

Lesson 3: Sources of Financing

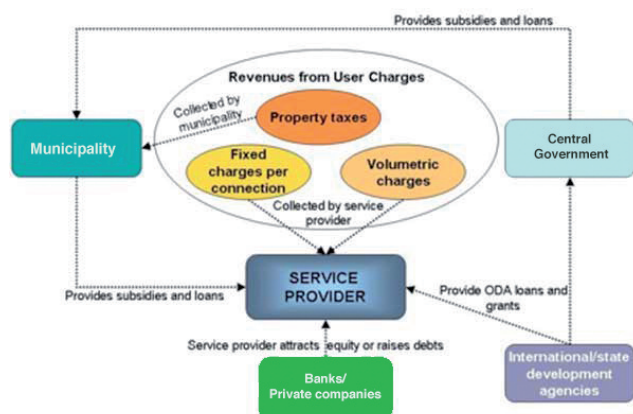
3.0 Lesson Overview

»Generally speaking, the stronger the connection between the financing and the ultimate beneficiary, the better the result.«

(Paul Wolfowitz)

Different sources of funds

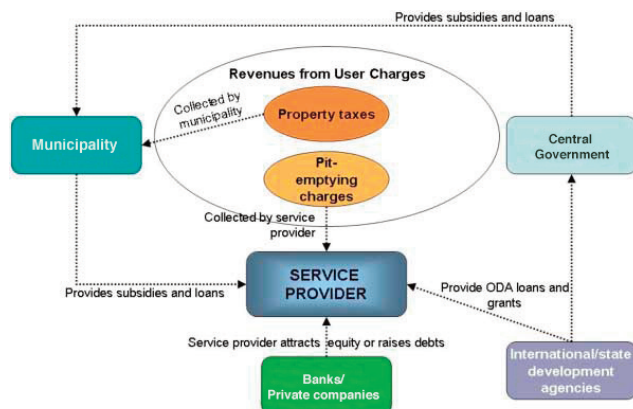
The figure illustrates the different sources of funds for network-based sanitation and their flow from their origin to the service provider:



[Sources of Financing for Network-based Sanitation]

Financing for on site facilities equipment will come mainly from private households. Public subsidies, ODA and grants can help leverage the households' private financing.

The figure presents the sources of financing for on-site sanitation:



[Sources of Financing for On-site Sanitation]

Keywords:

Sources of Financing
 Network-Based Sanitation
 On-Site Sanitation
 User Charges
 Taxes
 Equity Finance
 Debt Finance
 Official Development Assistance
 Municipality
 Service Provider

3.1 Different Sources of Funds for Network-Based Sanitation

Each of the sources of funds described has its own characteristics that make it more suitable to cover specific aspects of the costs. (see fig.: Sources of Financing for Network-based Sanitation)

- **User charges** are the most reliable of these sources of financing.
- In many cases, **subsidies** from national, regional, or local governments are another significant source of funds.
- Private Banks or private investors may also provide **debt or equity finance** when they are convinced that the entity/actor responsible for sanitation has a secure revenue stream that could be used to repay a loan or provide a reasonable rate of return.
- Finally, development agencies may provide **concessional loans and grants** for sanitation.

3.2 User Charges

User charges should be the main source of financing. However, demand for sanitation services by users is generally lower than the demand for water services.

Users' willingness to pay is closely linked to the demand for sanitation and shapes the maximum socially acceptable tariff that may be charged.

Charges can be levied on users as a fixed amount per connection, volumetric charges, or through property taxes, or



surcharges on the water tariff. In contrast to charging for use of water, in sanitation it is difficult to allocate costs based on benefits to each user as some benefits are spread through the whole community. Importantly:

It is difficult to design user charges that are cost reflective:

The reasonable cost of service can be calculated, adding together required operating and capital costs. Users can then be charged a tariff which allows the utility to recover its cost of service. Since the wastewater discharged by a typical household or small business is generally proportionate to the water consumed on that property, the wastewater tariff can be set on a volumetric basis. The customer’s bill is then calculated by multiplying the wastewater tariff by the reading on the water meter.

However, prices based on wastewater volume are not cost reflective because the main cost driver in the sanitation business is not the volume of wastewater but the pollution load and the length of the network.

Fully cost-reflective charges may be unacceptably high because wastewater systems have social benefits (on public health and environment) and their costs could be spread over the wider community:

It is not clear that recovering the full costs from those connected to the system is the right choice. Often customers who are offered the choice to connect to a network-based system, and pay its costs, prefer not to. In this case, it is hard to argue that customers are beneficiaries, since from their perspective the benefits of the system are less than its costs.

And yet the community may still decide that it is worth having a wastewater system and requiring people to connect. In this situation, it might be reasonable to spread the costs across the broader community, and not simply those connected to the system.

Ms. Gorighthead

So there is really a dilemma:
the user charges are not cost reflective
and if they would, people might not
be able to pay them.



3.3 Taxes

The costs of sanitation can also be recovered through taxes levied at the national, regional, or local level. Two options are:

Sanitation charges could be applied to all properties

One option is to require all properties that are passed by the sewer network to pay, whether or not they connect to it. This has the advantage of encouraging people to connect, and reflects the fact that everyone in an area benefits from a system which removes wastewater from that area.

The disadvantage of this approach is that it can generate resistance from those who do not connect to the system. But we can argue that when a network is installed, connection is mandatory, as otherwise the health risk may remain even for those connected.

The cost could be recovered through property taxes or general taxation

Another option is to include the cost of wastewater systems through local property taxes, or national government grants. Payment through property taxes reflects the fact that everyone in the area benefits from wastewater removal and treatment (and sanitation services can in fact increase property values).

Unfortunately, most developing countries have very poor property tax collection systems, starting with the property registries themselves. Grants from the national government reflect the broader benefits of wastewater treatment. Treating wastewater in an upstream municipality benefits downstream municipalities, which may justify financing wastewater treatment on a national, or at least river-basin wide basis.

3.4 Equity Finance

Another possible source of financing is equity finance. A private company or investor provides equity finance in order to acquire a share of the ownership of and possibly control of the business.

Private companies have not provided much equity finance for entities/actors that provide sanitation because either those entities/actors have not wanted to obtain equity finance or have not offered attractive investment opportunities.

Definition of private equity

Equity: Ownership in a private company or project

Equity financing: Financing by selling stock to investors



However, recently some developing countries, such as Mexico, have sought equity finance for developing wastewater treatment plants (WWTP). Similarly to what is happening in other countries, these opportunities have been attractive for private companies because they have included a portion of public financing provided on a concessional basis.

Dr. Justamoment and Ms. Gorightahead



Do you think equity finance can be a possibility in your country?

I doubt that private people/institutions will invest in many places, as sanitation services might not be looked at as profitable



Note: Build-Own-Transfer projects (BOTs)...

...for WWTP are one instance where sanitation providers have been able to obtain debt from commercial banks. The reason for this is that the company created to develop the plant is then able to demonstrate a secure and certain revenue stream that accompanies the life of the loan.

Dr. Justamoment and Ms. Gorightahead



Sanitation organisations are then less likely to get debt finance as well!

Correct: They usually lend directly from government



3.5 Debt Finance

Governments and banks may provide debt finance to utilities/service providers for sanitation.

Sanitation providers have usually had only access to debt finance that is

- Either **lent directly by the central government** (in many cases on-lending proceeds of loans from international development agencies) or
- **Borrowed against a guarantee** from the central government.

Commercial banks may be less likely to provide loans for sanitation projects than for water supply because many such projects do not generate significant, incremental revenue streams. This is because although the project may provide an economic benefit (for example, a larger volume of wastewater treated), the project's output cannot be billed to any particular beneficiary.

Furthermore, from a broader utility perspective, these **utilities in many cases are not creditworthy because their tariffs are set well below the full cost of service** (and the Government has not established another reliable financing mechanism to cover the cost).

Utilities will need to establish a more solid financial position if they are to access capital markets on their own balance sheet (that is, without reliance on guarantees from a third party like the government).

3.6 Official Development Assistance and Grants

By Official Development Assistance (ODA) we mean **concessional loans and grants provided by development agencies** of developed countries.

Developing countries receive ODA to cover the costs of, in this case, developing and constructing wastewater assets and facilities. Concessional loans provided by these development agencies generally convey a grant element of at least 25 percent. Some development agencies also provide full grants for investments in sanitation.

ODA is usually **granted for financing capital expenditures** and not a means to improve financial sustainability in the long run. If they receive loans or grants, local governments and utilities should concentrate on the most efficient ways of spending them (as indicated in lesson 5).

Definition

Official development assistance (ODA) is defined as those flows to countries on Part I of the DAC List of Aid Recipients (developing countries) and to multilateral institutions for flows to Part I aid recipients which are:

- provided by official agencies, including state and local governments, or by their executing agencies; and
- each transaction of which:
 - is administered with the promotion of the economic development and welfare of developing countries as its main objective; and



b) is concessional in character and conveys a grant element of at least 25% (calculated at a discount rate of 10 per cent).

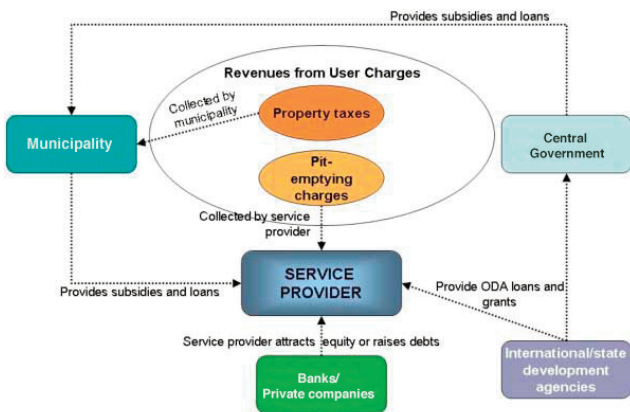
Official aid (OA) consists of flows that meet all the tests of ODA, except that they are directed to countries on Part II of the DAC List of Aid Recipients (countries in transition) and to multilateral institutions which primarily benefit Part II aid recipients.

3.7 Financing for On-Site Sanitation

Financing for on site facilities equipment will come mainly from private households. Public subsidies, ODA and grants can help leverage the households' private financing.

Pit or septic tanks-emptying services should mainly be financed through users charges. Subsidies will be less adequate for this continuous service. Financing could be done through a one-off payment when the service is procured or on monthly instalments for regular emptying.

The figure presents the sources of financing for on-site sanitation:



[Sources of Financing for On-site Sanitation]

Dr. Justamoment and Ms. Gorightahead



The whole financing becomes much easier with onsite-sanitation



Yes, because almost all the financing comes from the private households themselves.



Further studies / Secondary readings

- **Regulating Wastewater Services in Developing Countries**

Explanatory Note 7, Key Topics in the Regulation of Water and Sanitation Services

Most cities have at least some centralized wastewater collection and treatment network. These systems may be natural or legal monopolies, so there is a role for regulation in setting allowed tariffs and service standards. It may not be possible or sensible to recover the full costs of the system from the customers connected to it. In many cases, there is a role for local or national government contributions to the cost of the system, to reflect its community benefits. The economic regulatory task then is to calculate the cost of service, exclude those costs covered by government, and allow the provider to recover the remaining costs from customers on some reasonable basis. (PDF, 10 pages)

[Link: <https://www.ppiaf.org/sites/ppiaf.org/files/documents/toolkits/Cross-Border-Infrastructure-Toolkit/Cross-Border%20Compilation%20ver%2029%20Jan%2007/Resources/Castalia%20-%20Defining%20Economic%20%20Regulation%20Water%20Sector.pdf>]

- **Financing Sanitation in Sub-Saharan Africa**

This guide provides highly practical decision-making tools for identifying the type of financing mechanisms to be implemented for on-site sanitation and small-piped sewerage systems. (PDF, 84pp, 2.6 mb)

[Link: http://www.pseau.org/outils/ouvrages/ps_eau_cms_guide_n_6_financing_sanitation_in_sub_saharan_africa_2011.pdf]

- **Video: Sanitation as a Business - A Malawian Case Study**

For years, governments and NGOs have preferred the subsidy-led approach to sanitation whereby latrine slabs, and other associated materials, are given at little to no cost to beneficiary communities. This has proven to be unsustainable and has yielded little impact for the level of investment injected into the sanitation sector. Water For People Malawi has been trying a different approach where people invest in their own sanitation as a method of breaking the sanitation-poverty cycle and subsidy dependency. This approach has come to be known as Sanitation as a Business.

[Link: <http://www.youtube.com/watch?v=TBsQj6m55Lw>]