Maputo, Mozambique

The potential of local monitoring to stimulate sanitation behaviour change in Maputo, Mozambique

In 2010 the Maputo Municipal Council (Mozambique) initiated a system of community-based sanitation monitoring in order to gain up-to-date information to support the planning and management of sanitation in peri-urban areas. In the pilot project in Nhamankulo Urban District in Mozambique, neighbourhood leaders utilised monitoring at the community level as a powerful tool to mobilise householders in informal settlements to upgrade and improve the cleanliness of their self-built latrines. An unintended consequence of the information gathering process was a halving of the number of unsafe latrines. This methodology provides an entry point for sanitation upgrading as it is pro-poor, cost effective, based on existing structures and mainstreams the need for improved water, sanitation and hygiene facilities and practices.

In February 2010, the Water and Sanitation Programme (WSP, a multi-donor partnership administered by the World Bank), in collaboration with Maputo Municipal Council, initiated a pilot for a community-based monitoring system for water supply and sanitation in an unplanned settlement in Nhamankulo Urban District. The project had the unanticipated effect of mobilizing local community leaders to persuade residents, who were faced with explaining their current sanitation practices and facilities to respected members of the community, to improve the cleanliness and structural state of their sanitation facilities (predominantly pit latrines). Within six months, approximately 80% of residents had rebuilt, upgraded or improved the hygienic state of their latrines, halving the number in an unsafe state from 29% to 14%. This was a low cost, software based intervention indicating great potential to be scaled up within the municipality. Key drivers of success were the active support of the district administrator, the introduction of a water officer in each neighbourhood capable of providing simple technical guidance and the front-line role of the block leaders (respected residents assigned to governance functions to approximately 70 households). Challenges to be addressed of scaling up include the need for skilled facilitation for triggering the communities into improving their facilities, the need for improved community access to relevant information, of provision of effective faecal sludge management services, and of sustained monitoring and awareness-raising activities.

The importance of the issue

It is estimated that half of Maputo’s population resides in unplanned settlements, resulting in a high population density and poor access to basic services. Nhamankulo Urban District is one of the most densely populated unplanned settlements, with more than 200 persons/ha. Sanitation is almost entirely by self-provision of various types of pit latrine, with unhygienic manual desludging when they overflow. Hygienic standards in the District are low, and poor sanitation is a major contributor to high rates of diarrheal disease and periodic cholera outbreaks, which represent a health risk not only to these residents, but also to those who have access to sewerage (11%) or a septic tank (14%). While it is difficult to quantify the health impact of sanitation, it is nevertheless clear that basic sanitation is crucial for good public health and human dignity.
Local context

This initiative was in response to the problems of inadequate sanitation in the Nlhamankulo District. It arose from a decision by the Maputo Municipal Council to develop a system of community-based sanitation monitoring in order to gain up-to-date information that could inform the planning and management of sanitation in peri-urban areas. Such monitoring, through local government institutions, also forms part of the national water and sanitation sector’s information system currently being developed by the national government of Mozambique.

Maputo Municipality is divided into 7 Districts, and Nlhamankulo District consists of 11 neighbourhoods (bairros). These are each further divided into about 50 blocks (quarteirões) containing approximately 70 houses each. Each block has a leader appointed by the neighbourhood secretary (the lowest tier of paid municipal staff with responsibility for neighbourhood administrative functions). The block leaders constitute the lowest level of the municipal administration, although they are unpaid. They are responsible within their block for, amongst other things, mobilizing residents to look after public infrastructure and cleanliness. These responsibilities require the block leader to monitor all homes within their block, including access to water, sanitation and other basic services, and submit periodic reports to the neighbourhood secretary.

Through this pilot activity, the WSP introduced a monitoring process in three neighbourhoods namely; Chamanoulo D, Aeroporto B and Unidade 7. The block leaders were assigned a key role with the aim of making the process affordable and sustainable, as well as ensuring alignment with official municipal governance structures.

Community-based monitoring and the improvement of local sanitation standards in Maputo, Mozambique

This initiative aims to develop a system of community-based sanitation monitoring, collating relevant data to contribute to the planning and management of peri-urban settlements. Local community leaders (block leaders) were recruited to undertake the monitoring of local water and sanitation facilities. So as to improve the quality of the data collated and the effectiveness of the initiative, discussions were held to ascertain the characteristics of the various water and sanitation options in use locally. Following the initial discussions block leaders observed a lack of clarity about acceptable standards for sanitation. Digital photographs showing the wide range of sanitation systems/solutions adopted by residents of each neighbourhood were used to inform a debate as to what constitutes safe sanitation and adequate service levels, which specifically incorporated the users’ perceptions.

The steps outlined below, mobilised the community to improve their current sanitation practices and facilities:

Step 1: Mobilising Community Leaders
Interestingly, these discussions took an unforeseen route. The block leaders discussed not only what was acceptable or not, but reacted strongly and questioned whether such poor sanitation conditions really existed in their neighbourhood when certain images were presented to them. This feeling of distaste at the community level (in this case, the block leaders) meant that the group reached a “tipping point” (similar to the strategy promoted in Community Led Total Sanitation (CLTS)), and made a spontaneous, collective decision to improve the situation.

Step 2: Mobilising Residents
Following the training, the block leaders carried out scoping surveys in their blocks. They were supported by the introduction of a volunteer water officer in each neighbourhood who was capable of providing simple technical guidance. Information on household size, source of water supply and sanitation facilities was collected and recorded for each household (approximately 70 households). This survey took on average one month for each block depending on size and the availability of the block leader.
In general there were no problems obtaining access to households, although families whose toilets were in a poor state were embarrassed when asked to show them to the block leader. In such cases they would usually apologize about the lack of cleanliness, stating that it was not the normal state of affairs and that the block leader would never again find the toilet in this state. They often stated that they were saving up to build a latrine, had contacted a mason, or were looking for a latrine slab. They nearly all promised to make changes although many expressed difficulties with respect to availability of funds, or lack of information as to where they could acquire latrines, and/or masons proficient in latrine construction.

Just as in the discussions with the block leaders, focusing on the issue of sanitation especially in the presence of a community leader, evoked in the families a feeling of shame regarding their sanitary conditions making them reflect on the need to change their sanitation behaviour. The poor state of their sanitation facilities was not necessarily a household priority on a day-to-day basis, but when obliged to confront it in the presence of a respected third party the household reacted and in many cases this triggered a process of change.

**Step 3: Follow-up**

The block leaders stated their intention of returning two to four weeks later to see whether households had followed through on their promises, thus putting pressure on them to act quickly to improve their situation. Such monitoring and follow-up with the families was recognized as an important factor for success of the initiative.
Results

Three months after the completion of the survey, staff from the WSP undertook a follow-up assessment of 291 households that had participated in the scoping study within four randomly selected blocks across two neighbourhoods. At the time of the initial survey, 17% of the facilities were classified as “insecure” (fractured latrines, with a high risk of collapse, filled latrines, and other practices e.g. the use of plastic bags), whilst 12% were classified as potentially acceptable, but either in an unhygienic state or in need of repair; 71% were classified as “safe” sanitation systems.

73 of the 85 “unsafe” facilities identified were visited in the follow-up, and in only 15 cases the sanitary conditions had not been improved, although some, while clean, could not be classified as structurally safe. Of the 15 households where no improvements were made, five were headed by widows, living on meagre social security grants, and one by a widower living with grandchildren, who had neither the financial nor physical capacity to invest.

Following the interventions made by the householders, the number of unsafe facilities was halved, to 14% (Figure 1). Of the 73 unsafe facilities subject to follow-up visits, 20 were rebuilt, five rehabilitated and two emptied, whilst 31 were cleaned to a hygienic state. This was encouraging given some households had indicated during the initial survey that they had insufficient funds to invest in sanitation.

Photographs (Figure 2.1 – 2.2) highlight improvements made by the households to their sanitation facilities such as cleaning and rehabilitation of the superstructure (Figure 2.1) and a major household investment to upgrade a unsafe pit latrine to a conventional toilet and septic pit (Figure 2.2).

![Change in Sanitation Status](image)

Figure 1: Sanitation levels before pilot scoping exercise and six months following the initial baseline assessment was conducted (WSP-Mozambique)
Lessons learned

The project was initially designed to stimulate a debate on sanitation standards amongst block leaders, and to train them in categorizing the sanitation solutions adopted by households residing within their blocks. However, a positive spin-off was that the process resulted in the mobilization of communities to undertake sanitation improvements within their households. This is attributed to the following factors:

The exposure of local leaders to the sanitation solutions adopted by families in their neighbourhoods highlighted the conditions in which their community lives. Although they were aware of these conditions, having them displayed in the presence of their colleagues, created a feeling of distaste and the block leaders were not prepared to accept them as representative of their block.

The debate on safe sanitation stimulated a review of standards previously considered acceptable. As they discussed the concept of safe sanitation, leaders were forced to reconsider not only the aspects that they were used to inspecting, but also to consider for the first time others which had previously passed unnoticed. With this training and information, the boundary between the acceptable and the unacceptable moved, triggering the leaders and resulting in them undertaking the monitoring processes and mobilization of the families as part of their duties.

The inspection of the household toilet by the block leader triggered a critical analysis not previously undertaken by the family, namely; How does the toilet look to a third party? This analysis led householders to notice the adverse conditions to which they had become accustomed, damage to the structure which they had forgotten about and other aspects previously known only to themselves, but which were now exposed to the block leader and potentially the wider community.
The block leader’s stated intention to return exerted increased pressure on the household, obliging them to seek and identify solutions within the agreed period. In general, this began with the easiest action, to improve cleanliness, whilst looking for information on the costs, material and manpower needed for any proposed improvements and the consequent mobilization of funds. The continued presence of community leaders can be critical to the sustainability of such changes and serve as a driving force.

The financial and physical capacity of households is an important determinant of their commitment to upgrade their sanitation conditions. In many cases, families headed by widows or elderly persons were unable to make improvements, including cleaning or minor repairs to their latrines. These cases may require outside help from the municipality, non-governmental organisations (NGOs) or the government. However, some of the households that initially expressed unwillingness or lack of capacity to pay did nevertheless make investments after being motivated by the block leaders.

The availability of information and options suited to various levels of financial capacity is also important. Some families reported that although they were willing to make an investment, they did not know where to obtain technical advice or materials. Many families ended up hiring a non-specialist mason, sometimes without experience in latrine construction, resulting in structures which were not stable or durable.

The overall process is presented in Figure 4.

Replication

The project plans to extend to the 11 neighbourhoods of Nhambankulo, and if successful, upscaled to the municipality, which is currently decentralizing basic service delivery to the seven Urban Districts. For effective up-scaling the following factors need to be considered:

Systematic training of facilitators and water officers. The skills and capacity of ‘triggering’ facilitators was identified as critical in rural Community Led Total Sanitation (CLTS), and the urban case is no different – indeed, the work is slightly more complex due to the use of photography and the need for more sophisticated technical sanitation solutions. WSP has undertaken to build capacity of these key individuals as the initiative is rolled out.

Provision of information, services and products to meet the demand for improved sanitation. Cost effective, good quality latrine construction and emptying services is fundamental. To define the options, focus groups conducted research on the knowledge, attitudes and practices of the target population.

Absence of limited effective sludge management may discourage investment in improved latrines and septic tanks. Water and Sanitation for the Urban Poor (WSUP) is currently developing technology and business models with local entrepreneurs undertaking solid waste management who expressed interest in offering a full service (construction to emptying).

Sustaining monitoring and follow-up challenges include the literacy of the block leaders, municipal capacity to manage and process information. Political will and a demand for results is essential, a neighbourhood ranking index of safe sanitation will be published via local media highlighting those neighbourhoods that need to accelerate and prioritise improvement.
Budget and finances

The project was implemented on a low budget that covered the Water and Sanitation Programme (WSP) and facilitator staff time (approximately 20 person-days per neighbourhood, plus local transport), refreshments for the one-day training sessions (space was provided at no cost by the neighbourhood secretariat), use of a digital camera and projector, and reproduction of monitoring forms. All upgrading of facilities was funded by the householders themselves, ranging from a US$ 1 to a maximum of US$ 250.00, depending on the scale of the intervention.

Key contacts
Peter Hawkins, WSP Country Team Leader, Mozambique
e-mail: phawkins@worldbank.org
Odete Muximpua, WSP-Mozambique
e-mail: omuximpua@worldbank.org

References and sources
National Directorate of Water, Mozambique. 2007. Water Policy
Acknowledgements

We would like to acknowledge Peter Hawkins and Odete Muximpua of WSP-Mozambique who led the work described and prepared the summary and Patricilio Mucavele of Mozambican NGO CLASS-A for bringing our attention to this project. The project implementers in Mozambique would like to thank WSUP for occasional loan of their staff in undertaking the work on the ground.

Authors information

Peter Hawkins and Odete Muximpua
WSP-Mozambique
e-mail and phone: +258-21-482304, phawkins@worldbank.org

November 2011