

**PRIVATE AND SOCIAL ENTERPRISE ENGAGEMENT
IN WATER AND SANITATION FOR THE POOR**
A SYSTEMATIC REVIEW
OF CURRENT EVIDENCE

ENTERPRISE IN WASH

“Enterprise in WASH” is a 3 year joint research project led by the Institute for Sustainable Futures (ISF) at the University of Technology, Sydney, which investigates the role of private and social enterprise in the delivery of water, sanitation and hygiene (WASH) services for the poor. In particular, the research aims to support civil society organisations (CSOs) engaged at the interface of public sector, private and social enterprise, and civil society.

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ABOUT THE AUTHORS

The Institute for Sustainable Futures (ISF) was established by the University of Technology, Sydney in 1996 to work with industry, government and the community to develop sustainable futures through research and consultancy. Our mission is to create change toward sustainable futures that protect and enhance the environment, human well-being and social equity. We seek to adopt an inter-disciplinary approach to our work and engage our partner organisations in a collaborative process that emphasises strategic decision-making. For further information visit: www.isf.uts.edu.au

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1. INTRODUCTION

DEFINITION OF TERMS

Private enterprise:

A private enterprise is a business or industry that is managed by independent companies or private individuals rather than being controlled by the state. Ranging from self-employed individuals to large multi-national businesses, private enterprises are generally motivated by profit (Koestler 2009)

Social enterprise:

A social enterprise (also known as a social business, and closely related to social entrepreneurship) couples entrepreneurial behaviour with the desire to draw upon the market as a tool for meeting social goals, serving the general interest and common good for the benefit of the community (Noya et al. 2013). Emerging as a response to complex social needs and also the reduction in public funding, social enterprises draw on sound business practices and often innovation to the delivery of community services (Peredo & McLean 2006).

BACKGROUND

Micro, small and medium private and social enterprises (hereafter referred to as 'enterprise') are emerging as important players in enabling or delivering sustainable water, sanitation and hygiene (WASH) services. This area is highly dynamic, thus pointing to a need for recent consolidated evidence about the effectiveness, sustainability and quality of services provided by such enterprises. A synthesis of literature on small-scale sanitation entrepreneurs was conducted in 2008, and at that time reported that the "quality research was relatively scarce, and...few good case studies were found" (Valfrey-Visser and Schaub-Jones 2008, p.4). This paper reviews literature over the five years since 2008, once again taking stock and examining the nature and quality of the evidence for private enterprise engagement across both sanitation and water sub-sectors. In particular, we review of the evidence concerning if and how poor households and communities are being supported.

This paper also examines how the aid and development sector, in particular, civil society organisations,¹ primarily in the form of non-governmental organisations currently supports small-scale private and social enterprise. Over the past decade, CSOs and others have recognised the poor functionality of rural water services and lack of traction in achieving sanitation behaviour change in coordination with access to appropriate sanitation products and facilities. This has called into question the effectiveness and sustainability of current approaches. As a response in recent years, CSOs have explored new approaches, including working with private and social enterprise to build 'professionalisation' of service delivery, moving beyond voluntary, solely community focused approaches and supporting supply-chain development. To inform such work, there is a need for new thinking on how CSOs can best work at the interface of private, civil society and public sectors to support equitable, sustainable, scalable service delivery for the poor.

This paper was prepared using a 'systematic review' approach, which is a rigorous approach to undertaking a literature review. The detailed method

is provided in Appendix 2. Here we provide a short summary. Academic and grey (non-peer reviewed) literature was compiled through a defined search strategy of databases, websites and journals using clear inclusion and exclusion criteria.² We also collected documents through networks and contacts within the WASH sector. 164 relevant documents (reduced from a total of 4211 from first-round searching) were mapped against a selection of categories and the rigour of the evidence was assessed. A subset of 82 documents we deemed highly relevant to the topic were reviewed in more detail, drawing out:

- factors affecting success of enterprise engagement
- evidence about outcomes for the poor
- enterprise engagement with CSOs.

This paper is structured to include an initial section on the types of enterprise providing WASH services of some kind with an assessment of the nature of the available evidence. This is followed by qualitative analysis of the evidence against the three areas above, first with a focus on sanitation, then on water, and then on literature that cross across the two sub-sectors. The paper concludes with a short section on implications for the sector.

TYPES OF ENTERPRISE IN WASH

Formal private operators working under licence:

Formal operators include those operating with a formal licence and include water treatment plant operators and truck companies delivering water and collecting waste. Formal operators have also been described as providers of water and sanitation services.

See Sima et al. 2013; Lockwood & Smits 2011.

Franchises and network models:

Franchises often offer franchisees branding, marketing and other services in return for payment, or minimum standards of quality in the case of social franchises. Networks or trade associations offer similar types of network benefits to members in return for membership fees.

See Ikeda 2012; Pedi 2012a.

Informal private sector providers:

Informal providers in the water sector consist of the provision of services

NOTES

1. Civil society organisations are defined here to encompass community based organisations, local non-governmental organisations as well as international non-governmental organisations.

2. The focus was on water and sanitation services, which at times touches on hygiene, however a specific additional focus was not given to hygiene (for instance in terms of household items or household water treatment).

including water kiosk operators, water cart vendors, street vendors selling bottled water, small water bag vendors; direct water vendors selling water from taps, wells or rivers, “middle-man” water distributors selling water to homes; pushcart water deliverers and small piped network providers. In the sanitation sector informal providers include vacuum truck owners, pump operators and masons, ranging from skilled masons, to simple masons to labourers.

See Sima et al. 2013; Klemm et al. 2012; Mahe & Wild 2010; Gia & Fugelsnes 2010; Bereziat 2009; Pedi 2012a; SNV Vietnam 2010; Mai 2010; Salter 2008.

Importers, retailers and wholesalers:

Building and construction materials stores selling sanitation related items such as cement, ceramic pans, PVC tubing and tiles. Wholesalers selling on to retailers and the public with examples from Cambodia where latrine components were a minor part of the range of products.

See Plan Indonesia 2011; Salter 2008.

“One stop shop”: Also called “business aggregators” or “turn-key solutions”, this type of sanitation business is discussed by several authors as a means to overcome fragmented supply chains. It offers bundled product-service solutions including materials and installation, often not through a physical retail shop, rather a solution that bundles or packages products/services to households.

See Ikeda 2012; Pedi & Rios 2011; Devine & Kullmann 2011.

Rural Sanitation Marts: Rural Sanitation Marts (RSMs) are retail shops, staffed by government officials or local community members and usually built by a donor or government. Borne decades ago in South Asia, RSMs gained popularity with non-governmental organisations (NGOs) and UNICEF, however they have generally failed because they apply a single solution (e.g. rural retail shop) without looking at the broader challenges. “Sani-centres” are a similar concept whereby sanitation related marketing and products are made available through a local entrepreneur at a retail shop.

See Hanchett et al. 2011; WaterAid 2009.

Prefabricated concrete producers:

Prefabricated concrete producers sell concrete rings for well, water tanks, latrines and slabs and an example in the literature highlights that 40% of rural sales and 65% in urban areas were latrine related.

See Salter 2008.

Micro entrepreneurs: Micro-entrepreneurs reportedly respond to demand and local opportunity, and services include some of those listed above under informal private sector providers. Some micro-entrepreneurs are family managed and financed, with business growth drawing on family for employees.

See Mahe & Wild 2010; Kleemeier 2010.

NGOs and CBOs: There is some evidence of NGOs and CSOs undertaking roles of service provision and being actors in supply chains in the water sector (see Section on Water (c) – CSO engagement with enterprise). CBOs are also becoming more formalised in their provision of water supply services, with the need to be “bankable” (i.e. gain access for formal credit through banks). Literature also provides a comparison of CBO and Private Operator models, noting the weaknesses and risks of each.

See Setiawan & Liem 2011; Tiberghien 2013.

User associations: User associations sometimes participate in private sector-type operations, for example in Senegal, user associations hold operating leases and engage entrepreneurs to operate services, much like a management contract. Water User Associations in Niger, Senegal, Burkina Faso, and Paraguay are participants in the private operator model.

See Gia & Fugelsnes 2010; Kleemeier 2010.

Public-Private Partnerships (PPPs), with private sector operators to maintain and manage larger systems under contract:

Most examples of PPPs come from Africa and consist of rural communities, small-scale operators and other private firms being awarded contracts to work with utilities and government departments in the delivery of water supply services.

See WSP 2012; Klemm et al. 2012; Gia & Fugelsnes 2010; Annis & Razafinjato 2011; Norman & Parker 2011.

Large companies and international / multi-national corporations: Examples from Burkina Faso, Gabon, Senegal, Côte d’Ivoire, Ecuador, Paraguay and India highlight that large companies are active in WASH service provision in developing countries.

See Gia & Fugelsnes 2010; Kleemeier & Narkevic 2010.

2. NATURE OF THE EVIDENCE

WHAT KIND OF LITERATURE EXAMINES ENTERPRISE ROLES IN WASH?

The most common document types were international organisation reports (e.g. those written by WSP, WSUP, ADB and World Bank), independent research reports (e.g. written by BPD, IRC and ODI) and CSO reports (see Figure 1). Most document types were dominated by documents with “some rigour,” except for journal articles, doctoral and masters theses and donor report, which as might be expected, had a higher proportion of “highly rigorous” documents.

We found the dominant type of study to be ‘primary empirical work’, where data was directly collected and analysed in a given context. Many such studies demonstrated strong rigour (see Figure 2). An example of this type of study is WaterSHED & USAID (2009) which analyses water and sanitation supply chains in Cambodia. Studies that used secondary data and combined theory and practice were generally of less rigour. An example of this type of work is Cacouris

(2012), on the informal influences on WASH service delivery.

Surprisingly, the large proportion of academic literature was focused on Africa (see Figure 3). This may be in part because in Francophone African countries, over a quarter of rural piped water schemes are privately operated. Whereas “[p]rivately-managed piped schemes appear less common in India and Latin America, though private operators are present in several countries including Peru, Paraguay, Colombia, Vietnam, Cambodia and Bangladesh” (Foster, 2012, p. 2).

DEGREES OF RESEARCH RIGOUR

Highly rigorous

Transparent research design and structured analytical process.

Some rigour

Evidence of some structure and analytical basis, but examples not grounded in theory, or without transparent data or analysis process.

Low rigour

Descriptive, no clear evidence of analytical process, and rests on opinion rather than illustrative examples.

FIGURE 1 DOCUMENT TYPE AND RESEARCH RIGOUR

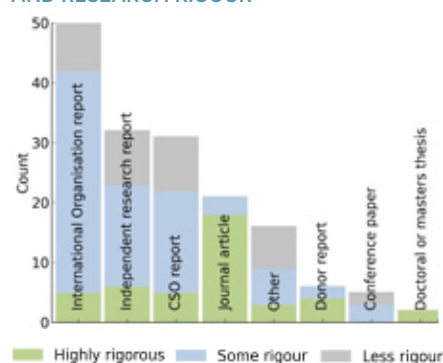


FIGURE 2 TYPE OF STUDY AND RESEARCH RIGOUR

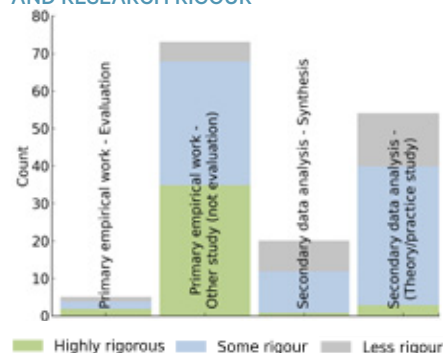
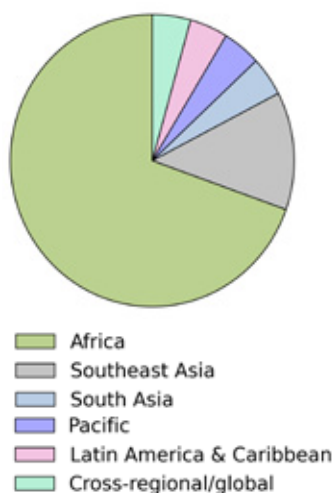


FIGURE 3 ACADEMIC PAPERS BY REGION



Studies focused on rural areas were most common (see Figure 4, next page). A lower proportion of papers had an urban focus, likely because we excluded literature focused on larger private sector companies to keep a core focus on small-scale providers. A large proportion of papers had a sanitation focus (Figure 5, next page).

The spread of literature from the last five years on enterprise roles demonstrates an increasing focus on sanitation products, marketing and latrine construction, in line with recent trends in the sector to adopt ‘sanitation marketing’ approaches (see Figure 6, next page). Many papers covered policy and governance issues pertaining to enterprise development in addition to a focus on a particular aspect of WASH services.

DEGREES OF RESEARCH RIGOUR

Highly rigorous

Transparent research design and structured analytical process.

Some rigour

Evidence of some structure and analytical basis, but examples not grounded in theory, or without transparent data or analysis process.

Low rigour

Descriptive, no clear evidence of analytical process, and rests on opinion rather than illustrative examples.

FIGURE 4 URBAN VERSUS RURAL AND RESEARCH RIGOUR

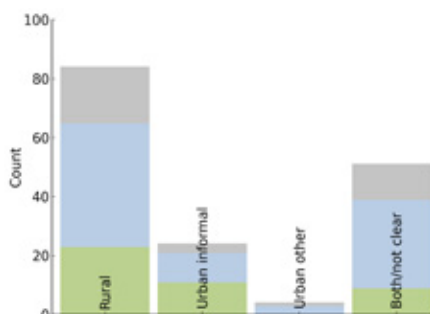


FIGURE 5 WASH FOCUS AND RESEARCH RIGOUR

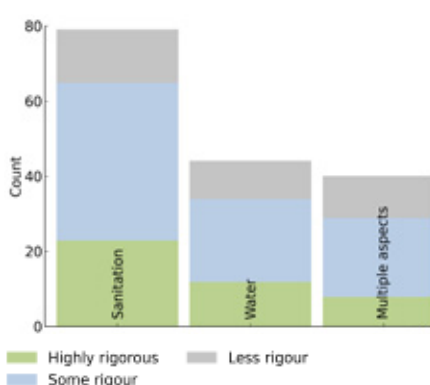
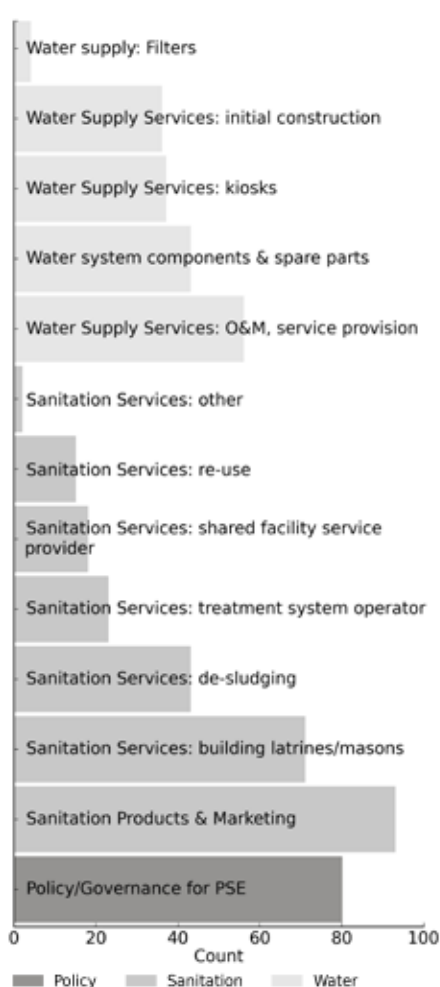


FIGURE 6 WASH SERVICES COVERED IN THE LITERATURE



3. ENTERPRISE IN SANITATION

WHAT ARE THE FACTORS AFFECTING SUCCESS OF ENTERPRISE ENGAGEMENT?

EMERGING EVIDENCE

- Irregular or low demand for sanitation products and services compromises business viability
- Financial support to businesses and customers can be both an enabler or constraint to the viability of sanitation enterprises
- Business and technical skills are critical and often insufficient amongst sanitation enterprises, creating a barrier to ongoing viability
- Increasing regulation can restrict illegal activity or alternatively have positive outcomes on businesses through enhanced consumer confidence
- Enterprises need to take on risk to create ownership of the business and its operations
- Political will, advocacy and appropriate policy can be an enabler to the success of sanitation businesses

Rigorous evidence on factors affecting the success of enterprises engaged in sanitation was thin. Most evidence on such factors was based on studies of low or medium rigour. Most of the sanitation documents had a sanitation marketing focus (46 out of 50), in line with its increasing trend within the sector.

Not surprisingly, there was strong evidence that the existence of a market to create the demand for sanitation products and services is critical for business viability. Some papers mentioned over-supply as a result of low demand, for example, in the pit-emptying business in Phnom Penh (Chowdhry & Kone 2012) and low demand noted by masons and micro and small enterprises (Desalegn et al. 2012). A recent report by World Bank and IFC (2013a) notes that concern over the regularity of demand and weak demand as a result of limited availability of options for poor households were constraints to business success, with the latter point also raised by others including Salter (2008).

There was significant evidence highlighting that businesses were responding to limited demand for

sanitation products and services by diversifying their endeavours. World Bank and IFC (2013a) noted that higher profit margins have been achieved in Indonesia and Peru by “value-adding”; using sludge tank trucks for other purposes has been undertaken in Indonesia (Giltner et al. 2012) while Ikeda (2012) notes that sanitation entrepreneurs only spend 37% of their time on specific sanitation business and additional commitments constrained their ability to expand their sanitation businesses. Further evidence from Bangladesh highlights that diversified businesses were more sustainable (Pedi & Rios 2011), a finding repeated in PNG (Wicken 2012).

Financial support to businesses and customers was found to be both an enabler and constraint to the viability of sanitation enterprises. Strong evidence highlighted the financial challenge of sourcing, running and maintaining trucks used in the pit emptying business, with economies of scale (i.e. a large fleet) correlated with successful businesses (Chowdhry & Kone 2012). Access to finance, often needed in setting up businesses, was a constraint to small businesses with few options and limited support systems, noted by several authors (Chowdhry & Kone 2012; Mai 2010; USAID 2009; Pedi et al. 2011). From a sanitation marketing perspective, suppliers with limited access to finance can lead to unsatisfied household demand (Cole 2013). Occasional non-payments by low-income clients was noted by USAID (2009).

Literature presented polarised views on whether subsidies constrain or enable business viability, mostly based on medium rigour. Evidence of some types of subsidies constraining business through distorting the market is provided (Baker et al. 2011; Mukherjee et al. 2012; Cole 2013), as well as the damage resulting from an inconsistent approach to subsidies (Sijbesma et al. 2010). The benefits of specific types of subsidies were noted by others (Trémolet 2012; Mukherjee et al. 2012). World Bank and IFC (2013a, p.xiii) note that “government provision and subsidies do not seem to be a significant source of distortion of the market”.

The importance of business and technical skills, which are often not sufficient

“...several sanitation providers stated that they could not manage any installations that were more than a two hour drive away, due to their additional work commitments.”
(Ikeda 2012, p.4)

“Households do not purchase improved sanitation because they do not find current options attractive enough.”

(World Bank and IFC 2013a, p.xii)

“... a history of well-meaning subsidies had depressed the demand for latrines and stymied the growth of private sanitation markets.”
(Baker et al. 2011, p.1)

“In all cases, regulation should be ‘light-touch’ with emphasis on improved information and better quality regulation rather than price regulation.”
(Trémolet 2012, p.6)

”

amongst sanitation enterprises, was found in several studies of high and medium rigour to create a barrier to ongoing viability. There was a strong evidence base concerning limited technical expertise and business skills, shortage of marketing and little effort made to improve coordination or reduction of supply chain costs (see (Chowdhry & Kone 2012; Mai 2010; USAID 2009; World Bank and IFC 2013a). Past business experience, having the “right” personality, the “right” level and focus of training and appropriate business case assessment skills were raised as components of successful sanitation businesses (Ikeda 2012; Kome 2011; Salter 2008; Perez et al. 2012).

There was some evidence that showed how increasing regulation can prevent informal sanitation enterprises to undertake illegal activities. In several instances business viability was linked to unlawful activity, for example Giltner et al. (2012) notes that below minimum wage, ignoring legislation and tax evasion are practised by sanitation businesses to maintain a profit margin. Bereziat (2009) provides evidence from Dakar where only 35% of businesses operate within the formal rules, and efforts by authorities to more effectively regulate may affect the viability of businesses, forcing fines on illegal dumping. A different business model that aligns with social and environmental standards is needed that can still be viable within such regulations. Conversely, evidence from Pedi and Jenkins (n.d) notes the benefits of ‘light touch’ regulation of product/service quality, where local authorities accrediting local businesses provided consumer confidence with examples from Vietnam and Indonesia.

An interesting concept that emerged in the sanitation literature was evidence noting that enterprises need to take on risk to create ownership of the business and its operations. Whilst the evidence for this was not so rigorous, it is worth noting due to its repeated mention across several studies. Some studies note the importance to embrace risk as part of the business model (Pedi & Rios 2011; Pedi et al. 2012), while another notes that sensitivity to market changes leads to

low risk-taking behaviour amongst faecal sludge emptying businesses (Kome 2011).

The question of policy and the role of government as an enabler or a barrier to the success of sanitation businesses was addressed in literature of high and medium rigour, although discussed much less than for the water literature. World Bank and IFC (2013a) note that government policies have little impact on small sanitation businesses, with large proportions of surveyed enterprises in Bangladesh and Peru (and Tanzania to a lesser extent) unaware of government policies. Mukherjee et al. (2012) provide evidence of governments providing barriers to sanitation business development through disincentives and discussions around conflict of interests, while other literature notes there is insufficient support to sanitation enterprises from local and district governments (Ikeda 2012; Pedi & Jenkins 2013a). The need for more research on the role of local government was also mentioned, with an example of how government directly contracted the private sector which had consequences of limiting PE development (Rosensweig et al. 2012).

The concept of political will and advocacy in assisting to create an enabling environment for sanitation enterprises and sanitation marketing was raised by several authors, with Cole (2013) providing evidence from Benin, Ethiopia and Indonesia. Sijbesma et al. (2010) provides an example of limited political support for sanitation programs which led to a lack of local government financial commitment. Wicken (2012) notes the importance of political support for sanitation marketing with evidence from PNG. The role of CSOs in advocacy of market based approaches and the roles of small scale enterprise were raised by several authors as being important, particularly with regard to sanitation marketing approaches. For example, Devine & Kullmann 2011 note the need to undertake advocacy to remove non-market impediments, while Rosensweig et al. 2012 note the role of both local government and CSOs in advocacy and promotion of sanitation marketing approaches, and Tukahirwa et al. 2011 note NGOs role in both advocacy and monitoring of urban sanitation in East Africa.

“Risk is important for creating motivation and sustainability. Enterprises need to invest their own money into the business, without support from a project, as financial risk is a strong motivator for success.”
(Baker et al. 2011, p.4)

”



Exposure tours and site visits allowed potential enterprises to see for themselves the success of early project partners.

(Pedi et al. 2012, p.7)



Additional success factors and constraints were raised in the literature, which are also worth a brief mention. The issue of competition from improving public service providers (and other players entering the market) was seen by some as a risk to the viability of enterprise (Berezziat 2009; Mai 2010) and by others as “healthy competition” (Pedi 2012b; Cole 2013; Pedi & Jenkins 2013a). The existence of community-led total sanitation (CLTS) in communities prior to sanitation marketing is thought to play a role in improving success (Pouv et al. 2012). Village leaders acting as sales agents are able to drive local change in sanitation uptake (Pouv et al. 2012), while gender issues were raised by (Sijbesma et al. 2010), noting poor women who were trained as masons became highly committed and skilled craftswomen. Corruption of officials and bribery was raised as a constraint to business viability (Berezziat 2009; Kome 2011). The seasonal variability of demand was identified by some as a challenge and constraint, e.g. to businesses who had to adjust availability of labour, services and materials depending on the wet/dry season (Desalegn et al. 2012; Mai 2010; USAID 2009; Salter 2008; Kome 2011) while others noted the opportunity to maximise seasonal sales (Pedi 2012b).

Transport costs and distance were constraints to business viability, and raised as challenges particularly in Africa (Chowdhry & Kone 2012) and challenging for smaller enterprises whose vehicle size limits enterprise expansion (Pedi et al. 2012). Fragmentation of the supply chain is discussed by several authors as a constraint to business viability, including through preventing customers accessing better alternatives, i.e. supplying products they prefer to buy (World Bank and IFC 2013a). Salter (2008) notes that the fragmentation stifles the innovation of affordable products, while Pedi et al. (2012) describe a program from Cambodia that aimed to overcome fragmentation through establishing “one-stop-shops” for sanitation products. Piggy-backing on existing distribution channels and bulk purchasing were suggested to overcome supply chain challenges (Pedi 2012b). Keeping choices simple was also identified

as a success factor in sanitation marketing (Pedi 2012b; Rosenboom et al. 2011).

A final comment is that as for all businesses, big or small, success breeds success, a notion raised by several authors who note its applicability in the sanitation sector (Pedi et al. 2012; Baker et al. 2011, Pedi 2012).

WHAT ARE THE OUTCOMES FOR THE POOR AS A RESULT OF ENTERPRISE ENGAGEMENT OR INVOLVEMENT?

EMERGING EVIDENCE

- Entrepreneurs gravitate to customers who can pay and servicing the poor is challenging, and usually not a priority for businesses
- There is emerging evidence and examples of poor households being included in private and social enterprise programs, however, discussion focuses on inclusion rather than outcomes
- Subsidies are complex and there is no clear evidence of what works
- Public sector approaches have not been very successful in reaching the poor and there is a need to have realistic expectations about what private sector can achieve

There was limited evidence in the literature on the outcomes for the poor resulting from private sector and social enterprise engagement in the sanitation sector. In fact, most evidence notes that the poor are not prioritised as customers for small-scale private operators. The four main findings are provided below.

Many of the papers which included mention of outcomes for the poor noted how sanitation entrepreneurs tended to gravitate to customers with a higher ability to pay for products and services. The strong push towards sanitation marketing as a way to increase sanitation coverage was evident in the number of papers with this as a focus (46 out of 50). However, there was limited concrete evidence that sanitation marketing is improving access to sanitation for poor households – more time is needed for the outcomes of the approach to become evident (as noted by Wicken 2012). Cole (2013) notes that reaching poor



Serving the less poor members of the community first also makes better business sense, since this segment provides a strong customer base for early market development.

(Narracott & Norman 2011, p.2).



While tariffs for other utility services like electricity and phones are regulated by the government, fees for fecal sludge emptying services in sanitation are left to market forces... given that payments need to be made in one lump sum every few years ... the households wait until the latrines become unusable.

(Chowdhry & Kone 2012, p.68)



households through sanitation marketing is a challenge. Pro-poor approaches through low-cost product options include locally available Sangura slabs, as was the case in Tanzania and described by Devine & Kullmann 2011. Sanitation marketing literature (which was generally of a medium degree of rigour) notes that businesses aim to capture the least poor as customers first, to create a model where poorer households aspire to safer sanitation options (Narracott & Norman 2011). Other literature noted that given the profit driven nature of most businesses, capturing business beyond the “early adopters” (i.e. the first and most financially able to take up sanitation products and services) is more difficult, and instead entrepreneurs prefer to expand to new areas, again capturing those more able to take up their business offers (Pedi et al. 2012; Baker et al. 2011). Narracott and Norman (2011) believe that over time, social business models with human-centred design will enable scaling up of business leading to lowered unit costs, thus allowing poorest of the poor access. Baker et al. (2011) believes market approaches should not be expected to reach the poor.

Additional evidence relating to the first headline finding was that businesses such as truck emptying and masons prefer to serve institutions rather than poor households, given the higher profits and greater chance of being paid when servicing the latter (Berezziat 2009; Desalegn et al. 2012, Tiberghien 2013). Berezziat (2009) notes that while informal operators generally serve households, they see this market segment as less desirable than servicing institutional contracts servicing the non-poor. Desalegn et al (2012) highlights that masons in Ethiopia serve institutions, with households building their own latrines. This relates to the fact that low income households sometimes have difficulty in making payments (USAID 2009), particularly if they are required as lump sums (Chowdhry & Kone 2012). Both these issues were raised in the highly rigorous literature. Another challenge in reaching the poor was technological and logistical, with vacuum trucks in Dakar unable to reach high density, unstructured communities, leading to inability to reach

their intended market (Valfrey-Visser & Schaub-Jones 2008).

There is some evidence that highlights examples of poor households benefitting from enterprise in the sanitation sector, which was mostly raised in literature of a medium degree of rigour. Sijbesma et al. (2010) reports on a sanitation marketing pilot in rural Vietnam, with results showing a high proportion of the pilot population who built toilets were poor. Mai (2010) describe how masons in Vietnam offer reduced daily fees or credit on service provision to the poor. Mukherjee et al. (2012) note that in East Java, a small number of communities involved in a project were able to afford their desired latrine model and were assisted by entrepreneurs with reduced cost options and payment schemes in instalments. Narracott and Norman (2011) describe how low income houses in Ghana were able and willing to pay for sanitation services. A Sanitation Marketing pilot project evaluation of the poor’s uptake of a product called “Easy Latrines” provides some evidence of the program promoting latrine uptake amongst poor households (Baker et al. 2011, p.50), stating that “The data suggest that the project encouraged greater uptake of latrines among poor households in general and that both Easy Latrines and ‘other latrines’ attracted poor households in equal proportions.”

Ramani et al. (2012) provide interesting evidence from India on the need to match design and delivery of toilets to the needs of the poor. Ramani et al. describe three specific points needed to create and diffuse pro-poor innovations (as opposed to mainstream innovations) such as sanitation products: 1) through an iterative process, find the balance and a good fit between supply and demand; 2) additional tailored efforts with targeted customers may be required and 3) these additional efforts may require going beyond mere installation, and require an extension of the capability of the provider and possibly establishing new partnerships. Figure 7 provides a checklist of successful pro-poor diffusion. The checklist is underpinned by the need for entrepreneurs to better understand the community’s perceived value of the innovation, and for them to continue to

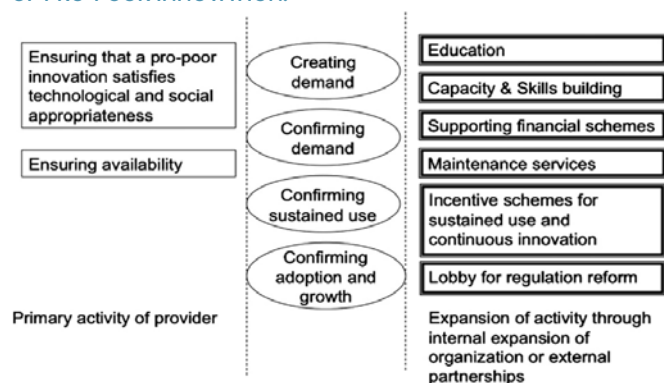


Many [masons] are willing to reduce the daily fee somewhat (about 10-20%) or offer credit when providing services to the poor.

(Mai 2010, p.14).



FIGURE 7 CHECKLIST FOR SUCCESSFUL DIFFUSION OF PRO-POOR INNOVATION.



Source: Ramani et al. 2012, p.685

engage with communities through the pre-construction, construction and post-construction phases.

There was some evidence on the issue of subsidies in terms of sanitation products and services reaching the poor. Tremolet & Evans (2010) provides examples from India and Bangladesh where community toilets allow for better access and services to the poor. This approach involves monthly payments and subsidies may reduce the initial investment and thus the monthly costs required for access by the poor. Mukherjee et al. (2012) describe evidence of the success of community subsidies which enabled poor households access to facilities, while Wicken (2012) and Rosenboom et al. (2011) note that hardware subsidies undermine sanitation marketing businesses and are ineffective at reaching the poor. A growing body of evidence indicated microfinance and credit systems as 'potential' options for poor households to benefit from sanitation marketing (Perez et al. 2011). See Jenkins & Pediti 2012 for a review of WASH microfinance consumer lending for sanitation marketing.

There was some evidence suggesting that public sector approaches have not been very successful in reaching the poor and there is a need to have realistic expectations about what private sector can achieve. Schaub-Jones (2010) discusses the provision of services by private sector in comparison to the public sector, and notes that "In Cambodia a recent study on sanitation financing for the poor found that most public finance

for sanitation in Cambodia is not reaching those below the poverty line." Output based aid is suggested as a potential mechanism to reach the poor, since "Output-based aid tends to reward the provider directly and thus incite them to serve poorer communities" (Schaub-Jones 2010).

WHAT DOES ENGAGEMENT BETWEEN ENTERPRISE AND CSOS CONSIST OF?

EMERGING EVIDENCE

- CSOs play a bottom up role supporting small businesses with a focus on capacity building and enterprise establishment
- The emerging trend for CSOs engagement with businesses and government is through Sanitation Marketing approaches
- CSOs play a role across, and as a link between, businesses
- While CSOs engage in various aspects of the sanitation private sector, little attention is paid to sustainability of their role

Most evidence describing how CSOs engage with the private sector was of medium to low rigour. The four main headline findings are described in further detail below.

CSOs were found to play a predominantly 'bottom up' role in supporting small businesses work better and focused on capacity building and enterprise establishment. Schaub-Jones (2010) describes examples of NGOs supporting enterprise development in Vietnam, through training masons and businesses; and in South Asia through assisting in establishing community run public toilets. An African example shows how CSOs seek to fill the gap where government support is limited in relation to sanitation utilities (Schaub-Jones 2012). There is also evidence of NGOs playing a role in establishing community run public toilets, and in doing so entering a space that sits between profit-making and non-profit activities (Schaub-Jones 2010). It remains to be seen what the longer term outcomes of such ventures are in terms of NGOs roles as active agents in the area of sanitation enterprise.

“Village leaders had stepped in... with crucially needed financing support to consumers or to service-providers...using village funds from poverty alleviation or other programs. This has enabled poor consumers to pay for their facilities in instalments or make payments after harvest or fishing seasons.”
(Mukherjee et al. 2012, p.94)

”

“
...the role of professional associations in the sanitation sector is not particularly well understood. More information on how such institutions function... would be helpful to sector professionals.”
(Schaub-Jones 2010, p.13)



Examples in the literature highlighted how CSOs engage with businesses and government through Sanitation Marketing approaches. Pedi & Jenkins (2013b) describe two implementation models for sanitation marketing, both of which involve NGOs working with government. The first has government as lead implementers, with technical support provided by NGOs; while the second describes NGOs as the lead actors with collaboration with local government and community leaders. An example from Benin is provided where the Ministry of Health acted as the lead organisation and drew upon district health officers to implement the program, with NGOs filling gaps in government personnel at the local level (Pedi & Jenkins 2013a). Further evidence from India reports of the common approach to diffuse toilets throughout the population as a partnership between non-profit organisations (NPOs), government and aid organisations (Ramani et al. 2012 p.676), noting that “A handful of social entrepreneurs from such NPOs are in particular highly acclaimed for their role in promoting and diffusing toilets among the poor”. CSOs are therefore closely engaged in the creation and promotion of demand for sanitation products and services. As such, their role could be seen as subsidising marketing costs for the industry to address the barriers mentioned earlier around low demand (Sijbesma et al. 2010).

Related to the emergence of CSOs in sanitation marketing and demand creation is that of monitoring and evaluating (M&E) small scale enterprise providers, and how they respond to changes in demand. Given that sanitation marketing is acknowledged to be a relatively slow process, there was limited literature on M&E sanitation marketing, however there is some emerging evidence and guidance provided in recently published literature (see Pedi & Jenkins 2012).

There was evidence in one paper showing how CSOs played a role across, and link between, businesses. The example came from Uganda, where NGOs supported the establishment of associations on private operators, as reported by Schaub-Jones (2010). It was recognised that associations

have potential benefits, as was the case in Uganda, however their role in the sanitation sector is relatively unknown.

While CSOs were found to engage in various aspects of the sanitation private sector, little attention is paid to sustainability of their role. There was a moderate amount of evidence of medium to low rigour on this issue. The first example relates to previous points about the importance of enterprises taking on risk if they are to be successful. In this case those that had lower levels of NGO support were less dependent. A case study described by Pedi et al. (2012) is one of few examples that deal explicitly with the issue of NGO-dependence, noting the importance of enterprises taking on leadership of their own business activities. Another paper cited an example from Cambodia which noted the explicit approach to minimise the visibility of the NGO and promote ownership by the government (Pedi & Jenkins 2013a). Less strong evidence, phrased as a recommendation, noted that too much CSO support is bad for business: “For a business to be truly sustainable they need to self-motivated and independent of NGO support – financial risk and a limited period of training and mentorship were strategies to motivate self-reliance and sustainability” (Baker et al. 2011, p.4).

There was evidence that highlighted that CSOs are often inexperienced in engaging working in the private sector. Strength of evidence on this issue was mixed. An example from Ethiopia noted that “Most NGOs [in the case study area] do not have an experience of working with business operators” (Desalegn et al. 2012, p.34). Many NGOs were found to be looking to support sanitation businesses despite having limited (or no) experience working with small and medium enterprises (Schaub-Jones 2012). NGOs, and the small community groups they support, lack business experience and are therefore less likely to make investments to expand the business (Schaub-Jones 2012).



The initial lack of a clear exit strategy for external NGO support created challenges to develop a sustainable enterprise engagement model...

(Pedi et al. 2012, p.12)



4. ENTERPRISE IN WATER

WHAT ARE THE FACTORS AFFECTING SUCCESS OF ENTERPRISE ENGAGEMENT?

EMERGING EVIDENCE

- Low demand for spare parts, products and services affects business viability in this supply chain
- Business skills and planning, market viability and financial feasibility are lacking, which constrains ongoing sustainability of businesses
- Financial challenges can act to constrain business viability
- Policy, governance and institutional frameworks can act to support or constrain businesses
- Decentralisation of responsibility for service delivery to local levels of government can provide an environment in which entrepreneurs can flourish
- Local entrepreneurs have “natural legitimacy” in their local communities which is a success factor for business viability

The literature provided strong evidence that demand in the spare parts market was critical to profitability and therefore business viability. For example, Larroquette (2012) noted that in Timor-Leste, low demand for spare parts limited profitability, and an element of success was seen in building and developing supply chains based on existing supply chains. This issue was also noted by Harvey (2011), who added that in rural areas, a constraint to sustainable businesses is the delivery of spare parts at affordable prices. Additional evidence was provided by Kleemeier (2010) (citing Oyo, 2006) who noted that high population density (and thus demand) led to successful supply chains and conversely in Africa, low population density led to unviable supply chains. The latter point is linked to isolation and distance from main town centres, which was a challenge for business viability and noted in several sources (e.g. Harvey 2011; Larroquette 2012; Mahe & Wild 2010).

The existence of a market to create the demand for water products and services is critical for business viability. As touched upon above by WaterSHED and USAID (2009), limitations in size of

the market and demand for products can constrain business viability. An additional point raised by several authors relating to demand is access to the product – in some cases referring to water. In Paraguay, the ongoing feasibility of small-scale water providers (termed ‘aguateros’) was dependent on the availability and accessibility of groundwater of a certain quality (Keatman 2012). Furthermore, the aguateros were found to respond to residual demand for which the public provider lacked capacity to service (Keatman 2012).

There was a significant degree of evidence noting that business skills and planning, market viability and financial feasibility are often limited, which acts to constrain ongoing sustainability of businesses, and this includes for both individual entrepreneurs and larger public-private partnerships. Evidence on this issue was present in studies of high and medium rigour. Numerous studies note that individual entrepreneurs lack strategic business planning and knowledge of the financial market in which they are operating (see for example Foster, 2012; Kleemeier, 2010; Gia & Fugelsnes, 2010 and Kleemeier & Narkevic, 2010). Business acumen is important, as noted by Lazarte et al. (2011) as is the capacity to understand contractual agreements (Lockwood & Smits 2011).

The literature provided many examples of financial challenges acting to constrain business viability. The need for high capital investment affects both businesses and households – an issue confirmed by rigorous evidence. High connection fees can act to “lock in” customers (Ahlers et al. 2013a; Ahlers et al. 2013b) or limit customers’ ability to afford connections (Kleemeier 2010). World Bank and IFC (2013) note that in Bangladesh, few water supply networks are financially viable given the few connections to the networks, high investment costs and imbalanced tariff structure. Poorer customers and small businesses also face challenges accessing credit and micro-finance which affects business success (Larroquette 2012; Mahe & Wild 2010). SNV (2010) noted the range of supporting financing options

“Once a customer is connected to an SSIP [small-scale independent provider] they will rarely change provider. Switching providers would require that they pay the connection fee again.”
(Ahlers et al. 2013a, p.179)





Evidence is scarce on the financial sustainability of schemes managed by rural private operators...

(Kleemeier (2010, p.25).



Another important consideration is the institutional arrangements needed to oversee the process. In the case studies reviewed, there was no dominant institutional configuration.

(Foster 2012, p.42)



available to individual entrepreneurs and institutions interested in investing in rural water supply and sanitation in Vietnam. Other authors suggest financing and subsidies are often needed and propose an Output-Based Aid approach to overcome high start-up costs (Kleemeier & Narkevic 2010). There was also extensive evidence across the levels of rigour that grouping of water schemes into profitable clusters could support less commercially viable operations in some countries (Kleemeier 2010; WSP 2012.; Foster 2012; Hoang et al. 2010; Hystra 2011). This issue related to population density and economies of scale, with evidence suggesting that it makes economic sense to invest in collective treatment and distribution infrastructure in areas of high population density (Hystra 2011, p.47).

The topic of policy, governance, regulation and institutional frameworks with regard to enterprise in the water sector was present and discussed at length across literature of all levels of rigour. There was acknowledgement and evidence that policy and governance arrangements can act to support or constrain businesses depending on the context. For example, strong evidence showed that policy can provide incentives, investment and legal participation in the formal market (Ahlers et al. 2013; Larroquette 2012; Lockwood & Smits 2011; Sy et al. 2011). Policy support was also found to be favourable for independent operators in Bolivia (Keatman 2012). Literature provided evidence showing that policy can also neglect informal operators, increase expenses (including taxes and licence fees - Ahlers et al. 2013) and provide a hostile business environment (Larroquette 2012). World Bank and IFC (2013) note that incomplete legal frameworks for water supply may constrain some kinds of private investment. An absence of a clear institutional framework also has mixed outcomes, for both the business and the environment (e.g. allowing for over-exploitation of water resources – see Seureca and Hydroconseil 2005, cited in Matsinhe et al. 2008). Literature noted that as formalisation

and professionalisation of enterprise increases, so too does the degree of regulation for both the service provided and the service provider, and it is noted that *“There is no level in the institutional framework where regulatory functions are best placed”* (Lockwood & Smits 2011, p.99).

As authority and responsibility for the delivery of water supply services is decentralised from central to local governments in many developing countries, entrepreneurs and informal providers are filling a gap in providing services local authorities have limited capacity in delivering. Mahe & Wild (2010, p.30) note that the importance of the private sector has grown with the advent of decentralisation including in the provision of water supply. When coupled with increasing formalisation of the market, the decentralisation of responsibility for services, can be seen as providing an environment conducive to private service delivery, as noted by Matsinhe et al. (2008, p.847): *“Legalization of the informal market and decentralization of certain regulatory activities to the neighbourhood level are important steps in the efforts to improve service delivery to the urban poor.”*

A range of sources reported that local entrepreneurs have “natural legitimacy” in their local communities which is a success factor for business viability. Local entrepreneurs enjoy the trust of their communities and local authorities, and have a greater understanding of their operating environment including usage and capacity (Mahe & Wild 2010; Gia & Fugelsnes 2010).

There was some evidence suggesting that entrepreneurs and small-scale providers embodied characteristics of flexibility, innovation and progressive business models. Annis & Razafinjato (2011) describe multiple service options (e.g. private, social or public connections) and pricing structures catering for the needs of the heterogeneous and ‘economically diverse communities’, while Hystra (2011) note that base-of-the-pyramid providers develop “innovative solutions specifically adapted to these communities”.



The state needs to play a greater role in incorporating local companies and informal service providers when considering policy and initiating partnerships... Greater regulation and competition would also enable local communities to hold local operators to account.

(Klemm et al. 2012, p.7)





“New entrepreneurs ... were natives of the target area, and their close ties to the region, as well as their family ties in the zone assured them the benevolence of local authorities and the population. Their absence of prejudice towards the population allowed them to serve the whole population without discrimination”
(Mahe & Wild 2010, p.47).



Additional evidence relating to the success (or otherwise) of water supply businesses include: Limited alternate sources of water supply increases business viability (Mahe & Wild 2010) and increases customers' willingness to pay (Foster 2012); there appears to be a growing role for informal providers as urbanisation continues and rural centres grow (Lockwood and Smits 2011); unreliable power supplies in some countries limits business viability (World Bank and IFC 2013b); technical capacity of small-scale providers in rural centres is limited (World Bank and IFC 2013; Lazarte et al. 2011) and where strong political support exists, small-scale water business can flourish (Klemm et al. 2012; Valfrey-Visser et al. 2006; Annis & Razafinjato 2011).

WHAT ARE THE OUTCOMES FOR THE POOR AS A RESULT OF ENTERPRISE ENGAGEMENT OR INVOLVEMENT?

EMERGING EVIDENCE

- Some entrepreneurs and small-scale informal providers have demonstrated a flexible pricing structure allowing for the poor to access services at affordable prices
- Provision of accessible and affordable water services in poor rural areas is challenging for private and social enterprise; outcomes include poor households turning to unsafe water supplies
- Effective service provision to poor communities can result from appropriately structured management models

There was relatively limited evidence in the literature surrounding the outcomes for the poor resulting from private sector engagement in the water supply sector. The three main findings are provided below.

Relating to earlier findings of innovation and flexibility, entrepreneurs in the informal private sector have demonstrated flexibility in pricing to allow for poor households and communities to access services. One study noted that the highest prices were found in areas where people could afford the fees – a concept at odds with the perception that private operators tend to take advantage

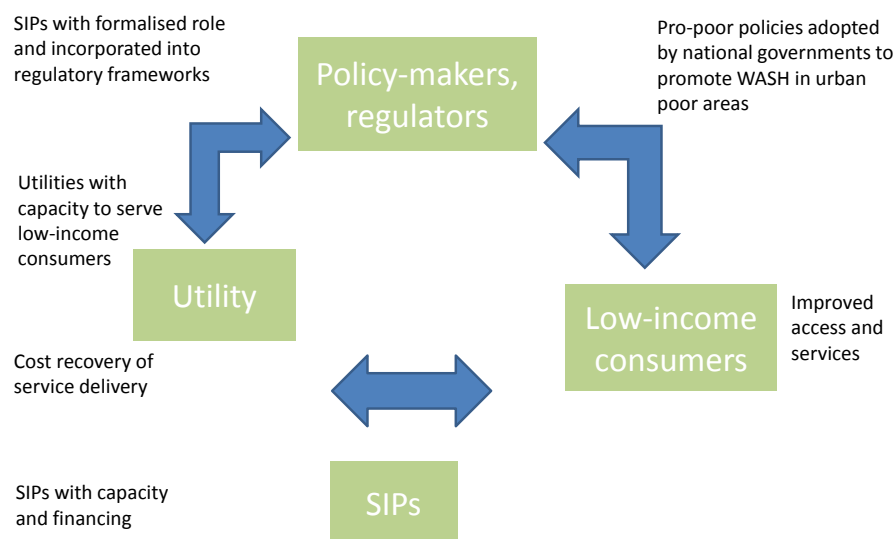
of poorer urban households (Sima et al. 2013). As noted in the previous section, Annis & Razafinjato (2011) also note diverse pricing and service options to cater for the range of needs in economically diverse communities.

Evidence suggests that water tariffs in rural areas tend to be higher due to lower population density. Public-private partnerships (PPPs) and entrepreneurs are challenged with balancing the need to set tariffs at prices customers can afford, while also maintain business viability (Lazarte et al. 2011). Evidence suggests that outcomes for poor households who cannot afford connections or the water tariffs include drawing on unsafe alternative water supplies (Lazarte et al. 2011). World Bank and IFC (2013) note that water supply access for the poor is context dependent, with enterprises in some countries (e.g. Cambodia) displaying a pro-poor approach while others (e.g. Bangladesh and Benin) considering the poor to be without equal access to services of businesses.

Results of a WSUP study from Kenya notes that effective service provision to poor communities can result from appropriately structured management models (Norman & Parker 2011). Delegated management models, where small-scale operators are contracted by municipal water utilities, is shown to provide an approach to allow access to water (and sanitation) services for the urban poor. A schematic from the WSUP study which describes the model is provided in Figure 8 (see next page).

Additional evidence surrounding outcomes of enterprise engagement for the poor (of a less robust nature) include: Poor households and individual entrepreneurs have limited access to credit and micro-finance and are therefore sometimes unable to afford connection fees and business start-up costs (SNV 2010; Larroquette 2012); poor customers effectively being “locked in” as a result of high connection fees leaves poorer households at the mercy of businesses hiking up prices, being unreliable in service provision and maintenance and conducting unethical practice (Ahlers et al. 2013a; Ahlers et al. 2013b).

FIGURE 8 PRO-POOR SERVICE DELIVERY MODELS INVOLVING DELEGATED INFRASTRUCTURE MANAGEMENT BY SMALL INDEPENDENT PROVIDERS



Source: Norman and Parker, 2011, p10.

WHAT DOES ENGAGEMENT BETWEEN ENTERPRISE AND CSOS CONSIST OF?

EMERGING EVIDENCE

- CSOs predominantly work with private and social enterprise in the water sector in providing bottom-up capacity building through technical and financial support
- CSOs have also provided support at the institutional level on contract preparation and supporting politicians and civil servants with engaging with private and social enterprise
- CSOs assist in the 'formalisation' of CBOs working in the water supply sector
- CSOs sometimes act as agents in the supply chain in the provision of products and services
- CSOs work to hold both private sector and governments to account in the delivery of services

Kleemeier (2010) provides several examples of CSOs supporting enterprise, one of which is East Meets West Foundation (EMWF) in central Vietnam, where private operators are introduced into EMWF's schemes with the aim to improve financial and technical sustainability, and provided private operators with capital subsidies based on the number of water supply connections

made (East Meets West Foundation 2012). Another example of CSOs supporting enterprise comes from Mahe & Wild (2010) where a public-private partnership approach was supported by a French NGO, GRET, which provided technical and financial assistance (credit and subsidies) for the water schemes to operate. Singh (2012) described how WaterAid India helped establish "People Panchayat Partnership" which resulted in installation of hand-pumps, training of mechanics and masons and provision of tools and vehicles.

There is also evidence of CSOs supporting the supply side, more specifically in contract preparation and enforcement (Mahe & Wild 2010) as well as addressing the issue of political will by engaging closely with politicians and civil servants to ensure their ongoing support and sustainability of the enterprise program. The latter example occurred in the case with the "WASMO" program in India which was supported by Dutch development assistance (Lockwood & Smits 2011).

Several examples from Africa provide strong evidence of NGOs working as actors in the supply chain – for example in remote rural areas of Guinea, a local NGO called Tinkisso produced and distributed chlorine products (Hystra

2011). In Malawi, NGOs are involved in the provision of maintenance and spare parts through networks of local entrepreneurs, while in Kenya, the distribution of chlorine products is organised by NGOs at larger scales using both commercial and non-profit channels of distribution (Hystra 2011). An additional example comes from India with the Naandi Foundation, which is described as a large NGO and also a “social sector organisation” working in the water treatment plant sector. Naandi have partnered with private manufacturers and generally act as managers of the operations (Kleemeier 2010).

As community-based organisations (CBOs) become increasingly formalised in their role of water service provision, there is evidence

of NGOs and CSOs assisting in start-up financing and construction, as reported by Sy et al. (2011), was repaid by the CBO. Lockwood & Smits (2011) also raise the issue of CBOs becoming more formalised, noting that with professionalisation comes various other opportunities for private sector involvement.

Some literature notes that the role of CSOs includes advocating for the rights of local communities, and this involves holding private operators, as well as governments, to account (Klemm et al. 2012). Whilst not covered in detail in the literature, CSOs also conduct studies on market size and preferences and feed this back to enterprises, playing a ‘market intelligence’ function (Pedi, 2013, pers. comm.)

5. ADDITIONAL EVIDENCE

In general, there were no new outstanding elements of success (or otherwise) raised in literature focused on both water and sanitation, which included eight additional documents of either medium or low rigour.

As was found for the papers focusing on the water sector, papers covering 'multiple aspects of WASH' revealed conflicting evidence of the benefits of policy, regulation and contracting surrounding the operation of entrepreneurs and small businesses. One paper covering small-scale water and sanitation providers noted that contracts can "...ensure more comprehensive negotiation and risk analysis... make development initiatives more professional, transparent and accountable... [and] address modification, conflict, withdrawal and termination" (Scott & Pinceau 2013, p.1). Some advantages and disadvantages of contracting for small-scale WASH providers are illustrated in Table 1.

WSP also highlighted that in Senegal, new policy delegating maintenance to the private sector was expected lead to an increase in the number of local private operators (Water and Sanitation Program (WSP) 2008).

Complementary evidence supported evidence described earlier that business, marketing and technical skills were critical and often not sufficient amongst water and sanitation enterprises, creating a barrier to ongoing viability. Reported

from a positive angle, Tiberghien (2013) noted that embedding business principles into the WASH sector improves efficiencies and provider viability. Others reported that "businesses are passive (some because of a lack of desire or drive, others because of a lack of knowledge on how to be more active)" (WaterSHED & USAID 2009, p.24). The same authors noted that in their study area in Cambodia, entrepreneurial spirit and marketing were lacking (ibid).

There was additional evidence that spanned the water and sanitation sectors on supply chain challenges that act to constrain business viability. WaterSHED & USAID (2009) noted that in their case study area in Cambodia, fragmentation is not the problem (in fact, close links were found between some elements of the supply chain), rather it is information flows that are limited, and lack of scale and corresponding demand that creates challenges. It was also noted that the sanitation supply chain was more complete than that for water, and sanitation businesses further up the supply chain (e.g. importers and large wholesalers) were less dependent on products and services than those further down the supply chain (e.g. masons and concrete producers) (WaterSHED & USAID 2009). In the water sector, retailers at the downstream end were less reliant on water products (ibid).

TABLE 1 ADVANTAGES AND DISADVANTAGES OF CONTRACTS FOR SMALL-SCALE WASH PROVIDERS

ADVANTAGES OF CONTRACTING	DISADVANTAGES AND CHALLENGES OF CONTRACTING
• Can be cost-effective if there is true competition, prudent procurement procedures and qualified supervision • Puts pressure on contractors to improve their efficiency • May reduce authority's management burden • Can support development of useful cost and performance benchmarks • May provide special skills and innovative methods of operation and management • Can help develop local contracting industry	• Not cost effective if local contracting is not truly competitive • Demands qualified preparation of tender documents and qualified supervision • May stimulate fraud and corruption in procurement process and during supervision • May meet resistance from unions • May result in delays if procurement procedures are cumbersome • May lower quality of service if supervision is inadequate and contractors seek to cut costs • Acceptance of low bids may lead to inferior quality of work

Source: Scott & Pinceau 2013, p.2

**“
...despite strong
adherence
to traditional
ways... reliance
on voluntary
work may
jeopardise
the [private
sector] model's
sustainability.
(Tiberghien, 2013:9)**

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Additional issues were raised as affecting the success (or otherwise) of WASH businesses. These include financial capacity relating to inability to service repairs (Tiberghien 2013) and that credit was more common in sanitation supply chains than for water (WaterSHED & USAID 2009). The socio-cultural environment also plays a strong part in the ways businesses operate, with a traditional notion of voluntary work potentially undermining the private sector model (Tiberghien 2013). The issue of risk was raised by Scott and Pinceau (2013) with a different perspective than that found for the sanitation papers. Authors note that risk should not be owned and allocated to small-scale operators as they are believed to be unable to manage it – rather it should be owned by utilities or large operators (Scott & Pinceau 2013). Finally, weaker evidence was reported surrounding women's security in accessing communal sanitation blocks, which could potentially reduce usage and therefore ongoing viability of the enterprise (Cacouris 2012).

The only additional evidence on outcomes for the poor was raised by Tiberghien (2013), who noted 'social entrepreneurship' requires a modification of private management for the sake of achieving social goals, and includes lowering of prices and service expansion as forms of poverty responsiveness.

No further evidence emerged from papers covering both water and sanitation on the various forms of engagement between enterprise and CSOs.

**“
Credit is less
common in the
water supply
chains than in
sanitation.
(WaterSHED and
USAID, 2009)**

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6. DISCUSSION & CONCLUSION

“The types of businesses offering WASH products and services is highly diverse, with small-scale enterprise maintaining a flexible and dynamic approach to meet the changing needs of customers in ever-evolving contexts.”

This review of literature has revealed that the evidence on small-scale enterprise in WASH provision spans across a range of document and study types, with the majority of rigorous studies (which comprise a fraction of total studies) being conducted in Africa. The majority of literature were international organisation reports, followed by independent research reports and CSO reports, with formal academic literature (journal articles and conference papers) comprising a much smaller proportion. The rigour of the studies was variable, and this paper attempts to clarify and distinguish between strong, and weaker evidence.

The growing interest in sanitation marketing as an approach to sustainably provide sanitation services was evident in the papers in the sanitation subsector. However, literature from the water subsector offered a longer history of analysis when compared to sanitation. The types of businesses offering WASH products and services is highly diverse, with small-scale enterprise maintaining a flexible and dynamic approach to meet the changing needs of customers in ever-evolving contexts.

Evidence from the literature revealed similar factors affecting the success of enterprise across the water and sanitation sub-sectors. The first issue spanning across both water and sanitation that constrained business viability was limitations in demand (be it of spare parts, products or services). Evidence revealed that in rural areas, businesses suffered due to low population density. The second issue present across water and sanitation literature was the lack of business and technical skills amongst small-scale operators, and their limited ability to understand market viability. Financial challenges (e.g. access to credit, inability of poor households to pay) acted to constrain business viability, with polarised views pertaining to the use of subsidies. Policy, governance and institutional frameworks could either support or constrain businesses depending on the context, and political will and advocacy was found to be an enabler to the success of sanitation businesses in particular. Increasing regulation of informal operations had

positive effects on hampering the illegal activities of operators, with evidence provided from the sanitation sector. While other additional issues affecting business viability were raised, they appeared less frequently across the broad body of literature reviewed in this study than those summarised here.

Some evidence was found on the outcomes for the poor resulting from enterprise engagement, however across both the water and sanitation literature, serving the poor was not highlighted as a specific priority for businesses. In the sanitation literature especially, it was found that businesses tended to prefer servicing non-poor customers to ensure sustainable collection of payments and viable earning of profits. There was emerging evidence of small-scale providers in the water sector offering flexible pricing structures to enable poor households entry into the market, however this remains a challenge in most contexts. A notable mention from the sanitation literature provided examples of how to best approach the “bottom of the pyramid” customers by targeted design of sanitation products, and continued investment beyond the construction phase.

Evidence describing engagement between enterprise and CSOs in both the water and sanitation literature was limited. Most engagement was found to consist of CSOs offering bottom-up and capacity building support to businesses or informal operators (e.g. formalisation of CBOs), however there were some examples in the literature of institutional support to government on contract preparation in the water sector. Sanitation Marketing provided an entry point for many CSOs, however it was noted they sometimes lack the experience and business skills themselves to offer value to enterprises. There was also evidence of CSOs playing an active role in the supply chain in the provision of water related products and services.

This paper therefore clarifies several areas for ongoing thinking, research and practice change. First, that matching and bringing together demand and supply is a much more complex matter than might meet the eye, and requires greater attention from practitioners and analysts alike. Second,

“Sanitation Marketing provided an entry point for many CSOs, however it was noted they sometimes lack the experience and business skills themselves to offer value to enterprises”

**“
...matching
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attention from
practitioners
and analysts
alike.
”**

that the skill-set required needs further development within main WASH sector actors, and hence drawing on the skills and expertise of other sectors, businesses and academic expertise is likely to be important going forward. In addition, developing an enabling environment for businesses to grow may require more proactive support than has been provided to date. In particular, with respect to ensuring socially inclusive approaches from which the poor might feasibly benefit. Lastly, a recognition that the role of CSOs in supporting enterprise development is a new and emerging one likely to evolve over the coming years to become more strategic and targeted to make best use of their skills and leverage as civil society actors.

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8. APPENDICES

APPENDIX 1: DESCRIPTION OF THE BROADER RESEARCH PROJECT

The research has a primary focus on water and sanitation services in rural areas, and a minor focus on sanitation services in poor urban/peri-urban areas. This focus represents the most challenging areas in which to enable enterprise development, and is where CSOs generally focus their resources to reach the poor. The overarching research questions are as follows:

- 1) What skills do CSOs need to support private and social enterprise engagement that leads to equitable outcomes?
- 2) What roles could CSOs play at the interface of private and social enterprise, public sector and civil society? What theory of change is implicit in each of these roles?
- 3) What are viable business models to serve the poor, particularly in low density rural settings? What interventions are needed in cases of market failure?

In providing answers to these questions, the key outcome will be improvements in the quality of CSO work that engages private and social enterprise. The research will provide insight into viable business models and interventions to overcome market failure in the challenging contexts in which CSOs work. It will also address how equitable outcomes—including gender equity—are best supported, identifying skills and roles required by CSOs working in this realm. More broadly, the research will improve the evidence base on the role of private sector and social enterprise in WASH for the poor, including related public sector support and regulation, providing essential information for policymakers in the three case study countries.

APPENDIX 2: 'SYSTEMATIC REVIEW' APPROACH

This report presents a systematic literature review approach which compiles and analyses the existing evidence base around enterprise in water and sanitation service delivery for the poor. Our systematic review approach follows those presented by the UK's Overseas Development Institute (ODI) and Department for International Development (DFID) (see (Hagen-Zanker et al. 2012; Hagen-Zanker & Mallett 2013; DFID 2011; DFID 2013), which draw on the rigour of a traditional systematic review, but allow for the flexibility needed in assessing the dynamics and complexity of the international development sector.

Steps taken

ODI has played a leading role in drawing on Systematic Reviews in evidence based policy research. Seven steps are proposed by ODI (Hagen-Zanker et al. 2012), which have been followed for this study. A brief summary of these steps and the approach taken for this research is described below.

Deconstructing what the research was about was important to allow the searching of various information sources, which included academic and grey literature, websites and other documents from WASH stakeholders. Inclusion and exclusion criteria further refined the scope of the search, which included Year range (2008 onwards); Type of publication (not media); Language (English only) and Country setting (i.e. poor / challenging contexts). The team searched during the period of May – July 2013, with anything found after 31/7/2013 excluded from the Systematic Review.

Developing a Search Strategy was a crucial stage of the Systematic Review as it defined what to search for, where and how to search. Our Search Strategy included Academic Databases, International organisation databases, Journals, Websites, Bilateral organisations, NGOs, and Key individuals.

The process of searching academic literature through databases adhered relatively consistently to the above steps, with search strings and inclusion / exclusion criteria readily able to be copied to search queries. Grey (or non-peer

reviewed) literature was sourced using (as close to) the same approach where possible, for example searching NGO websites or Google. However, a significant portion of grey literature was sourced directly from key WASH stakeholders, where the Systematic Review approach is acknowledged as less relevant (and less possible), highlighting that while the Systematic review approach was not always able to be followed in the strictest sense, the research team documented all literature and where it was sourced from.

Quantitative Document Analysis

Analysis involved quantitative document mapping of 164 references, which were identified as relevant to the answering elements of the research question MS Excel. Documents were mapped according to a range of categories including:

- Document type (e.g. Journal article, donor report, CSO report, thesis etc.)
- Type of study (e.g. journal article, donor report, Conference paper, CSO report)
- Research rigour (classified as highly rigorous, some rigour, less rigour)
- Region (e.g. Africa, Southeast Asia, Pacific)
- WASH focus (Water, Sanitation, Hygiene or Multiple aspects)
- WASH services (e.g. Policy, Sanitation Marketing, Water Supply Services – construction)

In-depth Qualitative Analysis

Qualitative analysis involved examination of the 82 references that were deemed as highly relevant to the research question, particularly with regards to the role of

the private sector in WASH services for the poor. Given the emphasis on better understanding the nature of the evidence contained in the papers, qualitative analysis was firstly framed around level of research rigour (highly rigorous, some rigour, less rigour). Secondly, this subset of 82 papers were analysed according to three issues:

- Factors affecting success (or otherwise) of private sector engagement
- Outcomes for the poor as a result of private sector engagement
- Private sector engagement with civil society organisations

A breakdown of the total papers is provided in Table A1.

Summary of Filtering Process

The overall literature identification and filtering process is shown in Figure A1 which highlights:

- 4211 citations identified from electronic databases using Search Strategy
- 241 academic papers were deemed as relevant for importation to our reference manager (Mendeley)
- 204 grey literature papers were found and imported to Mendeley
- Based on various stages of culling (using automated and manual inclusion and exclusion criteria) 164 papers were mapped using excel and subjected to quantitative analysis
- 82 papers were deemed as relevant for deeper qualitative analysis

TABLE A1 SUMMARY TABLE OF PAPERS UNDERGOING IN-DEPTH ANALYSIS

	TOTAL	WATER	SANITATION	MULTIPLE ASPECTS
Highly rigorous	20	6	14	0
Some rigour	47	12	29	6
Less rigour	15	6	7	2
Total	82	24	50	8

FIGURE A1 SYSTEMATIC REVIEW – IDENTIFICATION AND FILTERING PROCESS (BASED ON SPURWAY, 2011, P94)