



BPD SANITATION SERIES

Sanitation partnerships:
Harnessing their potential for urban on-site sanitation

David Schaub-Jones, Kathy Eales & Linda Tyers
February 2006

Building Partnerships for Development
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Building Partnerships for Development in Water and Sanitation



The Challenge

The numbers are well known – too many poor people still lack access to basic water and sanitation services in the developing world. Factors that prohibit access are numerous. Prohibitive connection charges and tariffs, high technology standards, and uncoordinated and non-inclusive decision-making all complicate the provision of sustainable water and sanitation services in poor communities.

Multi-Sector Partnerships

Multi-sector partnerships between public, private, civil society and donor organisations designed around specific projects or aimed at more systemic change provide an increasingly important tool to overcome these failures. Such partnerships foster innovation and promote greater accountability by improving the understanding and capacity that make projects more appropriate and effective.

BPD

BPD Water and Sanitation is an international multi-sector learning network focused on improving access to safe water and effective sanitation in poor communities. BPD's primary aims are:

- To understand more concretely how partnerships can contribute to meeting the water and sanitation needs of poor communities;
- To provide direct support to innovative partnership approaches that aim to provide water and sanitation to the poor; and
- To disseminate findings through training activities and constructive dialogue around water and sanitation issues affecting poor communities.

Based in London, BPD has a small Secretariat that reports to an international multi-sector Board of Directors. BPD is a registered charity in the United Kingdom. Though institutionally autonomous, BPD is grateful to WaterAid for hosting the Secretariat.

*Building Partnerships for Development
in Water and Sanitation
2nd floor, 47-49 Durham Street
London SE11 5JD
United Kingdom*

*Tel: +44 (0) 207 793 4557, Fax: +44 (0) 207 582 0963
info@bpdws.org, www.bpdws.org*



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Acknowledgements

We would like to warmly thank all those who have played a role in enlightening, supporting and reviewing this work. Particular thanks are due to the numerous people we interviewed across the five country case studies, all of whom were happy to share insights and perspectives on the challenge of working in, or trying to set up, sanitation partnerships. We are especially grateful to those who played de facto host to us on these trips, including Mamonaheng Ramonaheng of UDS Lesotho, Madhu Gudka and the staff of Kentainers, Jasper Kirango of Citiwater in Tanzania, Ned Breslin of WaterAid and the staff of ADASBU in Maputo, and Peter Davis and Neil McLeod of eThekweni Municipality in South Africa.

This document would not have been possible without funding from DGIS Netherlands and the significant and valued case study contributions from Gaye Thompson, Esperança Rui and Jaap Rijnsberger. Thank you to WASTE and Arnold van den Klundert for their financial and organisational support with the Dar es Salaam case study. Two workshops greatly refined our thinking during the project – we greatly appreciate Dave Ramsay of the City of Cape Town and Alan Gilbert of University College London for kindly hosting them, as well as all those who took part in the debates and discussion.

Sincere gratitude to the many people who helped peer review the Sanitation Partnership Series, who were very generous in sharing their time and expertise. Their input was matched by those who helped shape the study at the outset, including Barbara Evans, Teddy Gounden, Barry Jackson, Christophe le Jalle, Pete Kolsky, Jon Lane, Eddy Perez and Darren Saywell. Many others helped us find case studies, passed on their contacts and gave sound advice on how to proceed, for which we are grateful.

Finally special thanks to Ken Caplan and Tracey Keatman of BPD for mentoring the work and tirelessly working to improve the final product. Without them it certainly would not have happened!

Sanitation partnerships: Harnessing their potential for urban on-site sanitation

SECTION 1 – Setting the Scene

In 2006 for the first time more than half of the world's population will be urban (The Economist, 2005). African cities in particular are growing at an impressive rate. Many of this new urban population will reside in mushrooming informal settlements, where the chances of connecting them to sewerage networks are slim. "On-site sanitation" is thus their only recourse, which for many poor households means some variety of pit latrine. Yet despite on-site sanitation being the reality for the vast majority of Africa's urban population, much of the focus for policymakers is network sewerage. On-site sanitation is typically considered a household responsibility and outside the public domain - support from external actors is thus often very limited.

Yet in the last few years sanitation has been making a resurgence on the international development agenda, as its 2002 inclusion in the Millennium Development Goals is testimony. Calls for partnerships to help those without proper access to sanitation are growing (as heard at the UN and elsewhere). But while we increasingly understand the circumstances in which partnerships to provide urban solid waste collection or drinking water can flourish, much less is known about how to foster large-scale partnerships for sanitation.

The cross-sectoral nature of sanitation brings together disciplines as wide-ranging as public health, engineering, the environment and social anthropology. Partnerships would seem to provide an obvious approach to delivering sanitation services. Yet evidence of effective partnerships remains scarce. Despite the considerable rhetoric, are they considered ineffectual by practitioners, or too difficult to establish in practice?

BPD (Building Partnerships for Development in Water and Sanitation) recently set out to work with 'sanitation partnerships' in five African cities - Dar es Salaam, Durban, Maputo, Maseru and Nairobi.¹ The aim was to look closely at this issue, see where partnerships fit into efforts to improve on-site sanitation and understand better what makes them succeed or fail. The ultimate goal is to help those involved in the delivery of sanitation services make more informed decisions about what routes to pursue from the outset.

Defining Partnership

The term partnership is used to describe a wide variety of relationships in the water and sanitation sector. Yet it is not easy to develop a precise definition that captures the processes and structures that partnership entails. BPD relates best to a definition provided by AccountAbility (here slightly modified):

"Partnerships involve two or more organisations that enter into a collaborative arrangement based on:

- 1) synergistic goals and opportunities that address particular issues or deliver specified tasks that single organisations cannot accomplish on their own, and
- 2) in a context where the individual organisations cannot purchase the appropriate resources or competencies through a market transaction.*

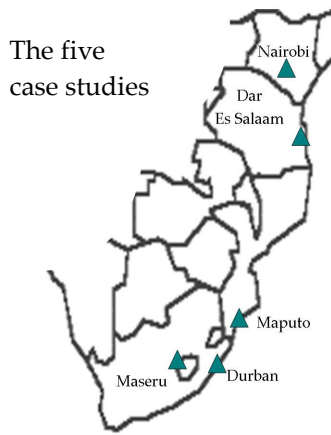
The partnerships with which BPD has worked typically see diverse groups come together out of mutual self interest. Decisions are taken jointly. The relationships that bind them together are semi-formalised, yet retain the flexibility to adapt to changing circumstances. As such, they are regularly "re-negotiated" as the context changes and as partners learn to work together.

*See document from AccountAbility on partnership governance and accountability at www.accountability.org.uk

¹ Available funding constrained the work's scope to Eastern and Southern Africa. Should further funding become available, BPD would also like to look at and draw comparisons with the many good examples of innovative sanitation programmes in Asia.

Five East and Southern African Case Studies

The first challenge was in actually finding examples of on-site sanitation being addressed at scale, or of diverse organisations finding ways to work productively together. Structured partnership arrangements, working at a reasonable scale, were not easy to find in Sub-Saharan Africa, especially in Eastern and Southern Africa. Ultimately, five cities were chosen as case studies: Dar es Salaam, Durban, Maputo, Maseru and Nairobi. Between November 2004 and May 2005, the authors reviewed on-site sanitation improvement initiatives in these five very different African cities, each grappling with the challenges of servicing large, poor populations who rely largely on pit latrines.

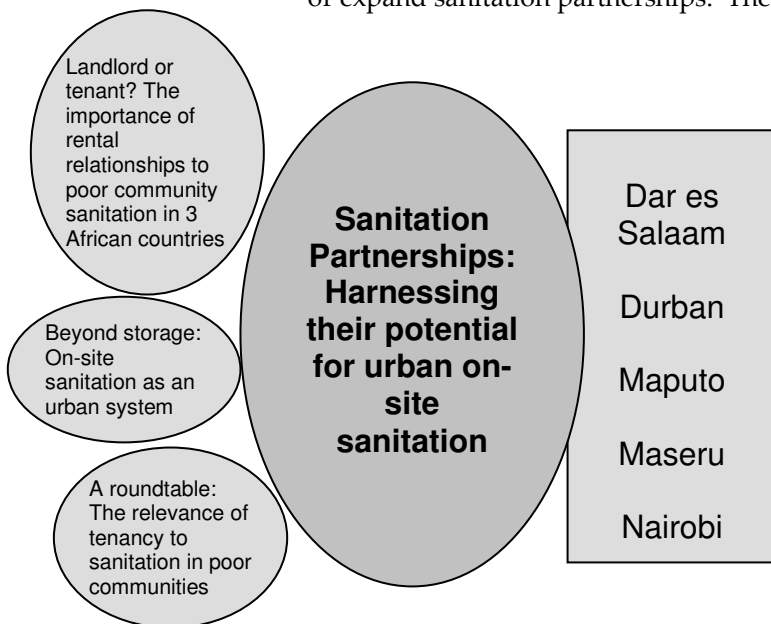


BPD looked at a range of sanitation-related activities, focussing on the roles played by different stakeholders. These activities were very diverse. They included: neighbourhood campaigns to build or improve household latrines; projects to build and manage communal sanitation facilities; the market for emptying latrines; communications campaigns on health and hygiene education; social marketing initiatives; sanitation credit programmes; and facilities to treat and dispose of human waste.²

The findings from the year-long programme cut across these activities and are presented in a series of written materials. Together these form the BPD Sanitation Series.

As the diagram below outlines, the series is structured in a ‘hub and spoke’ manner. This paper (the ‘hub’) discusses the overall findings and introduces themes and lessons learned from the case studies. It outlines the unique challenges that set sanitation apart from other types of service delivery and looks at how relationships form across the different stages of on-site sanitation. It then proposes three possible roles for partnerships can play in on-site sanitation.

The other papers (the ‘spokes’) look more closely at three specific issues that arose, and at the five case studies. At their core lie two themes, important for those seeking to set up or expand sanitation partnerships. These are:



- the relationship between tenancy and sanitation (for which the series includes a paper and ‘roundtable report’);
- how urban contexts mean that waste is rarely treated in situ, and thus on-site sanitation partnerships must often go ‘beyond storage’ of human excreta (explored in a separate paper).

In looking at on-site sanitation, BPD’s focus has not been on the technology used or the design employed. These factors are clearly important, but from a *partnership perspective* it is how relationships between stakeholders play out that is fundamental.

See www.bpdws.org for these documents

² More details on the individual case studies can be found in boxes throughout this paper and at www.bpdws.org.

Especially significant are the perspectives, attitudes and incentives that frame stakeholders' interaction. Thus issues such as technology choice or engineering design have been viewed through the lens of how they influence stakeholder relationships, rather than as an end in themselves.³

SECTION 2 – Emerging Themes

Four broad themes emerged strongly from the research. Each has implications for how sanitation partnerships can be developed, at both local and national level, and what actions will be needed to sustain and expand them.

The first theme relates to the *choice of sanitation facility*. In rural areas the facility at the bottom of the “sanitation ladder” is typically a rudimentary household latrine.⁴ The focus is on how households invest in, use and maintain this facility. Yet the work in very poor and crowded urban contexts suggested that the ladder concept needs to be broadened. In essence, the ladder as often presented does not have enough rungs – at least two more need to be added at the bottom. The first one down from an individual household service is a ‘shared latrine’ – such as the many latrines that are shared by renters in block houses across the continent. The rung below this is a communal toilet block – whose access may be open to all (as for a public toilet) or restricted to a certain community. In practice these facilities are commonplace. Yet they are rarely incorporated into conscious planning about what level of service/facility is the most appropriate in a given situation. From a partnership perspective certainly, this decision has important implications at all levels. While the technologies may be similar, the “rung” chosen often determines the role households are expected to play and how they interact. It also dictates whether local intermediaries are needed to speak or act on behalf of the community. Lastly, it has a significant influence on the expectations and perceptions of stakeholders and the division of roles and responsibilities between different sectors.

The second theme relates to the tenure and tenancy status of a community. Insecure tenure and the prevalence of *rental accommodation* within a community are important. Both have profound implications for who makes decisions about investment in sanitation hardware and maintenance, who should be targeted by campaigns to stimulate demand (for instance through social marketing approaches – these look to combine business marketing principles with socially desirable goods and services), and what routes there are for communication about behaviour change. In sub-Saharan Africa where subsidies are rare and households are expected to pay for domestic facilities, these distinctions can be crucial. This issue is explored further in two of the spoke papers.

In rural areas pit latrines can be managed so that they treat as well as store excreta. Yet this is less the case in many urban areas. The sheer density of people in urban slums using a limited number of latrines leads to high loading on each. This means pits fill faster and the scope for the waste to be digested on-site is reduced. A physical lack of space means people increasingly tend to empty the existing latrine rather than dig a new pit and move any super-structure. In such circumstances sanitation is no longer on-site

³ Technology and design are clearly fundamental issues and to ensure that perspectives were not lost, the team that visited all five case studies was multi-disciplinary. A common template was used; this encouraged the team to analyse which stakeholders were active within poor communities and what roles they played across a spectrum of on-site sanitation activities.

⁴ This is a tool used in many contexts, often to outline the choices available to individual households (for an example see <http://www.flowman.nl/ahead18.jpg>). It shows how households can upgrade over time from basic latrines to improved versions, then to an indoor toilet and possibly sewerage connection.

per se. A staged process takes place, in which the first stage is merely provision of *access* to a facility (the building or improving of pits, or construction of a toilet block). Two more stages become apparent. The second is the *removal* of excreta from the facility. The waste may be buried close by or dumped into the immediate environment. If not, a third stage may occur, this being the *transport* and eventual *treatment* of the waste. These stages formed the third theme of the research. The case studies showed that those who build or improve latrines are rarely the same as those involved in emptying them or as those who treat waste; making the links between these three stages can be a significant challenge for partnership approaches. A spoke paper explores this in more detail.

In several of the case studies sanitation partnerships were incorporated into broader water or waste management projects. Yet while sanitation shares certain characteristics with water provision and solid waste management, *from a partnership perspective* there are important distinctions that set it apart. Understanding these unique challenges and their implications is crucial to developing service delivery mechanisms that truly work for on-site sanitation delivery. This provides the fourth theme of the research.

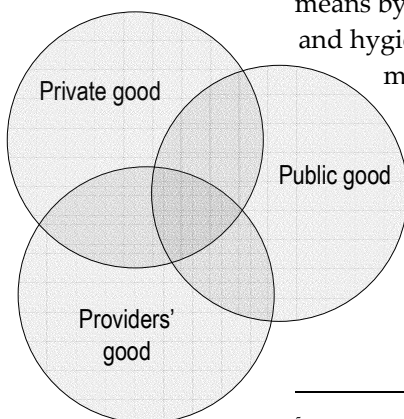
Theme One: Which rung on the “sanitation ladder”?

When first engaging with a poor urban community, whether to understand how sanitation is accessed or to help improve it, an immediate question to ask is what levels of sanitation facilities are being used? Where do households and communities stand on the “sanitation ladder”? Should each household have their ‘own’ toilet or, given the cost, is one communal facility a reasonable compromise?

Broadly speaking, in the case studies BPD distinguished between three levels:

- a *household facility*, where each individual household has a facility;
- a *shared facility*, where a small defined group of households share a facility; and
- a *communal facility*, open to a broad community or all-comers, often on a pay-per-use basis.

While from a technical standpoint these may be the same (for instance a ventilated improved pit latrine - VIP - dedicated to one household or a VIP shared by several households), from an institutional perspective these distinctions can be fundamental. Each level strikes a very different balance between three of the important stakeholders: the householder themselves, the service provider (public agency, private company, or community based organisation) and the public sector (often the local municipality). The means by which each rung is financed differs, as do the options they open up for health and hygiene education. Demand for the facility amongst residents differs, as does the means by which it is supplied. Options for pit emptying and treatment of the waste also vary.⁵



One way of exploring what level is affordable and appropriate is to consider what each stakeholder is looking for. BPD has dealt with this by looking at three different, yet related, sets of ‘goods’ – the ‘public good’, the ‘private good’, and the ‘provider’s good’.

⁵ Some have referred to these rungs as different “levels of service”, mimicking the categorisation often used for water supply (differentiating for instance between a standpipe, a yardtap and an in-house connection). Yet for sanitation the term “service” is here somewhat inappropriate as the levels refer more to facilities than an ongoing service provided by a supplier. Contrast for instance manual pit emptying, which as a service may need to be performed on a fairly regular basis, with latrine construction, which may only be done once in the life of a household. The spoke paper “Beyond storage” explores this important distinction in more detail.

For households, their immediate interest is the *private good*. For sanitation this is typically the use of a clean, comfortable and preferably private toilet, which does not smell and is not too expensive to build, access, use or maintain.

The public sector is concerned with the *public good* – the protection of the environment and ensuring public health. They want to reduce the disease burden on the population (and the state) and increase productivity.

Service providers are also concerned with their own well-being – the *provider's good*. Private companies need to make a profit to stay in business and public companies, CBOs and even NGOs usually need to recover their costs. Whatever level of facility is offered it will have to be financially viable, with payment either coming from users or from the public purse.⁶

A household facility

Given the convenience and privacy it offers, a household facility (for instance an improved household latrine) comes closest to delivering the private good (corresponding most closely to the demand of residents). However, it also costs the most and increasingly users are expected to pay for it rather than be subsidised by government. Willingness to pay is an issue as poor households may choose to spend their limited income on other priorities such as food and education. Demand for a household facility is generally stronger than for the other levels, but it still may not generate the resources necessary. This is especially true for rental accommodation and for owners who lack land tenure, both of whom face strong disincentives to sink money into expensive fixed investments when their own situations may be transient.

From a partnership perspective, household facilities obviously have the highest initial transaction costs (the overall time and expense incurred between engaging parties). Ultimately though, there may be little interaction between the different stakeholders once the transaction (building or emptying of the latrine) is completed. Emptying household latrines can be a challenge in poor urban areas; often mechanical pit emptiers cannot reach the household or prove too expensive, so informal manual emptying (or unhygienic 'flushing' into the surrounding neighbourhood) is more likely.

A shared facility

A shared facility (for instance a VIP latrine) is shared between multiple households and is often provided by a landlord. Typically a shared key prevents outsiders from using it and maintenance (i.e. cleaning and the cost of emptying) is shared between the users. This brings the costs of providing the facilities down, but also diminishes the *private good*. The toilet is neither necessarily private nor convenient, and cleaning rotas often break down rendering the facility unpleasant to use. This can reduce the health benefits as well and therefore undermine the *public good*.

From the service providers' perspective, shared facilities shrink the size of the building market (which may not be a major concern), but aggregate the market for emptying. This



A household facility, Besters, Durban (© Kathy Eales)

For more on how latrines are typically emptied and the consequences, see the separate issue paper: "Sanitation Partnerships: Beyond storage: On-site sanitation as an urban system."

⁶ Some NGOs can import resources and thus subsidise the system, but they will only ever be able to do this to a limited scale and with a concurrent threat to the sustainability of the system.



A shared facility, Maseru (© Linda Tyers)

can lessen the overall costs for removing waste from a given community. High loading (more visitors) on individual latrines leads to more frequent emptying of each, hence something closer to a service relationship with the clients (rather than many infrequent and one-off transactions).

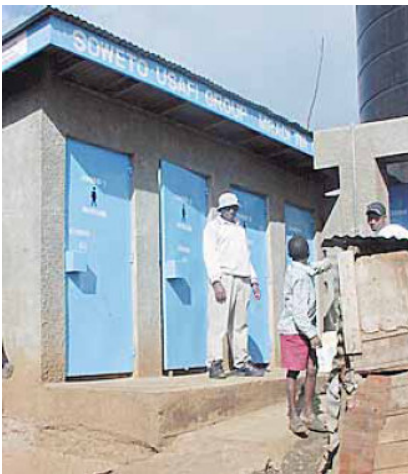
A communal facility

The communal facility (for instance a public toilet with several stalls) is probably the most straightforward for partnership arrangements, as each stakeholder group makes clearly defined contributions. Good examples exist in Asia, yet none were widespread in the five case studies.

Unmanaged communal toilet blocks have a poor reputation, therefore engaging a caretaker is strongly recommended, preferably a local person paid from usage receipts rather than a public employee. To cover this expense, as well as maintenance and emptying costs, a fee for use is charged. This should pay for keeping the block clean and well maintained. Other research has suggested that user fees in poor areas rarely cover the capital costs of such blocks and therefore a public hardware subsidy will be required [Nijssen, 2005]. Community members can be engaged in the construction to bring costs down and encourage local ownership and skills development.

Communal facilities probably involve the lowest overall capital costs of the three options but users may be less inclined to pay for them, given the diminished *private good*. Convenience and privacy are certainly reduced and queues, safety concerns after dark and fees for use can all suppress demand. The result may be people returning to unhygienic traditional latrines and open defecation (although this could be partly addressed by subsidies for poorer members and community pressure to uphold the *public good*).

From a partnership perspective, one advantage is that the physical communal infrastructure can facilitate the creation of a community group dealing with sanitation. This cuts down transaction costs for external parties and creates a point of contact with which they can engage. It also provides a route for ongoing communications, whether for health and hygiene education or other government programmes. An important distinction needs to be made here between truly communal facilities (often reserved for the use of a given community) and “public toilets”, open to the public at large, typically on a pay-per-use basis. The latter option, while catering for more people, is less likely to generate the strong community ownership that partnerships may build upon.



A communal facility, Nairobi
(© WSP-Africa)

Emptying of communal facilities is usually easier than for the other levels of facility as access for a vacuum truck is more likely, or the block can be sited over a passing sewer (though neither of these can be taken for granted). Communal blocks have the advantage of catering to renters as well as owners and can also accommodate passersby (who can increase usage receipts). Public authorities may be more disposed to them, than to private latrine building programmes which are perceived to ‘concretise’ informal settlements by bestowing informal legitimacy on them. In the longer-term, as a settlement becomes more established (and possibly better off) more members are likely to climb the sanitation ladder; demand for a communal block will wane and may threaten its financial viability.

This same process undermines the viability of standpipes in areas where household water connections are on the rise.

An urban “sanitation ladder”

The concept of a “sanitation ladder” is not new: one appeal is that it caters to a range of circumstances; another is that it holds out the promise to households and communities of being able to progress from one level to another. Like water, where one can graduate from communal standpipes to shared yardtaps to a household connection, sanitation facilities can be upgraded. But what are the implications from a partnership perspective? The flexibility inherent in the ladder concept has important consequences. Progression from one level to the next changes the nature of the stakeholder relationships and transactions significantly. Partnerships that aim to make the sanitation ladder a reality will have to be flexible and prepared for change. They will have to allow for mobility between rungs (which could impact on the financial viability of individual levels of facility) as well as being able to offer and maintain a diverse range of services to a given community (which could raise transaction costs).

For more on this see the separate spoke paper: “Landlord or tenant? The importance of rental relationships to poor community sanitation in three African countries”

Theme Two: Sanitation implications of growing tenancy

Reversing the gains of earlier decades

Rapid urban settlement across the continent is escalating the demand for affordable housing, and cheap rental accommodation is multiplying to meet this demand. Unfortunately, services lag far behind, and any sanitation advances made in the 1980s and 1990s are being reversed as settlement densities rise and single unit latrines are shared by more and more families.

Increased tenancy has important implications for both service provision and partnerships. The interests of landlords and tenants are often quite different. A poor tenant’s priority is likely to be an affordable place to stay with some degree of security, while the landlord’s is frequently to maximise income. The cost of providing and maintaining a latrine is not necessarily factored into the cost of the rent, and so the landlord rarely has reason to provide more than a crude structure that must be shared.

Case Study 1 – The changing sanitation context of Maseru

Maseru in Lesotho was known for the success of the Urban Sanitation Improvement Team (USIT) programme dating back to the 1980s, which rested on a strong partnership across government, donor agencies, service providers and others. USIT worked with local builders to develop standard Ventilation Improved Pit Latrine (VIP) designs and construction norms, and conducted highly successful sanitation promotion campaigns to build demand. It was supported by a loan scheme to assist households to fund their own latrines. By 1995, over 12,000 households in Maseru had installed VIP toilets with USIT support. A formal programme linked the different parties together and governed how public finances were spent and results assessed.

However, the population of Maseru has virtually doubled to over 300,000 since the mid-1980s. Growth continues at about seven per cent a year with the majority of new residents comprising poor people fleeing drought in rural areas and migrant mine workers no longer able to find work in South Africa. The biggest sanitation gap is no longer among owner-occupiers but tenants living in ‘line houses’, or *malaene* – rows of one-roomed dwellings rented out for the equivalent of US\$13 to US\$24 per month. It is common for five or more families to share a single pit toilet. As transient tenants, these households have little incentive to invest in improvements and major maintenance themselves.

Today, USIT survives but in a greatly weakened form. The programme now resides exclusively in government, yet responsibility for sanitation improvement is highly fragmented and resources are limited. The surge in demand for rental accommodation in Maseru means tenants are much less well-catered for than the owner-occupiers targeted by the original USIT programme, and it has not been revised to address the implications of this major shift. Different kinds of sanitation initiatives and partnerships are needed in a context of low-income rental accommodation.

Case Study 2 – The impact of renting on sanitation provision in Nairobi

In Nairobi, Kenya, the team explored the enormous challenges of providing sanitation in densely populated slums such as Kibera. Here, highly transient tenants have little incentive to invest their own resources in sanitation improvement, and space is at such a premium that landlords are reluctant to forfeit any potential rental income by using scarce land to provide toilets. Consequently the availability of toilet facilities falls pitifully short of what is needed. Despite these challenges, an important coalition, Muungano wa Wanvijiji, is emerging in Nairobi to improve conditions in Kibera and other slums. It is uniting NGOs and CBOs to build a movement of slum dwellers and seeking opportunities to influence policy and decision-making in local government.

The BPD team met with NGOs who were working with local CBOs to provide communal and public facilities and promote awareness of basic hygiene. They also met a private sector agency developing sanitation products for schools and institutions, and manual pit emptiers providing an essential service in appalling working conditions. They talked to government representatives grappling with the challenges of their role and responsibilities in an environment where there are few easy answers.

The research showed that initiatives in Kibera to improve slum sanitation have a highly localised focus. Government's role is marginal. Muungano is pushing for tenure security, housing loans for residents, roads, drainage and schools – better sanitation comprises one component of this far larger campaign. Leadership is provided by highly experienced NGOs such as Amref and ITDG, who have helped CBOs persuade landlords to demolish small clusters of rentable structures to make space for communal or public facilities in over 40 localities across Kibera. Facilities are then managed by local residents with strong CBO oversight. Each requires painstaking mobilisation and protracted negotiation. It is difficult to extrapolate or extend these to a larger area, because issues are likely to differ from plot to plot or cluster to cluster. Common interests tend to be confined to the tenants of a single structure, owner or narrowly defined block. Moreover low-income tenants tend to be transient (though this may be changing) and NGO interventions aim to be finite.

To date the relationship between government and the main coalition has been fraught, with government accusing some NGOs of inciting residents to oppose its plans for high rise developments with high level services in Kibera. Critics of this approach say it is unrealistic and fails to grapple with the real needs of the urban poor. However, there are signs that Nairobi City Council is acknowledging the need to recognise wider perspectives.

It is notable that these examples of successful sanitation interventions in Kibera are taking shape within the context of an emerging larger strategic alliance among slumdwellers and service groups seeking to improve living conditions within the slum.

The case of Kibera highlights the range of approaches possible, but also the complexity of the dynamics between landlord and tenant, and between government and non-government actors. NGOs have shared fora with local and national government to discuss policy issues, but service delivery arrangements are less organised. Linkages between the many actors working on sanitation, while usually cordial, are few and informal and very limited in comparison to the scale of the challenge in the slum.

The landlord may also try to extend the intervals between desludging to be as long as possible.⁷

The relationship between landlords and tenants can be fraught and conflictual. Public authorities seldom play any role in regulating this relationship or its associated service challenges. It often falls to NGOs and CBOs to fill the gap and provide such leadership and direction in tackling the problems tenants face. But this presupposes there are NGOs and CBOs with the capacity to provide leadership and direction. In Maseru none are apparent, whilst in Kibera (Nairobi) literally hundreds of small organisations 'represent' and provide services to slum dwellers. However, in Kibera most amount to no more than 'briefcase' NGOs – single issue entities that in a number of cases seem more concerned with personal advancement than community development.

The need for new approaches

In such a context, demand-responsive approaches will struggle to make much impact. Tenants living in low-income rental accommodation may well want the same sanitation benefits as owner-occupiers, but their means of achieving them are very different. Implicitly, the landlord is expected to address both the *private good* (privacy, convenience) and *public good* (health, environment) aspects of sanitation, but frequently does neither. The result is that many tenants live in squalid surroundings with little leverage, few acknowledged rights, and little incentive to invest their own resources. New approaches like social marketing may find little success in such settings.

Another challenge is that tenants themselves are often difficult to mobilise and unify. A common experience of poverty does not necessarily engender a sense of solidarity across ethnic, regional, political, cultural and other divides. There can be considerable lack of willingness to engage in collective action among people who perceive themselves to be interim residents with no commitment to their living environment beyond the short-term.

⁷ Of course, tenancy arrangements vary widely. The needs and interests of short-term tenants often differ markedly from those of long-term tenants, while the rights and obligations of tenants living in shared accommodation are different to those with their own dwelling and toilet facility. Equally, sanitation facilities are often better where the landlord and tenant live on the same plot. See the spoke paper "Sanitation Partnerships: A Roundtable - The relevance of tenancy to sanitation in poor communities."

Theme Three: Beyond storage

Thinking beyond the provision of toilets

On-site sanitation is the primary means by which African governments seek to meet their Millennium Development Goals for sanitation (MDG 7). The emphasis is on provision of toilet facilities and raised awareness of personal and domestic hygiene, and perhaps management of wastewater and solid waste. But what happens when those toilet pits fill – which they will, whether two or ten years down the line?⁸ Mechanisms and institutions are needed to ensure those pits and tanks are serviced regularly and the linkages made between provision, waste removal and treatment.

The need for pit de-sludging in dense settlements

In an urban African context, pit latrines are the default option of poor families if they want some privacy in unserviced settlements. Such on-site facilities generally evolved in a context where there was space and people owned their own dwelling. When the pit was full, the family would dig another pit, relocate or rebuild the super-structure, and close the old pit. Limited loading on the pit allowed for biological digestion to take place and the contents to be treated in situ.

However, in urban slums there are an increasing number of people living per plot. Households increasingly share facilities and loading per latrine is climbing. This further reduces the scope for in-situ digestion, as does the growing use of areas that are poorly drained, or where shallow rock means pits are small. Pits are filling faster. Furthermore, in many areas there is no longer space to build a replacement pit and latrine. In places where pits were emptied manually and the waste buried on-plot, space constraints are sometimes making even this impossible.

Consequently urban on-site sanitation facilities are increasingly acting more as storage for human waste, rather than as a means of treatment.⁹ Pit latrines in dense urban settlements have now become a hybrid; not quite a discrete decentralised system, but nor a centralised, networked system (such as sewerage). Long after a pit latrine has been built, it must be serviced - irregularly and intermittently – to extract the waste and transport it away. Three distinct steps are involved:

- Getting the waste out of the latrine and transporting it off site;
- Removing the waste to a treatment works or disposal site (which often sees it stored first in an interim collecting facility); and
- Receiving and treating the waste at the treatment works.



A Vacutug (specialised pit-emptying machine) on the way to the treatment works, Dar es Salaam (© David Schaub-Jones)

⁸ Pit latrines are not the only form of on-site sanitation but do outnumber other options in poor urban contexts. BPD has thus focussed on these as they are by far the most likely solution to poor urban dwellers' needs over the medium term.

⁹ Alternating pit approaches and Eco-San both try to address the treatment aspect differently. Yet alternating pits in urban areas struggle to cope with high loading, while the commitment to source separation and reuse of solids and liquids that Eco-San needs can prove elusive. The spoke "Sanitation Partnerships: Beyond Storage" explores such distinctions more thoroughly, suggesting that Eco-San is unlikely to substitute for the collection and transfer of waste, but has useful elements that could be integrated into household waste management.

Case Study 3 – Learning from solid waste management in Dar es Salaam

The case study on Dar es Salaam in Tanzania focuses largely on a pit-emptying project. In the early 1990s, a Dutch NGO known as WASTE introduced a new form of pit emptying into Dar es Salaam. This system, known as MAPET (MANual Pit Emptying Technology), was an attempt to improve upon the traditional role of *vyura* or frogmen (manual emptiers) by introducing appropriate technology that made the task more hygienic.

For a range of reasons, MAPET no longer operates. Settlements in low-lying areas prone to flooding have raised enormous problems around pit construction, pit emptying and disposal of waste. The Dar es Salaam Sewerage and Sanitation Department (DSSD) has been privatised, city government has been decentralised, and sanitation has largely been reduced to a side-issue of drinking water interventions. International NGOs are being asked to assist the government in the provision of water and sanitation in low income areas, yet the focus is primarily on water.

Social marketing and Eco-San programmes are being piloted, but initiatives are currently small-scale and there is little overarching framework to hold them together. A multi-stakeholder forum to discuss sanitation lies dormant. In this context of fragmentation, partnerships are even more necessary yet there is little evidence of them. Here solid waste management offers an interesting contrast, as in the last few years a series of franchise arrangements that bring together local entrepreneurs, CBOs and local municipalities have made great strides in improving rubbish collection and street sweeping. This may offer a role-model for other new sanitation initiatives. Clearly, sanitation collection systems can learn from solid-waste management partnerships.

The prevailing technology for emptying pit latrines and tanks, vacuum tankers, is generally confined to the road network, partly because latrines along the narrow alleys and hilly footpaths of many settlements are inaccessible; and partly because their operators tend to prefer conservancy tank effluent, to the heavy sludge and solid waste found in old latrine pits. Specialised technology, such as the mini-tanker Vacutugs and Brevacs, which in any case is not widespread, only partially resolves the problems of full pits in areas inaccessible to large vacuum tankers. Mini-tankers can navigate narrow alleys and bad roads, but they are not designed for long-distance haulage (taking waste to treatment works). Where local disposal is not feasible, an intermediate transfer step may be needed.

Learning from the “business model” of solid waste management

Arguably, sanitation has more in common with solid waste management – collection, removal and disposal – than water supply, despite strong institutional and programming linkages with provision of safe drinking water. Potable water, broadly speaking, is distributed to many points from a central source, but sanitation is concerned with the collection of human waste from many different sites. Sanitation requires facilities like toilets to collect and contain the waste as well as systems to remove the excreta, treat it and dispose of it. Transport to the final disposal site is a large issue for on-site sanitation

and often requires co-operation between different providers. From a partnership perspective the parallels with solid waste are striking.

For solid waste there is often a strong focus on the business model of collection – how to generate enough revenue to pay for it and how to bring providers and clients together. Manual labour is blended with mechanical transport. Yet for sanitation, the focus of desludging tends to be on the technology. If the driving need is a viable service, rather than a technological fix, perhaps the emphasis needs to shift more to the service providers themselves, the relationships between them, and the institutional environment (or lack of it) in which they operate. Durban has done a commendable job at doing this, as the case study shows.



Manual pit emptiers at work, Nairobi (© Sabine Bongsi/WSP)

A key contrast to solid waste management lies however in the *disaggregated nature of demand* for pit-emptying. Adjacent pits are not emptied at the same time, which poses a significant challenge to the viability of pit-emptying service providers. Pits fill at different rates depending on volume, household size, solid waste disposal, soil permeability and so on. Service providers can seldom achieve operational economies of scale by working systematically from pit to pit, row by row. Instead they must respond to one-off service requests and spend time travelling to one part of a settlement then another. This increases the transaction costs considerably, particularly for mechanical desludging services where overheads and fuel costs are relatively high.

From the householders' perspective, desludging is a costly 'grudge purchase' despite being an essential service, and something generally postponed as long as possible. This then fuels a downward spiral: because pit emptying is onerous and expensive, households build large pits; large pits increase the intervals between servicing and therefore further reduce the regularity of demand for pit emptying. In the face of intermittent (and often seasonal) demand for pit-emptying, service providers may diversify their business into other avenues to survive. This reduces the scope for operating efficiencies further and drives up prices. It also runs the risk of the provider leaving the business altogether.

The issue of disaggregated demand highlights the importance of the *provider's good*. If demand cannot be maintained and providers go out of business or move into different occupations, then neither the *private* or *public good* will be met. Partnership must be able to deliver all three goods to sustain success at any degree of scale.

Final waste disposal

Illicit sludge dumping, while commonplace, is often partly in response to a lack of practical alternatives. In the interest of the *public good* alternatives should be developed and supported by the authorities. Sludge that is not dumped directly into river systems generally finds its way to the municipal treatment works where oxidation ponds are the norm. Yet these ponds are designed for diluted effluent, not thick pit sludge which often contains sand, debris and solid waste. Thus treatment works may need to make separate provision for disposing of pit sludge, perhaps with screening facilities and extra oxidation ponds. Where treatment facilities are in poor condition, as in Maputo, then the transport of waste merely changes the point of environmental contamination (away from the immediate neighbourhood), rather than solving the problem.



Dumping of pit sludge, Nairobi (© Sabine Bongsi/WSP)

For more on the links between storage and emptying and disaggregated demand, see the separate issue paper: "Sanitation Partnerships: Beyond storage: On-site sanitation as an urban system."

Theme Four: Sanitation's unique challenges

Much of what is known about service delivery partnerships and how they work derives from practice in the service areas of water and solid waste, both perhaps better understood than sanitation partnerships. Indeed on page 11 we drew parallels between sanitation and solid waste management. While from a partnership perspective sanitation shares certain characteristics with both of these, several important considerations set it apart. Understanding these differences proves crucial when considering how partnerships could contribute to bringing about sanitation improvements. Within the five case studies BPD noted four 'key contrasts' and their implications for partnerships:

Key Contrast 1. Sanitation is 'infrastructure heavy' at household level

A cursory review of the types and location of infrastructure involved in solid waste, water and on-site sanitation shows that solid waste involves little, if any, fixed infrastructure at household level. Skips at the end of lanes and trucks to collect the waste are the main assets before one arrives at either a collection and sorting station or the municipal dump. In poor communities much of the water infrastructure is communal (distribution mains, standpipes etc) and there is little evident at the household level itself. For on-site sanitation though this is often not the case. A household level of facility implies discrete and bulky facilities at almost each and every house (see the photo of Besters Camp on page 6), whilst a communal toilet block is a large structure that drives up the costs of sanitation.

An important consequence of this fixed infrastructure within communities is that terrain, tenure status and tenancy patterns are all much more important for the delivery of a sanitation service than they are for solid waste or water. For instance, public authorities are often content to provide tanker delivery of water or permit solid waste collection from the poor 'illegal' neighbourhoods, even though they may be loth to recognise its legitimacy. However, they are reluctant to give permission to latrine improvement programmes or the building of communal toilet blocks, afraid of thus concretising the settlements they consider illegal.

Flooding, rocky or hilly terrain also pose significant difficulties for latrine construction and pit emptying – something that nimble solid waste carts or water delivery by tanker can work around. Meanwhile, those renting their accommodation are often content to contribute to local tariffs for solid waste or water (where they see immediate return for their money), but are often reluctant to invest in the fixed infrastructure for sanitation or pay the high costs of formal pit-emptying.

Partnerships for sanitation may be a non-starter if public authorities will not grant licence for the development of infrastructure, and households, for whatever reason, will not invest.

Key Contrast 2. The 'sanitation system' is usually segmented

The delivery of water or the collection of solid waste in slums can involve many providers: water tankers, cart vendors, household resellers. Yet beyond this initial diversity we are looking at a single 'service': the provider is dealing with the immediate needs of a household by selling them water or removing their rubbish. Sanitation, on the other hand, is often disaggregated into three stages: there is the initial provision of a facility into which to defecate (*access* via latrine or toilet block), the *removal* of that stored waste (emptying, either manual or mechanical and transport), and finally the *treatment* of that waste (by sewerage ponds and treatment works). Very different providers typically deal with the different stages (e.g. masons for building, manual labour for emptying and the government for treatment) of what could be called an "urban sanitation system" (see the Maseru case study below for more).

Putting the issue of treatment (often not the householders' most immediate concern) aside for the moment, a co-ordination problem often develops between the *access* and *removal* stages of the system. Providers are not the same; where emptying is unreliable or expensive pits are built big (resulting in oversized storage and high costs), and often the need for emptying is overlooked in their design (i.e. the construction is sited badly or may be damaged during emptying).

Moreover the *access* side is often not a formal public function – the providers, such as masons, are typically small-scale and often informal. Policymakers have less influence over them than they do with formal providers of water or solid waste. On the emptying side, the service can be either informal (manual pit emptiers) or formal (public or private organised pit emptying). Yet the ‘illegality’ of poor areas, high settlement densities or difficult terrain often push the balance towards informal provision, where again the sway of policymakers is reduced. Without their active involvement, co-ordinating these two stages of the system becomes even more difficult. (See the “*Beyond storage*” spoke paper for more).

Case Study 4 – Linkages within an urban system of on-site sanitation

In Maseru, USIT – the Urban Sanitation Improvement Team mentioned on page 8 – took deliberate steps to link provision of sanitation facilities with their emptying. It advised residents on pit siting, linked them with builders certified in latrine construction who built large lined pits, and provided information on sound pit maintenance. For several years USIT had the resources – mini vacuum tankers – to provide a pit emptying service. In time the mini-tankers fell prey to the perennial spares and maintenance problems of prototype technologies, and the emptying service collapsed.

In dense urban contexts there is clearly an important link between how sanitation is accessed (the facility) and how the waste is treated (emptying and treatment). Peter Hawkins, a consultant on sanitation to the World Bank, notes that “where excreta are not seen as a resource [for instance for crop fertilisation], as in Africa, the tendency is for large pits which will maximise digestion and make for long intervals between the disruptive and expensive process of emptying. Where excreta are seen as a resource, as in the Far East, frequent emptying is employed to maximise resource recovery, and acts as a strong incentive for the emptying service to function. Similarly, alternating pit technology only seems to work where excreta are seen as a resource.” (Personal communication).

Both households and policymakers suffer from this division (for which water and solid waste have few parallels): it multiplies the number of actors and makes it difficult to plan for the ‘entire system’. This clearly complicates a partnership approach. Bringing together informal and formal providers (two spheres whose outlooks are often very different and who can find it difficult to engage with each other) is a further challenge.

Key Contrast 3. A different cost burden

One consequence of on-site sanitation being both infrastructure heavy and the system being segmented is that the profile of capital and operating expenditure differs from other services. Being a ‘single service’ the capital and operating expenditure for water and solid waste can be easily linked. This permits the public sector to bear the initial capital expenditure and, should it wish, recoup this through the operating tariff, spreading payments out over time.

For on-site sanitation (as opposed to sewerage) this expenditure profile is much rarer. For a household level or shared facility, capital expenditure (building latrines) cannot easily be recouped through the operational tariff (pit emptying). Communal latrines can to some extent overcome the challenge by charging for use, although it is often difficult to raise the sums necessary. Where service provision is informal it is also difficult to direct operating subsidies to poor households – for instance where pit-emptying is done manually. Public subsidies for emptying, such as in Maseru or Maputo, apply to the formal vacuum-truck service, hardly benefiting the poor.

A crucial aspect from the partnership perspective is the frequency of payment. Water is typically paid for daily or monthly, solid waste weekly or monthly. For a household facility on-site sanitation payments are very irregular – a significant one-off outlay is required for access (constructing the facility), whilst emptying is infrequent (two to five years is common) and paid in one lump sum.

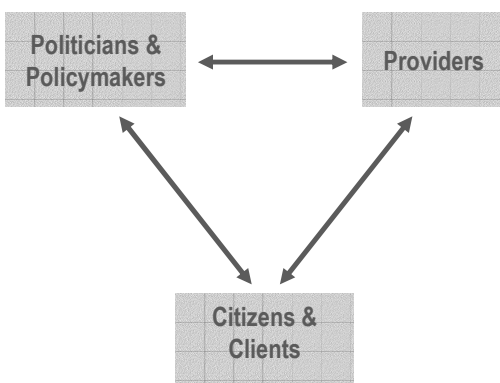
This is very important for partnership as frequent cash transfers often structure relationships between stakeholders. A customer relationship can be built up if money changes hands every day, week or even month, however this is much less likely if the

meeting is only once every few years. Cash changing hands also provides a good route for other communications (including hygiene education messages such as the need to wash your hands) – infrequent transactions thus deny one route for this to take place.

The different financial nature of sanitation makes maintaining relationships with householders much more difficult. The relationship between the individual and the provider is more akin to a one-off transaction than an ongoing ‘service’ relationship. Incentives to stay engaged in a sanitation partnership are thus greatly reduced.

Key Contrast 4. Grievance mechanisms are harder to establish

If a solid waste collection service or public standpipe breaks down the impact is felt almost immediately: rubbish piles up or people have to look elsewhere for water. It also touches everyone in the community at the same time. People and politicians can be mobilised to act. If a pit emptying service stops working effectively the impact is much less visible, whilst households are only affected sporadically as their latrines fill up. Householders also have other options: borrow someone else’s toilet, defecate in the open or revert to the infamous ‘flying toilets’. There is therefore much less of a spur to action. Any trigger for community mobilisation is muted while the ‘long route of accountability’ [see the World Development Report 2004] of pressure via politicians or policymakers to address service provision difficulties is diminished.



Simplified ‘service’ triangle

The analytical framework from the 2004 World Development Report: “Making Services Work for Poor People”, only works so well for on-site sanitation. The service is segmented and citizens can be landlords or tenants. Politicians may be indifferent whilst policymakers are numerous. Sanitation partnerships are thus particularly complex.

This ‘invisibility’ undermines the triggers, early warning mechanisms and incentives for self-correction that often underpin successful partnerships in water or solid waste.

Partnerships are no different from other aspects of a service delivery model – they need to be maintained to be sustained. Grievance and built in self-correction mechanisms are an important part of this.

Unfortunately the ‘invisibility’ of sanitation makes this harder to achieve.

SECTION 3 – What role for partnerships in sanitation?

The four themes that make up Section 2 have laid out a set of considerations for on-site sanitation delivery. We've seen that:

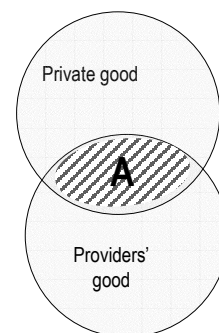
- different rungs on the urban on-site sanitation ladder (differing levels of facilities) suggest different forms of stakeholder relations;
- while the household is a key component of the sanitation delivery chain, practitioners must understand the household dynamics, for instance by examining the crucial distinction between tenants and landlords (or for that matter, between men, women and children);¹⁰
- the “urban sanitation system” is segmented into access, emptying and removal, and treatment stages. To attain the broader public good, all stages need to function well;
- sanitation in poor communities contrasts in significant ways with water and solid waste. This has important implications for the applicability of partnership approaches and the relevance of cross-sectoral learning.

As also seen in Section 1, there is a lot of interest in partnership approaches, although the diversity of on-site sanitation makes it particularly difficult to generalise about where partnerships can be most appropriately explored. Yet based on its work, BPD envisions three broad roles for sanitation partnerships. These build on the ‘three goods’ model presented on page 5. A first role for partnerships is to improve the relationships between those supplying sanitation goods and services and the individuals, households and communities that are their customers. With this dynamic working to its potential, the next challenge is how it can be harnessed to deliver broader public goods. Here there is clearly a role for partnership approaches that allow public authorities to engage with on-site sanitation issues. The final role for partnerships is to overcome the fragmentation inherent in on-site sanitation systems, creating stronger linkages between stakeholders and between different aspects of service provision.

Partnership Role A: Improving the customer relationship and encouraging better transactions

Within the three goods model, the most ‘organic’ relationship (i.e. the one occurring most naturally, and without external intervention) tends to be between households and service providers (e.g. masons and landlords, tenants and pit-emptiers). With this as the starting point for exploring the role that partnerships can play, the first step is to look at who the key stakeholders are and what drives their interaction.

Households immediate interest is the *private good*. For on-site sanitation this is typically the use of a clean, comfortable and preferably private toilet that does not smell and is affordable to build, access, use and maintain. For service providers the *provider's good* is a prime consideration: the need to be financially viable and socially acceptable. Financially, this means payment for their services needs to



¹⁰ Water vendors or rubbish collectors may not give much significance to whether the customer is male or female, an adult or child, an owner or tenant. Yet for sanitation this can be very important – the perceptions and perspectives (and even physical shapes and sizes) of each are very different and these need to be understood for ‘service delivery’ to be successful. For instance, whilst there are many tenants, the implications of tenancy for on-site sanitation services are very poorly understood. So is the nature of the relationship between tenants and landlords, something that can have important consequences for who gets services and how. Much the same can be said of the varying roles that men, women and children play in demanding and paying for better sanitation in a given household or community. See the “Sanitation Partnerships: Landlord or tenant?” spoke of Gender and Water Alliance website for more.

more than cover their costs, coming either directly from users or via some form of subsidy from the public purse.

What does this mean for the relationship between the parties? The first thing is to acknowledge the sheer diversity of providers, from the *fundis* who build household latrines to communities that build and run toilet blocks, from manual pit-emptiers to municipal-run vacuum trucks. These cater for the needs of a varied group of customers, from pay-and-go users of toilet blocks to landlords letting out accommodation, from housewives making home improvements to tenants emptying a shared latrine. Often the engagement between the two parties happens more or less organically, with little direct involvement of public authorities and other bodies. Yet these providers are not working in isolation – often far from it. Manual pit emptiers in Kibera make use of sewerage facilities to dump their sludge. Private vacuum trucks in Dar es Salaam take their waste to public treatment works.

Furthermore, with this intricacy of household circumstance, many within the community themselves are service providers. Landlords typically decide upon and provide sanitation facilities for their tenants; neighbours borrow toilets from each other; neighbourhood masons are contracted to build their houses and latrines. Clearly many sanitation providers are just one link in a complex chain. Yet at the heart of on-site sanitation is a series of sanitation ‘transactions’; encouraging and improving these transactions is of particular interest for partnership approaches.

Where people use ‘flying toilets’ or pits are ‘flushed’ into the street, no transaction takes place – individuals and households are handling their sanitation independently. They lie outside our framework of sanitation goods, with undesirable consequences.

Moving from infrequent, unpredictable transactions to a customer relationship

A major challenge for service providers is uncertainty, especially around the levels of income they can generate and sustain over time. Without certainty in their customer base, they find it hard to expand their services with any degree of confidence. Rather than building up a predictable service relationship with a group of frequent customers, much of the on-site sanitation business consists of a series of one-off transactions. This also weakens the familiarity of providers to customers, and households are uncertain whether they can truly hold them accountable for the quality of their service.

Partnerships can address this, grouping together clients and to some extent formalising their relationship with providers. This reduces the uncertainty on both sides and encourages providers to plan ahead and develop a sounder ‘customer’ relationship with their clients. They feel more confident about developing their business, whilst clients feel more confident that they can put pressure on a ‘branded’ service provider to deliver.



A defunct Nairobi vacuum tanker shows the importance of delivering the *provider's good* over time. (© Linda Tyers)

A prime aim for those promoting on-site sanitation is therefore to bring them inside the system, encouraging a transaction between them and a sanitation service provider (use of a communal latrine instead of a plastic bag, hiring of a responsible pit emptier rather than discharge of sewage into the street).

Seeking to put this into practice, social marketing creates bridges between households and providers, encouraging the development of a ‘market’ where sanitation transactions are more widespread and occur more frequently. As in any market, supply and demand are important: social marketers look to facilitate supply while stimulating demand. They thus intervene on both sides of the sanitation transaction.

Yet the story is not solely one of demand and supply: many seen and unseen barriers prevent transactions from taking place. Poor households who would like a latrine may not know who to contact or what their options are. Pit emptiers, who rely on intermediaries to find emptying jobs for them, may not be able to reach potential customers. Identifying and overcoming these barriers is also important to improving sanitation delivery.

What role then is there for partnerships within this diverse range of relationships? This role is to bring together providers and clients, removing barriers to their interaction and stimulating transactions between them. To explore this, we look in turn at demand and supply in this sanitation 'market'.

Partnerships can stimulate and aggregate demand

One focus for social marketing is to better understand the needs of households and what motivates them to invest in sanitation. Appropriate market research is crucial and given the diversity of household circumstances (and different perspectives and outlooks of those within any given community), segmenting the market is vital. Superficial engagement can miss simple yet crucial nuances, such as the fact that over 50% of householders are renting, or that children are forbidden from using existing latrines.

Partnerships can create a means for outside agencies to engage with local communities, allowing for a greater understanding of the complexity of the situation. Existing CBOs or NGOs (who may not necessarily be working on sanitation) can help. The role of ADASBU in Maputo is one example.

Once the nature of existing demand has been assessed, the next step is to stimulate demand further by stressing the options available to households and how accessible the benefits of improved sanitation can be. Here the focus is often on convenience, comfort and dignity rather than more abstract (and often elusive) health gains.

Yet a segmented market poses problems when it comes to transactions costs. Highly segmented communications campaigns or very tailored approaches to different segments of a community can be expensive. A key challenge is therefore to reconcile the need to disaggregate households (to understand their varied circumstances) with the need to aggregate demand (to create economies of scale and make providers financially viable).

Partnerships can assist here by creating an intermediary between households and providers that channels service requests. Householders liaise with the intermediary, which need not focus solely on sanitation (ADASBU is again an example, engaging with the *bairro* of Urbanização over a wide range of issues). Providers thus benefit from a more stable and predictable order book, costs come down and the service may become cheaper. Where delivery is routed through community based organisations, the service can thus become more viable for both provider and customer.

The role of intermediaries must be designed carefully. In the short-term, by aggregating demand, they can reduce transaction costs. Yet ultimately the goal for an intermediary is to either become institutionalised (i.e. a recognised "office" that contracts providers, formally manages bookings, and oversees their performance) or carefully design and execute an exit strategy (whereby the intermediary is neither needed by consumers to find a provider, nor by providers to book customers). If intermediaries are institutionalised then such an arrangement needs to be paid for over the long-term (either by a fee on the transaction and/or a subsidy from the public sector) and any reduction in transaction costs is lessened.

Another way of aggregating demand is by *descending* the sanitation ladder. Both shared or communal facilities do this, by aggregating the access to sanitation. Partnerships can help by making these choices understood and accepted by communities, explaining the tradeoffs involved in decision-making.

Partnerships can broaden the supply options available or tackle barriers to the viability of existing service providers

A key barrier concerning social marketing experts is a lack of appropriate supply. Where demand is clearly articulated, the scale and capacity of service provision tends to be limited. There are not communal toilet blocks in every community that needs them, nor reliable pit emptying in every *bairro*.

Maseru and Dar are examples of where external agencies seek to remedy this. They train local masons in latrine design and construction and help them with marketing skills so they can generate their own business.

The use of the word ‘appropriate’ above is deliberate. One problem troubling sanitation in Africa is a dearth of low-cost options available to meet the range of consumer needs (unlike say, Bangladesh, where this market is apparently vibrant and growing). If supply can be differentiated, perhaps by use of tools such as the sanitation ladder, then households would be offered a suite of investment options and facility levels, which they can upgrade over time. As well as encouraging an increase in the number of sanitation transactions taking place, from a partnership perspective, the scope to upgrade would have the added benefit of establishing an ongoing relationship between households and sanitation providers, more akin to a customer than a one-off client. Households could invest steadily over time, upping their status on the sanitation ladder as money becomes available and their demand for more comfort and convenience grows.

In conclusion then, one definite role for partnerships is in improving upon the relationships that already exist between those wanting sanitation related goods and services and those supplying them.

To effect this change, partnerships need to work on both sides of this equation. By working with community leaders and improving communications within a community, they make people more aware of what options are open to them. They can also broaden the range of these options; through innovation developing goods and services that are more appropriate to people’s needs and budgets.

Partnership also uses intermediaries to put clients in touch with providers, with the focus on improving customer relationships. This multiplies the number of transactions taking place and, where it aggregates demand, reduces the costs borne by the service provider. Often overlooked, but important, is that this engagement also generates valuable information on what are otherwise private transactions. This enables outsiders, such as public authorities to engage pro-actively with the existing market, tackling unintended barriers to sanitation provision and providing technical and other assistance.

Partnership Role B: Translating dignity and comfort into health and environmental protection

Whereas the relationship between households and providers is largely an organic one, where the goal of partnerships is to encourage more and better sanitation transactions, the nature of the engagement with public bodies is altogether different. While diversity remains an overarching theme (given the profusion of public bodies with an interest in sanitation), the current dynamic in poor communities is often one of regulation rather than support.

To explore how this plays out in practice, we earlier defined the public good as the protection of the environment or public health, where public sector bodies want to reduce the disease burden on the population and increase productivity.

Yet when considering the largely organic relationships between customers and service providers in poor communities, we see that they do not necessarily deliver on these goals. Where emptiers are paid to remove waste from a pit latrine the immediate private and provider's good may be achieved, but if the waste is dumped into the environment, the public good is not. Equally, if health is not a significant driver of household demand, behaviour change may not accompany improved infrastructure. Without this public health will not benefit significantly.

This being the case, how can the public sector work constructively within our framework in order to translate private transactions into the public good?

Partnerships can encourage sanitation transactions to be broader

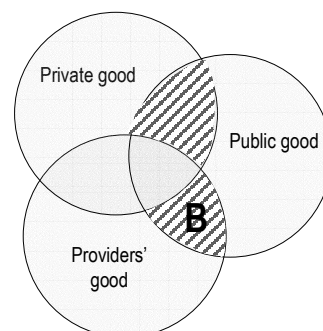
Disease resulting from poor hygiene and limited access to sanitation spreads in two ways: the public domain and the domestic domain. In the first, transmission occurs outside the immediate confines of the household, stemming from faecal contamination in the neighbourhood, poor drainage etc. In the second transmission takes place within the house and its yard, often between family members, and is linked to poor hygiene [Cairncross 1996]. The relative importance of the two varies according to the context and is hard to predict, but in dense urban slums the significance of the public domain generally rises. Crucially both mean that the disease burden of sanitation is not neatly divisible (for instance, isolated to 'at risk' individuals). In such contexts then, in order to maximise the wider health gains from sanitation, we must not only change behaviour as sanitation facilities and services improve, but must do both on a significant scale.

There is a significant risk that the 'organic transactions' described on page 17 will not be sufficient. Firstly, if health is not a significant driver of the private good, then behaviour change will need external encouragement. Secondly, if any significant minority of a community remains outside our framework (for instance children, tenants or the disabled) then high morbidity may well persist. Thirdly, if sanitation transactions do not result in sewage being treated or disposed of safely (usually after removal outside the community), then the environment and health are both endangered.

Given this, how can external stakeholders utilise partnerships to harness demand and supply to deliver the broader public good?

Partnerships can promote demand for behaviour change at scale

While individual households are 'sold' on dignity and comfort, there is some evidence that both demand and momentum can be created within the broader community for



improved health (and consequently, for more inclusive approaches that encourage sanitation access across a given community). External encouragement and support here is often vital to help groups to understand the importance of the public good and what is required to achieve it – i.e. behaviour change across the board. External actors can provide better access to information and stimulate debate within communities, a good example of which are the community-level total sanitation programmes being pioneered in South Asia or the AHEAD clubs in Zimbabwe.¹¹

Provided with an enabling environment (where a range of sanitation solutions are available and external stakeholders generate momentum and share information), and an understanding of the need for everyone to practise good hygiene and benefit from improved access, communities can act together to effect change. Through a mix of incentives and peer pressure, households are encouraged to make changes in their domestic situation. This works better where social safety nets and subsidies assist the

poorest, even as communal pressure is brought to bear on unwilling households. The key is to effect broad-based change rather than isolated individual improvements. Notably though, households need not only to recognise the benefits of behaviour change, but also to be in a position to do something about it. Information campaigns have to run in parallel with schemes that give households options to invest. For example, these schemes could put them in touch with informed masons, enable them to access a pit emptying service, and make water available for hand washing. Hence the early effectiveness of Lesotho's USIT programme.

Partnerships can play a role here by building the community structures necessary and making the linkages to external agencies that provide support with hygiene education and technical expertise. Harnessing local leadership structures is important, as well as groups who can assist or influence minorities that lie somewhat outside the system (i.e. schools to reach children, landlords for tenants, lobbies for the disabled or aged, etc).

It is important to note though that community dynamics in urban environments often differ markedly from those in more rural settings. Other BPD work in Argentina has documented community cohesion and community engagement processes undermined by a lack of social cohesion, mistrust between immigrant communities, the transient nature of many residents, etc [Stott and Keatman, 2004]. Thus, it may well be harder to replicate the sort of dynamics (support across households and effective peer pressure) that underpin the AHEAD clubs and community-level

Case Study 5 – Challenges to the viability of mechanical emptying services

In Mozambique, the Maputo case study focussed on a sanitation improvement project in two poor urban 'bairros' where refugees from the civil war and natural disasters have settled. In Urbanização, the Belgian NGO Médicos sem Fronteiras (MSF) and now WaterAid have been working with and through a local CBO, ADASBU, created to tackle local water and sanitation needs. This CBO provides a pit emptying service, but faces challenges in its relationship with the local Municipal Council. That Council, incidentally, shares responsibility for sanitation in Maputo with no less than six other branches or agents of government – illustrating the extreme fragmentation that characterises sanitation oversight across the continent. While formal agreements linking the NGO with the CBO have brought together a broad cross-sector group over standpipe management, no such agreement exists for sanitation provision.

The viability of a desludging service offered by a community-based service provider, ADASBU, was also severely undermined when the Municipal Council unexpectedly withdrew permission to empty the sludge into the sewer system. ADASBU's biggest challenge now is affordable disposal of the sludge collected by its two mini-tankers, as the waste must be transported across town to the municipal waste treatment works. One mini-tanker has been decommissioned and the other is not recovering its full operating costs.

Mechanical desludging in poor communities can be undermined in other ways. In Lesotho the cost of public tanker services is held low and the service run at a loss, which has made private investment impossible (a South African tender was refused as it would have required either significant tariff hikes or explicit contractual subsidies). This has encouraged 'moonlighting' by tanker operators, where a third of trips are for private gain, typically in richer areas. A consequence has been the very limited scale of today's tanker service. In Kibera, Nairobi, a few vacuum trucks have been donated by NGOs; their subsidised operations drove out the private sector and thus restricted the size of the market serving poor customers; some then fell into disrepair, worsening matters further.

¹¹ This sort of mass movement for sanitation was not seen in the five BPD case studies, but has been documented elsewhere in Africa, and especially in Asia. See www.wsp.org for details.

sanitation in Asia in the context of poor urban settings in Africa. That said, federations of the urban poor do exist and have played some role in delivering improved sanitation (see page 27 for more).

Partnerships can harness providers to protect the environment

Whereas accountability is to be encouraged within communities, it perhaps overly dominates the current dynamic between service providers and the authorities.¹² An example of this is in Maputo, where a valued pit emptying service provided by ADASBU (a local CBO) risks going bankrupt due to after-the-fact restrictions placed on it since it began operations (see box on previous page).

There are understandable reasons for the public sector to want to oversee and regulate the activities of on-site sanitation providers. Yet in order to effectively harness their activities for the broader public good, the public sector must encourage providers to perform better, and not only via coercion. The reality on the ground is that the diverse and informal nature of the sector makes many regulations either irrelevant or unworkable. Worse, they can actively discourage service providers from engaging. A carrot and stick approach is to be preferred, where regulation is combined with active support and co-operation.

One area ripe for partnership is the transfer of waste into the formal urban drainage network. As the case studies demonstrated, the interface between primary waste collection and secondary transfer and treatment can be problematic. Difficulties here can not only pose a direct challenge to the viability of service providers but, by encouraging illicit dumping, endanger the environment.¹³ Partnerships between municipalities, drainage authorities and providers can improve upon this; making it easy and affordable for providers to transfer waste into the municipal network and get the waste from poor communities treated. An example of good practice at this interface is the development of a specialised transfer facility by eThekweni Municipality in Durban, South Africa.

Case Study 6 – A municipal approach to tackling full latrine pits

In Durban, South Africa, eThekweni Municipality is developing a small contractor development-cum-franchise model for manual pit emptying. Sub-contractors will employ teams of locally-resident wage labourers. Emptiers in Durban enjoy the protection of the law and work in daylight with long-handled shovels, heavy gloves and gumboots, transferring pit waste into drums and from there to specially modified waste skips, where it is screened before being disposed of safely. Contrast this with Kibera's manual pit emptiers – working inside pits at night by torch-light, without protective clothing, using hired shovels, drums and trolleys, subject to abuse and social stigma, and dependent for work on agents of the landlords. They dispose of the waste by dumping it in the nearest stream, by emptying it into the sewer that traverses one part of the settlement, or by carting it to the nearest accessible road for collection by a vacuum tanker.

The low-tech approach in Durban is entirely suited to the dense settlements and extremely hilly terrain, and is relatively successful. The Durban scheme has been carefully designed to nurture the development of a cadre of small-scale service providers able to address the city's pit desludging needs, on contract to the Municipality. The Municipality is the pivot of a sophisticated project management model linking residents, ward representatives, councillors, community liaison officials, contractors, support agencies, banking services and city water and waste agencies.

The Durban model is premised on growing a pool of service providers able to address the city's pit-emptying needs while creating jobs. Emphasis is placed on close liaison with local ward structures and councillors to set up project liaison committees and manage interactions with residents and recruit labourers.

In practice the prospects for replicating this exact model elsewhere on the continent are limited, because of the resourcing the contracting it requires. Nonetheless it highlights the range of linkages a formal service might address.

¹² Accountability has been interpreted (see www.accountability.org.uk) to suggest that it is based on responsiveness, transparency and compliance. Here we are referring principally to compliance (and regulation) rather than the other two aspects.

¹³ Where this interface is dysfunctional, waste is dumped into the environment, providers go out of business, or the service to the household becomes unaffordable and they resort to less satisfactory solutions. None of this delivers the broader public good. Where public authorities support providers, helping them improve their financial viability and political and social acceptability, they can not only help deliver the provider's good, but also improve the likelihood that waste does get treated, the environment is protected and that providers play a role in encouraging behaviour change.



Transfer into sewers is permitted in Nairobi (but not Dar or Maputo)
(© Linda Tyers)

Durban has also overcome the challenge of disaggregated demand. The municipality has assumed responsibility for ensuring each pit is emptied at five year intervals at no cost to the household, and can thus dictate the schedule when pits in a given area will be emptied, regardless of volume. This brings the advantage of an efficient 'top-down' approach which permits it to efficiently sweep-through an entire community, emptying pits. The public sector thus plays a vital role in 'central planning' and co-ordination, allowing on-site sanitation demand to be conveniently aggregated.

Partnerships can harness providers to promote good hygiene

On page 20 we suggest that public sector bodies should encourage sanitation transactions to go broader, involving more stakeholders. The starting point for this is to build upon the existing transactions. Central to this is helping existing providers to improve their financial and political sustainability. Recognition from politicians and policymakers is a good start. A second step is to identify unhelpful barriers to service provision (such as hostility towards on-site sanitation waste being treated by the municipal sewerage system). A third is to provide active support, perhaps through access to credit or training.

Existing providers also offer significant potential for spreading health and hygiene messages. This will likely require guidance (and probably subsidy) from public bodies or NGOs who seek to work in partnership with the providers. While one incentive is that awareness-raising may stimulate added demand for sanitation, further incentives to collaborate are recommended (such as training for providers or explicit public subsidy for communications activities). In this way partnerships can work with providers to tailor their products so that they become a tool in behaviour change as well as service provision.

One role for partnerships is thus to support the organic householder-provider-authority relationships to scale-up and incorporate health education. A second role for partnerships may be to make special provision for the needs of the hard-to-reach (which, alongside the very poor or disabled, could include tenants?). The importance of the public domain of disease transmission in many urban slums (introduced on page 20) dictates an inclusive approach if the public good is to be achieved. As a household level facility may not be appropriate or affordable for all within the community, this indeed provides a powerful argument for special provisions to be made. One option is to subsidise communal facilities, or the access of marginalised groups to these. Other options could be to ringfence public funds to improve sanitation at shared facilities, or to

Public subsidies

The case on page 21 recounts the dangers of inappropriate subsidies, where formal pit emptying services are kept cheap yet very limited in scope, whilst those who serve poorer neighbourhoods are priced out of the market. In the meantime waste, from households who cannot access the cheap but limited service, finds its way into local gullies and streams.

By providing a forum for discussion, partnerships can allow more debate about the role of subsidy and its impact on providers. Where representatives of poor communities are included they get the opportunity to highlight how and why subsidies are not reaching those who need most help.

Subsidy allocation can be highly politicised though. Care needs to be taken that broader partnerships are not undermined by taking on more risk than they can manage here. See the recent World Bank publication "Water, Electricity, and the Poor: Who Benefits from Utility Subsidies," [Komives et al] for a wider debate on the appropriate use of subsidy in urban services.

find ways to encourage the sharing of individual toilets.

To conclude, by creating demand within communities not just for comfort but for health, partnerships can harness demand for the public good. By encouraging suppliers to spread health messages, diversify their clientele and assist with the eventual disposal of waste, sanitation transactions can be made to work more effectively for the public good. External actors can thereby engage with otherwise organic supplier – householder relationships that focus typically on comfort and dignity, and leverage these into gains for health and the environment.

Above and beyond influencing communities and service providers, partnerships can generate valuable information for the public sector. This allows for greater service mapping and improves the interface between communities and the public sector. It also enables authorities to make more informed decisions about how best to intervene in the “sanitation market” (providing incentives and sanctions that shape performance). The nature of the relationship here with the public sector is crucial, making the above activities particularly suited to partnership approaches.

Partnership Role C: Overcoming fragmentation

The diversity of on-site sanitation strategies is, in many ways, a strength: a broad range of service providers caters for the very varied needs, circumstances and perspectives of poor households. Institutionally one finds that many organisations have a stake in sanitation, from ministries of health and education to water and sewerage companies, to environmental health officers.

Yet the flip side of diversity is fragmentation, which is generally less positive. For on-site sanitation this means very disaggregated demand for sanitation goods and services and a lack of co-ordination between informal service providers and the formal urban system. Partnership roles A and B are partly about addressing these very issues: aggregating and relaying demand to make the job of providers easier, and linking sanitation providers into the broader urban drainage and waste management system.

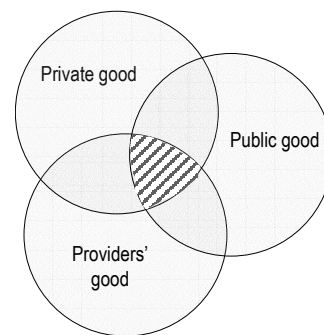
Yet this leaves two significant aspects of fragmentation unaddressed. The first is the fragmentation of the on-site sanitation system into *access*, *removal* and *treatment*. A lack of co-ordination between these stages can weaken each of them, rendering each ineffective and costly and undermining the public goods of sanitation. The second is the institutional fragmentation that results in a plethora of organisations with a stake in on-site sanitation but precious little effective collaboration between them.

The significance of the challenge to the success and failure of the overall sanitation system cannot be overstated. How can partnership approaches help?

Partnerships can link a fragmented system

In many ways it is no accident that on-site sanitation finds itself fragmented between the provision of *access* (building of latrines, for instance), the service of *emptying* them (removal via a private vacuum truck service) and the *treatment* of waste (typically in municipal treatment works). The nature of each of these stages is quite different, with different economies of scale, skill sets and business models called for.

Yet this very fragmentation poses a distinct challenge. Different parts of the household are responsible for different stages (for example, in some contexts, landlords and men for building, tenants and women for emptying), making co-ordination a challenge.



Transactions are made more difficult and costs escalate. For example, pits may be oversized or inaccessible for emptying, and sewers and treatment works not designed to handle pit sludge. Fewer and worse transactions are the result, rather than more and better.

All three goods can benefit by fostering better linkages between these stages. Typically few organisations are well placed to do this – service providers and households have neither the time nor the clout to bring about change, whilst the authorities find themselves operating in a ‘silo’ mentality. This is where partnership approaches can be most effective, especially where an institutional *champion* for on-site sanitation can be found.

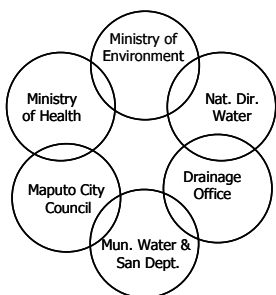
A good example of this is the case of Lesotho, where in the eighties and early nineties USIT worked across a range of stakeholders to bring about a holistic and common-sense approach to tackling the challenge of on-site sanitation. A prime example are the linkages USIT made between the *access* and *removal* stages of the system, working to train builders on how to site their pits to enable easy access for emptying and how pits can be designed so they are not damaged in the emptying process. This reduced the costs for both householders and emptiers. The role eThekweni Municipality currently plays is another example of a champion making the links between *removal* and *treatment*. They help set up small enterprises to manually excavate pits and process the sludge prior to disposal in the sewerage system. Similarly, they ensure communal toilets are sited over sewers or on public land where vacuum trucks can gain easier access.

Champions are not only important in creating these linkages, but in building up trust that they will be maintained and managing transitional arrangements. Take as an example initiatives to encourage households to build smaller pits and rely on a more frequent emptying service. They will be reluctant to do this (despite the capital cost savings) unless they can trust the reliability, regularity and affordability of the emptying service. Moreover the transition has to be handled carefully; until a significant proportion of the community has made the switch (e.g. from large unimproved latrines to smaller improved ones) the financial viability of the emptying service will remain in doubt. Strong partnerships between households, community organisations and providers are necessary here, with champions helping to broker and give impetus to those arrangements.

Overcoming fragmentation of an on-site system is therefore crucial to delivering more and better sanitation transactions and thus bringing benefits to all parties. Without champions and partnerships this is very difficult to do, given the diverse stakeholders active within each stages, and the professional barriers that separate them.

Partnerships can harness institutional diversity through collaboration

The profusion of public bodies relating to sanitation that we see in Maputo (see left) is far from unique. The diversity that characterises on-site sanitation on the ground stretches to the institutional framework. Many government institutions have some responsibility for its provision, yet there is no easy formula for how departments should come together. This spurs much debate about who should be named ‘lead agent’. There is no definitive answer here either - in the five case studies BPD examined, not only was the lead agency different in each case, but it had frequently rotated amongst various organisations. At root this is because there is a logic for each of the organisations involved in sanitation (water, health, education) to be named ‘lead agent’ under certain circumstances.



In Maputo at least six public bodies oversee sanitation

It may therefore be more fruitful to look for models that co-ordinate the actions of the public sector and relay these to those stakeholders outside government, than try to carve out a 'lead agent' role for one of them that will cover all circumstances. Collaborative approaches such as South Africa's Masibambane initiative and the various Provincial Sanitation Task Teams have shown the value of multi-stakeholder platforms for water and sanitation co-ordination, implementation and policy making. These provide an institutionalised and funded forum for stakeholders to convene, monitor the delivery of sanitation services, debate implementation strategies and input into policymaking. Although South Africa's Department for Water Affairs and Forestry styles itself as 'sector leader', it can be seen that different organisations play the role of champion at different times and for different issues. Rather than agreeing that one agency should always 'lead' the process, stakeholders need to agree upon how institutions relate to each other in different circumstances and who is ultimately accountable for what.

The debate should perhaps shift from one of "who should be the lead agent", to "who can act as *champions* and *intermediaries*" for on-site sanitation. While there are certainly candidates within government, we should not be afraid to look for our champions outside government. Influential individuals within communities, CBOs and NGOs, even private entrepreneurs, can all take up the mantle of "*sanitation champion*".¹⁴

Champions are individuals or institutions that provide a few specific things: access, enthusiasm and ideas. Through their professional and personal connections, they provide access to a variety of senior-level decision-makers from across the public, private and civil society sectors. They bring an enthusiasm and passion for the solutions at hand and an understanding of the problem's urgency. They also bring an ability to think laterally – this might involve ideas about how to solve the problem, ideas about who to bring in to facilitate the creation of innovative ideas, etc. The major challenge for champions is "passing on the baton"; knowing when to give control or decision-making power to other individuals or institutions; or for others to know how to replace the champion once they move on. The challenge with sanitation is that few people are passionate about the topic and of those that are, only a small number will have the requisite access, enthusiasm and ideas to successfully confront the challenge of excreta management.

Beyond champions, partnerships often rely on *intermediaries* to establish working relationships between the diverse groups. This role is particularly significant for on-site sanitation, where an intermediary can help balance the framework of private, public and providers' goods.

For example, in improving the customer relationship, intermediaries (such as NGOs or governmental on-site sanitation agencies) can not only provide an initial bridge between households and providers, but play a vital role in aggregating demand and making provision financially viable. They can also act as an independent go-between for providers and authorities,

Case Study 7 – Shifting Responsibilities in Lesotho

In Lesotho, the Department of Health has traditionally been lead agent for rural sanitation, yet it currently plays only a nominal role in sanitation improvement. USIT, falling under the Ministry of the Interior (and subsequently Home Affairs and now Local Government), has been responsible for provision of urban sanitation. Over time, USIT's role and resourcing has eroded steadily, yet no other agency has been assigned responsibility for this function. Meanwhile, responsibility for servicing urban pit latrines falls under the water and sewage utility, which reports to the Ministry of Natural Resources. That Ministry has had no jurisdiction over either VIP construction or user education, and its agencies have played no role in these aspects of service provision.

The result has been very poor co-ordination between the different role players once the core external drivers of co-ordinating both policy and provision – donor-funded programme leaders – withdrew in the mid-1990s. The role of lead agent for sanitation has recently been re-assigned from the Ministry of Health to the Natural Resources Ministry, but it remains to be seen whether it will assert its leading role pro-actively and consistently, and whether other role players in sanitation improvement will accept its authority and align their policies, programmes and service providers behind it.

¹⁴ This works especially where there is an agreed platform for co-ordinating the various departments and external stakeholders. Champions outside government also benefit when they can get backing from a powerful sponsor within government, whether policymaker or politician. One advantage is that sanitation is often a key priority for these champions, rather than being an under-resourced subset of a wider responsibility.

Case Study 8 – The role of intermediaries in Kenya

In Kenya, the NGO Pamoja Trust works together with a federation of the urban poor (Muungano wa Wanvijiji) to develop a consensus among the inhabitants of informal settlements around issues of land and structure entitlements.

Through community-based savings schemes, slum enumerations (which incorporate surveys on sanitation issues) and house modelling, these organisations build consensus among the poor on upgrading and tenure, and develop community capacity to manage these activities. Consensus is particularly important in Kenya because of the conflicting priorities of landlords (the “structure owners”) and their tenants, as hinted at on page 9.

The intermediaries also provide a bridge between communities and the municipal authorities, helping build an urban poor federation that can negotiate with the government and develop partnerships with it [see Weru 2004 for more].

helping tackle some of the unintended barriers to service provision.

To aggregate demand and translate individual action into the broader public good, community mobilisation is crucial; an intermediary can prove a vital ally for the public sector in working with community organisations and others. NGOs are often advocates for inclusive approaches; they can also provide a handy conduit for public subsidies seeking to break the chain of disease transmission.

Intermediaries are also called to broker relationships between emptying providers and those overseeing urban drainage (as these relationships can be quite intransigent or even confrontational).¹⁵

In overcoming fragmentation, intermediaries are often acting as interlocutors (someone who speaks on behalf of someone else). Often they represent poor communities, but given the fragmentation of both policy-makers and service providers, they can also act as the ‘face’ of on-site

sanitation for poor communities. These intermediaries don’t necessarily have to specialise in sanitation, but are often engaged on broader issues of urban poverty of urban services, such as Pamoja Trust in Kenya.¹⁶

In conclusion then, whereas partnership role A was concerned with the organic relationship between householders and service providers, and role B was about the public sector harnessing this relationship, partnership role C typically acts at a different level. Firstly, it is about making on-site sanitation work as a system rather than as a collection of isolated stages. Secondly, it is about recognising and welcoming the diversity of organisations working on sanitation, but finding better means to harness this towards a common purpose. Role C is thus primarily about overcoming the fragmentation inherent in the sector, reducing the transaction costs of different organisations working together and effectively channelling public sector to tackle the challenge of urban sanitation in poor communities.

SECTION 4 – Conclusions

Partnership approaches for sanitation are beginning to attract significant attention. This work set out to explore whether this focus is warranted, with the goal of deepening our understanding of whether and how partnerships can improve on-site sanitation in poor urban communities.

The first finding was that on the ground in Africa, successful partnerships for on-site sanitation seem to be few and far between. It was difficult to find examples where on-site sanitation was being addressed at scale, or where diverse organisations were working together in a coherent and focussed manner.

¹⁵ Pilot experiences pioneered by champions and intermediaries may also be necessary to bring about needed policy and regulatory change for on-site sanitation.

¹⁶ Here agreements between intermediaries and communities are important (formal written documents, as well as informal contracts), as are their relationships to existing community structures and local politicians. When engaging the other stakeholders, functions can include cajoling for common policy positions or supporting associations of small-scale providers.

This suggests that either partnership approaches are not considered useful by practitioners, or that workable partnerships are proving difficult to establish and maintain. BPD's work suggests that the latter is certainly true: on-site sanitation is complex and while there are good arguments for organisations to collaborate, in practice there are many seen and unseen barriers.

Evidence that practitioners are disinterested in partnership was less apparent. At project level there is often substantial rhetoric around the need to work together and a few examples of fledgling projects and platforms to accompany it. Stakeholders rarely insisted on a unilateral approach, but were finding it hard to engage with each other proactively.

Sanitation is rightly seen as cutting across sectors: this generates plenty of calls for partnership and collaboration. Yet sanitation partnerships are hard to sustain, with sanitation seldom delivering quick wins and partners generally having other commitments. Practical advice on how to manage sanitation's complex relations is in short supply – deeper bodies of knowledge exist on partnership experience in water or solid waste. Typically this advice is only relevant however – on-site sanitation has its own complexities that require tailored solutions.

In looking at on-site urban sanitation through a partnership lens, BPD saw four important themes, all of which have a significant bearing on the nature of relationships between key stakeholders.

The first consideration is that on-site sanitation has not one, but three broad levels of facility. This starts with individual household facilities, ranging through shared 'compound' facilities, up to communal facilities that intend to serve a whole neighbourhood. The way that individuals use and view these facilities is very different, as is the potential shape of any partnership to deliver them.

The second consideration is that whilst households need to be considered as stakeholders, as many advocate, household circumstances are very diverse. Partnership practitioners thus need to tread carefully. There is an important distinction between owner-occupiers, landlords and tenants. Children, women and men also have different perspectives and possibilities and need to be given equal consideration. These are both especially important in light of the positive and negative externalities of poor hygiene behaviour: communities suffer or benefit together, not just as individual households. Households are not just 'customers' for a service; on a small scale they are often also 'providers' – lending facilities to neighbours, digging pits, or renting out accommodation.

The third consideration is the segmentation of the "on-site sanitation system". In urban slums access to the facility is important (whether pay-per-use or through improved household facilities), but the need to empty on-site facilities and treat the waste cannot be neglected. If the broader public goods of improved health and environmental protection are to be attained, not only do each of these stages have to function effectively, but so must the linkages between them.

The fourth consideration stems from the contrasts between on-site sanitation and other forms of municipal service, such as water provision or solid waste collection. The chosen model of service delivery (and any collaborative approach) needs to be aware of these contrasts and their implications for stakeholder relationships. This allows stakeholders to build on the strengths and lessons of the other services without neglecting the particular challenges of on-site sanitation.

Together these four themes frame the context for partnership approaches. Can partnerships provide a way to address these challenges and deliver a better service? Or do

the many barriers make sanitation partnerships appealing yet elusive, and therefore an unnecessary distraction?

BPD's first response is that context is incredibly important. Blanket answers to the above questions serve little purpose: policymakers and practitioners must come to their own conclusions. Nevertheless BPD does see three broad roles for partnership approaches. These acknowledge the particular boundaries of on-site sanitation, yet suggest ways that partnerships can harness existing relationships in better delivering sanitation to poor urban communities.

The first role for partnership is to improve the existing relationships between customers and service providers. The aim is to encourage more and better sanitation transactions between these two parties, addressing many small barriers while shaping both supply and demand. Crucial to this is understanding what each party wants in the first place. By working through those close to customers (local leaders, existing CBOs, willing NGOs, etc.) partnerships can develop a more nuanced understanding of what it is that customers want, even as they aggregate this demand and relay it more smoothly to service providers. By working through existing service providers, partnerships can help develop a more appealing range of products and facilitate providers' relationships both within and beyond communities. These relationships often mask barriers to providers' financial, political and social viability. Partnerships may also be able to address the particular challenges posed by those without land tenure or complex tenant-landlord relationships.

The second role for partnership is to harness these transactions more effectively to deliver the public goods of improved health and environmental protection. Partnerships can work with households' desire for dignity and comfort, yet broaden the existing transactions to encompass hygiene education. They can also act within communities to stress the need for behaviour change at scale, generating internal demand for more inclusive and health-oriented approaches. Furthermore, they can harness the diverse range of service providers towards these goals, aligning provision more closely with formal urban management along the way.

The third role for partnership is to overcome fragmentation within the system. This role recognises the diversity inherent within on-site sanitation, but promotes mechanisms to harness this towards better service delivery. By generating support for collaborative approaches, partnerships can bridge some of the challenges posed by system segmentation and provide interlocutors for public authorities, providers and communities. They can overcome some of the tensions inherent in trying to promote 'lead agents', via the alternative route of joint policy platforms, sanitation champions and intermediaries.

BPD set out with the goal of deepening our understanding of whether and how partnerships can improve on-site sanitation for the urban poor. So is the focus on sanitation partnerships warranted? The above suggests that partnership approaches can indeed serve a useful purpose in on-site sanitation. However we urge a more sober recognition of the challenges involved. Collaboration is not easy. Partnerships in water and solid waste are more prevalent, yet we know from other work that they take considerable time and effort to get off the ground. In the short-term at least, one needs considerable faith in the value of that investment. The scarcity of existing partnerships for sanitation implies that they are even more difficult to build and to maintain than in other sectors. The diversity that characterises sanitation calls for particular attention to process, careful consideration of context, and strong analysis of the framework within which they can operate. Relying on evidence from five case studies in Africa and discussions with a wide variety of practitioners, policymakers and analysts operating globally, this work and its considerations are offered as a step in this direction.

SECTION 5 – Scope for further work

The BPD study, based on observations in five African cities, suggests that there remain several avenues that would benefit from more study. Firstly, there is still much to understand about how to effectively integrate on-site sanitation into the broader system of urban waste management. Secondly, more could be known about how the various stakeholders engage over the three levels of on-site sanitation facility (household, shared and communal) and about ways to make this interaction more productive. Work on either would further clarify the true potential for partnership and the most significant pitfalls.

In particular it seems that those interested in partnerships for urban on-site sanitation would find the following particularly useful:

- A better understanding of which rung on the sanitation ladder (household, compound, communal) is appropriate in which circumstances, how outside organisations can best engage with each, and how they can be blended into a coherent neighbourhood package. <pages 4-6>
- Piloting of delivery models that “start with the end in mind” (i.e. where in-situ treatment is not achievable, the removal and treatment of waste from poor urban households), and work back from there to promote better access to sanitation services (and accompany it with hygiene education). <“Beyond Storage” spoke>
- Investigation into links between the mode and frequency of pit emptying and innovation in the facilities used to access sanitation (e.g. the use of smaller vault latrines to foster and sustain a viable, yet hygienic emptying service). <“Beyond Storage” spoke>
- Exploration of ways to aggregate the demand for sanitation services, especially pit emptying, while retaining the flexibility to cater to the diverse needs of poor communities. <pages 11&23>
- Work that looks at how household demand and community demand can be made to work in tandem to deliver better sanitation (for instance ways to combine household level marketing with community-wide approaches) <page 21>
- Clearer guidance on the importance of tenancy to modes of sanitation delivery and its consequences for recent approaches such as social marketing and community-level total sanitation. <“Landlord or tenant” and “A roundtable” spokes>
- A better understanding of how disease is transmitted (via the public and domestic domains) in poor urban communities and what the most significant scenarios imply for modes of sanitation delivery and the respective roles of households, service providers and public authorities. <page 20>
- More work on the respective role that champions, intermediaries and collaborative fora play in enhancing sanitation delivery. <pages 27-28>
- Application of some of the analytical tools used in the BPD work to explore sanitation partnerships in South Asia (further exploring the relevance of the four on-site sanitation themes <page 15>, the ‘three goods’ model <page 3> and the three partnership roles <page 31>).

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Building Partnerships for Development
www.bpdws.org

2nd floor, 47-49 Durham Street
London SE11 5JD
United Kingdom

Tel: +44 (0) 20 7793 4557
Fax: +44 (0) 20 7582 0962
info@bpdws.org

Co. Registration Number 4693224
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