SESSION 2

Targeting the Poor – Facilities and Improved Services

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Acronyms

CLTS	Community-Led Total Sanitation
GOI	Government of India
GPOBA	Global Partnership Output Based Aid
MFI	Micro Finance Institution
NGO	Non Governmental Organisation
ODA	Official Development Assistance
ODF	Open-defecation free
SRF	Sanitation Revolving Fund
SWRESP	Safe Water and Rural Environmental Sanitation Program (Vietnam)
TSC	Total Sanitation Campaign
WWTP	Wastewater Treatment Plant
WHO	World Health Organisation

Abstract

This paper looks at the interventions that can help poor people to access sanitation goods and services. It focuses on three types of interventions; the use of low-cost technologies, the use of micro-credit and the use of targeted public finance (or subsidies) to reduce the funding gap that poor people face to meet the capital and recurrent costs of sustainable sanitation. The paper then focuses on the use of targeted public finance and lays out five parameters against which performance can be assessed. These are: targeting (the ability to steer money to the poorest families), effectiveness (the tendency to construct toilets that are wanted and used properly in conjunction with necessary hygienic behaviours); leveraging (the potential to leverage additional (household/ local government) investment including not crowding out other sources of funding), sustainability (the ability to deliver along the 'whole' sanitation service value chain to ensure both household access and long term effective management) and the scale of impact. The paper develops a typology of targeted public funding strategies and gives examples of their performance against these parameters. The paper concludes with some general lessons for development banks for the design of interventions designed to increase access to sanitation for poor people.

1. Defining good sanitation for the poor

1.1 What is sanitation for?

Sanitation potentially delivers benefits at three levels; to the user, to society and to the wider community through the environment. To be deemed successful a sanitation system needs to perform well at least at one of these levels, and preferably at them all.

At the user level, sanitation potentially delivers health improvements, but often user expectations focus more on the utility of the service provided – measured in terms of comfort, privacy and convenience[1]. At the level of society we expect sanitation to deliver public health improvements – but the available evidence suggest that for this, the service may have to include both safe collection of faeces as well as hand washing and disposal of sullage (grey) water and solid waste. To deliver wider environmental benefits, the service has to deal with the life-cycle management of wastes – including collection, appropriate treatment and safe re-use or disposal.

Thus sanitation has a number of purposes including delivering improvements in quality of life to households, improving community or public health and enhancing (or minimizing damage to) the environment.

Investments in sanitation may also be needed to offset potential negative impacts of other development investments. For example, investments in water supply, particularly in dense areas, may have adverse health impacts unless adequate provision is made for management of wastewater and excreta.

[1] Jenkins and Sugden, 2006

1.2 Why specifically target the poor?

The effective delivery of the wider environmental and public health benefits of sanitation require that services reach the majority of the population including the poor[2] The poor however face a number of barriers to access. Evans categorises the barriers faced by poor people in urban areas as[3]:

- distance and hence cost of connecting to formal services;
- high costs of developing independent shared sanitation services;
- legal barriers to accessing formal and informal services;
- residence in areas that are technically difficult to serve (low lying, steep or otherwise challenging);
- high costs of accessing services coupled with low incomes resulting in poor people being 'priced out' of available services.

Poor rural households may not face all of these barriers but are likely to face a disproportionate challenge in accessing technical support, goods and services at an affordable price.

2. Serving the poor - measuring success

Special efforts are needed to ensure that sanitation goods and services reach poor people as well as less-poor people. This can be seen in terms of removing the barriers that the poor face and altering the incentive structure to:

- change household behaviour (usually to encourage investment)
- change household preferences (to make one option more appealing than another)
- pay for part of the system that cannot be financed by households (which may include household infrastructure such as a toilet, if costs are relatively high, but which also includes facilities and services to ensure the long term operation of the system and the downstream management of the waste stream).

Interventions which seek to change household behaviours and preferences are dealt with in the background paper to Topic 1[4]. Here we are concerned largely with interventions that change the incentives around payment for infrastructure and its management. These interventions generally work either by lowering costs (through technical interventions or subsidies) or by making payment easier (through credit).

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[2] (see for example Bareto et.al, 2007 and a discussion in Hall and Lobina, 2008, although the conclusion that the only suitable system is sewerage is by no means proven

[3] Evans 2006

[4] Jenkins et.al. 2009

The key interest is in changing the incentives for poor people. But using public-sector interventions to specifically target poor people attracts certain risks. In general for sanitation these can be summarized as[5]:

- elite capture (wealthier households benefit);
- provision of inappropriate or 'unwanted' toilets;
- provision of only one part of the service or sanitation value chain (i.e. toilets but no downstream management or a wastewater treatment plant but no toilets);
- crowding out of household/ other investment; and
- insufficient funding to make a difference.

The success of any approach can thus be measured in terms of how well it addresses the objectives listed above and minimizes the risk. In summary success can broadly be measured against the following parameters:

- ability to steer money to the poorest families (targeting);
- tendency to construct toilets that are wanted and used properly in conjunction with necessary hygienic behaviours (effectiveness);
- potential to leverage additional (household/ local government) investment including not crowding out other sources of funding (leveraging);
- ability to deliver along the 'whole' sanitation service value chain to ensure both household access and long term effective management (sustainability); and
- scale of impact (scale).

Cost effectiveness of the investment or 'efficiency' is also important. Efficiency, measured in terms of the ability to deliver services to the largest possible number of people within defined budgetary constraints can impact the overall scale of an intervention. While evidence on efficiency is limited[6] Trémolet et al.[7] have developed a framework for comparing alternative approaches and provide useful information on efficiency from six case studies. The reader is referred to this study for further information on efficiency.

3. How can the poor be served?

3.1 Introduction

Sanitation systems are commonly divided into two types; on-site systems where excreta are collected , stored and sometimes treated close to the toilet and off-site systems, where excreta are removed from the plot, most commonly via waterborne sewerage. Typically on-site systems are regarded as pro-poor while networked systems are not.

[5] see for example Evans et al 2009a

[6] Evans, 2009a

[7] 2009

Additionally in the literature there is often a suggestion that on-site systems have no or negligible operational costs as compared to off-site systems with high operational costs. The reality is more complex. While this issue is dealt with in more detail in the background paper for Topic 3[8] two key points are important here.

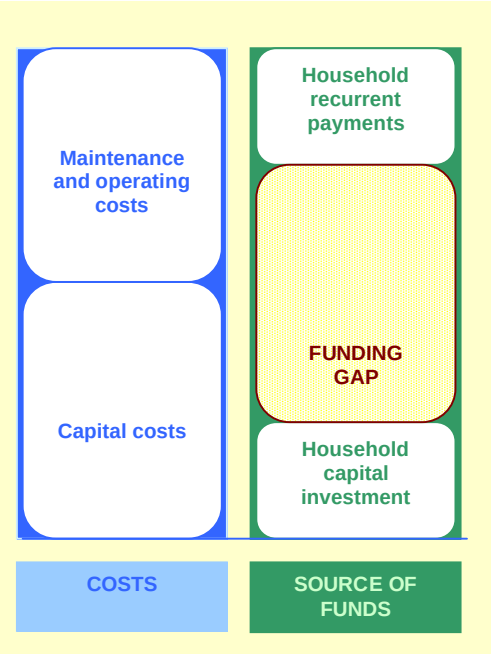
Firstly that on-site systems can be equally, if not more, costly that off-site systems depending on local conditions, and housing density. Research in Northeast Brazil in the late 1980s suggested that the annualized cost of on-site systems exceeded that for sewerage at densities of around 160 persons per hectare.

Secondly that in anything more than highly dispersed rural densities, on-site systems do require active ongoing management in order to deliver health benefits. This is due to the fact that, unless there is space to move the latrine and cover over abandoned pits, pit contents must be emptied and disposed of. In the best-case, waste in a pit will have been treated and can be safely reused locally, but in the majority of cases, further transport and treatment is required and this is often expensive.

Thus the simplistic distinction between on-site systems for the poor and off-site for the rich is rather unhelpful and it may be more useful to focus on the fact that all sanitation systems attract both capital and recurrent costs and that these vary with both the type of sanitation used and the nature of the area in which they are deployed.

Having established this, it is now possible to generalize to say that all sanitation systems have both capital costs and operational costs, which include maintenance. The main problem is that the money available to poor households for sanitation is often insufficient to cover these costs, which leaves a funding gap as shown on **Figure 1** below.

Figure 1: The Funding Gap for Household Sanitation Provision

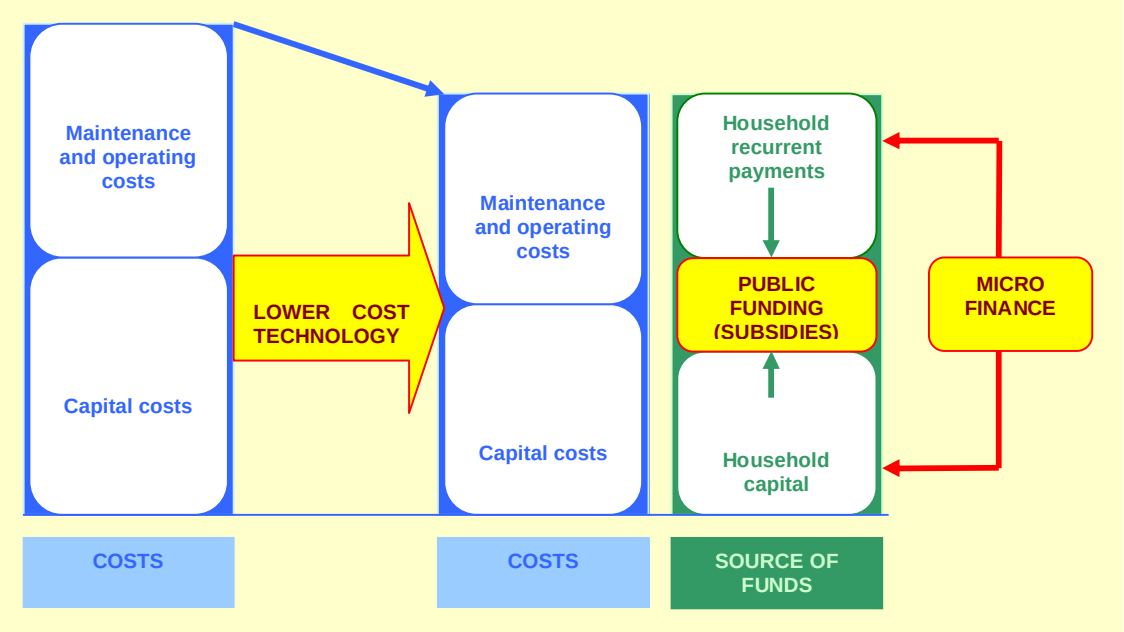


[8] Mara, D.D. 2009

The scope of costs to be included in any analysis of the funding gap would be determined by the institutional context and the objectives of any given policy intervention, In a utility/urban situation where new connections will result in a marginal increase in the cost downstream collection, treatment and re-use or disposal, and where this treatment is valued highly, these costs would need to be included. By contrast where the marginal costs of downstream management are very small, the focus will be on the costs of increased access and better management at the household level only.

Three broad types of interventions can help address this gap, as shown on **Figure 2.**

Figure2: Possible interventions to reduce the funding gap



Firstly, total costs can be reduced through the use of more appropriate **lower-cost technologies**. Both capital and operational costs may be reduced through better design – although the focus often falls disproportionately on lowering capital costs.

Secondly the capacity to pay can be increased through **micro-credit,** which spreads the financial burden over time. Micro credit can enable households to pay more by reducing the impact of large one-off payments.

Finally **public funding** (or **subsidies**) can be used to fill the remaining funding gap. The way in which subsidies can be delivered is determined by the sanitation system in use. In urban/utility situations were downstream management is critical to the operation of the system (for example through operation of sewerage or faecal sludge management) public funding may be needed to fill gaps in both capital and recurrent expenditures. In non-networked systems, funding may be needed more to reduce initial capital investment costs for households.

In the following three sections we look at each of these interventions in more detail. Mechanisms for improving the targeting and the efficient delivery of public funding are examined further in Section 4.

3.2 Lower cost technology

The identification and/or design of appropriate (often but not always low cost) sanitation technologies has been a major part of the effort to increase access to sanitation services to poor communities for the past 30 years. The Blair Latrine (later known as the Ventilated Improved Pit latrine or VIP) made possible a huge acceleration of latrine construction in rural parts of East Africa in the 1970s[9]. Similarly, efforts to develop a low cost latrine slab were an integral part of the successful low cost sanitation programme in Mozambique from the 1980s onwards[10]. In urban areas of Brazil the development of simplified sewerage enabled a huge acceleration of service delivery to poor sections of urban communities[11]. The later widespread use of this technology for both poor and non-poor households also illustrates that while 'appropriate' sanitation may be developed for poor people, it can and should deliver the same level of service (particularly in terms of comfort, convenience and privacy) expected by the non-poor.

The availability of low-cost options removes or reduces the financial barriers faced by poor people and may also mean that local government/ service providers are more willing to invest in systems which reach them. It may also mean that, where major investments are made in trunk services (sewers, wastewater treatment plants etc) in urban areas, there is more chance that connections will be provided for households, including the poor. The corollary is that an unwillingness of service providers to make use of alternative appropriate technologies can lead to the exclusion of poor people from sanitation even where major investments are being made.

3.3 Micro-finance

Another mechanism for targeting the poor is through the provision of micro finance. The major advantage of intervening through micro finance is that it "leaves households in control of decisions about the type and cost of services to be paid for" and minimizes interference in the supply-side market for goods and services[12].

During the 1980s and 1990s, micro-finance was sometimes incorporated in water supply and sanitation projects through a revolving fund component managed by the project directly, which usually provided seed funding for households to invest in toilets. Repayment of this money was then supposed to enable the funds to be 'revolved' to further households. However, the general low level of performance of many of these schemes has resulted in a shift towards the delivery of "subsidies and guarantees to micro-finance institutions (MFIs) who can then lend money for sanitation investments to households…"[13]. This option has the additional advantage that MFIs may also provide other important services, such as micro-savings and micro-insurance. As a result, such interventions have the useful secondary benefit of stimulating the development of micro-

[9] Robinson, 2002

[10] Colin, 2002 and Trémolet et.al, 2009

[11] Melo, 2005 and Mara, 2003

[12] Evans et.al, 2009a

[13] Evans et.al, 2009a

finance institutions in general and encouraging them involved in the (water and) sanitation sector.

A revolving fund that has proved particularly effective is the Sanitation Revolving Fund in Vietnam, as described in **Box 1** below[14].

Box 1. Sanitation Revolving Fund in Vietnam

In 2001, a Sanitation Revolving Fund (SRF) component was incorporated in the World Bank-financed Three Cities Sanitation Project in Vietnam to provide loans to low-income households for building on-site sanitation facilities. The SRF provided small loans (USD 145) at partially subsidized rates to low-income and poor households to build a septic tank, a urine diverting / composting latrine or a sewer connection. To access the loans, households needed to join a Savings and Credit group, which bring together 12 to 20 people who must live close to each other to ensure community control. The loans covered approximately 65% of the average costs of a septic tank and enabled the household to spread these costs over two years. The loans acted as a catalyst for household investment although households needed to find other sources of finance to cover total investment costs, such as borrowing from friends and family.

The initial working capital for the revolving funds (USD 3 million) was provided as a grant by the World Bank, Denmark and Finland. The SRF was managed by the Women Union's, a countrywide organisation representing the rights and interests of women that has a long experience with running micro-finance schemes. The initial working capital was revolved more than twice during the first phase of the project (2001 to 2004) and was then transferred for subsequent phases to be revolved further. Combined with demand generation and hygiene promotion activities, the SRF helped around 200 000 households build sanitation facilities over the course of seven years. The revolving fund mechanism allowed leveraging household investment by a factor of up to 25 times the amount of public funds spent. Repayment rates are extremely high (almost 100%).

This pilot approach has since been scaled up, via other World Bank-funded projects (with an outstanding working capital of about USD 25 million as of March 2009) or through the Vietnam Bank for Social Policy (VSBP). The latter offers separate products for water and sanitation, through the Safe Water and Rural Environmental Sanitation Program (SWRESP). In 2007, the amount of loans for SWRESP was USD 20 million.

3.4 Targeted Public Funding

By far the most commonly-discussed mechanism for improving access for the poor is through the use of public funding to pay for selected sanitation goods and services and to remove financial barriers for poor people. The source of funds is usually direct government revenue or overseas development assistance (ODA) but occasionally specific cross-subsidies may be designed to channel funding from one set of users to another (for example from industrial to domestic consumers in urban utility situations, or from less poor to poorer households in a rural area)

The sustainability of this type of financing mechanism is almost entirely determined by the source of funding. Schemes that can generate the necessary finance 'internally' (through cross subsidies and revolving funds) are obviously more sustainable than those which rely on recurrent allocations of funding from the general budget, particularly in poor countries where the public budget is severely constrained.

[14] Source: Trémolet, S. with Perez,E. and Koslky,P. (forthcoming); Mehta (2008) in Trémolet, S. and Scatasta, M. (2009).

Financing mechanisms (including subsidies) can be broadly defined by what is financed, who receives the funds and the timing. These aspects are discussed in more detail in the next section.

4 Improving subsidy targeting to reach the poor

4.1 Introduction

In this section we look at some of the options for public funding of sanitation. The various dimensions of financing mechanisms are briefly outlined below and summarized in **Table 1**.

Public financing can be used to finance a range of elements of the sanitation value chain. Thus the first defining dimension of a financial mechanism is *what will be subsidized?* Put another way this question can be rephrased to ask *how far along the value chain is support needed?*

For example public money may be used to pay for upfront costs such as the costs of policy development and support, training, social mobilisation, sanitation marketing, hygiene promotion, and all other support for behaviour change. Many of these costs continue beyond the initial intervention period and, along with the costs of monitoring and evaluation, they must be financed on a recurrent basis, usually through public sector institutions.

Public money can also be used to fund the capital costs of private/ household hardware (infrastructure) such as toilets, or public or shared hardware (infrastructure) including public elements of urban systems, and public or community latrines and institutional facilities in schools and other public buildings. These costs are often one-off costs and support for these may be delivered through a range of institutions (local government, utilities, non-governmental organizations) depending on the nature of the sanitation system being delivered.

Finally there are the ongoing recurrent costs of operating and maintaining the system. These are usually handled through utilities or local government departments in the case of urban systems, but in rural areas responsibility may fall to community groups (sometimes comprising small commercial enterprises), local government, or non-governmental organizations.

The second defining dimension of a financing mechanism is *who receives the support*? The recipient may be an individual or household (receiving support either in the form of cash or delivery of reduced-price goods and services), the community or local government/ the service provider.

The final defining dimension is timing. *When is the support delivered*? Broadly financing mechanisms fall into two groupings; those where payment is made ex-ante (prior to service delivery) and those where payment is made ex-post (on or after acceptable delivery of a service). This latter group includes performance-based incentive payments and output-based aid.

Using these dimensions **Table 1** shows a summary of twelve broad groupings of financing mechanisms. Several of these are discussed in more detail below and analysed on the basis of the indicators laid out in **Section 2:** targeting, effectiveness, leveraging, sustainability and scale.

Table 1: Some Typical Types of Subsidy

Recipient / What Financed?	Household	Community	Local Government and/ or Service provider
Hardware costs (private)	H1. Ex ante – **direct or infrastructure subsidies** for household facilities (either as cash or direct provision) H2.Ex-post – **infrastructure subsidies** – usually in cash to reimburse part- or full-cost of household facilities H3. **Connection subsidies** for networked systems.	C1. Ex-ante payment of part- or full- cost of **community infrastructure** C2. Ex-post **performance awards** for achieving sanitation targets (such as ODF).	L1. Ex-ante **intergovernmental transfers** to finance provision of household facilities and/or networked services (ie trunk sewers/ WWTPs) or community services (ie public toilets). L2. Ex-post **output-based subsidies** for services delivered to poor households. L3. Ex-post **performance awards** for achieving sanitation targets (such as ODF).
Hardware costs (public and shared)			
Software costs		C3. Ongoing financing made available to communities or via NGOs etc to **support management of community facilities** including Business Development Services	L4. Ex-ante **intergovernmental transfers** for on-budget funding of software activities by government staff. L5. Ex-post **output-based subsidies** for services delivered to poor households. L6. Ex-post **performance awards** for achieving sanitation targets (such as ODF).
Operational costs	H4. **Consumption subsidies** (reduced user fees) – usually in urban areas.		L7. **Operational subsidies** to service providers to fill the gap between operational costs and revenue where consumption subsidies exist.

4.2 Direct and infrastructure subsidies for private hardware

(Table 1: H1,H2, C1). Perhaps the most familiar and commonly-cited form of sanitation subsidy is the use of public money to construct new infrastructure at the household level.

In rural areas and some urban contexts the most common form is payment of part or all of the cost of household toilets either in the form of cash or through direct provision, with labour and materials provided by government.

Targeting may be done through means-testing, geographical targeting, or by subsidising only certain levels of services (a basic single-pit latrine for example).

In a very few cases, subsidies may be delivered in the form of a direct cash or voucher payment or tax rebate (direct subsidy) against sanitation expenses along with a basket of other social services. This system exists in Chile for example and as Tax Credits in

the UK and some other European countries. For these multi-sector financial tools, more sophisticated forms of targeting (means-testing for example) may become more cost-effective.

Effectiveness: Infrastructure subsidies for household sanitation have been widely deployed and are popular in public policy as they are a visible and ostensibly pro-poor instrument. However they can be problematic, particularly when coupled, as they often are, with target-driven supply-dominated programmes. In the worst cases, publicly-financed latrines may be built but never used. Some success has been anecdotally reported in schemes where payments are made ex-post (i.e. once a latrine is completed). Certainly ex-post payment ensures that a latrine is constructed although the challenge may remain to ensure that it is wanted and used.

Leveraging: Where households are expected to contribute part of the cost – often in the form of unskilled labour for excavating a pit – these types of subsidy may be seen as quite effective at leveraging household contributions. Unfortunately though they are often associated with direct public-sector provision and rigid standards, thus they may have the tendency to suppress local innovation and stifle private sector provision. The availability of free money from the government may also deter households from saving or borrowing money to invest in their own sanitation facilities.

Sustainability: Most direct and infrastructure subsidies focus exclusively on the provision of hardware rather than on its long term management. Rigidity in the provision of standard design toilets may even make it harder for these to be managed in the long term. Certainly evidence from South Africa is now coming to light to suggest that the widespread provision of subsidized single-pit latrines is now leading to a backlog of maintenance[15].

Scale: Ultimately subsidizing household facilities can be costly and these programmes are often not financially sustainable at scale. An exception is the sanitation surcharge in Burkina Faso which uses a levy on the water bill of utility customers to pay for new on-site sanitation in informal urban settlements[16]. Failures in the former subsidy-driven Rural Sanitation Programme in India have led to the redesign of the Indian programme with a shift away from hardware subsidies (Tremolet et al, forthcoming, Peal et.al. forthcoming). On the other hand the Government of Thailand sanitation programme, which includes hardware subsidies, has resulted in almost universal access to sanitation although the role of the subsidy specifically has not been analysed. Noticeably, countries with long standing subsidy-programmes tend to be middle-income countries with relatively strong utility service providers, such as Tunisia, for example.

4.3 Ex-post performance awards to communities and local government

(Table 1: C2, L3) In recent years there has been a significant increase in the use of ex-post performance awards to communities and local governments against pre-agreed sanitation targets. Particularly in South Asia this has been seen as a key part of national or regional programmes using the Community-led Total Sanitation Approach. Both India and Bangladesh for example offer financial rewards to local and district governments who achieve open-defecation free status (that is the elimination of open defecation).

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[15] Eales and Potter, 2008

[16] Savina and Kolsky, 2004

Targeting: These schemes can be geographically targeted (made available to poorer regions) but it is generally difficult to steer funding to the poorest families within a community or district. In general funds are made available for any type of follow up investment following the meeting of the original target. Thus targeting depends on the ability and willingness of the local community or government to prioritise services that are valued by the poorest people. To date there has been little or no analysis of the equity impacts of these types of schemes although evidence from a recent WaterAid study did suggest that Community-led Total Sanitation (CLTS) projects as a whole have the potential to benefit all sections of society[17].

Effectiveness: Again the effectiveness of incentive payments in achieving improved services for the poor is a function of both the underlying sanitation programme and the effectiveness of the monitoring and evaluation systems in place to determine when payments should be made. In India, assessments of open-defecation free (ODF) villages under the Total Sanitation Campaign (TSC) programme are carried out by independent consultants, hired by the Government of India on behalf of the State governments. A significant amount of work has been done to establish a rigorous framework for monitoring but there is little independent evidence as yet of the effectiveness of this system[18].

Incentive payments have the potential to create incentives for **sustainable** sanitation systems, but again this depends on how the monitoring framework is designed; there is little evidence yet from India or Bangladesh for example, that targets have focused on anything beyond the elimination of open defecation, but the system has the potential to be redesigned as the objectives of the programme change. Similarly the **scale** of the program is determined by the number of communities and the size of the awards. So far the government of India reports that in the region of 17,000 communities (gram Panchayats) have received cash prizes under its Nirmal Gram Puraskar award scheme - suggesting that the scheme has potential to operate at a significant scale[19].

4.4 Ex-ante intergovernmental transfers – hardware and software

(Table 1: L1, L4, C3) Perhaps the most significant cash flow into the sanitation sector comes in the form of on-budget intergovernmental transfers to local government and public-sector service providers to fund investments in hardware and software activities. More rarely such support is also provided to communities who take on the responsibility of managing community services. These on-budget recurrent payments often account for a significant percentage of sector financing. A recent study by WaterAid suggested that, for water supply, reliable recurrent budgeting is more likely to be found in countries with a high degree of decentralisation, reflecting the fact that local governments can and do prioritise long term investment in water services[20]. The study suggested that up to 80% of capital investments may be sourced from the local government's own budgets (revenue and intergovernmental transfers). Where decentralisation is weak, this share falls to around 20% and the available data suggests that the overall funding envelope is far from adequate. For sanitation the situation is likely to be similar although it is

[17] Evans et.al, 2009b

[18] Bongartz and Monik, 2008

[19] GOI, 2009

[20] Mehta, M. and Mehta, D., 2008

commonly suggested that the overall budget envelope for sanitation is much smaller (in terms of the needs) than that for water[21]

The performance of this funding mechanism against the criteria laid out in Section 2 is difficult to assess, but in general observers note that funds tend to be taken up with paying salaries and establishment costs and that accountability tends to be weak particularly where political decentralisation is out of step with fiscal decentralisation (ibid.). Thus **targeting** and **effectiveness** may be relatively low. Proper attention to the delivery of **sustainable** sanitation may be hampered by the political necessity of distributing funding equally across regions and areas and by the limited flexibility in investment patterns. The proper financing of the recurrent costs of sanitation service delivery is however essential if programmes are to go to **scale**. It is clear that well-structured and properly-financed programmes will have recurrent funding needs and that if these are well financed there will be the potential to operate at scale (when compared for example to the potential of pilot or stand-alone investment projects). As has been noted in the background paper for Topic 2[22], funding for hygiene behaviour change and sanitation demand creation activities is a pre-requisite in most sanitation programmes. Creating incentives within these financial systems for better targeting, greater effectiveness and more sustainable investment may be an important strategy for improving the delivery of sanitation to the poorest.

4.5 Output-based subsidies to service providers or local government

(Table 1:, L2, L5) In recent years there has been growing interest in the idea that public finance for infrastructure (generally hardware subsidies) would be more effective if they could be paid on delivery of outputs rather than for the purchase of inputs. This idea was generated largely within the donor community, seeking to make aid more effective, and in particular by the World Bank and several bilateral European donors. The formation of the Global Partnership for Output-based Aid recognized that the idea would be relatively new and that both southern governments and their development partners would need assistance to design projects that used output-based financing. However the idea is equally applicable to intergovernmental transfers and payments of subsidies to poor households. Indeed, the incentive payments associated with CLTS in South Asia are just one example of such output-based payments managed within the government budget.

Experience to date in the use of output-based financing for sanitation has been somewhat limited (with the exception noted above). The Global Partnership for Output Based Aid (GPOBA) has designed a number of schemes with incentives to increase coverage of sanitation in urban areas. In Morocco, a GPOBA-funded scheme has provided output-based financing to a number of service providers, both public and private, to extend water and sewerage to poor customers. The scheme is coupled to a grant-financed programme of urban upgrading and resettlement[23]. Interestingly it is administered directly by GPOBA which is unusual. This may be due to the relative complexity of the programme and the need to monitor a range of different approaches used by the various recipients of the subsidy.

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[21] ibid. and see for example WHO, 2008

[22] Jenkins, M. et. al. 2009

[23] Chauvot de Beauchêne, X. 2009

GPOBA place a lot of importance on the financial viability of the recipient agency, arguing convincingly that using concessionary funds to connect poor people to a service which cannot be financially sustained in the long term is a waste of scarce development funding. This can mean that many seemingly progressive projects do not ultimately get funded. In Gharbeya directorate in Egypt, for example, a proposed OBA scheme focused on creating incentives for private operators of wastewater treatment plants to increase the collection and proper treatment of septage from poor households. The financial viability of the scheme depended on the implementation of a previously-agreed tariff increase in order to ensure that the operators would be paid and would be able to continue to run the plants, but this has not yet been agreed. In Colombo, GPOBA are currently working with the National Water Supply and Drainage Board to design an incentive based subsidy programme to increase both connections to the sewer network and proper management of on-site sanitation which would extend the experience of OBA still further in the area of sanitation.

Depending on the definition of the outputs, output-based financing can be well **targeted**, **effective** and **sustainable.** It also has the potential to **leverage additional funding**, if well designed. By paying only for delivery of working services, it can potentially go to **scale** more quickly than other arrangements because money is not wasted paying for inputs which do not achieve the expected output. However, output-based payment does attract a relatively high administrative cost – particularly at the current time when governments and development partners are unfamiliar with the concept. The need for rigorous monitoring and evaluation means that the ongoing costs can be higher than for more conventional financial arrangements although it can also be argued that a similar level of monitoring *should* be applied to all development projects.

4.6 Consumption and operational subsidies

(Table 1: H4, L7 and Connection subsidies, H3). Many urban sanitation customers connected to networked sewerage enjoy consumption subsidies since they do not pay the full operational costs of the sanitation service through the tariff. Where tariffs are artificially suppressed the service provider must either offset the consequent losses by reducing expenditure on maintenance (thus running down the value of the assets) or will require an operational subsidy.

Consumption/operational subsidies tend to be a rather 'blunt instrument' with poor targeting, since the majority of those connected to sewers are likely to be the non-poor[24]. Operational subsidies could be better targeted if they were associated with management of on-site or networked services for the poorest households. For example this could include operational subsidies to pay for the proper disposal and management of pit wastes, where households are willing to pay the direct costs of pit emptying. Several cities, notably Freetown in Sierra Leone and Colombo in Sri Lanka are working to develop financial incentive schemes to encourage sludge tanker operators to empty pits in targeted poor areas and to dump the waste in approved locations.

Operational subsidies can be made more **effective** if coupled with connection subsidies since the available evidence suggests that it is generally the one-off cost of a connection, rather than the monthly tariff that is regarded as a financial barrier by the poor[25]. Again the introduction of an output-based element to operational subsidies could

[24] Morella et.al. 2008

[25] Brocklehurst and Janssens, 2004

also introduce greater effectiveness and **sustainability** – if for example it encouraged utilities to increase the rate of connection for poor customers or improve the management of wastewater treatment plants and faecal sludge management. Consumption subsidies are unlikely to have a **leverage** effect – connection subsidies are more likely to encourage greater investment in household plumbing and in payment of monthly operational charges. Finally, operational subsidies are unlikely to be viable at **scale**, without serious attention to improvements in overall financial sustainability of the service providers, since every new connection will simply increase the levels of losses sustained and the amount of the operational subsidy. In countries where only a minority of people are served by utility service providers of networked services, the potential impact of operational subsidies in terms of people benefiting is likely to be low.

4.7 Summary

A summary of the various options described above is shown in **Table 2.**

Table 2: Summary of Potential of Various Financing Mechanisms

Financial mechanisms	**Potential**				
	Targeting	**Effectiveness**	**Leveraging**	**Sustainability**	**Scale**
Direct and infrastructure subsidies for private facilities	Potentially very good although evidence for good targeting is weak.	Potentially very good but requires extremely good performance monitoring and pro-active management	Poor – can tend to crowd out household investment and private sector innovation.	Poor – usually focuses on delivery of infrastructure rather than ongoing service provision.	Poor – medium – depending on level of subsidy and cost of selected interventions.
Ex post performance rewards	Poor within communities.	Moderate – high depending on definition of outputs.	Moderate – high when coupled with demand-responsive and CLTS-type interventions	Unclear – little evidence as yet of long term use of incentive payments.	High, where interventions are relatively low-cost so incentives can be spread widely.
Ex ante intergovernmental transfers	Generally poor although can be targeted to poorer regions or for software activities	Generally poor where incentives for staff are not oriented correctly.	Moderate – good if coupled with demand-responsive and CLTS-type interventions	Good – sustainable financing of recurrent programme costs is an essential element of a sustainable programme.	Good – high if service delivery is efficient.
Output-based subsidies	Good – if outputs are well defined. M&E can be based on user feedback.	Good – if outputs are well defined.	Moderate	Very good – if full value chain of sanitation is defined as the output.	Moderate.
Consumption and operational subsidies	Usually poor – particularly in urban utility situations. **Connection subsidies** can perform better.	Poor – can be enhanced if coupled with **connection subsidies.**	Poor – connection subsidies have a higher potential.	Potentially good, if coupled with connection subsidies and focused on delivering the whole sanitation value chain.	Moderate to poor, unless coupled with incentives to improve financial efficiency and raise tariffs.

5 What can development banks do?

Better targeting of support to poor households to gain access to sanitation services requires attention to the specific elements of the entire sanitation value chain. This means that funding from development banks (including international and bilateral financial institutions) should:

- reach poor people
- provide services that people want and can use; and
- fund the whole value chain of sanitation to ensure that potential health and environmental benefits are realised.

This requires that development banks reconsider the way in which they provide financing to the sector. Below are recommendations for development banks to enhance the pro-poor impact of their interventions in the sanitation sector:

Firstly, **development banks should seek to develop a much more comprehensive view of the sanitation sector during the project design process**. A proper understanding of the opportunities and constraints to access faced by poor people would enable the design of more nuanced and better targeted financial interventions. This would enable banks to attract and blend different types of finance for an entire program, ranging from commercial financing to grant financing and to ensure that the entire value-chain of sanitation is adequately financed before sinking funds into one particular aspect.

Coupled to this, there is **a need for development banks to better understand the existing financial landscape and analyse how best to make use of all available funding sources**, before designing new financial interventions. This could help to minimise distortions in the existing financial system. One area which requires further work is to better understand the extent to which general- and sectoral-budget support can be harnessed to improve access to sanitation for the poor. In general Banks have a responsibility to **evaluate the financing regimes of their borrowers and grantees and to encourage well targeted, effective and sustainable financing regimes that can go to scale**.

Adopting such an approach would require that **banks work more in partnership with other agencies** (taking care to ensure that partnerships are well designed and well managed). This would help ensure that the right types of funding are directed to the appropriate financial gaps in the sanitation value chain. For example, where commercial financing might be appropriate to the development of public sanitation facilities or a wastewater treatment plant, this could be coupled with an effective grant-financed program to allow poor people to connect to the network which serves the plant. Similarly grant money can be used in a targeted manner to support demand creation and hygiene promotion to maximize the potential of households own investment in sanitation goods and services. Since development banks are not always experienced in working directly with poor communities, other organisations could step in to manage these elements of the programme, thus enhancing the impact of both the commercial and grant funding.

Development banks are also in a good position to **deliver support to micro-finance institutions** including financing for initial start-up costs of MFIs willing to get involved in the water and sanitation sector and for increasing awareness of the potential of microfinance in the sector.

They could also **pay greater attention to performance- and output-based regimes where these have been shown to have potential** (for example, by using ex-post performance rewards and output-based subsidies as illustrated on **Table 2**). A more careful evaluation of supposedly pro-poor financial arrangements is required to ensure that these truly deliver sustainable benefits to household, community and society as a whole.

Further, they have a **responsibility to ensure that investments in water supply are coupled with appropriate interventions in sanitation**, in cases where an increase in the water supply would otherwise result in adverse health and environmental impacts.

Finally banks could work to **improve the design and effectiveness of their monitoring and evaluation frameworks**, to ensure that the funds disbursed have effectively contributed to improving access. Measuring financial interventions against the five parameters laid out in Section 2 (page 3) would provide banks with a much better view of the impact of their money.

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