

# 10. Meeting the Sanitation Challenge in Sub-Saharan Cities: Lessons Learnt from a Financial Perspective

**Jérémie Toubkiss**

Hydroconseil 198, Chemin d'Avignon 84470 Châteauneuf de Gadagne, France

Email: [toubkiss@hydroconseil.com](mailto:toubkiss@hydroconseil.com)

**Abstract** The very low coverage rate makes sanitation one of the key issues at stake in Sub-Saharan Africa, particularly in overcrowded areas such as peri-urban zones and slums. Among the range of technical, institutional and social issues that arise from the sanitation crisis hitting this region, financing is of key concern, particularly in terms of how to build sustainable local financing mechanisms. Official Development Assistance remains indispensable for financing major infrastructures that are too expensive for most African governments. Its scope is limited, however, when it comes to supporting on-site and semi-collective sanitation programmes that require long-term financing. This chapter discusses the context and the various financing mechanisms that have been tested in the field to encourage household investments. While micro-finance is often restrictive and inaccessible to the poor, household subsidies are easier to manage and make installations more affordable, particularly for the poorest. Sanitation financing faces two main challenges. Firstly: how to set up financial mechanisms that effectively drive up household investments for on-site sanitation facilities? Secondly: how to finance operation and maintenance costs of wastewater and sludge evacuation and treatment facilities? A sanitation surcharge on existing water services appears to be a sound example of a sustainable and effective local financial tool for sanitation.

**Keywords** Sustainable financing mechanisms, financing sanitation

## 8.1 Introduction

Whereas access to drinking water has been recognised as a major concern in the scientific community, the media and among decision makers for a long time, the

sanitation sector has remained largely ignored. However, the situation is very alarming, especially in Sub-Saharan Africa where the coverage rate is the lowest and where MDG (Millennium Development Goal) Target 7, aiming at reducing the number of people without sustainable access to sanitation by 50%, will not be reached by 2015. Sanitation is hereby defined as the management of household wastewater and excreta – that is to say grey and black water. Different explanations are given for sanitation's poor progress in Africa, including technical, politico-institutional and cultural reasons. Yet one dimension remains little understood, namely the set of financing mechanisms applied to sanitation infrastructures at local level.

The following contribution focuses on this financial issue and thereby elaborates on the following questions:

- What is to be financed in Sub-Saharan Africa and how much will it cost?
- What are the challenges raised by the sector's financing needs?
- Which solutions are usually promoted and which ones are the most promising?

Most material presented in this chapter is drawn from existing literature and policy documents. However, answers to the last question, outlined in the final part of the chapter, will rely on the first lessons learnt from several in-depth case studies carried out by Hydroconseil in West Africa. They address the issues of private investment fostering, cost recovery and involvement of local authorities.

This chapter starts with a brief presentation of the sanitation crisis in Sub-Saharan Africa and the main obstacles complicating its solution. As mentioned above, one specific challenge is to finance sanitary infrastructures and their operation and maintenance. This question is discussed in the second section, followed by an insight into potential solutions, as suggested by key experts. The next section makes a review of some of the findings from Hydroconseil/pS-Eau's ongoing study in West-Africa. In the final section, financing prospects for environmental infrastructures are sketched.

## **8.2 The Sanitation Crisis in Sub-Saharan Africa**

### ***8.2.1 Africa Lags Behind***

The coverage rate for improved excreta disposal (black water) in Sub-Saharan Africa is 38% compared to a 50% average in the developing world<sup>1</sup>. Though very low,

---

<sup>1</sup> JMP, 20th of March 2008: [www.who.int/mediacentre/news/releases/2008/pr08/fr/index.html](http://www.who.int/mediacentre/news/releases/2008/pr08/fr/index.html)

this figure is probably overestimated because of the statistical method used by the WHO-UNICEF Joint Monitoring Programme and the general weakness of national statistics. Save any radical change, the coverage rate is bound to keep on decreasing for years to come. As the demographic growth rate in Sub-Saharan Africa is very high (2.4%, that is to say 15 million additional inhabitants every year), the number of people without access to adequate sanitation will rise by 91 million between now and 2015. Reaching MDG Target 10 would therefore require an extra 35 million people per year to access sanitation (WHO, 2008). The coverage rate is higher in urban areas than in rural ones (53% against 28%). Yet the problem is actually more acute in urban conditions due to the combination of soaring demographic growth and surging urbanization. By 2015, the majority of the African population will be living in cities. Predictions are that between 1990 and 2015, rural population without access to sanitation will have been reduced by 25% whereas it will have increased by 50% in urban areas. To make it worse, it is even more troublesome to be deprived of latrines or to be unable to properly evacuate wastewater in densely populated cities than in villages.

The situation in peri-urban areas and slums is even more problematic, because they are overcrowded and mostly constructed downstream of flood zones or of polluting sources such as residential and industrial zones. These areas seem to have been abandoned by national governments and municipalities while their inhabitants do not have the economic and political tools to claim their rights and express disapproval. For instance, many slum dwellers do not possess title papers that would enable them to prove their property right and demand local communities to provide them with infrastructure and services. Hence, it seems that we are still a long way from substantially reducing the number of people without access to sanitation. According to the most optimistic forecast, Sub-Saharan Africa will reach MDG Target 10 only by 2108<sup>2</sup>.

### ***8.2.2 Level of Sanitary Service***

Three 'levels of service' exist in Africa. Large-scale collective sanitation facilities consist of public sewerage systems and currently can only be found in centres of large cities. At the moment, these centralised sewerage systems only service between 5 and 10 per cent of the African population. They are very expensive to build and costly to maintain. Moreover the very low water consumption in African cities sharply curbs down sewers' performance. These difficulties, among many others, explain why the existing centralised networks are not well-maintained and/or run down (see also Letema et al., chapter 9 in this volume).

---

<sup>2</sup> End Water Poverty Coalition, UN meeting on MDGs, 24<sup>th</sup> September 2008.

The intermediate level of service corresponds to semi-collective sanitation facilities like small bore sewers, which connect a limited number of plots. These models are growing popular in different parts of the world (Mara and Alabaster, 2008). Although these systems are quite new in Africa, a number of them can be found both in West and East Sub-Saharan Africa (Mali, Senegal, Kenya, Uganda). Semi-collective facilities are often considered as a cheap alternative to sewerage, especially relevant in peri-urban areas.

Finally, small-scale, on-site facilities such as pit latrines and septic tanks for individual households are the most widespread sanitation systems in Africa. These facilities remain the only type of sanitation for more than 90% of the African population both in rural and in urban areas. Considering that collective sewerage systems are costly, not widespread and that many hurdles hinder their implementation, one may infer that they are not a suitable solution to Africa's sanitation needs. The chapter concentrates therefore on how to increase access to on-site and semi-collective sanitation facilities.

### ***8.2.3 Main Obstacles***

Efforts to improve access to sanitation in urban African context are hampered by numerous obstacles. From a technical point of view, the main challenge is to find technologies that are appropriate to local conditions. In addition, those technologies must not be supplied by imports from the North, and shall remain affordable for poor governments, municipalities and populations. From an institutional point of view, roles and responsibilities for sanitation policies and their implementation are divided (or jointly shared) between ministries in charge of water, health, education, infrastructure or urban development, and often get muddled. In practice, therefore, frequent demarcation disputes or inaction can be observed. Lack of political and public concern with sanitation does not help either in getting this issue forward. Socio-economic studies account for sanitation's low priority on governments' agenda by showing that populations seldom express a concrete demand for it<sup>3</sup>. This does not mean that sanitation is not a problem, but rather that most people have other priorities, such as economic survival, housing, health, education, or water supply. Finally, financing issues are also likely to restrain progress in access to improved sanitation in Sub-Saharan cities.

---

<sup>3</sup> See for instance various feasibility studies carried out by Hydroconseil for (water and) sanitation projects in West Africa (Burkina Faso, Senegal, Mali), and also Jenkins and Scott (2007) and a policy paper by the Government of South Africa (2002)

## **8.3 Financing Sanitation**

### ***8.3.1 What Is To Be Financed?***

Financing sanitation is a complex issue, involving different activities, mechanisms and numerous different actors. To start the analysis, it is necessary to conceive sanitation as a three-stage process – collection, transport and treatment of wastewater. Each of them is organised and financed in a completely different way. For each level of service (centralised, semi-collective and individual sanitation systems), these stages involve different activities, institutions and stakeholders and different technologies.

Furthermore, the process of developing, implementing and maintaining sanitary facilities includes a host of other categories of expenses which all have to be taken into account. Such categories include:

- Feasibility studies
- Investment / rehabilitation / renewal programs
- Operation and maintenance
- Training / capacity building of professionals and users
- Sanitation promotion and awareness campaigns
- Sector coordination

Solving sanitation problems in a sustainable manner requires the execution and financing of all different stages.

### ***8.3.2 How Much Will It Cost?***

The investments and activities necessary for implementing and managing adequate sanitation infrastructure in Africa require substantial financial resources. In the AMCOW/WSP/AfDB (2008) report, figures from Country Sanitation Reviews (based on national estimates, national investment programs or medium-term expenditure frameworks) have been compiled and extrapolated where data are missing in order to assess investment requirements. Results reported in this study suggest that approximately 26 billion US\$ are needed to achieve African national sanitation goals. This amount is comparable to other recent macro-level assessments which calculated that an approximate 23 to 50 billion US\$ would be necessary over the 2000-2015 period to reach the goal set in MDG Target 10 regarding sanitation (that is 1.5 to 3.4 billion US\$ per year depending on the estimates). This investment

represents up to three times the amount required to reach the MDG set for access to drinking water.

However, these estimates only take into consideration the cost of collection and – sometimes – treatment of wastewater, thus ignoring the cost of transport. Furthermore, they do not encompass all categories of expenses mentioned in the previous section. Most countries exclude the following items from investment needs assessments: feasibility studies, operation and maintenance, capacity building, hygiene education and sanitation promotion, policy formulation, planning, monitoring and regulation. Consequently, the full costs of reaching MDG Target 10 on sanitation will be considerably higher than the sums mentioned here (Toubkiss, 2006).

### ***8.3.3 Obstacles to Financing Sanitation***

Financing the sanitary sector in Sub-Saharan Africa implies to tackle numerous difficulties. First of all, most governments lack the necessary resources to finance the investments and activities required. They are already in debt and, as aforementioned, they have other priorities, like health and education. Besides, in spite of the decentralisation process taking place in most African countries, many local authorities still do not have the financial resources to develop sanitation systems. Water and sanitation infrastructures and services have become a local authority's affair but this transfer of responsibilities from the central government has not been accompanied by a corresponding transfer of financial means and technical skills. Thirdly, relatively few NGOs are active or specialized in the sanitation sector, although some exceptions exist<sup>4</sup>. They seem to remain more interested in water supply. Indeed the water supply sector has more visibility, a nobler image and generates more revenues. It is also spurred on by transnational companies' cheerleading. Lastly, the constraints evoked in the previous section remind that financing sanitation is a very thorny issue. Statements made in the latter sections will be buttressed in the next part by key technical and financial stakeholders' analysis.

## **8.4 Perspectives of Donors**

### ***8.4.1 Camdessus Panel (2001-2003)***

---

<sup>4</sup> CREPA (Centre Régional pour l'Eau Potable et l'Assainissement à faible coût), WaterAid or WASTE.

On the occasion of the 3<sup>rd</sup> World Water Forum, an international panel chaired by former Director General of the IMF (International Monetary Fund) Michel Camdessus published in 2003 a report on ‘Financing Water for All’<sup>5</sup>. The aim of this panel was to find ways to raise more funds for the water and sanitation sector. Its main recommendations were:

- ODA (Official Development Assistance) to the water and sanitation sector should be increased and become more effective;
- Long term, local currency, sub-sovereign lending should be developed. Funds should thus be transferred to local authorities rather than the central governments;
- Local capital markets should be supported;
- Private sector participation should be promoted;
- Decentralisation should be better organised, by transferring technical and financial means to the local level, training local government staff and fighting corruption.

#### ***8.4.2 Gurria Task Force (2005-2006)***

The Gurria Task Force chaired by former Minister of Finance of Mexico and current Secretary General of the OECD Angel Gurria published a report on the occasion of the 4<sup>th</sup> World Water Forum in 2006. This publication can be regarded as a follow up to the work initiated by the Camdessus panel. Apart from the usual considerations concerning ODA and financing tools proposed by international financial institutions and bilateral cooperation agencies, it tries for the first time to assess financing issues from the ‘demand side’, that is from the perspective of developing countries, bearing in mind the difficulties they face to access financial resources and turning them into tangible outputs. It highlights the necessity to push sanitation higher on the political agenda (for instance by including it in the Poverty Reduction Strategy Papers) and the importance of promoting demand for water and sanitation. Furthermore the report underlines that it is paramount to set an efficient tariff system that altogether reflects the real cost of water, allows for a sustainable cost recovery and is affordable for the poor<sup>6</sup>.

#### ***8.4.3 European Water Initiative (2003-...)***

The European Water Initiative (EUWI) must be mentioned here too since its ‘Finance’ and ‘Africa’ Working Groups carry out research and experiments on the same topic. They added to the above-mentioned recommendations the need for bet-

---

<sup>5</sup> The Financing Water for All report and its main recommendations are available at [www.financingwaterforall.org](http://www.financingwaterforall.org)

<sup>6</sup> Available at [www.financingwaterforall.org](http://www.financingwaterforall.org)

ter investment planning and budgeting needed at national and local government level<sup>7</sup>.

## 8.5 Where Do We Stand Today?

The Camdessus and Gurria panels as well as the European Water Initiative have had the beneficial effect of drawing international attention on Sub-Saharan Africa's pressing needs for funds to the sector. Yet the recommendations laid down are also too distant from real financing problems to offer concrete solutions. As a consequence, they are only partially relevant. A first reason why recommendations tend to miss the point is that the reports pay more attention to the water sector than to sanitation issues. Moreover, their recommendations are more appropriate to the larger developing countries that are able to access ODA lending and have a significant financial market. In Sub-Saharan Africa this concerns only a few countries, basically South Africa, Nigeria, Ivory Coast and Kenya. These reports mainly focus on big infrastructure projects, like collective sanitation and wastewater treatment plants, although they represent a very small minority of existing – and necessary – equipments. The real challenge – that consists in financing on-site (and semi-collective) sanitation – is hardly addressed. Broadly speaking, the literature generally overlooks the question of how to finance poor urban population's access to on-site and semi-collective sanitation facilities. Finally, these expert groups search primarily for means to increase and ease international financial flows towards the water and sanitation sector. Yet, one may wonder whether financial resources' scarcity is the real problem. Mobilizing international funds for major investment projects is not a major problem. Indeed, good projects always find backers and there is even a sort of competition between the various multilateral financial institutions, as well as with bilateral cooperation agencies and commercial banks. Some institutions are even complaining about it, thereby forgetting that this is a mark of abundance and works in the population's interest. Furthermore, one could also mention examples of weak, poorly-designed or ill-adapted projects that have easily found funding.

In reality, the major problem with regards to on-site sanitation facilities is to set up financial tools (micro-finance, reimbursement facilities, household subsidies etc.) that prompt private investment effectively and sustainably. Concerning bigger infrastructure, it proves most challenging to finance operation and maintenance costs whereas the issue gets little attention. Yet, anticipating recurrent costs is key to the sustainability of (semi-)collective sanitation infrastructures.

---

<sup>7</sup> See Finance Working Group, [www.euwi.net](http://www.euwi.net) and the Africa Working Group, [www.euwi.net](http://www.euwi.net)

## 8.6 pS-Eau and Hydroconseil Financing Sanitation Case Studies

Conscious of the problems linked to on-site sanitation facilities development and maintenance, the French Ministry of Foreign Affairs decided to fund a study addressing these two issues. This study has been coordinated by the French NGO pS-Eau and carried out by Hydroconseil. This section briefly introduces this research and reports on its first findings<sup>8</sup>.

### 8.6.1 Objective and Methodology

The objective of the field study is to gather quantitative and qualitative information about the financing of sanitation programmes in Sub-Saharan cities. Emphasis was put on access to on-site and semi-collective sanitation infrastructures, and on maintenance of these infrastructures in urban and peri-urban areas). The results from this research will allow to draw lessons on factors of success and failure.

The study started in 2007 with a synthesis of the existing literature and was supplemented by twelve case studies reflecting the diversity of financing mechanisms and sanitation technologies (table 8.1). With the help of a common template, these case studies were compared and lessons were drawn to produce a decision-making support guide for local, national and international stakeholders (municipalities, NGOs, decentralised cooperation, central governments and donor agencies). These cases cover the three stages of the sanitation process (collection, evacuation, treatment) and include every related expense involved in sanitation activities.

**Table 8.1.** List of case studies

Country	City	Target area	Case study's focus
Mali	Bamako	Hippodrome	Small bore sewer
Mali	Bamako	Banconi	Small bore sewer
Mali	Bamako	Citywide	Faecal sludge management and treatment by private operator 'GIE Diabeso Saniya'
Mali	Bamako	Commune IV	Faecal sludge treatment plant Samanko II
Mali	Bamako	Commune II	Faecal sludge treatment plant Industrial Zone
Burkina Faso	Bobo-Dioulasso	Citywide	Strategic Sanitation Plan (PSAB)
Burkina Faso	Ouagadougou	Dapoya	Partnership ONG ENDA-rup / MFI

<sup>8</sup> For more details on case studies and available papers linked to this study: [www.pseau.org](http://www.pseau.org).

			FCPB on micro-financing on-site sanitation
Senegal	Rufisque	Castor, Arafat, Diokoul	ENDA-rup on-site and semi-collective sanitation project
Senegal	Dakar	Peri-urban areas	On-Site Sanitation Program in Dakar's Peri-Urban Areas (PAQPUD)
Niger	Filingué	Citywide	On-site sanitation and faecal sludge evacuation
Niger	Dogondoutchi	Citywide	On-site sanitation and faecal sludge evacuation
Uganda	Kampala	Citywide	On-site sanitation project and sludge management reform

### 8.6.2 Preliminary Findings

Different conclusions may be drawn from the case studies, but an overriding impression which emerges from the work so far is that the main problem in financing sanitation infrastructure is to be found at the local level. It does not so much stem from the need to increase funds supply (in quantity), but rather lies in the need to improve demand (in quality). Therefore the priority should not be to seek further financing among donors, but to better design the projects beforehand. It is indeed locally that the challenge of financing sanitation must be taken on.

#### Stimulating private investment: microfinance vs. household subsidies

To encourage the development of household facilities, the main challenge is to find effective means of supporting private investment. *Micro-finance* is often promoted by development partners but raises more problems than it solves. The experiences of ENDA-rup in Rufisque and Ouagadougou and the case of payment facilities set up for mini-sewer users in Bamako make this clear. Micro-finance schemes always include interest charges which (even if subsidized) necessarily increase the cost-price of the equipment used by households, instead of making it more affordable. Furthermore, poor households' incomes are not sufficiently high or regular to ensure proper reimbursements. Neither does the sanitation facility obtained generate revenues that help households to make the reimbursements. Micro-credits for on-site sanitation facilities should therefore rather be considered as a consumer loan than as an investment credit. In fact, promoting this strategy increases the risk of putting poor households into debt. A practical problem is to find the balance between low monthly reimbursements spread over long periods compared with a shorter period of higher payments. The first option seems attractive but it is doubtful whether house-

holds will continue to make payments for such a long time, while the second option would probably imply excessive monthly charges for most households. Another problem is that eligibility criteria for micro-credit are often restrictive. The necessary conditions, such as filling out a form, building savings beforehand, and finding guarantees, cannot be met by the poorest households. Finally, handing out credits requires additional monitoring as there is no guarantee that money will in fact be used to invest in sanitation.

Alternatively, the examples of the peri-urban sanitation improvement programme in Dakar, and the strategic sanitation plan in Ouagadougou and Bobo-Dioulasso show that *household subsidies* are easier to manage and make the equipment more affordable, particularly to the poorest households. Subsidies generally take the form of equipment (i.e. a slab) provided to the household for free. The first advantage of household subsidies is obviously that they improve households' capacity and willingness to pay since they decrease equipment's final cost. Furthermore, they are easy to manage where a good supply chain exists (for slabs, siphons, etc.) and they avoid cash flows – and the related risk of misappropriation. In Ouagadougou and Bobo-Dioulasso, around 900,000 people have been provided with sanitation facilities in the last 15 years using a limited<sup>9</sup>, targeted and carefully designed household subsidy scheme.

Recently, an *anti-subsidy* trend has been developing, relying on several NGOs and donors' experience in South-East Asia, where they promoted sanitation facilities without any household subsidy. These 'open-defecation free community' and 'community-led total sanitation' approaches try to enhance the feeling of shame – which is supposedly linked to the practice of open-air defecation – and create a community-based pressure (for example in the form of a competition between neighbouring villages) as incentives for individual households to invest in their own facilities (WSP, 2007). WaterAid and UNICEF intend to adapt these methods to the context of East and West Africa, while DANIDA (Danish International Development Agency) and the European Union have expressed some interest. This innovative strategy seems interesting as financing household subsidies requires large amounts of funds. Donors are thus looking for such cost-efficient ways to promote sanitation. The difficulty is that most households in West Africa already have some sort of traditional latrine at their disposal, and sanitation equipments are more costly than in East Africa and South-East Asia, so that their willingness and capacity to pay for improved facilities is probably much lower. However, it may be too soon to draw a final conclusion on advantages and drawbacks linked to these approaches and more time is needed to get feed-back from large-scale field experiences.

---

<sup>9</sup> Between 10 – 35% of the capital cost depending on the type of facility.

### **8.6.3 Cost recovery**

In order to recover the cost of the facility and finance its maintenance, which is a condition for the sustainability of collective or semi-collective infrastructure (mini sewers, wastewater and sludge treatment plants), various strategies are possible:

#### ***Selling compost from recycled faecal matter from sludge treatment plants***

Co-composting and recycling are often failures, as shown by the cases of Bamako and Dakar) because potential users of compost are reticent to purchase and use faecal matter. Moreover, in urban areas the market for compost is often insufficient to mop up supply. Furthermore, it is often necessary to combine faecal matter with organic waste to produce compost. This implies to organise a complete supply chain (from input collection to output distribution). In the end, the compost generally becomes more expensive than conventional industrial fertilizers or soil improvers. Lastly, the use of sludge in agriculture is not well mastered and may involve risks for human health (see also Grendelman and Huibers, chapter 12 in this volume).

Some towns have experimented with introducing a fee charged on vacuum trucks operators to use the faecal sludge treatment plant and that way cover the plant's operational costs. The fee is charged on 'vacuum' trucks' load (a certain amount per cubic meter). Making this strategy successful requires building large plants – large enough to receive sludge from the whole town – and more accessible than the unauthorized dumping areas. It is also recommended to penalize unauthorized dumping strictly in order to encourage vacuum trucks to dump their load at the plant. The cases of Dakar or Dar Es-Salaam suggest that this approach is promising. In those cities the volume of sludge transported to treatment plants has grown significantly and the revenue generated by the fee covers most if not all operation and maintenance costs (see also Bereziat 2009). The Office National de l'Eau et de l'Assainissement of Burkina Faso intends to test this model in two faecal sludge treatment plants in Ouagadougou.

#### ***Charge households a monthly fee to maintain mini-sewers and their small-scale wastewater plants***

Charging households a monthly fee to finance the maintenance of semi-collective systems like mini-sewers and their treatment plants is also difficult as the experiences in Dakar, Rufisque and Bamako highlight. Indeed, in general, poor households do not set aside the money that would enable them to pay such a fee each month.

This is particularly true if the fee is due as a payment in advance to finance repairs that are not necessarily needed immediately, as this generally is. Households are reluctant to save money for such fees because they have other priorities, like food and healthcare.

In addition, users do not feel particularly concerned with the maintenance of structures that are far away from their home (main drains, treatment plants etc.). All they want is to have their waste water evacuated from their premises. They do not want to worry about where it goes and how it is dealt with. Moreover, as public authorities or NGOs are usually at the origin of projects (rather than households themselves), it seems perfectly normal to users that these institutions should also pay for maintenance – just as the State has always paid for the maintenance of public infrastructures such as roads and bridges.

Therefore, we could imagine that households be willing to pay for infrastructure maintenance when this directly affects themselves (e.g maintenance of the drains in front of their homes). On an occasional basis, that is when the need for maintenance is directly noticeable, they could gather the necessary funds by pooling resources together with their neighbours. This is how the system has gradually and naturally evolved in Bamako. In this model, the municipality should remain responsible for financing the maintenance of infrastructures that benefit the community as a whole or those aiming at protecting the environment (main network, treatment plants).

From these examples, we can infer a series of conclusions. The very first one is that financing operation and maintenance of sanitation infrastructure is tricky. We also noticed that the issue can be dealt with in different ways, using various tools. Lastly, problems stemming from sanitation financing vary whether it concerns on-site or semi-collective facilities (pS-Eau & Hydroconseil, 2007).

#### ***8.6.4 Involving Local Authorities***

Although the decentralisation process in the water and sanitation sector is supposed to give local authorities a dominant role, they are almost absent in the projects and programmes studied so far. There is a need to involve them much more, especially in towns and rural areas where no other stakeholder has a clear strategy or concrete actions. But this remark is also relevant in urban areas, where local authorities should take up their responsibility for the maintenance of wastewater and faecal sludge treatment plants and of semi-collective sanitation infrastructures. Their role could also be to make sites available for those facilities, which is not an easy task in densely populated neighbourhoods.

## 8.7 Concluding Remarks

Household subsidies, rather than micro-credits, seem to be the most effective way forward in funding the improvement of on-site sanitation systems at scale, as argued in this chapter. Yet securing the necessary financial resources for such programs remains a challenge for most developing countries.

ODA remains indispensable for financing major infrastructures that are too large and too expensive for their costs to be covered by most African central and local governments. Yet, the ODA financing tools that are appropriate to finance large infrastructural projects like sewers and treatment plants are not well-adapted to fund on-site sanitation facilities. These equipments represent a scattered, difficult to plan, private investment, spread over a long period of time. Promoting it in the framework of large-scale programmes requires long-term, locally-available funding. In that regard ODA is an inadequate resource. In such instances the negative impacts of ODA become visible as it may create a large degree of dependency on external sources. For example: the peri-urban sanitation improvement programme in Senegal, which intended to provide more than 500 000 peri-urban residents with better sanitation facilities, had to be interrupted suddenly after three years when the operator realized that the World Bank's loan had run out. Today, 56% of the household requests that were initially registered are not fulfilled yet.

Such problems may be prevented through the introduction of a 'sanitation surcharge'. Several African countries have already implemented such a system (a. o. Burkina Faso, Senegal, Tunisia). A sanitation surcharge enables the water utility company to take a certain percentage from water users' bill finance sanitation activities. The advantage of this tool is that funding is internal to the water and sanitation system, continuous, predictable and most likely growing from year to year. In Burkina Faso, for instance, the income created this way is used to finance the Strategic Sanitation Plans in Ouagadougou and Bobo-Dioulasso (PSAO and PSAB), which has allowed to provide access to sanitation to almost one million people over the past fourteen years. These cities have achieved by using local financing – almost without assistance or dependence on international donors.

PAQPUD and PSAO/B are examples of large-scale sanitation programmes. Such programmes are very rare in Sub-Saharan Africa. On the contrary, numerous small or micro-projects can be found in the field, with very little impact. Yet, enough experience has been gained to take the next step and scale up these experiments. There is certainly a need for further evaluation and capitalisation, but it is time to step out of the 'pilot project' approach and improve urban sanitation facilities for larger numbers, if MDG Target 10 is to be achieved in the foreseeable future.

## References

- AMCOW/WSP/AfDB (Water and Sanitation Programme / African Development Bank). 2008. "Can Africa Afford to Miss the Sanitation MDG Target? A Review of the Sanitation and Hygiene Status in 32 Countries". World Bank - WSP: Washington
- Béréziat, E. (2009) *Partnerships involving small-scale providers for the provision of sanitation services: Case studies in Dakar and Dar-Es-Salaam*. UNESCO-IHE (with BPD and Hydroconseil)
- Government of South Africa (2002) *Framework for a National Sanitation Strategy*. Government of South Africa: Pretoria.
- Jenkins, M., and Scott, B. (2007) Behavioral indicators of household decision-making and demand for sanitation and potential gains from social marketing in Ghana. *Social Science & Medicine*, 64 (12), 2427-42.
- Mara, D., & Alabaster, G. (2008). A New Paradigm for Low-cost Urban Water Supplies and Sanitation in Developing Countries. *Water Policy*, 10, 119-129.
- pS-Eau & Hydroconseil (2007) *Case Study: PAQPUD Programme in Dakar* (unedited). pS-Eau & Hydroconseil: Paris.
- Saywell, D. and C. Fonseca (2006) *Microfinance for sanitation*. Well Factsheet <http://www.lboro.ac.uk/well/resources/fact-sheets/fact-sheets-htm/mcfs.htm> (accessed 3 June 2009).
- Toubkiss, J. (2006). *Costing MDG Target 10 on water supply and sanitation: comparative analysis, obstacles and recommendations*. World Water Council: Montreal,
- Van Hofwegen, P. 2006. *Task Force on Financing Water For All; Enhancing access to finance for local governments Financing water for agriculture*. World Water Council; Marseille.
- WHO (World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP)). (2008) *Progress on Drinking Water and Sanitation: Special Focus on Sanitation*. UNICEF, New York and WHO, Geneva.
- Winpenny, J. 2003. *Report of the World Panel on Financing Water Infrastructure; Financing Water For All*. World Water Council; Marseille.
- WSP (2007) *Community-Led Total Sanitation in Rural Areas: An Approach that Works*. WSP, New Delhi.
- WUP (2001) *Case Study: Cesspool Emptiers in Dar Es-Salaam*. WUP No 5, Water Utility Partnership for Capacity Building: Abidjan.