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## Output-Based Aid and Sustainable Sanitation<sup>1</sup>

Sophie Trémolet and Barbara Evans

**O**utput-Based Aid (OBA) ties the disbursement of public funding to the achievement of clearly specified results that directly support improved access to basic services. OBA has emerged as an important way to finance access to basic services, but experience with OBA approaches in the sanitation sector has remained limited and there have been mixed results. Evidence from existing projects suggests that OBA could improve the targeting and efficiency of subsidy delivery, and help to develop and strengthen sanitation providers. OBA subsidies could be packaged to support services along the “sanitation value chain,” from demand promotion to collection/access, transport, treatment, and disposal/re-use. OBA approaches for sanitation are no panacea, however, and they need to go hand-in-hand with broader reforms in the sanitation sector.

Sanitation (i.e. the safe and sustainable management of human waste) is highly beneficial to communities, with important public benefits in terms of health and the environment. Public financing is important to stimulate the provision of sanitation services, but there are serious issues with the way public subsidies for sanitation have been delivered. It seems increasingly unlikely that the MDG target for sanitation will be met unless better ways of structuring public finance can be found.

The sanitation sector appears to be “lagging” for a number of reasons, including the taboo element attached to sanitation, low levels of awareness, lack of political will and attention, institutional fragmentation, and insufficient or inadequately targeted financing. Conventional financial tools for sanitation, such as household subsidies for toilets, infrastructure subsidies for new wastewater treatment capacity or operational subsidies for water and sewerage authorities have shown limited effectiveness and ability to reach the poor. They often do not respond to demand and there is ample evidence of “wasted” hardware subsidies which result in inefficient investments.

In recent years, results-based financing (of which output-based aid is a subset) has emerged as an important new way of financing basic services (especially in telecommunications, energy, and health). Application



Water and Sanitation Program ([www.wsp.org](http://www.wsp.org))

of these approaches has remained limited in the sanitation sector, however. According to a recent review led by the Global Partnership on Output-Based Aid (GPOBA), water and sanitation accounted for only 5 percent of the total OBA portfolio for the World Bank Group as of 2009.<sup>2</sup> The water and sanitation sector accounted for 26 percent of GPOBA's portfolio, the largest share attributable to a single sector. However, although GPOBA has initiated a number of sanitation projects, only two are currently under implementation: an onsite sanitation project in Senegal and a water and sanitation project in Morocco (see Box 1). A few governments have adopted output-based approaches for sanitation. For example, the PLM (Programa de Letrinhas Melhoradas) which started in Mozambique in the late 1980s helped develop a network of latrine-building workshops in the country's main cities via subsidies based on latrine sales. In India, the Total Sanitation Campaign (TSC) introduced incentive-based subsidies to poor households who build their own latrines and rewards to communities for convincing their members to stop open defecation, referred to as the NGP (Nirmal Gram Puraskar) awards.<sup>3</sup>

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## Box 1. OBA for connections to water and sewerage in unplanned urban settlements in Morocco

In Morocco, GPOBA provided a US\$7 million grant to three service providers (public and private) to extend water and sewerage services into unplanned urban settlements which were formerly excluded from regular service provision. Launched in 2007, the project aims to connect 11,300 households to piped water and sewerage. The output is a simultaneous connection to piped water and sewerage for poor households. The subsidy is paid in two installments: 60 percent on completion of the connection and 40 percent upon verification of at least 6 months of sustained service. Verification is carried out by an independent third party. Unit subsidies for sewerage connections vary from US\$421 in Casablanca to US\$913 in Meknès, due to differing unit costs and differing ability to pay on the part of households in different cities. Initial progress under the scheme was slow, largely due to a lack of familiarity with this type of scheme, investment delays upstream and lack of clarity over land tenure. The pace of investment has picked up in subsequent years, with Amendis in Tangiers having delivered the expected number of connections ahead of schedule. The Government of Morocco is now exploring options for scaling up the scheme at national level.

Source: Based on Chauvot de Beauchêne, X., 2009, "OBA in Morocco (Part 1): Extending Service to the Poor in Urban Areas," *OBA Approaches* 25, and personal communication with X. Chauvot de Beauchêne.

## The study

GPOBA, in association with the Water and Sanitation Program (WSP), initiated a study to examine whether OBA has the potential to enhance the delivery of public financing to the sanitation sector and improve access to sustainable sanitation services.<sup>4</sup> The first phase of the study led to the publication of a GPOBA Working Paper<sup>5</sup> reviewing experience with OBA for sanitation and examining the potential for its application. During Phase 2, concept notes are being prepared to identify how OBA approaches could be introduced in sanitation projects or programs that are ongoing or under design. Key questions raised in the study included: a) what explains such limited use of OBA-financing approaches for sanitation? b) how can OBA subsidies be delivered to providers of sanitation services? and c) what other components may be required to improve chances of success of OBA schemes for sanitation?

## Key lessons

The study analysed the sanitation services that need to be provided along the "sanitation value chain," ranging from demand promotion, collection/access, transport, and treatment to safe disposal and/or re-use. Table 1 presents examples of sanitation services that could be supported via OBA subsidies.

The main focus of any intervention will be determined by identifying which funding gaps need to be filled, i.e. where market failures or affordability constraints mean that a sanitation service is being underprovided. For example, if networked sewerage exists but people are not connected, the principle focus for subsidies will be on collection/access. If households have on-site sanitation facilities but the pit waste is being indiscriminately dumped in the environment, the focus may be on transport and safe disposal.

The design of individual OBA schemes will depend on the most appropriate way to package the provision of sustainable sanitation services, so that each OBA scheme is likely to include a combination of results-based subsidies. Some indicative options for packaging OBA support are shown in Figure 1, with examples of existing or potential programs cited.

The further down the chain the subsidy is provided, the more likely it will be possible to implicitly subsidize previous steps of the chain. For example, in Sri Lanka, GPOBA proposes to create incentives for better operation of on-site sanitation by combining a payment for operation of on-site systems with a subsidy for rehabilitation and construction of new facilities. This will create incentives for contractors to enter the market as "sanitation operators" in charge not only of building latrines but also of maintenance and operation. In the PRODES (Programa Despoluição de Bacias Hidrográficas) program in Brazil, the utilities get a subsidy if wastewater gets treated; this gives them incentives to connect new customers to the network, as this would increase the overall amount of wastewater that arrives in the treatment plant.

## Key challenges

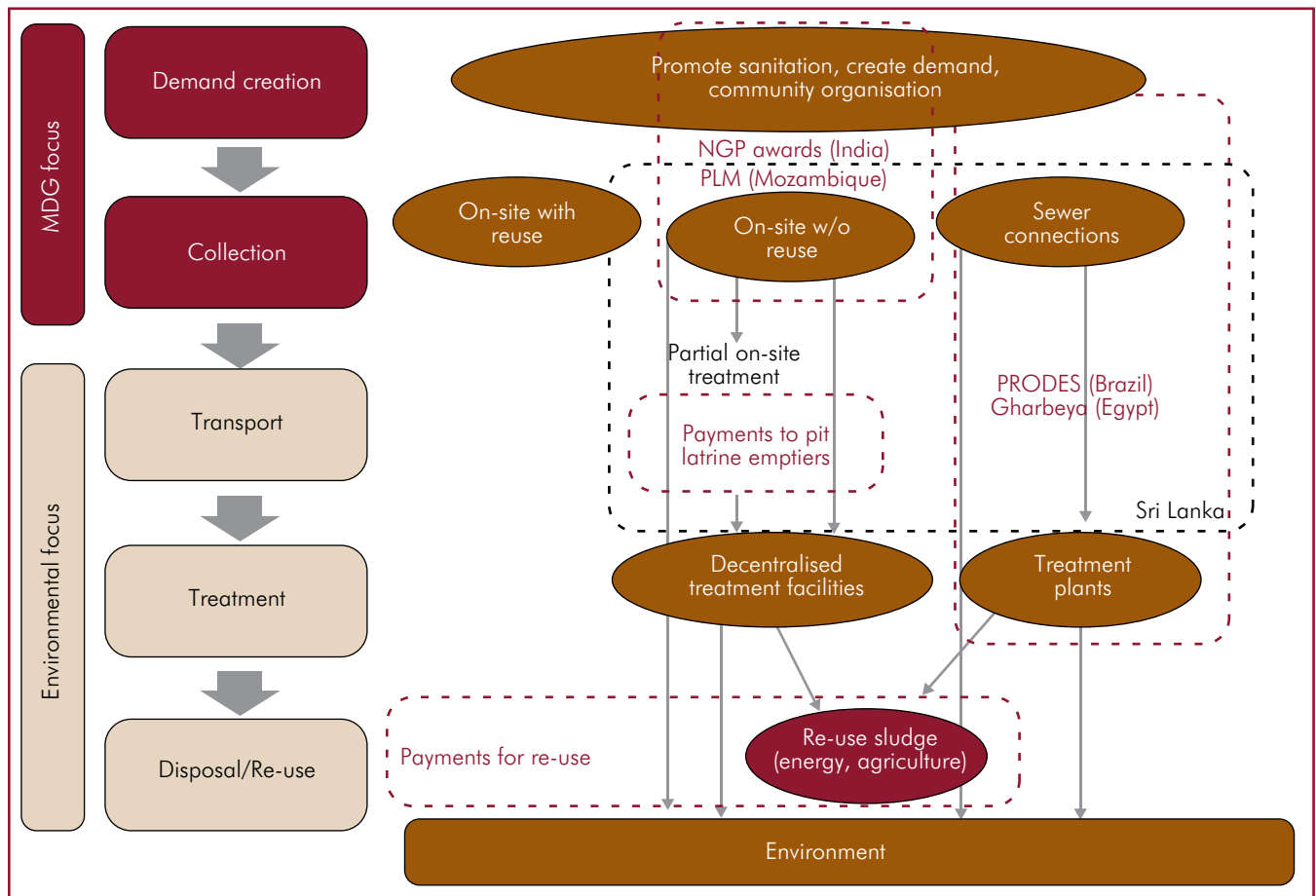
A number of challenges have limited the use of OBA for sanitation so far. However, evidence from existing projects suggests that these constraints can be alleviated through careful project design.

First, households tend to be unaware of the benefits from sanitation, so willingness-to-pay for sanitation services may be low and demand unpredictable.

**Table 1. Examples of output indicators to trigger payment for OBA subsidies**

Value chain	Services	Output indicators
Demand promotion	Sanitation marketing	Number of households who build/rehabilitate a latrine following demand promotion
	Social mobilisation, triggering	Number of villages/communities becoming Open-Defecation Free (ODF)
Collection/access	Build on-site sanitation facilities	Number of facilities built and still operating x-months down the line
	Build and operate community or public toilets	Number of toilet blocks in disadvantaged areas (used/paid for)
Transport	Transport pit waste to designated points	Volume of waste transported to and disposed in designated locations
	Build and operate waste transfer stations	Number of waste transfer stations built and functioning x-years down the line
Treatment	Build, maintain and operate wastewater treatment plants	Volume of waste collected and treated to required standard
Disposal/re-use	Build and maintain facilities which convert waste to agricultural inputs or biogas	Volume of productive agricultural input generated and sold to farmers or gas created (and sold)

**Figure 1. Potential packaging of OBA financing across the sanitation value chain**



These obstacles can be partially addressed by demand assessment studies in the design phase, coupled with demand promotion activities.

Second, a common challenge is that sanitation service providers may be unable to mobilise pre-financing (a common precondition for OBA) to invest in the services prior to receiving the subsidies upon delivery of pre-identified outputs. This challenge can be addressed by combining OBA schemes with micro lending or by splitting the service providers' remuneration between an upfront payment ("block grant") and a performance-based payment. Packaging services to the poor with other revenue-generating services, such as solid waste, may also help generate cash-flow for the service providers to enable them to pre-finance the investments.

Finally, pilot OBA schemes are likely to remain limited in scope without a financing mechanism that provides regular and transparent subsidy flows to sanitation service providers throughout a given country. This can take the form of a "challenge fund", as currently tested in Honduras with an OBA facility housed in the Honduran Fund for Social Investment (FHIS).<sup>6</sup> The Facility will provide US\$4 million in subsidies for the financing of eligible water and sanitation infrastructure projects, including pre-financing for those project implementers that need it, although the payment of the subsidy will remain linked to the output. The approach is showing promise, but it is too early to evaluate whether such "mainstreaming" of OBA approaches can be successful.

## Conclusion

From existing experiences in sanitation and results achieved in other sectors, it appears that OBA has the potential to:

- Help extend access to sanitation in a sustainable and more efficient manner;
- Help target subsidies for sustainable sanitation to disadvantaged households and deliver trackable results from subsidies invested in the sector, ensuring minimum leakage (as long as the subsidy source is clearly identified and secured); and
- Support the development and strengthening of sanitation service providers, while giving them incentives to serve areas of greatest need, including rural and peri-urban areas and urban slums via a range of services, such as well-run public toilet blocks or pit-latrines emptying.

Although introducing OBA schemes for sanitation will only be one part of a larger set of necessary high-level sanitation sector reforms, their introduction could go some way towards improving access through greater targeting and better incentives for service provision.

<sup>1</sup> This paper is also published as a Water and Sanitation Program Learning Note.

<sup>2</sup> Mumssen, Y., L. Johannes and G. Kumar. 2010. *Output-Based Aid: Lessons Learned and Best Practices*. Washington, DC: World Bank. Available at: <http://www.gpoba.org/gpoba/ebook>.

<sup>3</sup> Trémolet, S., with P. Kolsky and E. Perez. 2010. "Financing On-Site Sanitation for the Poor: A Six Country Comparative Review and Analysis." Technical Paper. Water and Sanitation Program, Washington, DC.

<sup>4</sup> The study was co-managed by WSP Regional Team Leader for East Asia and the Pacific Almod Weitz and World Bank Senior Infrastructure Economist Yogita Mumssen.

<sup>5</sup> Trémolet, S., and B. Evans, with inputs from D. Schaub-Jones. 2010. "Output-Based Aid for Sustainable Sanitation." OBA Working Paper 10. Global Partnership on Output-Based Aid, Washington, DC.

<sup>6</sup> Mandri-Perrott, C., Schiffler, M. and Aguilera, A. 2009. "Output-Based Aid in Honduras: An OBA Facility for the Water and Sanitation Sector." *OBA Approaches* 29.

## About OBA Approaches

OBA Approaches is a forum for discussing and disseminating recent experiences and innovations in supporting the delivery of basic services to the poor. The series focuses on the provision of water, energy, telecommunications, transport, health, and education in developing countries, in particular through output- or performance-based approaches.

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