



Smart Finance Solutions

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Examples of innovative financial mechanisms for water and sanitation

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This publication is the result of a collaborative effort by a number of organisations:



NWP, the Netherlands Water Partnership, is an independent organisation formed by government bodies, NGOs, research institutions and businesses involved in the water sector. The main aim of the NWP is to harmonise initiatives of the Dutch water sector and to promote Dutch water expertise worldwide. www.nwp.nl



IRC International Water and Sanitation Centre provides news, publishing, documentation and portal services, helping partners with knowledge sharing, capacity building and learning programs for pro-poor sustainable water supply, sanitation, and hygiene in developing countries. Our work focuses on three main areas: sector innovation, information management and regional work. www.irc.nl

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The provision of clean drinking water and adequate sanitation is necessary to protect human health and the environment. In this respect, we agree to halve the proportion of people who are unable to reach or to afford safe drinking water and the proportion of people who do not have access to basic sanitation, by the year 2015. Annual financial flows into the sector as a whole needs to roughly double, but no single source will be large enough to fill this gap by itself. Various sources of funding, both traditional and innovative exist, and the sector needs them all.

It is increasingly recognized that a vital role in the provision of water and sanitation services is played by small service providers (SSPs). These come in many forms, including private sector suppliers, community-based organisations (CBOs), and households as self-providers. While many different measures are necessary to strengthen their role in service delivery, one constraint emphasized in several studies is their lack of access to credit or other appropriate financing mechanisms and products.

We need to blend different financial mechanisms and products into smart financial solutions. On the one hand financiers must put more effort into understanding the specific risks and opportunities related to water and sanitation activities. On the other hand, solid business plans and project proposals are needed to present a healthy business case to prospective financiers.

This booklet on Smart Finance Solutions, gives examples of how various existing financial mechanisms and products are being used to finance water and sanitation projects and small local businesses.

I hope this booklet will find its way too many NGOs, community-based organisations and small and medium water and sanitation enterprises and will contribute to building bridges between the financial sector and the small scale water and sanitation services sector.



Jeroen van der Sommen


Director Netherlands Water Partnership



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In adopting the Millennium Development Goals (MDGs), the countries of the world pledged to reduce by half the proportion of people without access to safe drinking water and basic sanitation. The results so far are mixed. With the exception of sub-Saharan Africa, the world is well on its way to meeting the drinking water target by 2015, but progress in sanitation is stalled in many developing regions (www.unicef.org).

It is estimated that over one billion people do not have access to clean drinking water and over 2,5 billion people lack access to proper sanitation. Current estimates suggest that meeting the developing world's water sector needs will require an increase from current annual investment levels of \$70 billion to approximately \$180 billion (www.usaid.org).

Funds from public sector donors alone are expected to meet less than 5% of the increased financing requirement. Access to clean drinking water and adequate sanitation for most of the world will only become a reality through substantial private sector investment. Mobilizing such investment is a formidable challenge (www.usaid.org).

Although financing is not a sufficient condition for extending services, it is a necessary one for accomplishing water and sanitation for all. Lack of awareness of the positive impact adequate water and sanitation services can have on human development, weak governance, graft and corruption, inadequate technical solutions, insufficient human resources and lack of solid business plans, are some of the other factors that have so far prevented the development of water and sanitation services in line with rapid population growth and urban expansion. There is a need to better understand where financing for water and sanitation services should come from and in what form, in order to address vulnerabilities and reach the required scale of improvements.

In many cases governments are not able to provide sufficient water and sanitation services in developing countries. As a result small service providers (SSPs) have increasingly taken on this role. These come in many forms, including informal private sector suppliers, community-based organisations (CBOs), and households as self-providers. While many different measures are necessary to strengthen their role in service delivery, one constraint emphasized in several studies is their lack of access to credit or other appropriate financing mechanisms and products. Smart and innovative ways need to be found to leverage public AND private investments.

Smart Finance Solutions are not only about new financial mechanisms; they are also concerned with who is using the mechanism and how. Smart Finance Mechanisms cannot transform a poorly planned or managed project into a good one. They can however, help to address various constraints faced by households, CBOs and SMEs regarding access to finance.

When considering 'smart' finance mechanisms, understanding the approach and context at local level is essential. Which financial mechanism is used and how it should be used, depends on the local context, type and stage of the business or project and the credit need. Innovative finance solutions should always fit the credit need while being locally tailored and context specific.

In order to make financing solutions smart it should become attractive to finance small scale water and sanitation projects/ businesses that contribute to improving services for the bottom of the pyramid (BOP). This means risks for financing need to be managed actively. This could be done by cooperating with local NGOs/ CBOs who understand the local context and know how to reach the BOP.



Kokwiri keeping sales records at the kiosk

©Simavi

Increasing access to finance for water and sanitation services in an innovative way is possible but challenging. Some of the main challenges for attracting finance are:

- *Water and sanitation is still low on the political agenda:* a relatively small amount of the government's budget is allocated for water services, and even less for sanitation services.
- *Low willingness and capacity to pay for water and sanitation services:* people's willingness to pay for water and especially sanitation services remains very low. Ability to pay depends on the socio-economic context. In order to obtain finance for water and sanitation a sustainable business/ project proposal is needed that explains how the demand for solutions is filled in (and paid for).
- *Understanding the local context:* In order to match the appropriate financial mechanism to the credit need of a business or project it is necessary to understand the local context. Financial mechanisms that would be appropriate in western countries might not be available or useful in developing countries. Local NGOs or CBOs could help financiers to understand the local context better.
- *Lack of information on where to find finance:* there are many mechanisms available at international, national and local level to finance water and sanitation services. However, there is no complete database in which they are all presented.
- *Lack of capacity to access public and private finance mechanisms:* the various financing mechanisms (public and private) have different application procedures which makes the process difficult and time-consuming, and for some groups of people, this makes it impossible to apply for finance. Solid business and project plans are needed; risks and opportunities must be clear to different investors in order to persuade them to finance the project or enterprise. Capacity building is needed to improve people's skills to apply for finance.
- *Risks to financing water and sanitation services are high:* the water and sanitation sector is a highly regulated market, influenced by public organisations and fragmented among many stakeholders. Governmental and donor-led programs can affect market mechanisms leading to unfair competition between projects and businesses, but also between financial institutions; some offer finance at subsidized rates and others at commercial rates.

This booklet on Smart Finance Solutions, like its equivalents on Smart Water, Smart Sanitation and Smart Water Harvesting, gives examples of how different financial mechanisms are being used to finance water, sanitation projects and small local businesses that contribute to reaching MDG-7. It also gives the reader a short and quick overview on how to write a successful business or project plan, and how to find the appropriate financial mechanisms to finance it. The booklet is designed as a source of inspiration, rather than a manual. It will however provide links to further, more in-depth information.

This booklet is written for Northern and Southern based non-governmental organisations (NGOs), community-based organisations (CBOs) and small and medium enterprises (SMEs) with plans to start appropriate water and sanitation businesses or projects in developing countries.

The first chapter of this booklet describes different financing mechanisms being applied at household / community (micro-) and at intermediate institutional (meso-) level. It gives examples of how these mechanisms are being used to finance water and sanitation projects or small/ medium enterprises contributing to the achievement of MDG-7. It also provides the reader with some useful links for further reading.

The second part of the booklet describes which business models can be used to obtain different financial mechanisms and gives an overview of how to write a successful business plan or project proposal. This booklet also includes a list of organisations that finance water and sanitation projects/ businesses.

The aim of Smart Finance Solutions is to fill the gap between financiers and organisations that seek financial means. The authors hope to bridge both worlds, the ultimate goal being to increase access to safe drinking water and proper sanitation for all in a financially sustainable way.

Glossary

Bank debt: Debt, for example, a loan provided by a bank.

Bankable: People or enterprises that are deemed eligible to obtain financial services that can lead to income generation, repayment of loans, savings, and the building of assets.

Capital costs: The cost of large items of investment in infrastructure, resource development, major repairs and modernisation.

Community-based loans: Loans given to communities, local governments or civil society organisations that lend to, and/or invest with, groups of people or individuals in the community.

Decentralised WASH services delivery model: The institutional set up for managing and delivering water, sanitation and hygiene services, whereby the roles and functions of different actors and institutions are clearly defined. In general it entails that while national government maintains responsibility for regulation and safeguarding of a nation's water resources and allocations thereof, responsibility for management and delivery of services to end users is allocated to sub-sovereign levels of government – i.e. the province, district, and municipality. The exact arrangements differ in different countries and regions. In a decentralised services delivery model other, non-government actors, such as the private sector (including SMEs), community members and civil society organisations also have important roles to play as service providers or in system construction and operation.

Economic instrument: A measure intended to influence users' behaviour towards water and the allocation of water resources.

Factoring: A financial service whereby a company sells accounts receivable (outstanding bills) at a discount to obtain cash and finance for his working capital. The "buyer" of the bills (the "factor") assumes the credit risk of the accounts receivable and cashes them when due.

Financial instrument: Document (e.g. check, draft, bond, share, bill of exchange, futures or options contract) that holds monetary value or evidences a legally enforceable (binding) agreement between two or more parties regarding a right to payment of money.

Financing mechanism: a source or method through which finance is made available for the operation and development of the water sector.

Grants: Form of aid used to stimulate certain projects from a political, ideological or social motivation. Grants can be combined with loans whereby the grant may cover the risks or software components.

Group lending: (Also known as solidarity lending) a mechanism that allows a

number of individuals to provide collateral or guarantee a loan through a group repayment pledge. The incentive to repay is based on peer pressure; if one person in the group defaults, the other group members have to make up the payment amount.

Individual lending: Traditional way of lending, whereby the financial institution provides a loan to a person or a business on a one to one basis. In microfinance: the difference between individual loans when compared to group lending (see there) is that the former are normally larger loans, for which the microfinance institution requires more security and carries out a more in depth cash flow analysis.

Investor: A person or company financing activities and sharing the risk of a project or corporation, usually by purchasing equity shares. In return, investors often get ownership of the project or business and are rewarded with a return on their investment. Social investors, instead of regular investors, do also have social goals besides financial ones they would like to reach.

Leasing: A financial service whereby a financial institution grants an individual or an enterprise the right to use an asset (building, machine, car) for a specific period of time in return for the payment of periodic rental or lease payment.

Mezzanine capital: See quasi-equity.

Microfinance Institution (MFI): A microfinance institution is an organisation that offers financial services to the very poor.

Microcredit: A small amount of money lent by a specialized micro finance institution to a client (individual, micro or small enterprise, farmer or group of borrowers) who normally does not have access to commercial banks' products and services.

Micro-entrepreneurs: Individuals who own small-scale businesses that are known as micro-enterprises. These businesses usually employ less than 5 people and may be based out of one's own home. Micro-enterprises may provide the sole source of family income or supplement other forms of income. Typical micro-entrepreneur activities include retail kiosks, sewing workshops, carpentry shops and market stalls.

Microfinance: Refers to a range of services including loans, savings, insurance, transfer services and other financial products targeted at low-income clients.

Micro-insurance: A system by which people, businesses and other organisations make payments to share risk. Access to insurance enables entrepreneurs to concentrate more on growing their businesses while mitigating other risks affecting property, health or the ability to work.

Micro-savings: Deposit services allowing people to store small amounts of money for future use, often without minimum balance requirements. Savings

accounts allow households to save small amounts of money to meet unexpected expenses and plan for future investments such as education and old age.

Millennium Development Goal: The Millennium Development Goals (MDGs) are eight goals to be achieved by 2015 that respond to the world's main development challenges. The MDGs are drawn from the actions and targets contained in the Millennium Declaration that was adopted by 189 nations-and signed by 147 heads of state and governments during the UN Millennium Summit in September 2000. Target 7c: Reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation.

Privatisation: The transfer (e.g. sale) of ownership of public assets into private hands.

Private sector participation (PSP): Involvement of private businesses in the management or operation of water undertakings, e.g. by sub-contracting specific services, via contracts for management and operations, by leasing public assets, concessions to finance, and by operating and eventually transferring systems and facilities back into public hands.

Product: Anything that can be offered to a market that might satisfy a want or need. In retailing, products are called merchandise. In manufacturing, products are purchased as raw materials and sold as finished goods. Commodities are usually raw materials such as metals and agricultural products, but a commodity can also be anything widely available in the open market.

Public Private Partnerships (PPP) also called Tri-Partite Partnerships (TPP): Partnerships that allow (local) governments to co-finance with private parties activities in both parties' interests.

Public goods: Also known as collective goods, public goods are goods that cannot easily be denied to others once allocation and payment for goods are provided. In addition, the use of a public good by one does not deny the use of that good by others.

Quasi-equity: A type of debt that has traits shared by both a loan and an equity. Quasi-equity can be structured in different ways:

1. The investors receive a percentage of a company's revenue for a certain amount of years in return for money invested.
2. The investors receive a (usually) relatively high interest rate on the money they have invested. However the company does not pay the interest rate immediately; interest accumulates and is paid after a couple of years when revenues of the company suffice. Both options usually include a warrant stating that lenders can transfer their loans into equity (shares in the company) under certain conditions.

Recurrent costs: The continuous expenses involved in operating all parts of the water sector, including wages & salaries, fuel, electricity, chemicals, spare parts and minor capital items necessary to maintain and repair systems.

Revolving funds: A type of community-based loan in which money lent from a organisation is lent onwards to other groups/individuals to use as initial capital investment; it is therefore used repeatedly by various members.

Social venture capital: A form of venture capital investing that provides capital to businesses deemed to be socially and environmentally responsible. These investments are intended to provide attractive returns to investors and also to provide market-based solutions to social and environmental issues.

Soft loan: A loan with a below-market rate of interest. Also known as soft financing. Sometimes soft loans provide other concessions to borrowers, such as extended repayment periods or interest ‘holidays’. Soft loans are usually provided by governments to projects they think are worthwhile.

Subsidies: Form of aid used to stimulate certain businesses from a political, ideological or social motivation. Funds obtained via this method do not need to be reimbursed and can be used for new or existing businesses. Subsidies may also cover running costs.

Sub-sovereign bodies: Layers of public administration and autonomous agencies below the level of central government (e.g. state and local governments, utilities, etc.).

Unbanked: People without access to financial services (e.g. savings, credit, money transfer, insurance, or pensions) via any type of financial sector organisation such as banks, non-bank financial institutions, financial cooperatives, credit unions, finance companies, and NGOs. Implicit in this definition is that financial services are usually available only to those individuals termed “economically active” or “bankable”.

Venture capital: Venture capital (VC) is the investment of funds from institutions or individuals into companies in the early stages of their growth, during which time they are often deemed too small and risky for commercial banks.

Table 1 provides a broad categorisation of the origin of a source of finance as well as mechanisms, some of which are forms of debt and others equity and which are most commonly used by various clients at different levels of WASH services delivery.

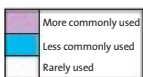
Only a selection of the mechanisms listed below are described in this booklet. The financing mechanisms described herein are most commonly used by households and communities (micro-level), or by intermediate level institutions (meso-level) such as municipalities or micro-enterprises.

| | Financing Sources | Financing Mechanisms | Target Clients |
|-------------|--|---|--|
| Macro-Level | National Government | Fiscal transfer Cross subsidy Labrine subsidy Connection subsidy Subsidy swap Means tested subsidy Municipal credit pool | National & intermediate level (i.e. municipality, district, region, provincial) government programmes |
| | ODA grants | Direct grant Technical assistance Revolving fund Seed finance Output based aid Project development facility Partial risk/credit guarantee Credit enhancement | Utilities Project implementation units Public Private Partnerships SME/Domestic private sector |
| Meso-Level | Private equity | Direct foreign investment Local private sector Seed capital | MFIs, local development banks, local social investment funds |
| | Overseas Development Assistance (ODA) Loans | Concessional loan Municipal development fund Line of credit Output based aid | Intermediate level (i.e. municipality, district, region, provincial) government programmes |
| | Non-ODA loans | Microfinance Municipal bond Working capital loan Solidarity mechanism Line of credit | MFIs Small Medium enterprises Domestic private sector |
| Micro-Level | Non-ODA grants: (NGOs, philanthropic organisations, private firms, etc.) | Technical assistance Solidarity mechanisms Twinning arrangements Direct grants Revolving funds Microfinance start up | Community Based Organisations (Poor) Users & Households |
| | Individuals/users | Revolving funds Microfinance Tariffs Direct equity (self-financed) Remittances | Community Based Organisations (Poor) Users & Households |

In table 2 different funding sources are presently being used to finance a specific (investment) cost for water or sanitation projects/businesses.

No golden rules exist and we do not pretend to draw a complete overview, but to indicate how different funding options tend to be directed towards specific areas of project development and implementation. It should be noted that only own means, grants and in rare cases social informal capital can be used to finance pure non-profit activities that do not generate revenues or income.

| Credit needs | Funding sources | | | | | | | | | | | | |
|--|-----------------|--------------------------------------|-----------------------------|-------------------------|--------|-------------------------------|-------------------------------|-------------------------------------|-------------------------|--------------------|--------------------|---------|-----------|
| | Own means | Community based loans/revolving fund | Commercial Informal Capital | Social Informal Capital | Grants | Venture Capital (early stage) | Venture Capital (later stage) | Social Venture Capital (all stages) | Mezzanine/ Quasi Equity | Soft Loans | Bank Debt | Leasing | Factoring |
| Feasibility study | | | | | | | | | | | | | |
| Technical Research | | | | | | | | | | | | | |
| Pilot Project | | | | | | | | | | | | | |
| Organizational start up costs | | More commonly used | | | | | | | | | | | |
| Product development | | | | | | | | | | | | | |
| Market Research | | | | | | | | | | | | | |
| Commercial Marketing | | | | | | | | | | | | | |
| Social Marketing | | | | | | | | | | | | | |
| Capacity building partners and clients | | | | | | | | | | | | | |
| Awareness Raising clients | | | | | | | | | | | | | |
| Operational Running Costs | | | | | | | | | | | More commonly used | | |
| Fixed assets | | | | | | | | | | | | | |
| Trade debtors | | | | | | | | | | | | | |
| Stocks | | | | | | | | | | | | | |
| Purchase water and sanitation products | | | | | | | | | | | | | |
| Acquisitions | | | | | | | | | | More commonly used | More commonly used | | |



Providing water, sanitation and hygiene (WASH) services remains one of the most pressing issues. Therefore it is essential to find sources of finance and financing mechanisms to ensure safe, adequate, accessible, affordable and sustainable water and sanitation for all, irrespective of who is responsible for managing and providing the services (i.e. CBO, utility, SME or municipality).

The arrangements made for financing WASH services delivery should ensure sufficient revenue for a WASH services enterprise or project to be able to:

- deliver the services over the long-term;
- support improved quality of services delivered;
- extend service coverage, particularly to low-income consumers; and,
- ensure better use of scarce water resources and management of waste water disposal to conserve the natural environment.

It must be recognized as well that risks and credit needs vary across the different stages of project implementation or business development. For instance, in the early stage of a project or business, risks are often high due to many uncertainties. Financing sources and mechanisms likewise vary in their suitability to fulfil changing credit needs. Mechanisms such as grants or equity are therefore considered more suitable in early stages than loans, as loan providers only provide finance once revenues can be generated in the short term.

Ultimately, WASH services are paid for by consumers or taxpayers in charges recovered from water users, or subsidies received from national governments or external aid agencies. Voluntary charitable contributions from individuals channelled through NGOs are another source which is minor in overall size, but important for specific projects and some countries.

All loans and private equity investments for financing WASH services must be serviced from future revenues or taxes. Such mechanisms are not alternatives to tariffs and subsidies, merely ways of deferring the impact of the financial costs associated with project or business start up, or expansion in instances when services users or entrepreneurs do not have sufficient means upfront but are able and willing to pay back loans during a certain period.

BOX 1: Opening up financial services

Over recent years, a variety of experiences using (innovative) finance mechanisms and approaches to water supply and sanitation have been applied across all regions, and within regions, to open up financial services to the poor and the lower- and middle-income groups. Perhaps the best known mechanism is that of microfinance which gained great attention in the 30 years since its inception with the Grameen Bank in 1976 and remains one of the success stories of development cooperation. By offering a range of financial services and products previously not available to poor and low-income clients, microfinance enables poor families, small farmers and micro-enterprises to improve the management of their money and of their income streams. Microfinance products and mechanisms such as insurance, savings facilities and transfer services, as well as micro loans and credit lines, have grown in number over the past 15 years due to the lack of specific financial sector policies.

The point to remember is that finance innovation is not about what a finance mechanism looks like on its own, but rather who is using it and how.

In practice, for WASH services delivery, a blend of different mechanisms are often used together to meet the needs of a particular situation. The starting point for discussion is how the demand for WASH services for the poor can be filled in, with finance mechanisms and products as part of a menu of alternatives.

This chapter provides examples of different financing products and mechanisms as they have been applied, or are being applied for improving pro-poor WASH services delivery. Case studies are provided to illustrate the described mechanisms and products. In recognition of the fact that the needs and abilities of various client groups for financing differ greatly, existing finance providers offer a wide range of different types of financing products and mechanisms. To help interested parties seeking financing solutions, and following the approach of Shah (2007), and Sijbesma et al. (2008), the financing products and mechanisms described herein are categorized according to whether they are most commonly used by clients at the household / community (micro-) level, or at the sub-sovereign (meso-) level with target clients such as SMEs, municipalities, CBOs, etc. This is because the available products and mechanisms for which they may qualify, or be able to assume responsibility for, will vary significantly.

While not a comprehensive presentation of all types of products and mechanisms, this selection of possibilities is intended to provide WASH sector implementers with inspiration about a range of innovate financing arrangements suitable for a range of different clients.

In WASH services delivery, the micro-level is that level at which men and women, as householders, micro-entrepreneurs, members of CBOs, or water user / sanitation associations, have assumed responsibility for the delivery of their own WASH services. This situation is currently found in rural, peri-urban and low-income urban settlements throughout Asia, Africa and Latin America.

Some individuals or households have enough money, or other resources, in the form of savings, time, or other means, to cover all the costs of building and operating household or community WASH facilities and services. However, this is not the case for everyone. For those women and men without sufficient resources to command sustainable access to safe WASH services, financing mechanisms and products tailored to their livelihoods and income opportunities offer the opportunity to obtain these basic services while contributing to improvements in their financial security.

Micro-level financial mechanisms and products are based upon pro-poor principles. In addition to financial services being made available to previously 'unbankable' clients, the services are often offered in combination with skills and capacities enhancement opportunities on generating income and micro-enterprise management while gaining, or improving, access to safe water, sanitation and hygiene services. As the cases presented in this section illustrate, the financing mechanisms and products described here are most suited to the micro-level as they are simple in design, are offered to households and clients without prior credit rating or capital, and the conditions of the range of financial services are tailored to the funding needs and payment possibilities of poor women and men.



What is it?

Grants and subsidies are forms of aid given by governments or organisations (NGOs) used to stimulate certain projects (grants) / businesses (subsidies) from a political, ideological or social motivation. Funds obtained via this method do not need to be reimbursed and can be used for new or existing non-profit projects or business. Grants can be combined with loans, where the grant may cover the risks or softer parts. Subsidies may also cover running costs.

How does it work?

Most funds have pre-qualification criteria and a rating system related to certain subjects in the final proposal. Try to find a fund with aim and criteria best suited to your plans. Some donors are flexible and might be ready to adapt their criteria to your ideas. Most funds have a standard application form although completing an application entails more than paper work.

Who can use it?

Most funds have defined who may apply for a grant. Legal registration is mostly required. In many cases, you might need an intermediary legally registered in the country in which you apply for a grant.

Tips

- Try to build a good relationship with the grant provider, but avoid any act which might be seen as corruption.
- Show why you are the best choice to do a certain job/project and why the project is the best choice in terms of appropriateness, effectiveness or efficiency.
- Add a track record and prove that you are a social entrepreneur (including labour conditions and environment).
- Include your 'operational' or 'business' plan, including tariff setting and method of revenue collection.

Pitfalls

- Project/ businesses receiving grant money can become dependent on this money instead of generating enough income independently. It is necessary to evaluate beforehand whether the required time/energy and 'dependency' will pay themselves back.
- Risks that cannot be neutralized are often not calculated sufficiently beforehand, which causes problems when projects/ businesses are evaluated. This can have a negative impact on your creditworthiness in the future.
- Property rights/ ownership of the capital goods at the end of the project are often not defined beforehand.
- Before attracting grants, make sure you are able to meet donor's requirements on reporting.



Rope pump Ghana

©Aqua for All

Pompen=Leven grant in North Ghana

In the North of Ghana, the Dutch NGO 'Pompen=Leven' granted and trained three welding workshops to start businesses in manufacturing and installing rope pumps.

Rope pumps use ancient technology in which knots in a rope circulating through a riser pipe lift groundwater to the surface. The rope is turned manually with a winch. Rope pumps have proven to be an interesting and economic alternative in many situations, especially for small groups of families. Demand from private clients is rapidly increasing.

Credit organisations are not always willing to invest in what they consider 'old fashioned' technology, produced by many different small informal producers. But many donor organisations are prepared 'to take the risk', especially when the set-up of the production and training of entrepreneurs is accompanied by the direct production of outputs, by which people get improved access to water.

The 'modern' rope pump has spread over Nicaragua in a volume of tens of thousands. The technology is now introduced in countries like Ghana, Tanzania, Kenya, Cambodia and Vietnam. The same applies to simple manually operated well drilling machines.

Further reading

- Rope pumps: www.praticafoundation.nl
- Funds for non-profit organisations: www.npguides.org
- Funds for Dutch charity organisations: www.fondsenboek.nl / www.ncdo.nl/kpa

What is it?

Fundraising is raising funds in a broad sense. In practice it often refers to raising small grants from different wealthy individuals, local organisations, business or service clubs and enterprises. Co-financing is a combination of funds from different financiers. Financiers providing grants often have a co-financing policy, meaning they want to share the risk across different financiers.

How does it work?

Both fund raising and co-financing are not financial mechanisms in themselves, but approaches or ways to get access to financial means. Traditionally fund raising is done through events like charity dinners or door-to-door collections. Co-finance procedures depend on the policies of different financiers. Fund raising and attracting grants through co-financing can be quite time consuming. Innovative IT solutions like Akvo (see case) and Kiva can facilitate the process of applying for grants.

Who can use it?

All organisations/ individuals can use fundraising. Akvo works with local NGOs working on water and sanitation projects. Other organisations providing similar services, such as Kiva, have different focus areas. Trust is built through successful completion of projects, or through support from a partner already known to both Akvo and the field partner.

Tips

- Involve the co-financing partners at an early stage of the business/ project plan and write it together. This will increase the ownership of partners and their willingness to co-finance.
- Build relationships with donors and ask their commitment to support you for a longer period.
- Use websites such as Akvo and Kiva to find co-financing partners.

Pitfalls

- Dealing with different procedures and policies of different financiers can be quite time consuming.
- Organizing fundraising events takes a lot of time and might cost a lot of money, be sure the investment offsets the amount of funds raised.
- Be careful to include sponsor agreements in fundraising. Offering visibility to potential donors might persuade them to offer funds, on the other hand it could discourage others to support you.

Akvo

The Akvo Foundation creates and shares internet tools designed to contribute to poverty reduction through supporting water and sanitation sector projects. Akvo does three things; helps others to share their knowledge, matches funds to projects, and simplifies reporting and feedback.

Organisations that need money for small-scale water and sanitation projects showcase their projects on the Akvo website, where it is visible for the entire world to see. Organisations, companies and individuals who like the project can then provide funds. Akvo collects the funds and sends them to the project organisation. In this way, an individual project can attract funding from many different sources.

TAPPS Volleyball Fundraising Tournament

The organizers of the TAPPS Volleyball Fundraising Tournament in the Netherlands used the proceeds of their fundraising event to fund two projects listed on the Akvo website. The tournament organizer, Govert van Eerde, choose Akvo because it was possible to assign funds to specific projects. "I love the Akvo system – it's easy to follow and easy to identify projects you would like to fund," he explained.

In total, 17,239 Euro was used to fund two projects, implemented by the Rain foundation. A project in Ethiopia will provide six small villages with 35 rainwater harvesting systems and 35 latrines, and educate women and children about water and sanitation issues. A project in Somaliland which will build latrines for a community of 2500 people living in a refugee camp in Burao was co-funded. The progress of the two projects can be followed by the donors through regular updates on the Akvo website.



Posters AKVO ©AKVO

Further reading

- Financial matchmaking websites: www.akvo.org / www.kiva.org / www.myc4.com

What is it?

Community-based loans are loans collected by communities, local governments or civil society organisations that lend to, and/or invest with, groups of people or individuals in the community.

How does it work?

Community-based loans can be managed by savings & credit groups who save together and lend money to their members. An interest is paid which increases their capital and lending capacity.

Who can use it?

Community-based loans can be used by groups of people, or individuals within the community for community development, or to start a small business. They create a high sense of ownership as the fund is created on their own initiative.

Tips

- Groups should include 5-15 members. If more people show interest in the program, several smaller groups may be formed.
- Only one member per household may be in the same group and the composition of the group should be gender sensitive.
- Establish a policy on additional loans. In many funds, prompt repayment makes borrowers eligible for another loan of the same amount or larger. Ideally, within about three years and several loan cycles, the borrower will qualify for credit from a commercial bank.

Pitfalls

- The economical impact can only be measured after several years on the condition that payback rates are satisfactory. Expectations should be realistic.
- If members cannot, or do not, repay the loan in time this will deprive or delay other members obtaining a loan.



Saving & credit group

©IRC staff

Rotating Saving and Credit Association RoSCA, Tanzania

In Tanzania Rotating Saving and Credit Associations or RoSCAs are very common. SHIPO, a partner organisation of Connect International often works with them.

A RoSCA is a group of individuals who agree to meet for a defined period of time in order to save and borrow together. RoSCAs are the poor man's bank, where money is not idle for long but changes hands rapidly, satisfying both consumption and production needs.

SHIPO also works with the RoSCAs and Village Action groups (often women) to mobilize funds to improve sanitation services in the community. Their aim is to build one latrine per group per month.

In order to speed up the development process, the saving groups (RoSCAs) are combined with a revolving fund. The Village Action group borrows money from the revolving fund in order to buy an additional latrine per month.

Further reading

- Organisation that works with community-based loans: www.connectinternational.nl

What is it?

Revolving funds are a type of community loan in which initial money is lent from an organisation. After loan repayment, the money is lent onwards to other groups or individuals and therefore used repeatedly by different members.

Revolving funds and community-based loans are very similar. However, community-based loans are initiated by the communities themselves with their own capital and interest rates are charged. Revolving funds are often initiated and funded by NGOs or institutions and they often don't charge interest.

How does it work?

With a revolving fund communities apply to an organisation that provides revolving funds. Thereafter, the community elects a committee to manage the fund. Those interested to borrow funds become members by paying an entry fee. Money is repaid without interest.

Who can use it?

Revolving funds can be used by groups of people or individuals within the community for community development or to start a small business.

Tips

- The committee should have a safe place to keep the money and preferably open an account with a local bank.
- Make sure borrowers are aware of the financial cost and benefits of the loan through sufficient training and support.

Pitfalls

- If the bank is far from the community this can add considerably to the operational costs of the revolving fund.
- It is important to match loan sizes and cycles to economic conditions. In areas where people depend on agriculture, the crop cycle should be taken into account.
- Initially follow up costs (such as organisation costs, operational costs) might be relatively high and economics of scale not obtained might lead to increased costs of the facilities (e.g. Water filter, latrines, boreholes etc.). If facilities are directly financed and facilitated by the fund this can endanger its sustainability and lead to early depletion of funds. In such cases there should either be a subsidy to cover initial costs, or else these costs should be incorporated in the loan.



Toilet systems UFUNDIKO



©Connect international

Revolving fund for sanitation in Tanzania, Dodoma region

UFUNDIKO, a small NGO based in Tanzania observed that demand for improved latrines was high yet commitment of households to invest in them was limited. Through their revolving fund schemes the adequate microfinance is provided to supply households with sanitation products needed to improve the latrines the families had constructed on their own using locally available materials and knowledge.

UFUNDIKO proposed improvements to the household sanitation situation in their villages through, among other things, the provision of a revolving fund that is adapted to the local demand, as well as to borrower's payment capacities. The revolving fund of 15,000 Euro was shared by 10 villages.

The initial target of the project was to set up at least 500 household latrines. After two and a half years more than 790 latrines had been built with an additional 1136 latrines currently under construction.

Prior to the initiation of the fund, a lot of ground work was necessary. Thereafter, construction materials, worth about EUR 30.00 per latrine, were provided to the village government/village health committees to improve 50 latrines per village. Households applied to the village government for assistance and signed a contract to repay the full costs of the materials received in two instalments over a maximum period of 2 years.

Further reading

- Organisation that works with revolving funds: www.simavi.nl

What is it?

Microcredit is arguably the best known exponent of microfinance. True to its name, microcredit entails giving small loans to poor and low income clients, who otherwise lack collateral or credit history to qualify for loans to help generate income.

How does it work?

Institutions that provide microcredit range from community-based loan organisations to NGOs and, more recently, to international banks and other financial institutions. Microcredit is often provided through 'cash flow based lending' in which the client and loan officer analyse the expected income flow and calculate the loan size and terms the client can afford. Microcredit loan interest rates and repayment terms vary, yet are generally set to ensure credit facility sustainability, ideally avoiding subsidized credit.

Who can use it?

Microcredit can be offered, often without collateral, directly to an individual or through group lending as in the case of community-based loans and revolving funds discussed above.

Tips

- Combining microcredit schemes with the building of entrepreneurial skills, and teaching product diversification, health and hygiene awareness etc., increases the resilience of vulnerable client groups.
- Women are major clients and drivers of microcredit schemes. Take into account prevailing local gender and equity considerations in strategy development to ensure that empowerment objectives are achieved – e.g. set up systems to ensure control over microcredit loans remains with the initial borrower, or with the other borrowers in group-based microcredit schemes, rather than being diverted to family members who are not accountable for (timely) repayments.
- Demand for sanitation – household and shared community level facilities – is expected to rise globally over the next decade. Experience shows that the more the terms and conditions for sanitation credit and toilet loan services are adjusted to the specific situations of different types of households and neighbourhoods, the more positive the results are. For instance, for the Grameen Bank this includes agreeing to a repayment frequency at intervals determined by borrowers themselves, in some cases weekly, and in others monthly, as their income is generated.

Pitfalls

- Microcredit is no panacea; it remains a form of debt that must be repaid even if one's investment produces no returns.
- Clients must be fully informed prior to obtaining microcredit loans of the generally higher interest rates due to the (perceived) higher risk involved, as well as to the proportionally higher transaction costs (fixed costs that do not vary) of managing tiny loan amounts. This results in borrower's bearing significant fixed costs, whether an enterprise succeeds or not. Microcredit borrowers are generally from among the poorest societal groups. Failure to generate returns on an investment due to natural or man-made disasters results in a tremendous burden for already vulnerable women and men. The introduction and use of micro-insurances is a positive development to counterbalance this pitfall.

BOX 2: Microcredit

In spite of its huge growth over the past years microcredit has rarely been available for financing water supply and sanitation. A major reason is that on the supply side micro-finance institutions (MFI), consider financing of such investments to be unattractive. There is no visible link with income generation, causing doubt about the client's repayment capacity. On the demand side, families and communities might be reluctant to acquire a debt to get access to water because they expect such investments to be financed by national or local authorities, or by a donor.

However, in community small scale water and sanitation provision, there can be three types of clients available to an MFI: the producer of products, the provider of services and the user or final client.

- 1 **Small enterprises** producing water systems (pump, filter or latrine): this is often the starting point of the supply chain and also a possible client of microfinance. We talk about working capital or investment loans to the enterprise allowing it to buy raw material, or allowing it to create a stock of finished products.
- 2 **A community, local authority, business or project acting as a service provider** (of clean drinking water) and installing a water or sanitation system: this is service delivery at the end of the supply chain. Credit need derives from financing the up-front investment. An MFI might step in when the loan size remains small, the tenure is less than 3 years, or service payments it receives from the end users are being endorsed by the MFI. The service provider could ask for an up front contribution by the beneficiaries, which can be financed by an MFI. The individual family becomes the debtor to the MFI. For an MFI this is a more "normal" situation, dealing with individual clients. The loan can even be factored into the normal lending the MFI does in the village. Service to the loan comes out of the cash flow that the family generates.
- 3 **A family** buys an individual water or sanitation system. Here the filter or rope pump or latrine can be considered as an investment for which the family contracts a loan. This becomes attractive for the MFI when the client can show that the investment will improve the income (e.g. treadle pump to irrigate a vegetable garden).



Savings group, India

©AKVO

LAGEMYAM Solid Waste and Sanitation Savings-Microcredit Scheme, Burkina Faso

In Wogodogo, a low-income neighbourhood in the Burkina Faso capital Ouagadougou, a savings-microcredit initiative was established for household management of domestic waste and the development of household sanitation facilities.

Credit was provided by LAGEMYAM, a women's association working for improved sanitation. LAGEMYAM agreed to finance the initial 70% required to start up the credit system.

The interest rate was set to cover the administrative costs. No collateral was required as the population did not have the resources to meet such a requirement. Credit was provided on a trust basis and only to borrowers already known to the association.

In the initial phase, microcredit support for developing solid waste collection income generating activities was provided. 28 households that benefited from the microcredit loans used the income generated to construct excreta- and

wastewater infrastructure such as VIP latrines, drainage and soak pits for domestic waste treatment. However, only five households repaid their initial loans.

LAGEMYAM and CREPA (a NGO) had assumed that a portion of the revenue received from the solid waste collection would be used to finance the credit system for sanitation. But this did not happen, as the population had become used to getting sanitation facilities for free, and families invested the revenue from solid waste collection primarily in basic needs such as getting water and food rather than repaying the loan.

During a second phase, 18 additional households constructed more sanitation facilities. The number of reimbursements improved slightly, because project staff from CREPA and the NGO EAST launched an awareness campaign to underline the importance of repayments if the system of loans was to continue.

Participatory approaches were used to develop commitment vis à vis the credit system and resulted in beneficiaries realizing the need to repay the loans so that the system could continue and that development of neighbourhood sanitation facilities would not stop. The rate of repayment is now more than 80%.

Further reading

- Microcredit: <http://www.irc.nl/content/search/?SearchText=microfinance>
- LAGEMYAM project: www.reseaucrepa.org

In terms of WASH services delivery, the meso-level, also called the intermediate level, is comprised of those actors and institutions at the sub-sovereign level involved in WASH services delivery to the public and private sectors. Included here are municipality, district, regional and/or provincial government administrations, as well as NGOs, User Association umbrella organisations, water boards, water utilities, SMEs, or other actors concerned with WASH services delivery.

The exact arrangements for services delivery differ by country, however, in any decentralized service delivery model, these actors play various interconnected roles, each functioning to some extent as 'go between' between the national government and end-users / customers of the WASH services. Irrespective of these institutional arrangements in a given context, all meso-level actors have risks, credit needs and therefore an interest in ensuring that effective arrangements are in place for financing sustainable demand-led systems and services.

The financing mechanisms and products described in this section are more commonly used by these meso-level actors in their design and scope. However, as with the micro-level mechanisms and products, their suitability is determined by the appropriateness of the match between the mechanism / product with the local socio-economic, environmental, political and governance context as well as client needs for finance.



Demonstration toilet in sanitation park in Musiri

©WASTE

What is it?

Public Private Partnerships (PPP) also called Tri-Partite Partnerships (TPP) are not a specific financing mechanism, but partnerships that allow (local) government to co-finance with private parties activities that are in both parties' interests. PPPs take different forms and are always case specific. Each party needs the (financial) input of the other to realize the project's objectives. PPP partners are registered entities, such as financial institutions or government bodies, representing joint interests.

How does this work?

A PPP blends the different financial sources (loans or grants) and combines the different conditions (such as interest and repayment period) from the private and public sectors. Ideally, public finance mobilizes more significant private resources than otherwise might have been invested. Private investors often hesitate to get involved in pro-poor development initiatives as investment risks are high. Public investments can lower risks, guarantee lending or provide soft loans to form a package with private money.

Who can use it?

Individuals are seldom partners in a PPP, however, any form of cooperation between government and non-government parties may form a financing partnership. Small entrepreneurs and households benefit from better loan conditions provided through PPPs.

Tips

- Evaluate beforehand if the investment in extra time offsets the profits of co-financing.
- Allocate project support and budget support strategically within your budget. Project support is given for a particular project and needs to be earmarked and reported on separately. Budget support is given to the organisation in general and doesn't have to be earmarked. Try to use project support for part of the project that can be financed separately and thus can be reported on separately.
- Spend time to build a solid partnership and be sure all partners will benefit from the partnership in a way to keep them positively involved.

Pitfall

- Arranging co-financing is very time consuming as different rules/ conditions need to be followed. It can also result in different monitoring and reporting requirements which can take up a lot of time.
- Unclear roles and responsibilities will cause unclear governance and an unclear project structure.



Woman showing toilet construction in Tamil Nadu

© WASTE

Innovative PPP Sanitation in the FINISH program, Orissa, India

TATA-AIG, SNS-REAAL, UNU-MERIT, BISWA and WASTE formed a PPP program called the Financial Inclusion Improved Sanitation and Health (FINISH) initiative. They have developed an economic vision for sanitation in India aimed at achieving locally sustainable improved sanitation for 1,000,000 households.

TATA-AIG, a micro-insurance company that sells life insurance products, works through several microfinance institutions in India, such as BISWA, to market their products using BISWA's existing supply channels and self-help groups. This minimizes transaction costs while maximizing products' reach, enabling microfinance institutions to offer a wider range of financial services to clientele in the form of a risk management mechanism.

Together with WASTE, TATA-AIG developed a joint approach to increase sanitation coverage using health insurance products. Simply stated, health insurance premiums are lower when clients acquire and use improved sanitation systems. Thus, improvement of sanitation conditions directly translates into financial incentives, e.g. lower premiums. Simultaneously, health insurance offers clientele affordable loans to improve their sanitation conditions.

SNS-Reaal Bank, a partner of WASTE that invests in water and sanitation projects, was willing to invest US\$ 2 million to support the FINISH initiative and advises the local financial institutions to support the initiative. With technical support of SNS-Reaal bank and WASTE, microfinance institutions are being stimulated to develop sanitation loan products using the World Bank Output Based Aid model, whereby small subsidies are payable to microfinance institutions if they reach agreed targets.

Until recently few institutions have offered such loans, as loans for that purpose are perceived to carry higher risks. Consequently, interest rates and costs of sanitation loans were too high for low income households. Now more households are able to access micro finance to improve their sanitation facilities.

Packaging commercial lending with public grants allows the program to soften lending conditions for improved sanitation. The Dutch government is considering providing a grant of 4.5 million Euros to the FINISH consortium. Affordability will be pursued as partners negotiate for lines of credit from (international) banks, applying lower interest rates and longer loan repayment periods.

Further Reading

- FINISH project: www.waste.nl
- Public Private Partnerships: www.undp.org
<http://rru.worldbank.org/Toolkits/PublicPrivatedialogue/>
<http://www.ip3.org/index.htm>
<http://www.pppinindia.com/>
<http://rru.worldbank.org/Discussions/topics/topic76.aspx>

What is it?

Venture Capital (VC) is the investment of funds from institutions or individuals into companies in the early stages of their growth, during which time they are often too small and risky for commercial banks. In exchange for the high risk, venture capitalists provide equity capital (become shareholder) to a company and receive a share of the profit. They often bring managerial and technical expertise as well as capital to the companies they support.

Because the water and sanitation sector is strongly influenced by public funding and involves high risks, the use of VC is new and remains limited. However, as in other sectors, VC funding can play a positive role.

How does it work?

While a commercial bank often relies on many years of financial data, a VC fund has access to a shorter financial history, and the quality of the business plan is key to convince the VC fund to invest.

Who can use it?

Companies in the early stages of their growth, yet which are considered too small or risky for commercial banks.

Tips

- Try to keep control of the business by keeping a minimum of 50% of the shares.
- Always negotiate the right of first refusal if your investor sells his/her shares. Stay in control of your business as far as you want to be, and put all agreements on this topic in the shareholders agreement.
- Agree on clear procedures in the event of a possible conflict between you and your investor.

Pitfalls

- Do not accept too many clauses that restrict you from selling or pledging your shares.
- Do not start to tackle or solve everything in your business model but have a focus on a specific issue or customer group.
- Do not overestimate your forecasts, be realistic about the financial projections.
- Do not underestimate the value of a good plan, take time to explain the assumptions used.



Sewer system, slum Mumbai, India

© NWP

Acumen Fund's first investment in WaterHealth International (WHI)

In 1993, a mutant strain of cholera ravaged many communities in India, Bangladesh, and Thailand. No vaccines were available to fight this "Bengal Cholera," and thousands were killed by the outbreak. This tragedy prompted Ashok Gadgil, a scientist at Berkeley Lab, to develop a UV treatment technology. A model was taken to India for field testing in 1994 and WHI was founded in 1996 to develop affordable water purification and disinfection systems, with the goal of addressing the needs of a large segment of the world's population without access to clean drinking water.

In 2002, Plebys International, a venture capital fund, acquired WHI and took it through a reorganisation that overhauled the business strategy and leadership and provided \$2 million of capital. In 2004, WHI completed its Series B round of financing by raising \$2.4 million from an International Finance Corporation, Acumen Fund, and Anji Reddy, a respected pharmaceutical entrepreneur. Subsequently, Acumen provided highly active support to help WHI develop its presence in India by funding a consulting team to size the Indian market, and by seconding an Acumen staff member to help redesign the physical facility for the community water systems in India.

WHI has attracted additional investors and gone through two more rounds of financing. The company has used these funds to rapidly expand the number of facilities installed on the ground. It has put in place a base for over 1 million people in India, and continues to grow rapidly.

Further reading

- Encyclopaedia of venture capital and private equity: <http://vcexperts.com/>
- David Rose on pitching to VCs: www.ted.com/index.php

What is it?

Quasi-equity is a financial mechanism in which investors receive a percentage of a company's revenues for a number of years in return for money invested in that company (e.g. for business start up or expansion), or fixed interest which will be paid out depending on e.g. the company's revenues. Investors are not shareholders in the company as is the case with an equity investment arrangement, but might receive a warrant in which they are given the right to transfer their loans into equity (shares in the company) under certain conditions. If revenue falls short of expectations, investor returns will be low. Indeed, an investment may even end up worthless.

How to use it?

There are instances where both equity investment and traditional debt finance are not the best solutions for a company. Equity may be unsuitable when an organisation is prevented by its legal structure from paying out any profits to shareholders. Loans can also be unsuitable when an organisation is starting up or undergoing significant growth and the burden of interest and principal repayment is too heavy. Quasi-equity may be a solution to these constraints.

Who can use it?

Medium scale companies can use quasi-equity when they do not want financiers to have a share in the business and find banks reluctant to provide loans.

Tips

- Make excellent calculations on the expected value of the warrant before offering one.
- Make sure executing the warrant will not affect the ownership of your company and will not dilute your equity in a way other equity investors will be unpleasantly surprised.
- Negotiate conditions that allow you to refinance quasi-equity, without paying huge penalties, when banks are willing to provide loans.

Pitfalls

- Do not underestimate the complexity of this product, hire a financial expert.
- Be careful in setting the conditions. The commitments taken by the company must be taken into account in the company's financial planning.
- Do not apply for these products when your credit need is modest, transaction costs of quasi-equity are high.



Squat latrines

©IRC staff

Acumen Fund's investment in Ecotact

Founded by David Kuria, a charismatic entrepreneur, Ecotact is establishing a chain of pay-for-use toilets under a Build-Operate-Transfer (BOT) model in Kenya. The model is to construct sanitation facilities on behalf of municipalities, to secure a management and operation contract in order to run the facilities on their behalf over a predefined period, and to provide affordable access for poor and low-income consumers to clean sanitation facilities.

While viable in the long term, Ecotact's model requires significant capital needs in the start-up phase. The initial capital investment is funded through debt, and a combination of user fees, add-on service contracts and advertising revenues cover operating costs, interest expense and the principal's over time. In 2008, Acumen supported the launch of Ecotact by making a \$0.8M low-interest loan with associated warrants – which entitle Acumen to buy stocks in the company. That structure gives Acumen a stake in the success of the company through the warrants, while the low-interest loan avoids placing pressure on the balance sheet of the company in this early growth stage.

Acumen Fund's loan will be used to construct 30 facilities in 2 municipalities, Nairobi and Nakuru, serving a total population of 12,000 people every day. Beyond this first phase, Ecotact has already secured contracts for 60 facilities representing an additional 24,000 users per day.

Further reading:

- Finance Hub: Quasi-equity Finance www.financehub.org.uk
- A Case Study on Using Quasi-equity www.cafonline.org

What is it?

Meso-finance is a method to finance WASH services in which the community, as a registered legal entity, applies for a loan from a local bank which enables the community to invest in water and/or sanitation facilities. The community can choose the type of system that suits best and it also owns the system. Operations and maintenance are also handled by the community.

How does this work?

The community requests a loan from a local bank. The loan is repaid over the course of the system's economic life through a surcharge on an existing cash flow (e.g. water tariffs) to ensure the financial feasibility. The system supplier is paid by the bank while the community remains owner, assuming full responsibility for system O&M. A standard condition could be for the community to take out a maintenance contract with the supplier for the first years of the system's operations to ensure capacity building

Who can use it?

Communities that (can) form a legal entity, and want to develop or improve their domestic water/ sanitation facilities.

Tips

- Work together with local NGOs, trusted by beneficiaries, to help increase interest and support efforts for the community to apply for loans
- Enable the community to repay the loan by thoroughly assessing its ability to pay
- Have a good grip on the cash flow. Work on building effective revenue collection mechanisms (see further).

Pitfalls

- Do not use this mechanism when the community is not aligned completely with the project.
- Preferably do not subsidize the service delivery to beneficiaries, make sure tariffs cover the operational costs involved and are sufficient to repay the debt.
- The beneficiaries need to be involved closely, and their involvement can be streamlined by the establishment of a representative board for the decision making process regarding sanitation facilities, for example with elected village members.



Pilot project Fayoum

© Royal Haskoning

Meso-financing pilot project in Egypt

Through a pilot project in Fayoum, Egypt, Royal Haskoning is assessing the concept of meso-financing to improve sanitation facilities in poor rural communities where sanitation services are not widely available. By using meso-financing and introducing public-private partnerships for the supply of waste water systems Royal Haskoning envisages connecting around 2,000 extra households to a sewer system.

In Fayoum, the loan will be used for construction of simple waste water purification plants with a piped sewer collection system for small villages with in a range of 1,000 – 5,000 inhabitants. National industries are stimulated to develop and market prefabricated wastewater treatment plants with subsidies. The loan must be repaid in accordance with a predetermined schedule based on the households' savings on sludge disposal of septic tanks. Getting a project like Fayoum off the ground demands inventiveness and consultation at all levels to ensure effective agreements. Royal Haskoning acts as catalyst and matchmaker in the project.

In Fayoum all parties are getting together now to discuss the mechanism and hopefully to get down to brass tacks so that a start can be made on building the waste water purification plants by early 2009.

Further reading

- Pilot project in Fayoum and Royal Haskoning: www.royalhaskoning.com

What is it?

Financiers provide loans when a business or project generates, or will generate, cash flow in the near future (this could be through revenue collection). There are many different forms of loans. Specific loan conditions are generally applied by financiers; a borrower must be creditworthy, the loan should be repaid within a certain time period, collateral may be required, etc.

How can you use it?

Financiers providing loans look at quality of management and commitment of (local) stakeholders, how revenues are generated, appropriateness of technology and existing market demand. Financiers want to know the credit need, expected risks and what other financial mechanisms are being used that might reduce the risks. Finally, loan customers must be contracted preferably providing hard commitments on current and future sales.

Who can use it?

Businesses or projects that will generate sufficient cash in the near future to repay the loan can apply for this mechanism. The use of loans in the water and sanitation sector is new and remains limited.

Tips

- Use a realistic, or even worst-case, scenario when you determine your capacity to pay back a loan.
- If you expect your credit need to fluctuate during the year, apply for a short-term credit line that gives you the possibility of drawing the amount needed to fulfil the credit need.
- Try to negotiate a pricing grid, which means that the interest rate decreases when your financial results improve.
- In most cases professional lenders ask starting entrepreneurs to agree to unlimited personal liability. Instead, try to negotiate a limited liability during a specific period.

Pitfalls

- It is important to realize that financiers in low-income countries impose stricter conditions when they provide funds, and interest rates may differ significantly from developed financial markets.
- Make sure you match the currency and fixed interest rate period to your needs. To match currency, aim for lending in the same currency as your revenues. To find the optimal fixed interest rate period, you will probably need to ask for outside help from an expert (usually your bank, if you feel you trust them!).
- To apply for a loan can take some time, do not wait until you run out of money.



© Henk Holtslag



©IRC



Tulip filter

© Henk Holtslag

SNS Reaal Water Fund financing Basic Water Needs B.V.

BWN developed the “Tulip” water filter, a low cost, easy to use, high quality solution for households to purify unsafe water. Basic Water Needs India Pvt Ltd manufactures the Tulip water filters in India.

The SNS REAAL Water Fund provided a loan to BWN in 2008 based on the following main success factors that were described in their business plan:

- The product is produced and sold by the local private sector, using local skills and materials.
- Aid and seed capital was already in place financing product improvement, demonstration and building on local capacity.
- The filter contributes significantly to reach the MDGs. Besides delivering safe drinking water, the business will create local employment.
- The staff and board of BWN and their partners show trustworthiness and high competence.
- Various local and international NGOs have already ordered, or will order, filters and are involved in awareness campaigns explaining the benefits of safe drinking water.

When SNS Reaal Water Fund assessed BWN’s business plan, the main following risks were identified as most relevant, and adequate mitigation was in place:

- *Main project risks* are the lack of marketing and distribution capacity. This is mitigated by contracting strong partners (Enterprise Works) and outsourcing of non-core activities.
- *Market share:* The filter could be copied. However, quality/price relation is very competitive and BWN has strong relations with NGOs; the distinctive features of BWN’s filter design are not easy to copy.
- The main *socio-economic risk* is whether consumers can afford to pay for a product. The combination of low production cost and high quality standards makes the filter suitable for the local BOP market and competitive with similar products.
- BWN has been recently established (June 2007) and has a limited track record of the payback capacity. However, this *payback capacity risk* is considered to be low due to the growing number of orders for the filter.
- There is a *legal risk* in doing business from abroad in India (finance, tax expiration or funds). Establishing an Indian private limited company mitigates this risk. Contract risk is taken into account by engaging local lawyers.
- Hiring an experienced local Indian commercial manager for BWN with sufficient management support from the board mitigates project management risk.
- The *project assets and activities risks* are applicable to the logistics of the project, e.g. timely delivery of raw materials and water filters, and being able to guarantee product quality (also due to “copy cats”). Opening a local company and making local stocks will diminish this risk. Product quality risk is considered as low as BWN will purchase very good quality, standardized silver coated ceramic filters and enter on committed partnerships.
- Simple is not necessarily easy; e.g. wrong usage of filter by end user. *Health risks* could derive from wrong use of the Tulip filter. A safety stamp which is also an indicator making it clear to the consumer whether the Tulip filter is still safely usable diminishes these risks.

Further Reading

SNS Reaal Water fund: www.snsreaal.nl

What is it?

Revenue collection is the collection of income, related to a delivered service. It aims to finance both the running costs of service delivery (including repayment of loans) and future costs for maintenance and replacement. Mostly, it is collected from the clients/users, but there may be subsidies involved (e.g. if services are delivered to certain groups of vulnerable people or it involves saving energy). Revenue collection is typical for 'public' services, like water supply and public sanitation.

How does it work?

Revenue collection on 'public services' is often bound to legal rules. Tariff setting is usually based on a long term operational plan. Tariffs can be flat or related to the provided service. Cross subsidies can be built into the tariff system. Tariffs can be determined for different scenarios. Examples of variables are volume, seasonal variation, cross subsidies, different types of revenue collection, etc. There are many forms of revenue collection. Revenues can be collected in different ways and frequency. They are mostly related to consumption and measured by water meters, number of household members, category of user or housing, or just by piece (bucket, visit).

Who can use it?

Public service providers, non-profit organisations, community organisations and private enterprises need to consider revenue collection before making an investment.

Tips

- Cash payment at the service point or monthly payment by the user group (members) is the easiest, but requires a salary for the care taker. Daily payments normally provide much more income than monthly or annual payments. Cash earnings may provide a problem of transparency. It might also create a serious transport problem if the collection point is far away from a bank.
- Revenue collection is also important to assure cash is coming in to repay debts.
- Revenue collection is a good stick and carrot to users, when users do not pay they might get disconnected, when properly paid extra rewards can be build in.
- Look for smart hardware to support your revenue collection such as coins for water equipment, water meters, etc.

Pitfalls

- Be aware of the risks, like failure of supply, vandalism, (unfair or fair) competition, lower demand due to economic crisis, liability for health problems. These might affect both expenses and income.
- When managed badly revenue collection is very time-consuming, especially when good hardware is lacking and many users are involved.
- When tariffs are not transparent users will lose trust, or get angry when they feel they have to pay too much.
- When the community is not involved, they might sabotage the revenue collection mechanism by paying less, or by tapping water illegally, or by simply not paying for the service.



Masai nomads, Kenya

Box 3: Alternative revenue collection systems

- Stamp card and snap card, which can be obtained from a local shop, avoiding too much cash by the care taker
- Membership card (monthly; annually)
- Pre-payment systems, such as a magnetic chip card (could be made of cardboard); coin machine etc. (very sensitive to breaking down)

Revenue collection in Kajiado, Kenya (AMREF)

In the vulnerable reality of the semi-nomadic pastoral Masai communities in Kajiado, Kenya, setting water tariffs at an affordable level is a major challenge. Construction costs were shared by the community (25%) and AMREF (75%). Facility management (KIDI), operation and maintenance are financed by the Masai communities through payment, often monthly, of fees for facility use. As a pastoral population, the livelihood of the Masai consists mainly of livestock, thus water consumption is high. For that reason the water tariffs are based on the size of the herd instead of the size of the household, rendering human water consumption free. Social correction is thereby built into the financing mechanism: poorer men and women without cows need not worry about their access to sufficient safe water.

Further Reading

- Literature on financial systems/cost recovery: www.irc.nl
- www.amref.org

Besides NGOs implementing water and sanitation projects, private initiatives and 'entrepreneurial development aid' can play a key role in reaching the bottom of the pyramid (BOP). It is becoming increasingly clear that BOP in Southern countries offer a potentially interesting market. To be successful, products and projects must be fully purpose-built/adapted to local needs and conditions. In other words, they must be 'appropriate technologies, products and services'.

Locally tailored products or services are not the silver bullet: entrepreneurs and project managers must work out effective business models and project concepts. These have to be translated into convincing plans to persuade potential financiers and project partners to finance the activities. These financiers tend to be reluctant to make funds available for working out ideas. Solid plans must explain the opportunities, social impact, risks and activities involved in the project or business.

Therefore every project or business needs a plan to secure funding. This chapter gives you a short summary of all the necessary steps to take.

Outlined in the next pages is a step-by-step approach that will guide and help you to build up your business or project. Although this framework can be applied for both businesses and projects, it is important to understand the differences between both:

- A project has a starting point and an ending. A project leader runs the project but is not financially involved. A project is often part of a larger organisation or combination of organisations, and project risks are spread among project participants. Be aware, in this booklet projects refer to small-scale water and sanitation solutions instead of large-scale water treatment plants funded by project finance.
- A business has a starting point without an ending. An entrepreneur runs the business and is financially involved. Businesses are organisations by themselves or a combination of activities of different participants wrapped up in a legal entity. Business risks are being shared among entrepreneurs and other financiers.



Specific parts of this chapter apply to businesses and are being marked by a specific symbol, pictured on the left.

Further Reading

Appropriate Technology on Water and Sanitation Toolkit (AT BD Toolkit) available at: AT@Work website www.atatwork.org
 Micro Water Facility www.microwaterfacility.org
 Akvo www.akvo.org.

You have an idea about a product or service for which you feel there is a need, or you identify a need and you would like to provide a solution. The first thing you will have to do is to assess whether the basics of your idea will hold. The end product of Step I will be a “blueprint” of your product, market and business or project.

Product definition

Define what you are going to sell or deliver as a solution. Will it be a service or a product, and will it be for use by individual households or communities (e.g. operating in a village).

Product affordability

“Is the intended customer able and willing to pay for this product?” To assess affordability, you will have to try to calculate the total cost of ownership (TCO) as best as you can. Take into account all the costs a customer might incur while purchasing your product or service (from the initial purchase to disposal costs).

Box 4: Example of a successful calculation of the total ownership

Consider a water filter that costs 15 to purchase and works with filter cartridges that cost 1 and can treat 3,500 litres per piece. What is the TCO of this system?

Costs per year:

| | |
|---|-------------------|
| Price of the unit when purchased: 15, depreciates in 10 years | 1.5 €/year |
| Maintenance (replacement of seal, pump rubber, etc.) estimated at | 0.5 €/year |
| Use of filters: 7,000 litres requires 2 filters at 1 per filter | 2.0 €/year |
| Total | 4.0 €/year |

For 7,000 litres of water per year, costs are 14.0 per year, or 14.07 per 1,000 litres. In this example depreciation is a way to allocate the initial purchase price to the life span of the product. You assume end users to save depreciation and use the total amount to repurchase the product after 10 years. Be aware, this example does not take inflation into account; the initial purchasing price will be significantly higher after 10 years.

This example does not take into account potential costs to the customer of obtaining 15 to make the initial purchase. There might be costs if a loan needs to be obtained from a bank or moneylender.

Box 5: Analyzing the potential market

When Water4life, a DSM initiative in India, was exploring the local Indian market in Tamil Nadu, the Water4life team approached a local NGO to discuss the local needs and the local market potential. Consulting the data in Census of India 2001, Water4life concluded that in Tamil Nadu, a state with 5.9 million households, 35% of the households still used a source other than tap water. Also, in rural areas 75% of the households did not have a source of drinking water on their own premises. Local experience from the NGO found that even if households used a local tap for drinking water (often supplied by tankers) the supply of water was unreliable, especially during difficult seasonal periods. This meant that for the Water4life product, targeted at households that use a non-tapped water source, Tamil Nadu presents about 2 million customers, and possibly more if a campaign was conducted to promote the use of the filter in situations where tap water supplied from tankers was used. Further investigation with the local NGO identified local communities within the state that matched the profile. This first top-down approach was enough to show that the market in Tamil Nadu for the Water4life product by itself was already sufficiently large, and that, initially, no other states needed to be targeted to launch the project with a sufficient market potential.

Target market and target group

Besides the geographical scope of your market, you should also define the target market in terms of target customer segment (target group), based on, for example, the income level of the target customers.

Competitive landscape of water technologies

Get an indication of the competitiveness of a technology by comparing the product features, appropriateness and TCOs of different products. Even a product with a high purchase price can be successful when producing large amounts of safe water. There is more to the total product offering than the initial price.

Financial model

During Step I you start calculating your cost price and make some rough financial projections. Do not forget, if applicable, to include in your calculations: all kinds of import/export duties and taxes, custom handling and paperwork, transportation costs, intercontinental and local, breakage (e.g. 3% of the total cost price), packaging, royalties, installation locally, including instructions on use, etcetera. Finally, start making rough forecasts by building two scenarios: A management case, starting from a realistic but ambitious forecast and a base (or worst) case, starting from a minimum forecast.

Business model

Think about the question how your business creates value. Traditionally this is about the way your business will be able to create revenues. However, you might have different motives: social or economic, or a combination of both. But even if your social goals dominate, the operation needs to become financially sustainable to secure the future of the business. To kick off your thoughts about this, we will provide you with examples of promising business models.



The Naiade

Clean Water Now! marketed the Naiade, a stand alone water purification device based on filtration and UV disinfection. It has a maximum purification capacity of 5 l/min. The total cost of ownership per amount of disinfected water is very low; however in the perception of potential clients the initial investment can be experienced as high. A strategy was developed to bridge the initial sales price of the Naiade by providing financing instruments (e.g. lease facility) to help customers to buy the product. The marketing strategy focuses on a few specific client groups and on stimulating local entrepreneurs and schools to operate the Naiade purification system and sell clean water at a reasonable price.



Aqua for All, a Dutch based NGO is developing a social enterprise called Safi Sana. 'Safi Sana' has multiple dimensions, all united under the umbrella of one unique 'brand'. Firstly, it is an innovative concept for the provision of affordable water- and sanitation services to dwellers in urban slums through the installation and adequate management of multifunctional decentralized sanitation service blocks. Secondly, Safi Sana provides for the generation of additional income by means of the processing and marketing of human excreta for biogas, compost and fertilizer.

Further Reading

Business models on sanitation:

'Sanitation is a Business' available on:

http://www.wsp.org/UserFiles/file/314200733055_Sanitationisabusiness.pdf

Total sanitation as a business' available on: <http://www.poverty.ch/sanitation.html>

After the first step you must be able to write down your idea in a one or two pager to check yourself and convince partners to work together with you as you set up your business or project. During this step you and your partners work out the one or two pager into a solid business/ project plan.

Product development for Appropriate Technologies

Part of a BOP strategy is to co-develop your product or project with your future clients or beneficiaries. Talk to local NGOs and get a good idea of the market. If they like the idea, plan a field visit and talk to local people and other local organisations. If you need a quick scan on your product or solution, you might contact some specialists working at NGOs, or educational institutes who have a lot of experience "in the field".

Lab testing, compliance and certification

Prototypes of your product need to be tested, and when the final prototype is ready it will need some kind of certification or third party assessment. You may be able to test your product during the product development phase in your own laboratory. However, if you do not have the facilities or the skills to do this, you must outsource the work to one of the institutes equipped to conduct these tests.

Value proposition

The value proposition answers important questions: Who will buy or use the product? Why should they buy or use it from us? What will they get? How do they benefit from it? How much will it cost? What makes my product different compared with similar products in the market?

Market research

The market needs to be researched to identify the potential for your product. Where is the market? How big is it? How should you approach it? We have split the research process into two steps: general market research and specific market research. The first step studies demographic data, total market data and general information on the market. The second step, specific market research, involves going to the market (by phone or plane) and interviewing potential customer groups to get specific data.

Marketing safe drinking water and proper sanitation

Everybody needs water and sanitation, but why does not everybody understand the economic and social benefits? Social marketing is needed to transform a need into an effective demand, meaning willingness to purchase, use and pay. You have to reach your clients and explain the social and economic benefits of water and sanitation in general, and the added value of your product as well. How do your future clients access your product? Can they afford to buy it?

Setting up your organisation

Before you set up your company or project, you must make decisions on insourcing and outsourcing. These decisions directly affect the organisation and the amount of investment needed to start up the business. While you are setting up and implementing your organisation or project, you have to think and make decisions on the start-up team, management and governance, (project) organisation, risks and mitigation strategies, distribution, network building and partnerships and realization schedule. Translate your goals into clear measurable targets and identify the activities needed. Finally list the means you need to execute these activities and refine your budgets and financial calculations. Be aware: do not mash up your means with targets or activities, be clear about the differences!

Risk assessment: risks and mitigation strategies

A few general risks to tackle are political and country risks, market risks related to the specific behaviour of people at the BOP, risk of competition, production risks especially associated with local production, management risks related to the quality of local management and compliance risks, as water and sanitation have a direct impact on health businesses and projects need to comply with local laws, policies and regulations.

Further Reading

Marketing: Case study written by Urs Heierli available on <http://www.poverty.ch/documents/Safewater.pdf>.

After step 2 you will have a solid business plan or project plan together with a budget. During step 3 you will test if your plan will hold in the field. In other words you start to organize and run a pilot project. During this step you will have to:

- Test the product or solution technically and commercially.
- Test and refine your social marketing strategy.
- Prepare yourself to set up your organisation or project locally.
- Prepare yourself to attract local financial funds.

Two kinds of pilots are important here; the technical and the commercial pilot. The purpose of a technical pilot is to determine whether your products or solutions work as designed and intended. The purpose of a commercial pilot is to determine if your product and the intended marketing mix fit the intended market.

Box 6: The statistics on a commercial pilot for a household water filter

- Number of units sold: 600
- Number of locations used: 3
- Three different price levels tested
- Consumer feedback collected from 200 consumers (out of maximum of 600)

Ask yourself if and how your product can fulfil unexpected needs of local end users. The purpose is to know about and tap into all potential revenue streams from your product. Say your product consists of a solar panel to power a UV light water treatment system. Electricity produced can also be used to recharge cell phones or to operate a fridge, for example. The filtered water can be used in lemonade or for making ice cubes in small bars; the same product can be sold to different client groups for different uses.

To prepare for the introduction of your product onto the market you need to refine your (social) marketing plan or approach. In business this is termed the marketing mix: the tools you are going to use to market your product. Social marketing is marketing adapted to social imperatives, with “social good” as the primary aim.

Setting up your local organisation

During the pilot you prepare yourself for setting up your business or project organisation locally. Remember that these activities take much more time than expected and you must hire local expertise to deal with local issues. It can be very useful to plug into an existing organisation or distribution network instead of doing it all yourself. The best advice we can give you is: start early and do not do it yourself.

Hire a Helper

Organisations like Micro Water Facility (www.mircowaterfacility.org) support entrepreneurs and organisations with the ambition to launch appropriate water and sanitation products in Southern countries.

Executing a pilot is a project on its own. Draft a separate realization schedule to break down each activity into work packages, including a specific budget for each.

Box 7: Lowering the cost price

One of the entrepreneurs involved in the preparation of the Toolkit decided to ask for quotations on moulds and spare parts locally and piloted local assembly of the product, which reduced assembly costs by 90%. He outsourced almost everything except one critical step in the production process, which secures the high quality of the product. However, he imported several spare parts abroad, which did not function at all, and it took a lot of time testing and developing the different prototypes.

Finding local financial partners

During Step III, you have the opportunity to start meeting potential local financiers. Local funds and financial resources are highly important when your local activities are starting to grow and you want to scale up. During this phase, the only way to get bank capital (such as commercial bank loans) is by offering a bank a valuable security e.g., a mortgage on real estate or a bank guarantee. The most common way to attract local capital is by asking your local pilot project partners for financial support, plus their support in applying for local grants or subsidies. Local partners might have good contacts with possible (commercial) financiers; try to use their networks to get in touch with them.

To start with, you should realize that launching your product or starting your project does not occur at a single moment in time. The process starts before the official launch, and does not end with it. It is influenced by market responses, lessons learnt and initial orders and may be a complex process. In this fourth and final step, the focus is on the official market launch, getting feedback from the market and scaling up your business or project.

Continuous improvements

Now that your product has actually been launched, you should not change your product in any way for a certain period of time. First, collect market feedback from customers and, after some time, identify potential product improvements that respond to the feedback from your customers. However, keep in mind that now that your product has been launched, modifications to the product will have more impact. You will have different product versions on the market which may require different spare parts, different servicing, different manuals, etc. It will increase the complexity of your business and affect your cost base.

Market introduction

One of the cases on the market introduction of a water product that has been extensively documented and made available is the Mytry case by Acumen Fund. This case is especially interesting because not many BOP water and sanitation initiatives have been commercial for this long. This is then one of the few examples on which information has been made public for knowledge sharing purposes.

Box 8: The Stanford business case

Below we summarized the main challenges Mytry, a small start-up water filter manufacturer and distributor in rural India, faced during their start-up years. A very important choice in their case was to focus on (big) government and NGO orders. These were often delayed without prior warning and payment was always late, resulting in liquidity problems and very irregular ordering. This is surely something every AT water business will recognize. In the water sector there will always be an understandable tendency to go for government or NGO orders. These parties with large budgets to spend play an important role and they cannot be ignored. However, they do sometimes change their orders and tend to be late at paying their bills, and you will have to find a way of coping with this.

Some of the challenges Mytry faced:

- Inexperienced management
- Delayed equipment delivery
- Difficulty with expanding the dealer network
- Delays in setting up manufacturing
- Delays in orders from government
- Difficult communication between India and USA (financing partner)
- Inadequate data and information available for management
- Late payment by government and UNICEF (liquidity problems)



Business and project management systems

Particularly for high-volume products such as small point of use filters, you will need systems to manage and monitor your stocks, purchase your goods, control your cash flow and plan the resources involved in your operation.

Organisations managing a large amount of projects or intending to scale up projects rapidly, need a project management system to manage the different projects.

Financial management and control

Financial information is an important indicator of how well your business or project is running. It is important to show figures to (new) investors to keep them informed and “relaxed”. In doing so you will build up good relations with financial partners that will secure your funding in the long run, which is critical for scaling up.

The question now is to determine which financial information (indicators) reflect your business or project in a way that allows you to manage your activities effectively. In answering this question, you need to identify and quantify your financial goals, the critical success factors that you have to manage, develop a reporting format, set up a budget process leading to yearly budgets and financial forecasts, and formalize a reporting process with regular meetings in which financials are discussed, while formalizing responsibilities, and drawing up action plans.

Box 9: Examples of financial goals

- Targets on liquidity, meaning the ability to pay debts in the short run
- Targets on solvency, meaning the ability to pay debts in the long run
- Targets on profitability, meaning the ability to make profits and return on investments
- Targets on bankability, to retain access to external capital (on attractive terms)

Reporting formats differ from case to case, however when attracting grants most donors ask you to work with standard reporting formats. Solid monitoring, evaluation and reporting of projects is important and when not managed properly can be very time consuming. Before you apply for a grant, be well informed about reporting requirements because you must be sure you will be able to meet them.

Box 10: Examples of reporting formats especially for business plans

Although general standards do not exist, external reports are, in most cases, produced annually. The timing of internal reports depends on the topic you report on:

- Your sales, working capital and your bank account balance: weekly
- Your profit and loss: monthly
- Your profit and loss, balance sheet, cash flow and financial ratios: quarterly

In your monthly and/or quarterly (Q) reports you need to be able to compare your results with:

- The similar period last year (Q1 2008 against Q1 2007)
- The budget (Q1 2008 with Budget Q1 2008)

Further Reading

The Mytry case has been written up by the Stanford Business School and can be obtained for \$6 via the Internet: www.gsb.stanford.edu

Based on practical experience of different entrepreneurs and project managers, certain aspects of products, businesses and projects can be identified that are essential for success. With respect to the product or service (as part of the business or project) the following recommendations are important to consider:

- Physical accessibility. Developing markets lack proper infrastructure. Smart distribution of the product using existing networks of partners is a critical success factor when launching a product on BOP markets.
- Financial accessibility. Although the price per litre of clean water produced is affordable, the up-front investment can be a big hurdle. Low cost (and often local) production and low cost operational usage are important conditions to meet.
- Easy operational usage. Environmental circumstances in developing countries are often harsh and users may not be well educated. Products must be robust and easy to operate.
- Availability of spare parts. When broken, products must be easy to fix by local craftsmen. Replacement of specific parts (like filters) must be easy to perform. Setting up an effective and efficient after-sales organisation is an important condition for success.

With respect to the business or the project itself, entrepreneurs and project managers should look at the following success factors in particular:

- Understanding demand and customer constraints: The challenge is to understand how products or services meet the needs of consumers in low income countries. What are current water consumption patterns and how are they serviced? What are the constraints of current water and sanitation supply (money, time, quality, security, accessibility of supply) that the customer wants changed? What priority does the customer give to spending money on water and sanitation in relation to other needs like food, communication, health care, etc.?
- Transforming a need into effective demand: Consumers will only pay when they value the product or service in an economic way. People must understand the economic and social benefits of drinking safe water or using proper sanitation. Education and awareness raising provided by local trusted partners are key in explaining these benefits to the local population. In doing so, your business or project links water and sanitation initiatives to income generating activities.

- Understanding the business environment and the institutional context: Having an extended network in a BOP market is essential, but building networks takes time. It is important to realize that you need a local partner who understands the market, how people work together, how to work within institutional frameworks, the way relationships work, and the organisations that are important to work with.
- Working together with specific actors (especially women) involved in a BOP market. Look for organisations (NGOs, businesses) in low-income markets that are already serving the poor. Build relations with these organisations as early as possible; businesses become more visible and credible when engaging with organisations who are already working at the BOP. Understand how business is done locally and how different stakeholders act and react at the BOP.
- Ensure your business model supports an increase in the real income of people at the BOP by involving them, e.g. in the distribution or production of your product.

Lack of access to finance is often mentioned as one of the main constraints to provide or improve water and sanitation (WASH) services. This is especially the case in areas with high poverty rates and difficult to reach populations in remote rural areas or densely populated peri-urban settlements and slums.

This booklet has illustrated that a range of different financing mechanisms are available to help provide, or improve, access to WASH systems and services for precisely these groups. However, the booklet emphasizes the importance of writing solid project and business plans that explain the risks and rewards to potential financiers.

When financial mechanisms are used in an innovative/ SMART way, they can be tailored to suit the local credit needs, fitting the project or business model (e.g. non profit, revenue generating), whilst reflecting the risk profile and helping improve or expand water and sanitation services in developing countries.

The examples presented in this booklet illustrate not only how existing financial mechanisms can be used in a SMART way, but also how new innovative coalitions between the public, private and the financial sectors can increase access to finance for the bottom of the pyramid (BOP).

With the help of the local community (NGOs, CBOs), who understand the local circumstances, risks can be reduced for financiers and entrepreneurs. Community organisations can also help increase the willingness to pay for WATSAN services within a community through awareness raising and can increase local capacity to apply for public and private financing mechanisms.

One of the main challenges for achieving the MDGs for water and sanitation is to bridge the gap between the financial sector, that has the means to finance WATSAN services and the local community that needs these services to improve access to safe drinking water and proper sanitation. Collaboration should be enhanced between the public, private and the financial sector to achieve water and sanitation for all.

This booklet describes how financial mechanisms can be used in an innovative/ SMART way to finance water and sanitation projects/ businesses and how to obtain them by writing successful business/ project plans. A list of organisations (public and private) is presented here that finance water and sanitation projects and businesses. The list is by no means complete but will provide you with a good starting point in your search for funding/ finance for water and sanitation projects/ businesses.

| Name | website | Sector | Aim |
|--|---|--|--|
| Local European Funds | | | |
| Aqua for All | www.aqua4all.nl | Dutch small civil society NGOs and their local (southern) partners | Starting costs for drinking water and household sanitation projects |
| SIMAVI | www.simavi.org | Southern NGOs/CBOs or non-governmental institutions (schools, hospitals, churches) | Drinking water, sanitation, hygiene promotion |
| ICCO | www.icco.nl | Dutch small civil society NGOs and their local (southern) partners | Drinking water, sanitation, hygiene promotion |
| Oxfam Novib (Linkis) | www.oxfamnovib.nl | Dutch foundations or associations with a collaborating partner in the South | Drinking water, sanitation |
| Impulsis | www.impulsis.nl | Dutch civil society, who want to start projects in developing countries | Education, local entrepreneurship, healthcare, agriculture, water and environment, sports, culture and tourism. |
| European Community Funds | | | |
| (DCI)Instrument to finance EU's development cooperation activities | http://www.welcom-europe.com | NGOs, SMEs universities, governments, federations | Investing in people, environment and sustainable development, non-state actors and local authorities in development, food security, migration and asylum |
| EU Water Initiative | www.euwi.net | Governments, financial institutions | Improving water management and governance, water and sanitation infrastructure, civil society initiatives |
| ACP-EU Water Facility | http://ec.europa.eu/europeaid/where/acp/regional-cooperation/water/index_en.htm | Governments, financial institutions | Improving water management and governance, water and sanitation infrastructure, civil society initiatives. |

| Name | website | Sector | Aim |
|--|---|--|---|
| International Financial Institutions Funds | | | |
| Asian Development Bank (ADB) | http://www.adb.org/ | Governments, financial institutions | Water projects |
| African Development Bank (AFDB) | www.afdb.org | Governments, financial institutions | Urban development, Integrated water management, water partnerships, regional initiatives, programs co-ordination. |
| Inter American Development Bank (IADB) | www.iadb.org | Central governments, city authorities and small businesses | Education, poverty reduction, agriculture |
| World wide Funds | | | |
| Global Environment Facility - Expedited enabling activity grants | www.gefweb.org | Any eligible individual or group | Water-body based operational programs, integrated land and water projects, sustainable land management |
| Global Environment Facility - Project preparation and development Facility | www.gefweb.org | Any eligible individual or group | Water-body based operational programs, integrated land and water projects, sustainable land management |
| Full-Sized Project Funding | www.gefweb.org | Any eligible individual or group | Water-body based operational programs, integrated land and water projects, sustainable land management |
| Medium-Sized Project Funding | www.gefweb.org | Any eligible individual or group | Water-body based operational programs, integrated land and water projects, sustainable land management |
| Small Grants Program | http://sgp.undp.org/index.cfm?module=ActiveWeb&page=WebPage&s=AboutSGP | NGOs and community-based organisations in developing countries | Climate change, biodiversity, protection of international waters, organic pollutants, land degradation |
| Japanese International Co-operation Agency (JICA) | www.jica.go.jp/english | NGOs | Water supply, environmental infrastructure, disaster relief measures, reconstruction |

| Name | website | Sector | Aim |
|--|--|--|--|
| USAID | www.usaid.gov | work in close partnership with private voluntary organisations, indigenous organisations, universities, American businesses, international agencies, other governments, and other U.S. government agencies | Economic growth, agriculture and trade, global health, democracy, conflict prevention and humanitarian assistance |
| Ford Foundation | www.fordfound.org | Organisations worldwide and individuals (grants for fellowships) | Community and resource development, economic development, governance and civil society, human rights, education, sexuality and religion, media, arts and culture |
| Bill and Mellinda Gates Foundation The Sir Dorabji Tata Trust | www.gatesfoundation.org/ www.dorabjitatrust.org/ | Governments, NGOs, businesses Individuals, institutions, organisations | Many including water sanitation and hygiene. Management of natural resources, livelihood, education, health, social development initiatives |
| Coca Cola Foundation | www.thecocacola.com/citizenship/foundation_coke.html | Local communities, governmental and non-governmental organisations | Water stewardship, healthy and active lifestyles, community recycling, education |
| PepsiCo Foundation | www.pepsico.com/pep_citizenship/Contributions/GrantGuidelines/index.cfm | Local communities, governmental and non-governmental organisations. | Undergoing revision |
| Rotary Foundation (matching grants) | http://www.rotary.org | Organisations worldwide | Water projects, community projects, youth projects and scholarships |
| Social Venture Funds | | | |
| Aavishkaar India Micro Venture Capital Fund | www.aavishkaar.org | Agriculture & Food, Development, Energy, Water & Utilities, Healthcare, ICT, Telecom & Technology, Services. | Aims to create economic activity at rural level by providing support to small and micro enterprises which are socially beneficial commercially viable and environmental friendly |
| Acumen Fund | www.acumenfund.org | Many: water | Acumen Fund investments focus on delivering affordable, critical goods and services, like health, water, housing and energy through innovative, market-oriented approaches. |

| Name | website | Sector | Aim |
|---|-----------------------|---|---|
| DOB Foundation (Stichting de Oude Beuk) | www.dobfoundation.com | Many | The D.O.B foundation invests in and supports social entrepreneurs who identify commercial opportunities in social issues. They strive for a structural improvement of the wellbeing of people who are marginalized or living in poverty. |
| Central American Small Enterprise Investment Fund (CASEIF) | www.caseif.com | Many including water | The Small Enterprise Investment Fund will provide (quasi-) equity capital to small enterprises to help them fund new projects or product lines, to increase their productive capacity and explore new foreign markets. |
| Funds for Upcoming Markets (FOM) | www.fmo.nl | | The FMO stimulates the private sector in developing countries in upcoming markets. Achieving sustainable development and a healthy return by building bridges between entrepreneurs and capital, at a local level as well as internationally. |
| GEXSI Bottom-of-the-Pyramid Fund | www.gexsi.org | Agriculture & Food, Building & Engineering, Development, Clean Energy, Energy, Water & utilities, Healthcare, ICT, Telecom & Technology, Trade & Transport. | The GEXSI BOP Fund provides social venture capital to businesses and social entrepreneurs that fight poverty in low-income regions worldwide. |
| HBD Fund 2 | www.hbdvc.com | Energy, Water & Utilities, ICT, Telecom & Technology | Aims to invest in innovative breakthroughs, encourage South African based organisations, support entrepreneurs and develop global potential. |
| Industrialisation Fund | www.ifu.dk | Agriculture & Food, Energy, Water & Utilities, Industry | IFU provides advisory services, share capital participation, loans and guarantees on commercial terms for investments in production or service companies in developing countries with a gross national income per capita below \$2,604 (in 2006). |

| Name | website | Sector | Aim |
|--|--------------------------|--|---|
| InReturn East Africa Fund | www.inreturn-capital.com | Agriculture & Food, Clean Energy, Energy, Water & utilities, Finance, ICT, Telecom & Technology, Industry, Information & media, Trade & transport | InReturn drives growth, enhances a governance structure around the entrepreneur, fortifies its competitive position and mobilises investment services and assistance when necessary in concert with local fund management, international corporations, banks and development organisations. |
| Madagascar Development Funds | www.madapartners.com | Agriculture & Food, Building & Engineering, Energy, Water & Utilities, Finance, Healthcare, ICT, Telecom & Technology, Industry, Information & Media, Public Works, Tourism, Trade & Transport | Madagascar Development Partners (MDP) is the leading foreign venture capital/ private equity company based in Madagascar. The company's philosophy is to contribute proactively to the sustainable development of Madagascar by creating a bridge of intellectual and financial capital between OECD investors and local opportunities. |
| Origins Venture Capital Fund for Africa | www.originsvc-africa.com | Agriculture & Food, Building & Engineering, Development, Energy, Water & Utilities, Finance, Healthcare, ICT, Telecom & Technology, Information & Media | Origins is investing, on a commercial basis, in small businesses with the potential to grow into medium and large sized companies in the sub-Saharan African region, providing the entrepreneurs with hands on guidance through an international network of experienced venture capitalists and industry experts. |
| Start Green Sustainable Innovation Fund | www.startgreen.nl | Sustainable energy (generation, storage and distribution), water technologies (reduction, purification and desalination) and technological innovations in Bio-Agricultural business (replacing of chemical substances by agricultural products, technology for sustainable agriculture). | Start Green Venture Capital invests in entrepreneurs and businesses that want to commercialize innovative and sustainable technologies or products. We do not limit ourselves to merely providing risk capital. We also place our know-how, experience and our extensive network of contacts at the disposal of our partners. |

| Name | website | Sector | Aim |
|--|------------------------|--|---|
| SNS REAAL Water Fund | www.snsreaal.nl | Water | The fund aims to provide incentives for sustainable development, entrepreneurship and innovation with regard to water and water management |
| Sofinance | www.sofinance-dz.com | Agriculture & food, Building & Engineering, Energy, Water & Utilities, ICT, Telecom & Technology, Industry | Algerian fund, advisory activities, privatizes national companies. |
| SOVEC Fund | www.sovec.nl | Many | To alleviate poverty in developing countries by providing Venture Capital to entrepreneurs in Africa, who can here-with build their businesses, create job opportunities, provide income and really emancipate people |
| TBL Mirror Fund | www.tblmirror-fund.com | | The TBL Mirror Fund focuses on Small and Medium Enterprises in various sectors operating in growth markets where value can be added through the know-how and involvement of the investors of the Fund. |
| Uruguay International Venture Capital 1 (UIVC-1) | www.prosperitas-cp.com | Agriculture & food, Clean Energy, Energy, Water & Utilities, Healthcare, ICT, Telecom & Technology, Industry, Information & Media, Services. | Prosperitas Capital Partners is a financial management company that has established the first Venture Capital Fund in Uruguay. They recognize a new forward looking entrepreneurial class that emerged in Uruguay, and believes that their ideas and businesses projects, supported with fresh risk capital and management will create value for entrepreneurs and investors. |

Websites of organisations contributing to this booklet:

| Name | Website |
|---|-----------------------------|
| Dutch Organisations | |
| Acumen Fund | www.acumenfund.org |
| AKVO | www.akvo.org |
| AMREF Flying Doctors | www.amref.org |
| AT@Work | www.atatwork.org |
| Aqua for All | www.aquaforall.nl |
| Connect International | www.connectinternational.nl |
| IRC International Water and Sanitation Centre | www.irc.nl |
| Micro Water Facility (MWF) | www.microwaterfacility.org |
| Netherlands Water Partnership (NWP) | www.nwp.nl |
| Royal Haskoning | www.royalhaskoning.com |
| Simavi | www.simavi.nl |
| SNS REAAL Water Fund | www.snsreaal.nl |
| Triodos Bank | www.triodos.nl |
| WASTE | www.waste.nl |



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