



LEARNING BRIEF

Financing sanitation for cities and towns

By: Abey Suriya, K., Kome, A., Willetts, J., Chong, J.



Planning and financing for sanitation in cities and towns in developing countries is often ad hoc and piecemeal. Stronger capacity to plan financing for the complete sanitation service chain and lifecycle is essential for providing urban sanitation services that can be sustained over the long term. Better understanding about securing upfront finance for the large initial investment is an important step in developing this capability.

This learning brief presents highlights from the learning paper '*Financing sanitation for cities and towns*' that synthesised current leading edge thinking about sanitation financing, especially regarding upfront capital for initial investment. Insights from an online discussion of the draft findings with sector practitioners was incorporated into the research, which sought to clarify principles, show examples of ways others have financed sanitation and demonstrate what is possible, for an audience of advisors, planners and people facilitating urban sanitation without easy access to financing. Both the learning brief and learning paper were prepared by SNV Netherlands Development Organisation and the Institute for Sustainable Futures at the University of Technology Sydney, as part of their partnership for research and learning to improve urban sanitation sector knowledge and practice.

Key messages

- **All costs of sanitation service provision need to be recovered if services are to be sustained over the long term.** Revenues from tariffs, taxes, transfers, and 'trade' (the 4Ts) need to be sufficient to cover the lifecycle costs for the initial investment, day-to-day operations, intermittent maintenance and asset renewal.
- **Repayable finance can provide capital for investment in infrastructure when it is needed.** The mismatch in timing of the need for expenditure and the availability of revenues from the 4Ts leaves a financing gap, that can be bridged by repayable finance. It is important that revenues over time are able to fully cover the anticipated lifecycle costs of the service including repayments for repayable finance.
- **Structuring finance mechanisms in innovative ways can help to overcome traditional barriers to water and sanitation sector actors accessing repayable finance.** Supportive arrangements through central governments and overseas development assistance can leverage market-based repayable finance by mitigating credit/repayment risk.

Key concepts and principles

Lifecycle thinking about financing

Sanitation financing must consider the entire lifecycle of the sanitation service chain when thinking about what finances are needed and when.

For each element of the sanitation service chain, the financing requirements are typically for:

- (a) initial investment;
- (b) day-to-day operations;
- (c) intermittent maintenance; and
- (d) asset renewal;

with their timing as represented in figure 1.

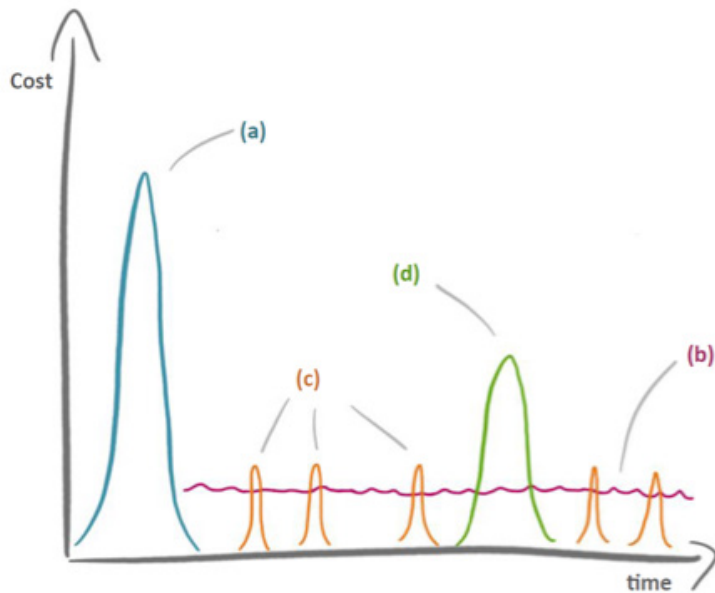


Figure 1. Lifecycle costs incurred over the whole life of the sanitation services

Adequate finances are needed to recover all costs, if the services are to be maintained without deterioration of quality over time. For sustainable full cost recovery, the revenues should match or exceed the financing requirement over the lifecycle of the sanitation service.

However, there is a mis-match between the timing of when costs are incurred and when funds are available. Huge sums of money are required upfront for the investment in sanitation infrastructure, but revenues from local sources take time to develop (figure 2), leaving a financing gap.

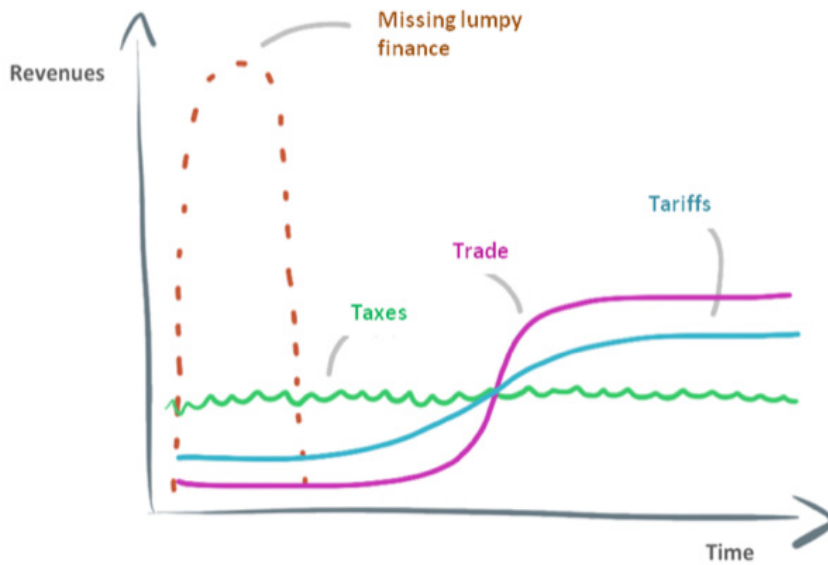


Figure 2. An example of when funds may be available over the sanitation service lifecycle. Revenues from tariffs and trade (sale of service by-products) can build up only after the infrastructure is operational. Governments are rarely able to provide upfront capital through their tax take, while grants and donor aid may not be assured.

Funding mechanisms for sanitation

- Tariffs** Contributions made by service users in return of using the service.
- Taxes** Costs paid for by government funds raised through the tax system.
- Transfers** Contributions made by international donors (ODA or ‘overseas development aid’) and a range of other charitable entities through grants, low interest loans and underwriting projects through guarantees.
- ‘Trade’** Revenues from the sale of products that capture the value of the sewage waste stream, such as fertilizer products, fuel products and aquaculture.

Tariffs, Taxes and Transfers are known as the **3Ts** for **sustainable cost recovery** in the water sector.

‘Trade’ was identified as a **4th T** that could be available for sanitation, during the collaborative process of developing the learning paper.

Bridging the gap with repayable finance

The financing gap may be 'bridged' through repayable finance: funds made available 'now' but has to be re-paid some time in the future. Repayable finance may be sourced through loans, bonds and equity.

Sustainable full cost recovery is a pre-condition for accessing repayable finance, where revenues from the 4Ts – tariffs, government contributions (taxes), donor support (transfers) and sewage reuse products (trade) – can fully cover the anticipated costs over the lifecycle of the service, including repayments for repayable finance (figure 3).

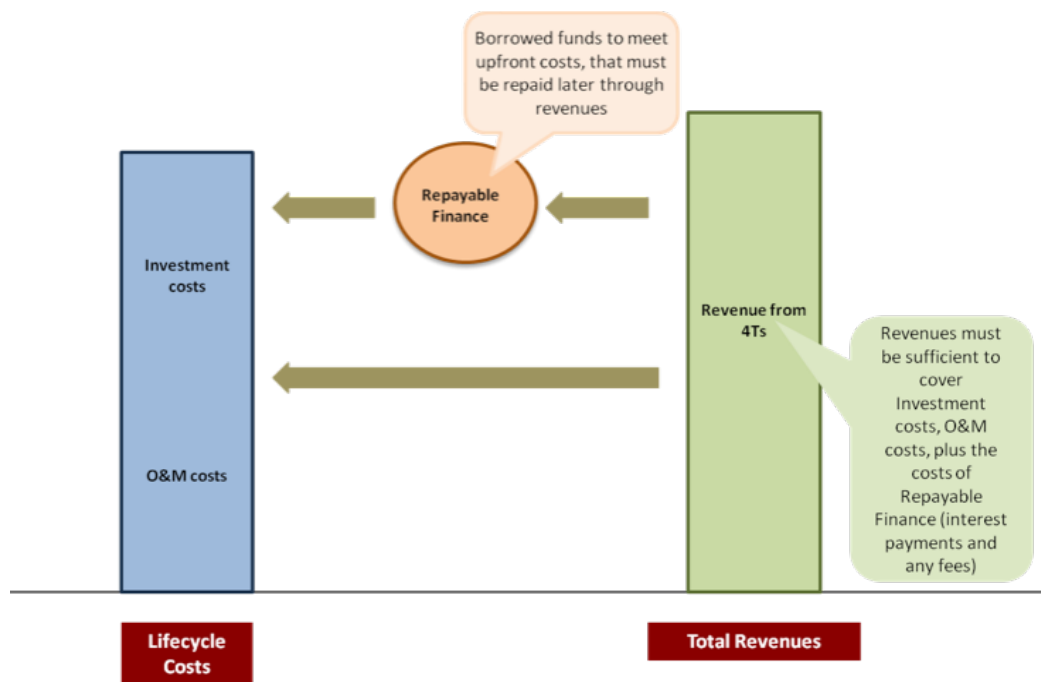


Figure 3. Over the lifecycle of the sanitation service, the streams of revenues should match or exceed the financing requirement

To access repayable finance, the borrower needs to demonstrate capacity to repay, as well as provide security through collateral or guarantees. There are traditional barriers to local governments and/or their sanitation service providers in proving their credit-worthiness.

Innovative arrangements for overcoming barriers to accessing repayable finance

Financing arrangements that combine repayable finance with one or more of a variety of supporting mechanisms can lower the barriers to accessing repayable finance. Support mechanisms include overseas development aid and central government support in the form of concessionary loans, grants including output base aid (OBA), guarantees from international financial institutions or national governments, etc., that provide loan subsidies, interest rate subsidies, seed financing for revolving funds, risk mitigation and other applications that can leverage market-based repayable finance for sanitation investment.

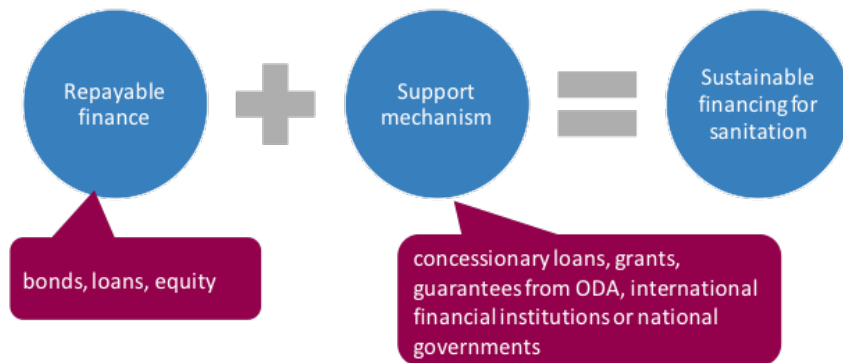


Figure 4. Innovative financing arrangements

Example 1: *Support mechanisms that helped small water service providers become credit-worthy for commercial bank loans*

Small community-based water service providers in Kenya accessed commercial loans of up to 80% of their investment cost from K-Rep Bank (micro-credit facility). Government regulations allowed them monopoly access to customers in their service area, enabling them to secure cost-reflective tariff revenue streams to demonstrate capacity to repay.

In addition, they received capacity-building support through the Global Partnership for Output Based Aid (GPOBA) to operate as viable business entities.

Furthermore, when a service provider met specific verifiable outputs (monthly operational service connections and sustainable revenue levels), GPOBA provided OBA as a loan subsidy that dropped their debt by half (to 40% of their investment cost). These mechanisms in combination demonstrated to the bank that loans to the small service providers are likely to be repaid.



Example 2: *Arrangements to improve market confidence in bonds that allow local government bodies to borrow from investors*

In Tamil Nadu, India, a Water and Sanitation Pooled Fund (WSPF), managed by a professional asset management company, issues bonds to enable a group of small/medium Urban Local Bodies (ULBs) to borrow from the public on a pooled basis. Risk to investors is reduced by dealing with ULBs as a group.

Market confidence in the bonds is strengthened through a range of measures for ensuring repayment: (a) ULBs place all their revenues into a special account from which bond repayment instalments are drawn. If funds are insufficient, WSPF can intercept other ULB funds; (b) GoTN maintains a reserve fund with sufficient funds to service debt repayment; and (c) USAID provides a backup guarantee to 50% of borrowings, with additional commitments of support from GoTN.

Bonds issued between 2002 and 2012 have raised Rs 1.7 billion (convert to USD) and provided 35 ULBs with repayable finance for water and sanitation projects.

Concluding reflections

Many sanitation planners do not adequately consider financing lifecycle costs, and make assumptions about the ability of tariffs to cover ongoing costs while also being affordable and equitable – which leads to insufficient revenues in practice.

Given the wider societal benefits of improved sanitation, and national governments' responsibility for protecting fundamental human rights including access to safe sanitation, governments need to contribute to sanitation financing through the tax take. Support mechanisms through innovative arrangements that combine the 4Ts can leverage access to repayable finance, to enable lifecycle cost requirements to be met.

In addition, it must be recognised that financing lifecycle costs must take account of contextual realities that shape what arrangements are possible. That is, the relevant legal, policy and institutional context determine which financing mechanisms are possible, and consideration must be given to ensure that sanitation financing plans ensure that no groups are excluded. In many cases some form of commercial repayable finance presents an opportunity, provided traditional barriers can be overcome. Finally, there is a need for large scale pilot financing schemes to advance thinking and practice in this area, as to date innovative financing schemes appear to have been mostly limited to smaller scales.



About us

SNV Netherlands Development Organisation

SNV Netherlands Development Organisation (SNV) is a not-for-profit international development organisation with a long-term, local presence in over 30 countries in Asia, Africa and Latin America. SNV's global team of local and international advisors works with local partners to equip communities, businesses and organisations with the tools, knowledge and connections they need to increase their incomes and gain access to basic services – empowering them to break the cycle of poverty and guide their own development.

SNV's Urban Sanitation & Hygiene for Health and Development (USHHD) programme works with municipal governments to develop safe, sustainable city-wide services. The programme integrates insights in WASH governance, investment and finance, behavioural change communication and management of the sanitation service chain. We engage private sector, civil society organisations, users and local authorities to improve public health and development opportunities in their city.

As part of our USHHD programme, we have a long term partnership with the Institute for Sustainable Futures, University of Technology Sydney (ISF-UTS) focused on research and learning to improve practice and contribute to the WASH sector knowledge and evidence.

For further information please visit: www.snv.org

Institute for Sustainable Futures, University of Technology Sydney

The Institute for Sustainable Futures at the University of Technology Sydney (ISF-UTS) works with industry, government and the community to develop sustainable futures through research and consultancy. ISF-UTS seeks to adopt an inter-disciplinary approach to its work and engage partner organisations in a collaborative process emphasizing strategic decision-making.

For further information please visit: www.isf.uts.edu.au

Contact us

Antoinette Kome: akome@snv.org

Professor Juliet Willetts: juliet.willetts@uts.edu.au

This learning brief draws on the following learning paper:

ISF-UTS & SNV (2014), Learning paper: *Financing sanitation for cities and towns*. Prepared by the Institute for Sustainable Futures, University of Technology Sydney for SNV Netherlands Development Organisation, by Abey Suriya, K., Kome, A., Willetts, J., and Chong, J. Available online at www.snv.org/explore-more and www.uts.edu.au.