



Engaging Sanitation Entrepreneurs

Supporting private entrepreneurs to deliver public goods

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1. Why sanitation entrepreneurs are worth a closer look

The challenge of providing sanitation to poor communities is gaining more attention worldwide. Another trend is to explore the role of the local private sector in providing water and sanitation. On-site sanitation, the reality for a majority of urban households in the developing world, brings the two together. For while the role of entrepreneurs in the water sector perhaps attracts more attention, the on-site sanitation sector arguably has more local private sector involvement than does the water sector.

Entrepreneurs are a prevalent force in getting sanitation goods and services to those most in need. Yet the development community seems to lack consensus on their contribution and how it should be regarded. Little research exists; accordingly there are few recommendations on how best to harness existing entrepreneurial activities in order to develop sanitation more widely (and with better outcomes for public health, the environment and human dignity). Worse of all, although the range of entrepreneurial activity in the sanitation sector is very wide and extremely varied, it is often 'lumped' into one category when development interventions are discussed.

The on-site sanitation sector arguably has more local private sector involvement than does the water sector.

Given that the topic seems an increasingly popular one (as any Google search shows), the question is, can this be changed?

Building on work that BPD (Building Partnerships for Development in Water and Sanitation) has done on water sector entrepreneurs and on sanitation partnerships, BPD is keen to look at how better to leverage entrepreneurs to extend sanitation services to poor consumers. In line with its approach to demand-driven partnerships, BPD is keen to clarify the actual contribution made by such entrepreneurs, in which contexts, with a focus on their actual business model and on opportunities for co-operation between entrepreneurs and the public sector.

This background paper on "*engagement strategies for independent sanitation providers*", developed in conjunction with the consulting firm Hydroconseil, reviews previous experience and the major issues involved.

One difficulty in discussing *sanitation entrepreneurs* is that both terms can be hard to define. We will assume the following definitions during the roundtable discussions:

Sanitation: *The collection, storage/treatment, transportation, reuse or disposal of excreta in a way that improves or sustains health and decreases negative impacts on the environment.*

Entrepreneur: *A person who organizes, operates, and assumes the risk for a business venture*

2. Towards a typology of sanitation entrepreneurs

Sanitation entrepreneurs can be divided into those that provide sanitation services (e.g. build latrines, empty pits) and those that make sanitation goods and inputs (e.g. manufacture plastic toilets, make soap).

Hydroconseil have extensively reviewed existing experience with entrepreneurs that provide sanitation services (see Box 1 for a summary). Unlike the water market, the market for sanitation services is segmented into a set of sub-markets, each with quite different characteristics, different types of entrepreneurial presence and different relationships to the public sector. Hydroconseil find that the major markets for sanitation entrepreneurs are in:

We will focus on entrepreneurs that provide sanitation services.

- Latrine construction (and marketing, but most of the time the two activities are separate¹)
- Management of public toilets (usually in urban or peri-urban areas)
- Sludge removal and transportation business (vacuum trucks and hand emptiers)
- Management of treatment works or sludge dumping facilities

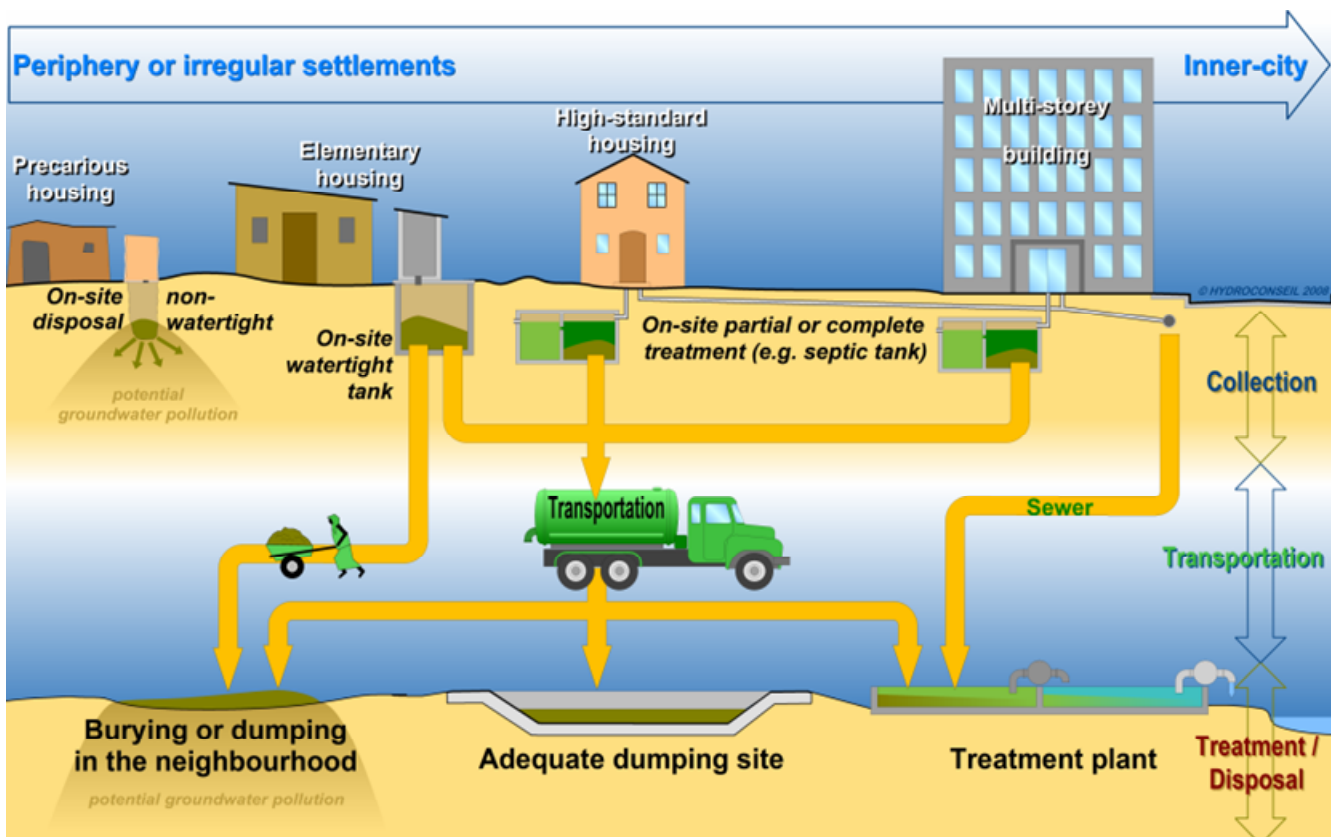
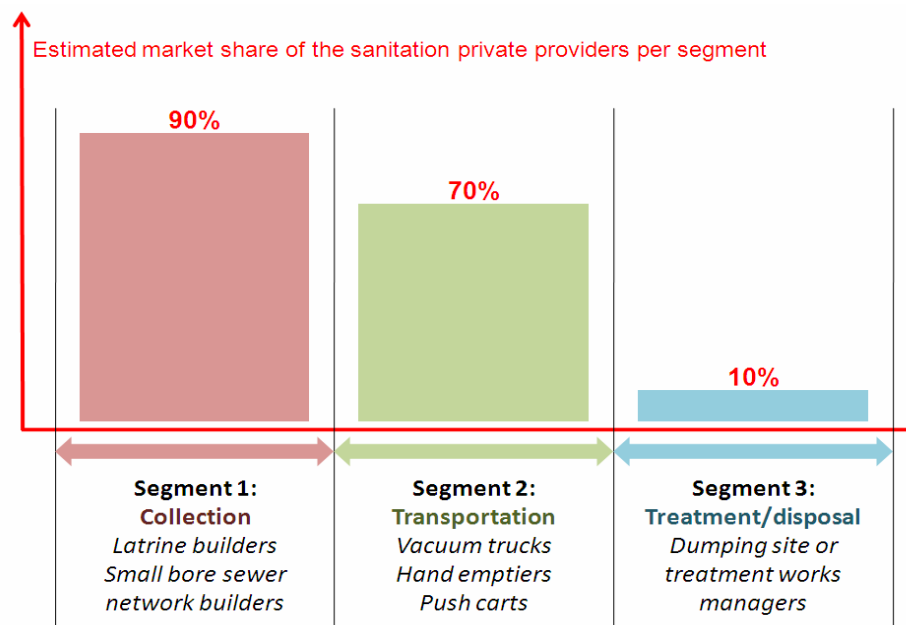


Figure 1: On-site sanitation, viewed as a system

Segmenting the 'sanitation chain'

As these markets are quite different from each other it is helpful to separate them out. Below we suggest where these lie across the widely used "three-segment" sanitation chain, as outlined in the previous diagram. We also suggest what the respective weight of the (informal) private sector and public entities is in each.

Figure 2



In a nutshell, the three "segments" can be described as follows:

- **The first segment is related to the construction of facilities** – a private business, for private clients and in most cases on private land. The role of public authorities on this market is extremely limited (and arguably, undesirable). Where these facilities are communal (e.g. toilet blocks), entrepreneurs may also be involved in facilities management.
- **The second segment is related to the transportation of night soil/sludge/excreta as far as possible from the producer.** This is to a large extent a private business, but one that has strong implications for the public good (e.g. road usage, environmental nuisance, etc.), justifying the regulation of emptiers' activity by public authorities. The Dakar case study goes into this in more detail.
- **The third segment deals with the burying and/or treatment of the sludge extracted by the operators of the second segment;** the main challenge is to reduce the impact of this sludge on health and the environment. It is extremely difficult to attract private operators into this segment and public intervention is indispensable.

¹ And there is no example of real "independent private operators" on the marketing activity, which is typically an activity carried out by NGOs or consultants directly connected to the foreign aid market.

Box 1. Brief review of existing literature: an overview

The existing literature on “sanitation” and “independent” or “small scale” providers was reviewed (a comprehensive overview can be emailed on demand). This started with a systematic online search, identifying the most recent papers published (the International Year of Sanitation has considerably increased the number of sanitation-dedicated publications in 2008). Sadly, quality research was relatively scarce and, more disappointingly, relatively few good case studies were found.

The literature on sanitation and hygiene providers is much thinner than that on water providers and existing publications (particularly on the topic of how to engage private operators) are rather generic, providing little information on the entrepreneurs themselves (particularly on their financial profile, with the notable exception perhaps of Hydroconseil/MDP/pS-Eau studies on vacuum trucks in African capital cities, completed more recently by a SANDEC/CREPA case study in Burkina Faso).

Most publications tend to be advocacy-oriented (arguing, for instance, why it is important to involve private business in sanitation – c.f. SDC, 2004) or – from a very different point of view – focus on “appropriate technological options” (whose general failure to capture the market suggests that they are perhaps not as “appropriate” as hoped – cf UN-Habitat, 2006).

Literature on the providers is even less developed. WUP has published some case studies on sanitation (WUP Project N°5) that provide some interesting information on small scale providers (latrine building, public toilet management, vacuum truck services), and mention a few instances of professional associations. These cases are quite old (they were published in 2001, and the surveys date back to 1999-2000). However, even if it would be worthwhile to refresh the surveys carried out at the end of the 1990s on such providers, there is perhaps no need to undertake more “entomological” work on the providers: the activities and profiles are already documented, and there is no evidence that new types of providers have emerged in developing countries. This justifies the angle that was chosen for this background paper – i.e. to focus more on strategies to engage entrepreneurs than on exploring in detail the activity itself that they undertake.

3. Why engage with sanitation entrepreneurs?

As figure 1 graphically demonstrates, on-site sanitation (the reality for most urban dwellers in developing countries) can be viewed as a system. This system works at its best when human excreta is hygienically and effectively stored, removed and treated, with the waste products appropriately returned to the environment. Yet in many poor communities that system breaks down and the waste is deposited into the environment in a manner that is neither hygienic nor in the broader public interest (worse still, many people exist completely ‘outside’ the system, with no access to any sort of basic latrine).

Justifying public involvement, beyond regulation

This breakdown justifies the involvement of the public sector in what is otherwise an often private transaction between households and, typically informal, sanitation providers. Public sector intervention is very diverse (there is a profusion of public bodies with an interest in sanitation) and ranges from support and subsidy to regulation and control. In poor communities however regulation often trumps support. Given

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The diversity of relationships involved in sanitation management is impressive. Yet the majority often see little direct involvement of public authorities

that a functioning on-site sanitation system can contribute strongly to both public health and environmental protection, there is however a strong argument for public bodies to support as well as regulate.² As large percentages of the various sub-markets (see figure 2) are occupied by sanitation entrepreneurs, this suggests some sort of ‘engagement’ with these entrepreneurs.

A complex picture

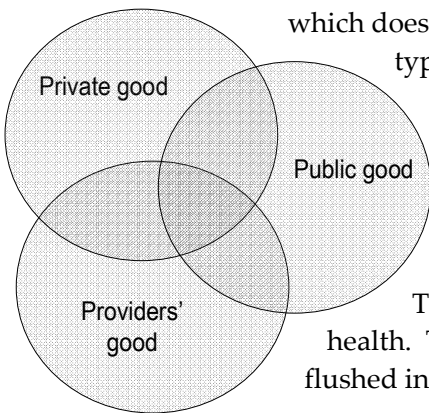
Yet, given the unstructured nature of some of sanitation’s sub-markets, engaging with entrepreneurs can be pretty complicated. The diversity of relationships that exist is impressive. There is a large range of providers of facilities and services (from the masons or *fundis* that build household latrines to the entrepreneurs that build and run toilet blocks, from manual pit-emptiers to privately-run vacuum trucks). The customers for these services are also very diverse (from pay-and-go users of toilet blocks to landlords letting out accommodation, from housewives making home improvements to tenants emptying a shared latrine). Much of this activity often happens with little direct involvement of public authorities. Yet when on-site sanitation as a system works well we notice that these providers are far from working in isolation. 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.

Untangling the different threads

A way to untangle the complexity is to look at these relationships through a particular lens. This is found in the three ‘sanitation goods’ that govern sanitation’s many inter-relations (an approach introduced in BPD work on sanitation partnerships in 2006).

The private good, the public good and the providers’ good

Households’ and individuals’ immediate interest is the *private good*. For on—site sanitation this is typically the use of a clean, comfortable and preferably private toilet, which does not smell and is affordable to access, build, use or maintain. As urban toilets typically fill up and need emptying, pit emptying is a service that households across the continent are willing to pay for (unless they can resort to ‘open flushing’). Without emptying the facility is neither clean nor comfortable, if it is usable at all. So households need *access* and need *emptying*. Extensive research has shown that their motivations in each case is rarely to do with health and more often related to comfort, dignity and status.



The broader *public good* includes protection of the environment and public health. The management and disposal of human waste is a crucial here. If waste is flushed into the neighbourhood or dumped around the corner then neither the environment nor public health gain. Alternatively, if the waste is transported off-site and properly treated, a functional emptying service is

Successful sanitation partnerships require a delicate balancing act

² Merely trying to use regulation as a means to protect the public good, by imposing strict conditions on providers and controls on households is unlikely to achieve the desired effect. This will drive up costs and reduce the diversity of services available to households, pushing them from away from formal services into self-help and the informal market (with probably undesirable consequences for the public good).

an indispensable link in delivering the public goods of on-site sanitation.

As discussed, sanitation services are delivered by a range of service providers, both manual and mechanical. For such service providers the *provider's good* is a prime consideration: the need to be financially, politically and socially viable. Financially, this means payment for their services needs to more than cover their costs, coming either from directly from users or via subsidy from the public purse. Politically they need to be accepted into the system and socially they need to be welcomed by communities (note all this applies both to private *and* public providers).

Paying for the public good

The provider's good is a key consideration (and often glossed over). Clearly over time any provider (whether public or private) needs to cover the costs of their work. Yet many urban households rarely prioritise sanitation – as a result they may be prepared to pay for latrines to be dug and pits to be emptied, but only to the extent that their immediate needs are met (the private good).

The full price of the formal service, which includes the often high costs of transporting and treating waste, can often be greater than communities are able or willing to pay for themselves. In which case households revert either to informal service providers (who dump illegally, and can include formal providers 'moonlighting') or informal emptying. This disinclination to 'over-invest' in sanitation (as they perceive it) may also undermine the quality of the latrine they build (or have built for them). Arguably then government (or donors) should be prepared to put public money towards the public good. The difficulty lies in determining what aspects of sanitation should be left alone (with transactions solely concerned with the private good) and which require intervention (and probably subsidy) to deliver the broader public good.

Is one reason that many entrepreneurs are in the informal sector due to the high costs of being a 'formal' sanitation entrepreneur?



A worker fixes a septic tank in an informal settlement of Kampala City, Uganda. Photograph © Hydroconseil

Three main objectives for public engagement

1) *Encouraging more sanitation transactions*

An example of a 'sanitation transaction' is a landlord employing a local mason to build a latrine for his tenants, or the tenants engaging a manual pit emptier to empty their full latrine. Many of these transactions are in the informal market. There has much merit; unless these relationships undermine the public good then they should be left to operate unmolested.³ Yet many people lie outside the system altogether, using flying toilets or reverting to open defecation once their latrine is full.

So the first objective for public engagement is to create more sanitation transactions, drawing more people into the 'system'. There are numerous ways to do this, such as training sanitation providers, helping them advertise their services and conducting education and awareness activities that boost public demand. The USIT project in Lesotho is a good example of how this can be packaged (short info may be sent).

2) *Channeling existing demand and removing blockages*

Consider how long it take to fill an urban pit latrine – often six months to several years. Compare this how quickly a rubbish bin is filled with solid waste. For those emptying latrines this is a problem - emptiers, whether manual or mechanical, can rarely go from house to house along a street, emptying each in turn, as they would for rubbish bins. Each 'job' is discrete and often in a different part of the settlement, or even a different part of town. This drives up transport costs and the overall cost of providing the emptying service. Similar challenges are found at other stages of the sanitation chain.

A second objective therefore is to channel existing demand for sanitation to make the business model better. Intervention, such as in the design of pits, or as an intermediary for households, can reduce the overall cost of providing a sanitation service. It can also tackle unneeded blockages (such as conflicting byelaws or a ban on the transfer of waste into 'public' sewers).

3) *Turning sanitation transactions to the public good*

While the public sector should be careful about how it intervenes in private markets, there is a strong case for them to harness existing relationships to further the public good. For instance government can assist masons to provide rudimentary hygiene education alongside their building work (which in turn can help the mason create further demand). Or it can influence the activity of providers themselves, for instance by discouraging the illicit dumping of waste.

This aim in both case is to change existing household-entrepreneur relationships so that sanitation means not only dignity and comfort to households but also bring health gains and environmental benefits. While regulation has a role to play, it tends to work better when combined with incentives for change - again, see the activities of USIT in Maseru for an example (as well as www.bpdws.org/web/w/www_41_en.aspx for more).

³ Another line of argument, worth airing, is that engaging with informal markets risks robbing them of much of their dynamism. The "do-nothing" argument certainly merits discussion when it comes to talking of engagement.

How many good examples are there of outsiders helping entrepreneurs achieve economies of scale – in sanitation or other sectors?

4. Learning from other sectors

As the sanitation / solid waste comparison above showed, when it comes to independent providers, the issues (and the challenges) are very different in the sanitation than in water (and solid waste). These have strong implications for engagement strategies. Four key differences are:

1. In the water supply sector, the utility and independent operators use more or less the same technology (piped network), but at a different scale. To the contrary, in the sanitation sector, the utility and independent operators typically operate on different segments of the sanitation chain; the independent providers are particularly active in on-site sanitation, whilst the utility (considered the 'dominant operator' in work done on water supply), where they operate, have a tendency to focus on collective sanitation (e.g. sewers), including the management of dumping/treatment sites. The consequence is that in the sanitation sector, **independent providers are not really in competition with a 'dominant operator'**, except in some (rare) cases within the second segment of the chain (e.g. vacuum trucks).

2. The market structure of sanitation services is dictated by the main source of financing, which mostly comes from the users themselves, in contrast to the water sector, where a large majority of the capital investment still comes from public/ODA money (at least in countries where independent providers are well developed). **As a consequence, independent providers have an overwhelming market share of the two first segments of the sanitation chain**, where the public sector and dominant operators are absent and where most of the financing comes directly from the users (making them much more directly accountable to households).

3. A water supply network, even using a low-cost technology, is a buried investment. To the contrary, vacuum trucks can easily be re-oriented towards other economic activities. **Sanitation is therefore perceived more as a normal (and sometimes temporary) commercial activity than a "public service" that does not adhere to strict market rules.** As a consequence, the incentives for independent sanitation providers for formalisation and engagement with national and local authorities may be weaker than for water supply, where providers arguably have a lot to gain and little to lose from such an engagement. This presents an obvious challenge to convincing providers to join in 'engagement'.

4. A final difference between the two sectors is that arguably there is **less debate in the sanitation sector about the market structure and its "ideological" implications.** The strong movement against private sector involvement in water does not really have an equivalent in the sanitation sector, where private involvement is even encouraged (as it largely is in the solid waste business). The fact that sanitation is often viewed as a household responsibility and that "households decide" is obviously an important factor. Cultural attitudes to water versus those to sanitation are another element. Moreover, many sanitation providers (at least, the very small ones) are CBOs or self-organized groups of workers and have less voice than the unionised public sector which is prevalent in the water sector.

Does this 'non-competition' present a crucial opportunity for the sanitation sector (compared at least to the tensions around supporting small urban water operators)?

Working with entrepreneurs is not more difficult in the sanitation sector than for water sector – the dynamics and drivers of engagement are likely quite different.

These differences do not mean that working with independent entrepreneurs is more difficult in the sanitation sector than in the water sector. Fortunately, we have examples of concrete cases (e.g. Accra, or Kibera in Nairobi, where very interesting projects involving independent providers exist, as is the case with public toilets in India). However, they do suggest that we probably need other drivers & arguments to engage sanitation independent providers – or at least, different drivers than in the water sector. The dynamics of any engagement are also likely to be quite different – as the section on the three goods of sanitation also demonstrated.

5. Tailoring our thinking to sanitation’s sub-markets

We’ve outlined three main reasons why the public sector should seek to pro-actively engage with entrepreneurs and their activities (see page 7). As noted several times though, there is a broad range of providers, each with very different working styles. To render any discussion of engagement strategies more concrete, it is worth exploring these in a little more detail.

Upstream segment – collection and disposal of excreta

On-site sanitation – Latrine builders

For two thirds of urban households – and an overwhelming majority of rural households – on-site sanitation will remain for a long time the only way to have access to sanitation. Latrine construction is a dynamic business in urban areas, medium-sized cities and – to a lesser extent – in rural areas. The competition is apparently quite strong in this market segment and because customers can go to any provider, the prices are probably kept reasonably low (although hard data is not easy to come by).⁴

Possibly the biggest issue for outsiders regarding latrine construction is how to use public funds to support something that is directly related to the private sphere and to the private interest (or *private good*). Independent providers can easily take care of the private good, and will do so as long as there is a demand for improved services. The question is therefore: who is going to take care of the public interest (or ‘public good’), and make sure that the access to sanitation is as “universal” as possible. Many directions can be explored with regard to supporting the latrine construction business and making sure that the poorest can benefit from the service offered by the independent providers.

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⁴ Collective or semi-collective sanitation. Moving beyond strictly on-site sanitation, apart from a few very specific niches (e.g. real estate investors), independent providers have not so far developed much activity relating to collective sanitation (sewers). Sewerage still remains the territory of (public or private) dominant operators such as SODECI in Côte d’Ivoire, ONAS in Senegal, ONEA in Burkina Faso (more recently) or municipal departments in many countries. The situation is slightly different in the case of semi-collective sanitation (small bore sewer networks covering a small-scale area but offering to the customers the service level of a sewer connection). Semi-collective sanitation can also involve other kinds of independent providers: (i) the property developers, who already invest in semi collective sanitation and could be encouraged to generalize their investment; (ii) small-scale providers or CBOs contracted to maintain and repair the sewer networks (e.g. Bamako).

Issues that get frequently debated for this sub-market include technical standards (how to improve the quality of the products on the market at the lowest possible cost? How to provide the providers with technical and/or commercial support?); financing (what is the best way of injecting public money into the supply chain – through the customers themselves, through the latrine builders, using innovative funds such as OBA, etc.). The relationship between the providers and the public entity could also be studied more in-depth, building on the experience of the PSAO (Ouagadougou, Burkina Faso), one of the most successful and long-lasting latrine construction support programs conducted so far – or on the PAQPUD experience in Dakar.

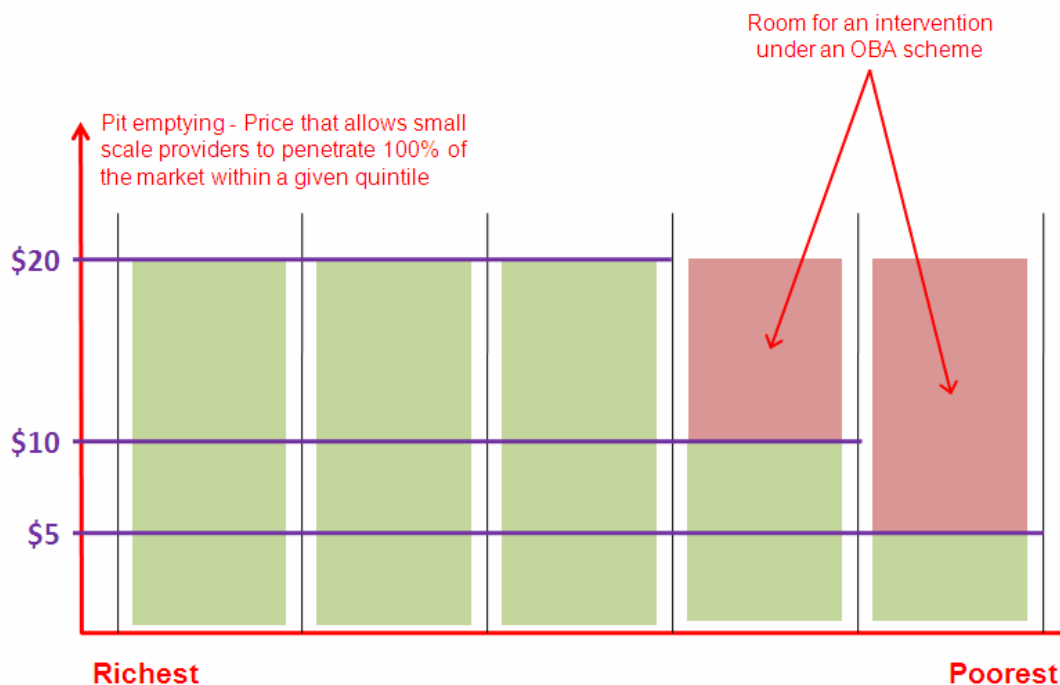
Intermediate segment – transportation of excreta/sludge

Hand emptiers

In very dense urban and poor areas, part of the sludge removal and transportation activity is still undertaken by hand “diggers” (in Dakar they are called “baye pelle” – meaning “the shovel guy” in Wolof). This is of course a very dirty business, and a niche occupied mostly by marginalized or traditionally outcast persons. The whole activity is of course detrimental to the environment (hand emptiers just dump or bury the sludge in the closest possible place) but in the first place, it is a big problem in terms of public health. Is there another way to improve the work conditions of these small entrepreneurs? How to accelerate the migration from hand emptying into mechanized emptying without destroying the livelihoods of the hand diggers?

There is an interesting attempt to improve the practice in Dar es Salaam, supported by LSHTM and WaterAid – we may hear more about it at the roundtable.

Figure 3



Vacuum trucks

Vacuum trucks constitute an important part of the market occupied by independent providers. The typical price for one emptying is between 15 and 45 \$US, which is of course a very heavy burden for households – but in many areas, because of density or soil/hydrogeological conditions, there is no other option. In a city like Dakar, the mechanized emptying business is estimated to be bigger than 2 million \$US a year, with competition between the public provider and the independent providers and real issues in terms of access of the poorest to a service that is currently not subsidized and therefore charged at its full cost to the user.

Besides the financial issue, there is a true technological difficulty linked to the vacuum truck business – the fact that trucks cannot access high density and unstructured urban areas, where most low-income users live. New vacuum systems have been developed (mostly around the idea of a small, hand-pushed or horse-towed unit) but these systems did not really reach their intended market, the main reason being that providers prefer to focus on “profitable” areas that can be accessed by a conventional truck than on difficult areas that combine two disadvantages – the problems of access and the low capacity to pay of the dwellers. Similarly, peri-urban areas may not suffer from technical access issues, but may suffer from lack of actual or perceived profitability.

Because it is a “flourishing” business, mechanized emptying is the crucible of many interests (and in a first place, financial interests), co-operation challenges (especially between independent providers and local authorities trying to attract trucks towards adequate dumping sites) and prospective partnerships (aimed at improving access to the service). In many cities vacuum truckers are pretty organized through professional associations – these can offer good entry points for discussion and engagement with the providers.

The background reading on the Dakar case sheds more light on this aspect and its challenges



A vacuum truck at a dumping site managed by the Municipality of Dar es Salaam, Tanzania. Photograph © Hydroconseil

Downstream segment – disposal/treatment/reuse of sludge

Experience shows that in most developing countries only a few providers have managed to offer a service relating to the downstream segment (disposal/treatment/reuse). One of the most famous examples, rather abundantly documented, is the case of SIBEAU – an entrepreneur who partially self-financed, built and operates a sludge dumping site in Cotonou (Benin). SIBEAU is undeniably a successful case from an institutional and commercial perspective, but its technical performance has been questioned and that's maybe part of the reason why this apparently "successful" experience has not been duplicated in Benin and in West Africa.⁵

Other cases of independent providers managing treatment/dumping sites (with or without a previous capital investment) could be sought in order to better understand if SIBEAU was a specific/isolated case or if there is room for duplication in other contexts⁶ – and to identify what could be the conditions for a successful investment of independent providers on a segment that is logically occupied mostly by public entities such as municipal departments.

A good opportunity for building partnerships?

Contrary to the other segments, private providers have a hard time dealing with the downstream segment, which is the segment that obviously requires more investment, more involvement from the local authority to enforce regulations and regulate the market, more technical skills, etc. Building partnerships makes sense when each partner has a strong stake in doing so – in that respect, the downstream segment might be the more interesting one to experiment new ways of involving independent providers.

Arguably the downstream segment is of particular interest because it may offer the best opportunities to build a relationship between the authorities (national, but more often local), independent providers (in this specific case, vacuum truck operators) and another kind of economic actor – the farmers/market gardeners who might be interested into using the sludge as nutrient/fertilizer (with fertiliser prices at an all-time high, this is pertinent). We are not aware that much work has been done in building such partnerships on very concrete issues such as the tariff structure that would better lead the private providers towards the dumping/treatment sites. A promising case could be Dakar (the Camberene dumping site, managed by ONAS).

6. Possible avenues to explore

If the sanitation MDG is to be taken seriously, the sheer prevalence in the urban sanitation market of independent entrepreneurs argues for closer attention to be paid. Given the points made above, what then can we suggest as tangible avenues that could

⁵ Which is not to say that the technical performance of many public systems in Africa is stellar. But perhaps comparisons are not made on a 'level playing field'.

⁶ The case of Diabeso Saniya in Bamako could be an interesting one to document a little bit further – as an example of the difficulty of an independent provider to access credit and land to build a sludge dumping site that is not in use for many reasons (see Hydroconseil, 2007, unpublished). It is extremely likely that more and more independent providers occupy this market segment in sub-Saharan capital cities.

If the sanitation MDG is to be taken seriously, the sheer prevalence in the urban sanitation market of independent entrepreneurs argues for closer attention to be paid.

usefully be explored by the public sector, as well as donors, NGOs and the research community?

How is the market structured?

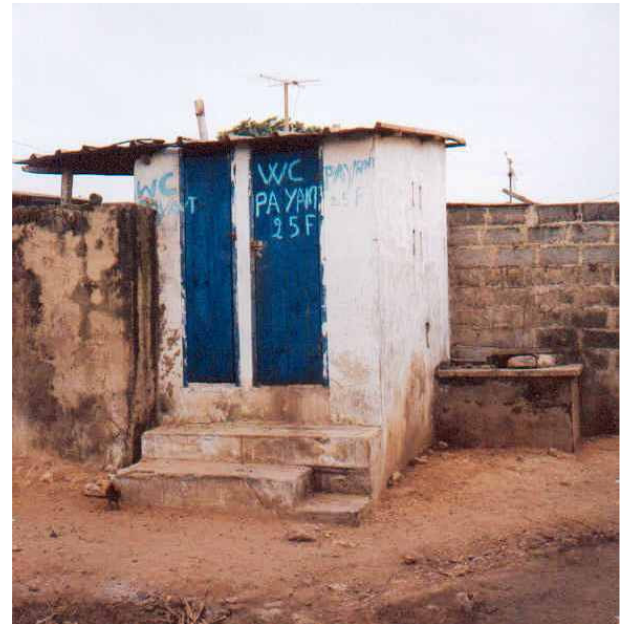
Despite the incomplete state of the literature, we appear to have a reasonable understanding of who the independent sanitation providers are and how they work (see for instance the WUP case studies and, more recently, the case studies carried out as part of BPD's work on sanitation partnerships). Perhaps there is little need to do much more 'mapping' of sanitation providers and where they fit on the sanitation chain.

Yet even if we have a reasonable understanding of the providers themselves and how they conduct their business, we do not always have a clear vision of the sanitation market within which they operate. This despite recent work on "sanitation marketing", partly as this has tended to focus more on understanding and promoting demand than it has on understanding and facilitating the supply of sanitation services (by those already 'in the market', as opposed to providing an excuse to dabble in 'alternative' technologies, that do not always reflect the way the sanitation market works and the actual constraints faced by providers)⁷.

A focus on market structure would likely require more work (through household surveys and provider interviews) on assessing the number of providers and their average turnover, as well as the respective contribution of public service providers. This should introduce badly-needed quantitative data into discussions (as well as clearly outlining the financial flows and areas where intervention can be justified).

Gateways to dialogue

A crucial part of any engagement are those that act interlocutors – quasi-spokespeople – for their



A privately-managed public toilet in a slum of Abidjan, Ivory Coast. Photograph © Hydroconseil

Getting in and out of the market

It is generally accepted, under the assumption that sanitation is a market, that it is beneficial to the sector to reduce the "barriers to entry" and thus help get new providers into the market. Perhaps less intuitively, many economists argue that decreasing "barriers to exit" (i.e. making it easier for entrepreneurs to leave the sector) increases the number of entrepreneurs to begin with. This issue is rarely explored and it could be very valuable to pay this more attention in any future work.

⁷ In this respect, it would probably be more interesting to focus the research effort on documenting the "indigenous" technologies, i.e. the technological solutions that have been generated by the market itself and not by foreign aid.

sector. Who can 'bring on board' the informal private sector, or for that matter act as a gateway to the public sector or households? When it comes to entrepreneurs this means a second topic for exploration is arguably an old one, but perhaps worth refreshing: the role and outlook of professional associations in the sanitation sector? How do they function, what is their impact (negative or positive) on the prices and the quality of service? How do they see the development of their market and to what extent are they keen on engaging a constructive relationship with public authorities – and to promote what? This field of research could be of peculiar relevance in the case of vacuum trucks. Yet engagement requires dialogue, not monologue – so who are we realistically talking about from the public sector (and community) side – and what do their particularities mean for engagement strategies across the sanitation chain?



A vacuum truck at a dumping site managed by ONAS in Hann (suburbs of Dakar), Senegal. Photograph © Hydroconseil

Sanitation providers and the question of scale

Independent water providers tend to offer a service that complements, or occasionally competes with, that of the utility. As such scaling up can be a contentious issue. This is not the case with sanitation entrepreneurs, who could easily occupy the whole of the upstream and intermediate segments of on-site sanitation without causing great controversy.

Yet we know little enough currently about the penetration of these providers by income bands. Work on this would greatly enrich any debate about engagement based on 'pro-poor' principles. The assumption is that sanitation operators do not provide the same level of service to all customers, but tailor their service (quality, cost, environmental impact...) according to customers capacity-to-pay. We assume that providers usually perform reasonably well on the 3 wealthier quintiles, less well on the fourth one and very badly on the poorest quintile. Yet very few studies have been conducted so far on this topic (although there may be a fair degree of raw data that could be reworked in order to get a better picture).

From the standpoint of public engagement a key question is arguably how to encourage these (typically independent) sanitation providers to move towards a form of "universal service" (which may well need financial assistance from national/local authority in order

We assume that providers usually perform reasonably well serving the richest 60% and badly on the poorest 20%. Yet very few studies have looked at this.

to reach the poorest)? This can be pitched to entrepreneurs as an opportunity to enlarge their customer base to poorer consumers, but many of the nuances of this issue remain to be explored.

Turning private goods into public ones

Above we argued that the public sector should be harnessing otherwise private 'sanitation transactions' in order to deliver, otherwise elusive, public goods. It would therefore be enormously valuable to know more about how this has been done both within the sanitation sector (and *especially* in other sectors, such as solid waste, or the health sector). Specifically for on-site sanitation, what role can the public sector play in channeling (aggregating) demand for private entrepreneurs and thus strengthening their business model? What role can the public sector and others play in 'piggybacking' public health objectives onto entrepreneurial activities (for instance, getting latrine builders to also offer rudimentary health education)?

What sectors have the best experience to offer in engaging entrepreneurs (and the informal sector?). How do we tap this knowledge?

7. Summary

More than in the water sector, entrepreneurs are active in the sanitation sector, providing a valuable service to many millions of households worldwide. This relationship is largely in the private sphere, and justifiably so, yet with the public health and environmental consequences of both good and bad sanitation, there is also a strong argument for the public sector to play a larger role than it does currently. Given the prevalence of sanitation entrepreneurs and their vital importance, particularly to medium- and lower-income communities, if the sanitation MDG is to be met, arguably it can only be done through intelligent accommodation with them and with their customers.

Yet the field is extremely diverse, with different types of providers active (with different types of customers) throughout the sanitation chain. Suggestions for engagement strategies must not only be cognisant of this, but also need to be aware of how the different segments link up – on-site sanitation works best (and delivers on public goods) when the system as a whole links together well.

The concept of private, public and providers' goods are helpful in unpacking why and how outsiders should seek to engage with sanitation entrepreneurs (and vice versa), as is the idea of sanitation transactions, that can be both supported and regulated by the public sector and its allies.

These two concepts also help us elaborate the particularities of sanitation (in contrast to its closest 'cousins', water and solid waste) and let us build on a good understanding of how the providers work towards wider knowledge of how the sanitation market works city-wide and what tangible steps can be taken to support and expand this. This leads to suggestions of what future discussions and research could focus on, if it is to explore and add value to this vital area.

A summary table, with suggested engagement strategies, follows:

| <p><u>Summary</u> <i>Main Entrepreneur Markets</i></p> | <p>Category 1 – On-site facilities builders</p> | <p>Category 2 – Emptying service providers</p> | <p>Category 3 – Investors and facility managers</p> |
|--|---|--|---|
| <p>Overview:</p> | <p>Small-scale informal providers, product-oriented (latrines, soak-away pits, etc.), private clients, very limited access to technical and commercial support.</p> | <p>Small or medium-scale companies, mostly informal, service-oriented, private clients. Vacuum trucks occupy a very large portion of this category.</p> | <p>Medium-sized or big companies, mostly formal, ready to invest money over a certain period of time; depending on the contract (e.g. BOO or BOT), construction companies can fall under this category; property developers.</p> |
| <p>Overall challenge:</p> | <p>Increasing access to sanitation facilities.</p> | <p>Increasing access to emptying services.</p> | <p>Attracting private money into the sector; improving sustainability in the management of publicly-funded facilities such as dumping/treatment sites.</p> |
| <p>Main rationale for engagement:</p> | <p>Improving the diversity and quality of products. Tacking on health education campaigns.</p> | <p>Lowering prices (access to the service for the poorest users); attracting providers to “difficult” areas (informal settlements). Improving dumping.</p> | <p>Access to new markets, long-term opportunities. Bolstering an area that the public sector has traditionally been weak in.</p> |
| <p>Possible ways of engagement:</p> | <p>(a) micro-credit; (b) technical support; (c) formal recognition of the activity of local authorities (agreement); (d) linkage with institutions working on sanitation demand and health promotion.</p> | <p>(a) support to professional associations; (b) formal agreement/recognition process; (c) innovative financing tools (OBA?); (d) smoothing link with disposal of waste into public systems.</p> | <p>(a) marketing the sanitation sector (and especially the third segment); (b) facilitation of dialogue between private investors and public (local) authorities; (c) finding innovative options in terms of contracting and financing; (d) discussing new options for waste as a ‘resource’.</p> |