

The WSTF Public Sanitation Concept



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The WSTF Public Sanitation Concept

1 INTRODUCTION

This document presents an outline of the Water Services Trust Fund (WSTF) Public Sanitation Concept (PSC) that was developed by the Urban Window of WSTF in cooperation with different sector institutions, the public as well as the private sector. The concept was tested during the implementation of the Naivasha Bus Park Public Ecosan Toilet Project and reviewed and improved afterwards to be ready for implementation within the framework of the second call for proposals in August 2009 while at the same time allowing for adjustments to local conditions. On the basis of the demonstration project carried out at Naivasha Bus Park the WSTF developed a series of documents to be part of a comprehensive Sanitation Toolkit.

The PSC is based on the principle that WSTF provides financial support for improving public sanitation service provision focussing on un- or underserved urban areas thereby considering prevalent poverty levels as main criteria for intervention. While public sanitation interventions are financed through the WSTF they are implemented by the commercialised Water Service Providers (WSPs) and their Water Services Boards (WSBs).

The main objective of the PSC is to facilitate public sanitation service provision based on sustainable sanitation solutions and sound management practices.

In future it will be accompanied by a comprehensive incentive scheme to be developed by the Water Services Regulatory Board (WASREB) to encourage WSPs to get involved into public sanitation service provision.

2 EXPERIENCE AND INSTITUTIONAL SET-UP

Public toilets are widely available for people who frequent the public areas (e.g. markets, bus stations). However, government or community run public toilets are often in an appalling state because of the lack of interest and incentive for adequate operation and maintenance. There has been a steady decline in most municipal budgets, and the lack of funding has led to almost complete neglect of maintenance and management of public toilet facilities. In addition, construction of new facilities has not kept pace with population growth.



Historically, municipalities were the main providers of public toilets, but these facilities suffered from poor maintenance and cleanliness for a variety of reasons and were largely avoided by the public.

Today, pay-and-use public toilets have become well established across Kenya, most of them funded by donors and a large proportion operated by non-governmental organisations (NGOs) or small contractors. These are often better maintained than standard municipal toilets and are consequently more popular with the public. Especially in informal settlements CBOs and individuals have started to provide public sanitation services as service provision by the local authorities is non-existent. The operation of public toilets is carried out by a range of formal or informal agents e.g. community based organisations, market committees, and to a lesser extent individuals.

Not only the lack of sufficient public toilets in business areas (e.g. markets, bus stations) also the poor sanitation conditions in congested urban areas without enough space for household toilets or communal latrines puts pressure on public service provision. Given the constraints especially unplanned, low-income areas face it is clear that private sanitation facilities also have their limitations: growing densities exert pressure on land, making the installation of latrines more and more difficult. Extending the sewer network to these areas is a practical challenge because of their haphazard layout, high density and/or difficult geographical and environmental conditions. Besides, a private connection to the sewer network is unlikely to be affordable for many poor households in African cities for several decades to come. As a result poor households are more vulnerable to natural disasters and are often exposed to multiple disease vectors associated with poor environmental health and sanitation.

Under these circumstances, the development and improved management of public sanitation facilities may be an essential component of sanitation strategies adopted for low-income areas especially when considering the **Human Rights Approach to Sanitation**¹. Although improving access to public sanitation facilities does not count for the achievement of the MDGs it has a significant impact on the human right to water and sanitation.

Objective

To deal with the obvious sanitation problem in urban Kenya access to public sanitation for the improvement of the living condition of individuals and for a contribution to public health needs to be increased. Considering that Kenya had 277 urban centres (1999 Census) and on average one public sanitation facility is needed for at least 25.000 inhabitants (bus station, market, etc.) in total over 1.000 sanitation facilities will be needed. If half of them need to be rehabilitated or do not exist the demand stands presently at around 500 units.

¹ Sanitation is essential for the conservation and sustainable use of water resources, while access to water is required for sanitation and hygiene practices. The definition of the right to water and sanitation is provided by the General Comment 15: The Right to Water adopted by the United Nations Committee on Economic, Social and Cultural Rights in 2002 and the Guidelines for the Realization of the Right to Drinking Water Supply and Sanitation adopted by the UN Sub-Commission on the Promotion and Protection of Human Rights.



The role of the water sector

Although the responsibility to provide suitable sanitation facilities at public places rests with the local authorities the water sector institutions can contribute significantly to improving access to public sanitation in order to reduce the risk of contaminating water resources and spreading pandemics like cholera.

Thereby the roles of the main actors can be defined as follows

| Sector institution | Role and involvement |
|--|--|
| National Level | |
| Ministry of Water and Irrigation (MWI) | <ul style="list-style-type: none"> ☞ Promotion of sanitation in the water sector; ☞ Enhance cooperation with other Ministries and institutions from other sectors and provide information and knowledge; ☞ Coordination of water sector players; ☞ Ensuring alignment of all sector players to policies and strategies; ☞ Supervision and control of implementation; ☞ Mobilization of funds for sanitation. |
| Water Services Regulatory Board (WASREB) | <ul style="list-style-type: none"> ☞ Enforcement of water sector sanitation concept through regulation at WSBs and WSPs; ☞ Elaboration of standards for facilities and enforcement of standards for sanitation issued by the different ministries (MoH, MWI, Environment, etc.) through guidelines for WSBs and WSP; ☞ Provision of incentives for WSPs to be involved in sanitation; ☞ Elaboration of a subsidy concept for sanitation. |
| Water Services Trust Fund (WSTF) | <ul style="list-style-type: none"> ☞ Provision of funds to implement (public) sanitation projects (incl. subsidies); ☞ Ensuring adherence to water sector sanitation concept and standards for all sanitation projects funded by the WSTF. |
| Regional Level | |
| Water Services Boards (WSBs) | <ul style="list-style-type: none"> ☞ Coordination of sector players on regional and local levels; ☞ Include pro-poor sanitation into investment planning; ☞ Supervision and control of implementation and operation of sanitation infrastructure; ☞ Mobilization of funds for sanitation through the elaboration of project proposals for investments incl. capacity building measures on local level for involved WSPs, private sector and civil society organizations; ☞ Maintaining asset registers for sanitation infrastructure; ☞ Offering incentives for WSP to get involved into (public) sanitation service provision; ☞ Enforce obligations of safe disposal of excreta and effluents and standards for effluent treatment; ☞ Report on sanitation facility development and operation. |
| Local Level | |
| Water Service Provider (WSP) | <ul style="list-style-type: none"> ☞ Participate in the construction of (public) sanitation facilities financed by the WSTF and/or the WSBs according to the UPC (planning, overseeing of sensitization and marketing measures, training of artisans for construction and O&M, provision of funds for |



| | |
|----------------|--|
| | <p>promotion of sanitation, monitoring and supervision, etc.);</p> <ul style="list-style-type: none"> ☞ Operate and/or monitor operation of sewer systems and onsite sanitation at public places - facilities which are in the assets register of the WSBs and included in the Service Provision Agreement (SPAs); ☞ Report on sanitation facility development and operation; ☞ Ensure safe disposal of excreta and effluent by the private sector and NGOs, etc. |
| Private Sector | <ul style="list-style-type: none"> ☞ Construct sanitation facilities according to agreed standards; ☞ Operate sanitation facilities at public places according to contractual arrangements. |
| NGOs | <ul style="list-style-type: none"> ☞ Carry out sensitization and market measures according to given standards; ☞ Participate in the construction of sanitation facilities; ☞ Participate in the training of artisans and operators for sanitation facilities; ☞ Participate in the collection of data according to UPC and other relevant documents; ☞ Provide information on the satisfaction of users of sanitation facilities. |

The annual objective of WSTF

The WSTF provides the necessary financing mechanism to improve access and service provision to public sanitation facilities. According to the Implementation Plan for Sanitation (IPS) 2009 (The Water Sector Sanitation Concept – WSSC)² at least 30 sanitation facilities at public places shall be constructed annually through the WSTF, WSBs and WSPs which ensure the reuse of effluent in the form of biogas and/fertilizer production. This represents an investment volume of at least KSh 60 Million per year³ based on the assumption that each facility will contain an average of 10 toilets. Whenever possible the WSTF shall enhance efforts to acquire donor funding to multiply the number of annually constructed public toilets. Wherever possible such facilities shall be combined with outlets of drinking water (water kiosks) and public showers and enter the asset register of the WSBs.

Involvement of the private sector

As stated in 'The Water Sector Sanitation Concept (WSSC)' (2008) not only the number of public toilets should be increased but also the participation of the private sector in managing these facilities should be promoted. The involvement of the private sector is considered to represent a viable resource for operation and maintenance as well as capacity building and employment creation.

However, public toilets involve a number of difficult institutional questions, which have previously weighed against its widespread adoption by sanitation professionals. Management of public toilets is a daunting challenge, although recent experience shows that it can be overcome in some cases. The PSC aims at involving WSPs into public sanitation provision by providing financial assistance and technical support through

² Ministry of Water and Irrigation, Draft March 2009

³ The investment for one facility is estimated to be around KSh 2 Million



the WSTF. This ensures that public sanitation provision will fall under the principles, guidance and supervision of the sector reform process.



3 THE URBAN PROJECTS CONCEPT (UPC) AND PUBLIC SANITATION

The WSTF Public Sanitation Concept is based on the pre-condition that the WSTF works exclusively with the WSPs and WSBs. The WSPs provide professional water and sanitation services to the residents living in their service area (specified in the SPA).

The funds available for public sanitation projects can only be accessed by licensed WSPs. Project proposals are prepared by the WSPs assisted by the WSBs. The WSPs are responsible for the management of the project funds as well as for the successful implementation of the awarded project. All assets constructed within the framework of the WSTF-funded public sanitation projects are transferred to the WSBs.

In order to facilitate the preparation of project proposals as well as the implementation and operation (by the WSP) of WSTF-funded projects, WSTF developed the Urban Projects Concept (UPC). Thereby, the UPC is applicable to all projects (water and sanitation) financed by WSTF in the urban context. The UPC has eight (8) steps described in more detail in the respective document published by the WSTF:

- 1) Launch of the Call for Proposals by WSTF
- 2) Collection of data by the WSP
- 3) Preparation of project proposals by WSPs and WSBs
- 4) Evaluation of proposals by the WSTF
- 5) Approval and awarding of projects by the WSTF
- 6) Project implementation by the WSP and WSB
- 7) Operation of the project by the WSP
- 8) Evaluation of the project by the WSTF or by external evaluators

The WSTF has prepared a user-friendly “Toolkit for Urban Water Supply and Sanitation Projects” to assist WSBs and WSPs during the eight (8) project phases of the UPC. A tool can be an application form, a guideline, a contract, a drawing, etc.

The toolkit (a DVD-ROM) will be available free of charge to all WSBs and all WSPs.



4 DESIGN OF PUBLIC SANITATION FACILITIES

The WSTF developed a Public Toilet Design Guideline that can assist WSPs and WSBs to design as well as refurbish public toilet facilities according to the needs established.

Public sanitation facilities financed by the WSTF should be built and managed in accordance with **sustainable design principles**. Sustainable designed sanitation facilities aim to lessen their impact on the environment through energy and resource efficiency. Besides, they will improve the sanitary conditions in low-income areas and the safe disposal of wastes.

Consideration must be given to the inclusion of the following objectives in the design stage:

- minimising of water and non-renewable resource consumption
- promoting health and hygiene
- reducing initial investment cost without spoiling functionality
- meeting the demand of intended users
- enhancing of durability of materials and equipment
- easy to extend, upgrade and replicate
- safe disposal of waste products with focus on possible reuse options
- reducing of environmental pollution
- providing options to reuse waste products
- meeting minimal space requirements

Based on the design principles laid down in the guideline the WSTF developed a precise toilet layout that fulfils all requirements according to the Design Guideline. This WSTF design can be used for elaborating project proposals by the WSPs and the WSBs. The main features of the design can be summarised as follows:

1. All public toilets should include a minimum of 2 female, 1 male and 1 urinal toilet. Generally the requirement will be determined by the site and the frequency of usage.
2. All public toilets should include a minimum of one shower facility for females and males each.
3. Where toilets will be open during night time sufficient lighting has to be provided.
4. Directional signage should provide users with clearly visible directions to indicate the location of the public sanitation facility.



5. Public sanitation facilities should be clearly visible and easily accessible to all users. Access to toilets should be easy also for disabled users.
6. The distance between the houses of potential users and the toilet facility in residential areas should not exceed 200 metres.
7. The building exterior should be well presented, clean, well managed, welcoming and should ensure that users feel safe and comfortable. For security reasons the gates and doors should be able to be closed and locked where applicable.
8. Public sanitation facilities are supposed to be operated by a contracted operator. No unsupervised installation can prevent vandalism. Even with the most vandal resistant appliances, an unsupervised facility will eventually become sub-standard. The operator/attendant plays an important role, which will result in well-maintained toilets. He/she will be responsible to collect the user fees as well as to keep the toilet clean. The public sanitation facility should incorporate space for the operator to sit, to collect the money while at the same time being able to overlook the entrance to the female as well as the male section entrance. The operator's room could also provide additional space for the operator to establish a small shop, where he/she can sell consumable goods (e.g. newspapers, scratch cards, sanitary products).
9. When entering the public toilet facility there has to be a provision of e.g. an inbuilt poster frame and/or a display board that can be used by the operator to place information. This mainly refers to the advertisement of business hours, tariffs, cleaning schedule and user education along with the WSP's and operators contact number for reporting of any problems. Besides, there should be a lockable box, where customers can place comments and/or complaints if desired.
10. Natural or solar lighting should be used as opposed to electrical lighting. The toilet design should incorporate the use of as much natural light as possible through skylights, translucent glass blocks and other passive design features. Artificial lights, where required, should be high mounted and vandal resistant.
11. The entrance walls should be built with a semi-translucent material such as glass blocks to increase visibility and natural light. It is recommended that these walls have a continuous gap below the wall and roof for ventilation.
12. The interior design should maximise user visibility and minimise the opportunity for collision and conflict. No blind corners will leave open sightlines throughout the facility. The use of light colours is recommended for maximum visibility. For hygienic reasons, public sanitation facilities should be designed to minimise hand contact as far as possible.
13. All water closets (WCs) should preferably consist of squatting pans with P-trap fitted with a flush valve and an automatic flushing device with a manual bypass. However, also sitting pans or toilet benches can be considered. The fixture should be concealed for easy



maintenance and to deter vandalism. Toilet cubicles should be spacious, well lit, vandal resistant and easy to clean. WC cubicles should be 800 mm (min) x 1,750 mm (min).

14. Where bathing facilities are required, at least one shower head and stall with cold running water for each sex shall be provided. Shower cubicles should be spacious, well lit, vandal resistant and easy to clean. Shower cubicles should be 800 mm (min) x 1,750 mm (min).
15. Each public sanitation facility should have at least one designated unisex toilet for disabled people, not integrated with male and female toilets. A unisex toilet allows assistance by a companion of either sex, and it is less demanding of space than provision on an integral basis.
16. Toilets used by a high number of mothers / parents with small children should contain baby change and feeding facilities for hygiene purposes.
17. A storage facility or room should be provided to cater for the storage of cleaning materials and other things such as toilet paper, towels and soap.
18. Proper ventilation of a public toilet facility is one of the highest priorities. Ineffective ventilation can make a public toilet unbearable, even if it is well designed. Effective ventilation ensures that vitiated air is quickly extracted, and helps to avoid dampness and subsequent growth of mould on floors and walls. Gaps and grills should provide natural air ventilation. The toilet enclosure and layout should be designed to maximize its breathing ability.
19. Good technical status of equipment will always be of high value for the toilet customers who can rely on a high standard of sanitation services as compared to frequent break-down when using low-quality equipment.
20. Public sanitation facilities should be connected to a reticulated sewer if available. If it is not possible to connect to the sewer then consideration should be given to the use of secondary treatment plants which will treat the wastewater to a higher standard than a basic septic tank. Other systems that may also be considered are composting toilets. The type of system to be used will be determined / influenced by the site characteristics.

5 MANAGEMENT OF PUBLIC SANITATION FACILITIES

Public sanitation facility management

The basis for managing public sanitation facilities financed by the WSTF is formed by a contract which is signed between the WSP and the operator of the sanitation facility. The operator (attendants and managers) are reimbursed from a small user fee levied on customers. The fee has to ensure a reasonable income for the manager, who has interest in



maintaining a clean well-run establishment. The system is monitored by the WSP in the respective area. The monitoring of performance means that the operator risks losing the job if performance slips.

The main principles of the public sanitation facility management system can be summed up as follows:

1. The WSP appoints a permanent staff member to be responsible for the monitoring and supervision of the public sanitation facilities financed through WSTF.
2. Before commissioning a new public sanitation facility the company determines the business hours of the public sanitation facility. The minimum service level has to be agreed between the WSP and the WSB and needs to be fixed in the SPA.⁴
3. The public sanitation facility is operated by an operator.
4. The operator is contracted to provide sanitation services on behalf of the WSP, but is not an employee of the WSP. The operator provides the said services at the facility as his/her private business undertaking. The one-year renewable contract has to be signed by both parties (WSP and operator) before the operator can start operating the public sanitation facility. It stipulates in detail the rights and responsibilities of both parties as well as the rights and responsibilities of the customers and other stakeholders.
5. The operator can be an individual or a group (for example a registered self-help group) or from the private sector.
6. The WSP procures the operator through an application process in line with the Public Procurement and Disposal Act, 2005.
7. The operator is treated like any other customer of the WSP: he/she is charged on the basis of metered water consumption and (if applicable) pays for the sewer connection or sludge emptying (depending on the technology used).
8. Customers of the facility have to pay for the use of the public toilet. If additional services are provided e.g. water kiosk, shower or laundry facilities they have to pay the stipulated tariffs accordingly.
9. The tariffs customers have to pay for a visit to the toilet or the shower, or for buying water at the kiosk are proposed by the WSP in consultation with the Water Service Boards and approved by the Water Services Regulatory Board. In other words, operators are not allowed to determine the price of water and sanitation services.
10. The operator is allowed to sell other goods at the public sanitation facility. The contract specifies the types of goods, which are not allowed to be sold at the public sanitation facility. The operator has to acquire a business license from the Council.

⁴ It needs to be determined to which extend opening hours of public sanitation facilities have to be specified as minimum service levels in the SPA between the WSBs and the WSPs. However, the SPA should state a minimum service level. It should be prevented that whenever an adaptation of the service hours between the WSP and the operator and the community has been agreed the SPA needs to be corrected.



11. The operator or his/her staff has to be present during the business hours he/she has agreed upon with the WSP and with his/her customers. The opening hours have to meet the minimum service requirements as stipulated in the Service Provision Agreement (SPA) between the WSP and the WSB.
 12. The local community or its representatives, the market committee or the council are not involved in the day-to-day management of the public sanitation facility.
 13. The operator and the public sanitation facility itself are monitored and inspected by designated staff of the WSPs who use the “Checklist for Public Sanitation Facilities”. The WSP is responsible for all public toilet facilities financed through the WSTF within their service area as stipulated in the Service Provision Agreement (SPA).
 14. The operator receives training after signing the contract with the WSP. He/she is not allowed to start operating the public sanitation facility without having received the training.
 15. Before the operator signs the contract with the WSP, he/she has to pay a refundable security deposit. The security deposit is paid by the operator before the commencement of the training. The amount of the security deposit needs to be approved by WASREB.
 16. The Operator has to keep the public sanitation facility fully efficient and operational and in a hygienic acceptable condition. This means that he/she is responsible for carrying out minor maintenance works, such as replacing leaking taps, etc. The company is responsible for carrying out major maintenance and (structural) repair works and will carry out repair works, which are not the result of normal wear and tear but are caused by accidents, improper use or acts of vandalism.
 17. The WSP has to carry out regular technical inspections. These inspections should cover the overall structure, the water supply installations (including the showers), the toilets, the electricity system and the disposal infrastructure (e.g. sewer connection, septic tank, bio-digester).
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