past experience, instead of spending on operations and maintenance, LGs have a perverse incentive to allow infrastructure to depreciate until the central government replaces it (Coucouvinis, 2014). Special allocation funds and donor funds contingent on the SSK also preference certain types of investment – most commonly community-based sanitation – which allows LGs to transfer responsibility for long-term operations and management to communities. Unclear national programme guidelines create confusion about *allowable actions*, making it difficult for LGs to provide post-construction financial support to communities to keep these systems performing well (Mason et al., 2015; Mills et al., 2017; Al'Afghani et al., 2017).

In the Philippines, LGUs are authorised to finance, operate and maintain their own water and sanitation systems under the Local Government Code, which devolves responsibility to them (WSP, 2015). The assumption here appears to be that authorising local governments to raise sanitation funds would provide sufficient motivation for them to seek access to available funds and invest in services. However, spending on sanitation is extremely low; WSP (2015) estimates that sanitation expenditure is only 3% of the total water supply and sanitation budget, representing about 0.03% of the GDP. McCluskey (2011) describes the devolution of responsibility for sanitation as "another unfunded mandate for these already resource-challenged entities". WSP (2015) note that although there are a number of government and commercial sources of repayable financing, LGUs are reluctant to borrow and, furthermore, leaders lack *incentives to act* to prioritise water and sanitation in local investment plans during their three-year term of office.

The main source of funds is the National Sewerage and Septage Management Program, administered by the DPWH. It offers federal government subsidies to 'highly urbanised cities' for upfront investment costs. The programme offered to cover 40% of the sewerage costs when it commenced in 2012 (Robbins et al., 2012), and was revised in 2017 to cover 50% of sewerage costs as well as a 50% subsidy for septage projects, after only one city had applied for the subsidy in the interim period (Narvaez, 2015; Orejas, 2017). The DPWH attributes this low level of interest to the lack of political will, the slow passage of pertinent local ordinances, conflicts between LGUs and water service providers, the high cost of sewerage infrastructure and a lack of funding for feasibility studies (Orejas, 2017).

Accessing sanitation funds is challenging for the majority of the cities in the Philippines that are excluded from the NSSMP funding programme for highly urbanised cities. While international aid programmes have provided low-cost financing to the Government of the Philippines, the federal government charges relatively high annual interest rates on loans to LGUs and their public utilities. As a result, such financing are not widely utilised (McCluskey, 2011), and *potential outcomes* are not achieved. More affordable funding has been made available through the Philippine Water Revolving Fund set up by USAID, which has had a good response from LGUs and local utilities. McCluskey (2011) attributes much of this positive response to the support programme that shows LGUs how to recoup costs and generate income from sanitation services, particularly for septage services. (This is discussed at more length below). Even so, it is unclear what level of uptake will continue when the presence and support of an external agency has ended.

In Malaysia, urban sanitation by IWK is financed mainly through tariffs and taxes, with government providing a significant proportion of revenues. Financial planning takes place routinely as an ongoing function within IWK, in line with normal industry practice (IWK, 2013). Government policies and regulations have been introduced to improve IWK's financial security and the sustainability of its services. The *Water Service Industry Act 2006* obliges users to pay sanitation tariffs (Japan Sanitation Consortium, 2011), and tariff collection rates increased to 85% despite IWK's inability to effectively penalise non-payment (IWK, 2013).

Policies and regulations also enable IWK to leverage other sources of funding. Developers of the larger real estate developments are required to install sewerage systems, a measure that has drawn capital investment from the private sector amounting to approximately 70 to 80% of wastewater treatment infrastructure (Japan Sanitation Consortium, 2011). IWK takes over the sewerage assets after certifying that they meet the required standards (Mohd Din, 2010). As an *allowable action*, IWK can also draw revenues from its training centre through service offerings to external clients, which builds sector capacity and at the same time enhances IWK's reputation in the region.

Current tariff subsidy amounts were arrived at as the government and IWK learned their way through the challenges of sanitation financing, a process that continues to evolve. The initial privatisation in 1993 carried an assumption that sanitation, while an essential service, is an economic good that can be provided by a profit-making private entity. Tan (2008) notes that tariffs for essential services need to be set at a level that is economically viable and politically acceptable, which is unlikely to be sufficient to cover sanitation service delivery costs in developing countries or provide a reasonable rate of return for the concessionaire without subsidies – a reality that was initially not appreciated by the government. Sewerage charges were introduced abruptly, without consideration of *potential outcomes* and without adequate promotion or awareness-raising, while previously most local authorities had not charged for sewerage separate from municipal rates (Narayana, 2017). Residential customers' refusal to pay was not met with government subsidies, but instead the government directed IWK to charge substantially higher rates to commercial/industrial customers in order to cross-subsidise households, leading to the latter, in turn, refusing to pay. This ongoing customer revolt and the politically directed tariff revisions led to cash flow problems, which then affected the concessionaire's ability to meet operational and capital commitments despite 'soft loans' from the Malaysian government (Tan, 2008).

With the government taking full ownership of IWK, it became a business that was "service oriented and not centred on profit" (IWK, 2013), reflecting a revised assumption that sanitation is a social good and a public service requiring sustainable cost recovery that is partly financed through public funds. Government subsidies fill growing revenue shortfalls since tariffs were revised downwards beginning in 1997 and have remained unchanged since 2003, despite operating costs increasing many times over (IWK, 2013).

As an upper-middle-income country with aspirations to reach high-income country status by 2020 (World Bank, 2018), political pressure to rethink Malaysia's urban sanitation model appears to be increasing. The Auditor General has urged governing ministries to support IWK's applications to raise sewerage tariffs to a level compatible with the current situation (The Malaysian Reserve, 2017a), while other key stakeholders argue that tariff revisions should accompany the broader structural reforms envisaged in the *Water Services Industry Act (2006)* that could see IWK dismantled and broken up (The Malaysian Reserve, 2017b). Debates about the costs and benefits of transitioning to integrated water and sanitation are ongoing, with the shape of the new industry still to emerge.

A discussion about financing urban sanitation would be incomplete without consideration of the ongoing maintenance of onsite sanitation (septic tanks, cesspools and pit toilets), which form a significant proportion of the technology mix in our case study countries and in most cities in developing countries. Infrastructure on private property presents unique challenges as the onus is on users/owners to maintain and desludge their onsite systems while, in practice, most do so only when problems occur (Ho et al., 2012; Robbins et al., 2012), and local governments rarely direct resources to monitoring and enforcing maintenance. One of the models explored by development actors is service-provider-led 'scheduled desludging' where users sign up for regular removal of septage/faecal sludge and safe disposal – a model that assumes that users will opt in if regular maintenance services are easy to uptake and pay for. Service providers also benefit from scheduled desludging of multiple properties in a geographic area as this enables regular revenue flows, economies of scale and overall programme efficiencies (Robbins and Antonio, 2017).

Dumaguete City, in the Philippines, pioneered septage services that achieved full cost recovery within five years through affordable monthly tariffs. However, after a few years they found many users to be refusing scheduled desludging that they had paid for and to which they were entitled, making it necessary to switch services from 'scheduled' to 'on-call' (Robbins and Antonio, 2017). In Malaysia, scheduled desludging was provided by IWK as specified by the 1994 concessionaire agreement. Proper treatment and disposal of sludge led to great improvements despite massive refusal of service, with only 30% of septic tanks being desludged between 1994 and 2008 (Narayana, 2017). However, the *Water Services Industry Act (2006)* opened desludging services to competition from 2008, giving property owners the legal responsibility for desludging using the licenced provider of their choice. It resulted in IWK's scheduled desludging service being replaced by on-call services, and a sharp fall-off in desludging (Ho et al., 2012; Narayana, 2017).

The disinterest of users/owners in maintaining an invisible (buried) onsite system for treating an unwanted waste stream may be recognised as a *characteristic of this subsector* of sanitation – a disinterest that challenges the assumption noted above with regard to scheduled desludging. Robbins and Antonio (2017) propose that the level of interest in regular desludging programmes is directly correlated with promotion of services. They observe that participation rates decline as promotion campaigns taper off. Dense urban distributions of poorly maintained onsite systems pose significant public health risks, so it may be timely to explore complementary strategies and alternatives to relentless public promotion. An example of this might be a paradigm shift where users can earn an income from supplying their waste to sanitation service providers, the latter paying for the valuable resources that can be extracted from the waste material such as nutrients, carbon and water (Puyol et al., 2017; Winblad and Simpson-Hébert, 2004); another positive shift might be towards greater involvement of users in sanitation innovation processes (Blackett and Hawkins, 2017).

DISCUSSION

Through our analysis of three key aspects of city sanitation planning, we have illustrated the significance of political economy in shaping outcomes and have argued that assumptions underlying urban sanitation policy directions did not hold true in our case studies, in many cases. While system crises prompted Malaysia to revise their assumptions (and related decisions), assumptions in Indonesia and the Philippines have largely remained unexamined and policy directions have so far not shifted significantly towards improving outcomes. An overall low level of public interest in sanitation (identified as a sector characteristic) dampens political incentives to achieve necessary outcomes. Greater stakeholder participation in the planning process – advocated by some recent approaches to sanitation planning – has had little effect on increasing interest in sanitation, particularly in the urban context (McConville et al., 2014).

With the evolution of sanitation planning approaches, the critical role of political economy and institutional dynamics has increasingly been recognised (see, for example, Parkinson et al., 2014; Lüthi, Panesar et al., 2011), but, beyond acknowledging these constraints, has been accompanied by little practical guidance on how to effectively navigate the context. Recent approaches remain aligned with rational comprehensive planning that aims to accomplish "the perfect complete system in one leap" (Kennedy-Walker et al., 2014), reflecting the technocratic thinking that is deeply engrained in the way that many development actors work (Rocha Menocal, 2014).

There is a clear need for alternative paths to sanitation planning that are grounded in existing political contexts, in order to plan for progressive and sustainable improvements rather than the 'perfect complete system' whose implementation is politically unfeasible. Recent reviews and analyses of city sanitation planning are consistent with our findings in terms of the sorts of elements that they suggest a new approach might include. These studies converge around an emerging theme of 'learning' (Kennedy-Walker et al., 2014; ISF-UTS and SNV, 2016; WaterAid, 2016c; Galli et al., 2014) and stress greater focus

on the political process of sanitation planning and its desired outcomes. Several of the suggestions align with Harris and Wild's (2013) "entry points for (political economy) analyses". Such suggestions include: a common aspirational vision, meeting locally determined criteria, iterative cycles of phased implementation, and integrated systems for monitoring and oversight, feedback loops and embedded learning processes. Further suggestions are creating political incentives through appropriately targeted external drivers and pressures (such as peer-to-peer ratings), and a stronger demand for services by citizens who hold their local government to account through the political process. A further, and critical, component is a commitment to the achievement of service outcomes by all relevant administrative levels. Motivation for effective sanitation service delivery can be driven by the granting of greater autonomy to local governments and/or delegated service providers coupled with monitoring and enforcement by an independent regulator.

Sanitation planning with a 'learning' orientation needs to be put in place through institutional arrangements and incentives that are able to accommodate mistakes and failures, since sector actors are "fallible learners" (Ostrom, 2011). Ostrom's insights imply that better outcomes are not necessarily achieved by simply changing the 'method' of sanitation planning by combining various elements, such as suggested above. If the drivers and incentives operating between actors are the same as before, it is likely that past failures will be repeated. The challenge, then, is how to change some of the rules of the game to lead to improved outcomes. Urban sanitation planners would do well to observe India's ambitious Swachh Bharat Mission for rural sanitation and hygiene development, as it has resulted in significant, if imperfect, progress in implementation. This multifaceted programme pulls multiple political economy levers in order to change incentives from national to grassroots levels, while using disruptive leadership, creative communication channels from iconic symbolism to cinema, live online progress monitoring and a range of other initiatives to shift open defecation practices and maintain citizen demand (Curtis, 2018; Iwer, 2018). The undertaking of comprehensive citywide sanitation planning, as envisioned by the range of models developed and promoted by international development aid agencies and research institutions, has largely been unsuccessful in creating the commitments and incentives for delivering outcomes at local government levels.

The discrete sectoral focus that conceives sanitation planning within a 'silo' is a likely reason for the lack of traction at local government levels as it is not the main arena where improvements to urban sanitation are likely to be defined. More holistic and sustainable outcomes could be achieved through cross-sectoral trade-offs and the capture of synergies, with forms of sanitation planning that are more strategic and more integrally linked to other areas of urban planning such as affordable housing, water supply, and urban amenity,[3] (as proposed by a recent global initiative in this area, see CWIS, 2018) and by an integrated consideration of the water-energy-food nexus (Simpson and Jewitt, 2019; Kurian et al., 2019).

The discussion above is complemented by emerging research that is aimed at supporting development actors in Thinking and Working Politically (TWP) (see, for example, Booth, 2015), an approach which offers direction for navigating the complex political space of urban sanitation. TWP research puts the critical role of leaders, elites and coalitions at the centre, and explores politically informed ways of mobilising people and resources to support specific goals (Leftwich, 2011).

The TWP evidence on what works (Booth, 2015; Leftwich, 2011; Rocha Menocal, 2014; O'Keefe et al., 2014; Wild et al., 2015) shares the following features:

- A focus on resolving the problem situation, including understanding root causes and power asymmetries,

[3] As noted in earlier endnote, sanitation planning frameworks do link sanitation with drainage and solid waste, which are all related to elements that are not wanted and must be gotten rid of, rather than intrinsic to delivering the desirable attributes of urban life.

- Harnessing local leadership and capacity to uncover locally owned interventions that are both technically sound and politically feasible,
- Supporting, brokering and facilitating constructive relations among key players in order to discover shared interests and form coalitions for acting at all levels,
- A flexible, adaptive and responsive approach with iterative testing of hypotheses where a series of 'small bets' are made as to what is likely to succeed,
- Learning and adapting towards long-term goals,
- Ongoing monitoring and evaluation through documenting, contextualising and explaining processes and outcomes as they unfold.

The TWP discourse identifies flexible funding as a 'make or break' issue for enabling iterative sanitation planning that can incrementally evolve the process and the plan. It requires a departure from established funding practices that require spending targets and pre-programmed deliverables, and which undermine politically responsive service delivery. Enabling funding models are beginning to emerge in the international development aid sector, with long-term commitments to flexible funding that is deployed strategically as funding requirements emerge (Booth and Unsworth, 2014). Translating flexible funding to the arena of urban sanitation requires consideration of drivers and incentives at local government levels. The aim is that national governments provide flexible funding and politically astute definitions of outcomes to be achieved, which both incentivise local actors and provide freedom to innovate, while they at the same time monitor for the appropriate use of funds. Such approaches also need to carefully consider the political economy imperatives from the national perspective as these will influence possible and desirable funding mechanisms. Further research is needed to see how these propositions might work in practice within the large-scale bureaucracies that typically hold responsibility for urban sanitation. While place-based pilot studies can contribute to substantial progress in building agreement and proceeding with plan implementation (Kurian and McCarney, 2010), the assumption that the same outcomes can be achieved at scale does not necessarily hold in practice, as demonstrated by the Indonesian case (ISF-UTS and SNV, 2016; Chong et al., 2015). An explicit focus on identifying actual outcomes associated with these approaches is also critical, with a recent review finding a need for more systematic evidence on both the intended and unintended consequences of TWP (Laws and Marquette, 2018).

CONCLUSIONS

City sanitation planning has a role to play in guiding investment in such a way as to ensure adequate sanitation services for all, but the centrality of planning, per se, needs to be re-examined in light of the elusiveness of the intended service outcomes in many cases to date. Placing greater emphasis on context-specific political economy at both the national and local levels is important for understanding and leveraging drivers and motivators. Scrutinising the dynamics between these levels with respect to coherence between decentralisation policies and practices is key to enabling the autonomy of local governments and/or public service providers while accountability is maintained by independent regulators from higher levels. Taking incremental action and learning from what has worked and what has failed is indicated as a more useful way of improving sanitation on the ground. It points to sanitation planning that acknowledges that 'less is more' in terms of being less insistent on comprehensiveness and more strategic in setting clear objectives and benchmarks for local governments, undertaking explicit negotiation of differing perspectives and goals, building local technical capacity and seeking incremental improvements that can be sustained. It requires greater awareness of assumptions and, when assumptions are not met, responding through flexible, adaptive and iterative implementation. It points to mobilising people and resources in politically informed ways and developing skills for understanding

and working within local power structures and dynamics. It also points to different funding arrangements that are tied to outcomes as opposed to highly specified procedural steps, with built-in processes for ongoing monitoring, evaluation and analysis of outcomes.

There is no simple path to operationalising these recommendations while delivering the tangible improvements that are urgently needed, particularly when working at scale. Rather, it is a work in progress to build sufficient political will at all levels, to investigate key questions such as how to design funding regimes that are flexible enough to allow learning (including learning from mistakes) while being accountable and focused on outcomes, and how to incentivise the required commitment and innovation at local levels where improved service delivery must occur. While the urgency imposed by the SDG timetable remains, it is important to keep focused on achieving the long-term delivery of services that will sustain SDG 6 *beyond 2030*, and that will depend on finding the answers to these questions.

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