

A FINANCIAL TURNAROUND STRATEGY FOR PUBLIC WATER AND SANITATION UTILITIES

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Introduction

Achieving financial sustainability cannot be achieved unless the customers of the utility are happy with the services that they receive and are willing and able to pay the accounts that they receive each month.

However, initially customers will usually not be happy with the service and will want to use poor service as an excuse not to pay. Tariffs generally are not sufficient to generate enough income to even meet the operating and maintenance costs of the utility, never mind generating revenue to cover depreciation, interest or capital repayment costs.

As a first step, every customer with a metered connection must receive a monthly account based on meter readings or valid estimates of consumption.

Amending the tariff structure

A vital first step to ensure that charges are affordable to all and in particular the poor. If poor families are not paying for these services, it is pointless sending them accounts each month that they cannot pay. Rather reduce the charges to them to a level that they can afford. It must be remembered that for water consumption charges there are two factors at play here; the price per cubic metre and the amount of water that is used. Poor families often pay a high price per cubic metre for a small amount of water that is needed for cooking and drinking. Water for other uses is found from other sources such as streams or boreholes, where the water quality is usually poor.

Similarly for sanitation, poor families will only pay for use of these services if the price per use is affordable. Otherwise they will resort to using the bush or flying toilets.

So it is suggested that the tariff structure be amended so that the charges for a basic amount of water per day, **for poor families only**, be reduced to as low an amount as possible. The charges for all other customers should be kept the same initially.

The message for water customers who do not pay because they say the service is poor should then be the following:

1. We will write off your charges that are more than say 2 years old (could also be fixed as 1 year or 3 years)
2. If you are using the service, however poor you think it is, you must pay your account which is heavily subsidised anyway because the charges do not generate sufficient revenue to meet the true costs of providing the service
3. If you don't want to pay for the service tell us and we will terminate it
4. If you believe your meter is inaccurate we will replace it on the understanding that if it is causing overcharging then we will refund the cost of replacing the meter. If the meter is under-reading, then the cost of replacing the meter will be for the

customer's account. Similarly for estimated accounts – once a new meter is installed, the account will be adjusted up or down based on the average consumption for 3 months after the meter is installed

5. We are committed to improving the service as the income stream increases
6. If any industrial, commercial or institutional customer does not pay the water account within 30 days then the service will be disconnected. For domestic customers, the right to water declaration of the UN requires that people have access to a basic amount of water necessary to sustain life. Devices such as flow limiters (see picture below) can be installed in connections of families in arrears to limit their monthly consumption to a basic amount – say 6 m³ per family per month



A flow limiter connected to the pulse output of a water meter

The Ministry of Finance must agree that **all government departments and ministries will pay their monthly accounts**. If any government institution does not pay, then the amount owing must be taken from their allocation from the national accounts and paid over to the utility within say 30 days.

These initial steps require little or no additional funding.

Expanding the customer and revenue base

Once the existing accounts are being paid attention should turn to those customers who consume piped water but do not pay for it. Meters should be installed in all these water connections and accounts sent to the customers. This will then mean that every customer using the service is being billed for it. It may also be necessary for these new customers to pay for a metered connection – trying to raise charges for previous consumption is usually a waste of time

The next step is to improve the service and raise the tariffs. **The intention to raise tariffs as service levels improve must be clearly communicated to customers from the start of the reform process.**

Improving the service

Using the increased revenue, priority should be given to repairing leaks in an attempt to achieve a 24 hours a day water supply in all areas. This requires the total supply area to be divided into manageable zones, with the supply into each zone being metered. By reading these meters daily (or even hourly at night), it will be possible to work out which zones have the biggest leaks. Step testing of the mains will show which streets have the biggest leaks.

The cost of creating supply zones, installing the zone meters, staff overtime to monitor zones over night for a day or so, and the costs of repairing leaks, can be met from the extra revenue generated.

Achieving a 24/7 supply will improve water quality and extend the life of the water mains. It will also extend the life of the water meters.

If zone pressures are too high (say above 40 m water pressure), the pressures should be reduced using pressure reducing valves. This will reduce the number of pipe bursts and the amount of water lost through leaks. Both these initiatives will reduce non-revenue water and improve financial performance.

Building a good track record

To secure loans from private financial institutions at affordable interest rates requires a good record of performance over a number of years. This means that the accounts of the utility must be separated from other accounts and accurate records of income and expenditure kept. Annual independent audits of accounts improve their value to financial institutions.

Securing donor or concessional funding for large capital projects

This step can run concurrently with the steps described above and can also be used to accelerate the improvement of financial performance. Capital funding for network expansions and increased treatment capacity will be easier to secure once a utility can show that it has the ability to operate and maintain any new assets.

Raising tariffs

As the number of hours per day that a service is available increases and as the quality of the service improves (water safe to drink from the tap, sewage collected and treated, etc), the tariffs can be increased for those who can afford to pay (say those living in houses worth more than USD 20 000 as well as all industrial, commercial and institutional customers).

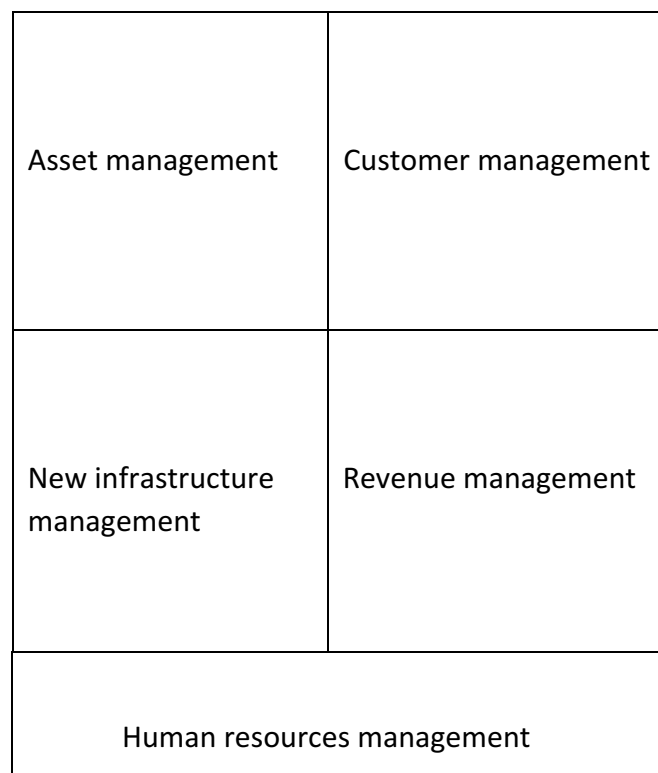
This is not the whole story

Achieving financial sustainability is not just about resolving the financial aspects of service delivery. Equally important other the other building blocks of achieving a sustainable utility, besides revenue management – customer management, human resources management, asset management and network expansion management, which may be best illustrated by the diagram at the end of this document.

The right hand blocks in the diagram, of customer and revenue management, generate revenue. Satisfied customers will be willing to pay for the services they receive and effective revenue management makes the collection and effective use of this cash flow possible.

The left hand blocks are where the money is spent – on building new infrastructure and on maintaining existing assets in good condition. Maintaining assets in good condition means meters are accurate, computer systems work, water is available 24 hours a day and safe to drink from the tap, sewage is disposed of safely and plant, equipment and vehicles are available to staff to provide a responsive service.

The success of any utility is built on the foundation of good human resources management, with a good management team leading a skilled and motivated team of employees:



The 5 box tool

A final word on technology and the level of service ladder

Too often the choice of infrastructure technology is the root cause of many problems. For example, if a complex sewage treatment process (such as an activated sludge sewage

treatment process) is chosen then it means that the electricity supply has to be continuous, competent skilled process controllers have to be appointed and a well-resourced laboratory has to be available on a daily basis. Less sophisticated alternatives such as oxidation or waste stabilisation ponds are used by many thousands of municipalities in Europe and America and are ideal for situations where electricity is unreliable, skilled staff are unaffordable and accredited laboratories are unavailable.

Starting with less costly and complex options means the initial cost as well as the operating and maintenance costs are more affordable.

Off grid solutions for sanitation such as DEWATS treatment systems are now a tried and tested technology and can be used as a first step towards 100% sewerage coverage. Similarly, using roof tanks at each house or communal ablution facilities in dense shack settlements is an affordable first step on the ladder towards piped water and a toilet in each house.



A roof tank in Durban, South Africa