

CHAPTER 4: FINDINGS, ANALYSIS AND DISCUSSION

4.1 Introduction

The purpose of this research was to use a PAR approach to investigate whether there are any local community-based opportunities for the procurement of some of the operation and maintenance tasks required to provide a sustainable sanitation service to the recently refurbished Khayelitsha ablution facilities, and then to identify some of the key issues that need to be addressed, so that the opportunities identified can be accommodated within the current service delivery arrangements of the City of Cape Town.

The research consisted of three stages. The objective of the first stage was to obtain a community perspective on the current situation pertaining to the operation and maintenance of shared sanitation facilities at selected informal settlements in the COCT. The objective of the second stage was to get an understanding of the O&M activities currently being undertaken for the provision of shared sanitation services to informal settlements within the COCT. The objective of the third stage was to use focus group sessions to identify an approach for the incorporation of local community-based opportunities for the procurement of suitable tasks for the O&M of the Khayelitsha ablution blocks.

4.2 Stage 1: A community perspective on the causes of the poor sanitation conditions in informal settlements

4.2.1 Analysis of the CRA primary data sets

During 2006, a Community Risk Assessment (CRA) was undertaken using Participatory Rapid Appraisal (PRA) methodologies at selected informal settlements within the City of Cape Town where the incidents of disasters had occurred. The sites were identified by the COCT and the Western Cape Disaster Management Centre as the most vulnerable sites where incidences of disaster had occurred. The settlements selected for this study are: Masimphumele, Doornbach, Phola Park, Wallacedene and the TR Section in Khayelitsha.

An analysis of the PRA data produced through the CRA process revealed that the community focus groups identified: (1) fire; (2) flooding; and (3) poor sanitation as the most significant factors that contribute towards the occurrence of disasters within their communities.

The community focus groups attributed the causes of poor sanitation in their informal settlements to:

- blocked toilets as a result of the use of newspaper instead of toilet paper, and the dumping of solid waste and food in the toilets;
- dirty toilets as a result of no one taking responsibility for cleaning the toilets and children misusing and fouling the toilets;
- flies as a result of lack of cleaning;
- too few toilets resulted in the over-use of existing facilities and the inappropriate disposal of human excreta;
- damaged toilets as a result of vandalism and theft; and
- restricted access to toilets put pressure on available toilets and also resulted in incidences of inappropriate disposal of human excreta;

Refer to “Appendix 7: Sanitation Problem Analysis Summary” for a detailed breakdown of the Sanitation Problem Analysis as identified by the community focus groups from each site.

The sites selected for this study all receive an “Emergency Level of Service”, which, defined by the Water Services Development Plan (WSDP) for the City of Cape Town, as “partial access to sanitation” (City of Cape Town, 2007: 8). Table 4.1 gives a description of the water and sanitation technology options available to the residents of the selected sites and the ratio of households to toilets in 2006. The City of Cape Town provides a range of sanitation technology options to informal settlements, ranging from a full flush toilet to a bucket.

Table 4.1 Provision of basic water and sanitation services to the case study sites in 2006

| INFORMAL SETTLEMENT | NO. OF DWELLINGS | BASIC SANITATION TECHNOLOGY (NO. OF TOILETS) | BASIC WATER TECHNOLOGY | HOUSEHOLD TO TOILET RATIO |
|--------------------------|------------------|---|------------------------|---------------------------|
| Masiphumelele | 1600 | Full flush (40) | Communal standpipe | 40 |
| Doornbach | 5000 | Chemical toilets (120) | Communal standpipe | 41 |
| Phola Park | 800 | Full flush (25) Pour flush (56) | Communal standpipe | 9.8 |
| Wallacedene | 650 | Full flush (10) Chemical (50) | Communal standpipe | 10.8 |
| Khayelitsha – TR section | 2073 | Container toilets (72) Bucket (101) | Communal standpipe | 11.9 |

Source: Personal Communication with: D Wright COCT Water Services Department

Besides the insufficient numbers of toilets (refer to Table 4.1 for the ratio of households to toilets), the causes of poor sanitation, as identified by the community focus groups, can be attributed to the inadequate O&M of the infrastructure provided by the COCT. This has resulted in the provision of an unsustainable sanitation service and an environmental health risk to the very communities that the COCT is targeting to address the sanitation backlog. A selection of photographs in “Appendix 3: Sanitation Photo Diary” illustrates the environmental

health risks, as a result of inadequate sanitation facilities, facing the residents of informal settlements.

In addition to the provision of more toilets, the community focus groups suggested that the employment of locally-based caretakers and improved training and awareness on toilet use would improve sanitation service delivery at a local level.

4.2.2 End user Survey

The sanitation problem analysis undertaken by the community focus groups identified inadequate O&M as one of the major causes of the poor sanitation within communities of informal settlements. A small sample, end-user survey was conducted within the same communities where the community focus groups originated. The purpose of the end-user survey was to assess the extent to which inappropriate end-user behaviour contributed towards the creation of poor sanitation conditions within the communities.

The survey assessed the following:

- household sanitation practice in terms of the extent to which households use the bucket system within their own homes for the collection and storage of night soil, the disposal of the contents and the storage of the containers;
- key O&M indicators in which the household awareness of their O&M responsibilities was assessed, as well as end-user awareness of the occurrence of blockages and who was responsible for unblocking the toilets, as well as extent to which the incidences of vandalism occur; and
- end-user fears and concerns and suggestions for improvements.

Table 4.2: The number of survey forms completed for each site

| Site | No. of forms |
|---------------|--------------|
| Masiphumelele | 15 |
| Phola Park | 7 |
| Doornbach | 11 |
| Wallacedene | 24 |
| Khayelitsha | 14 |
| Total | 71 |

4.2.2.1 Household sanitation practice

Use of buckets

On average, 92% of all respondents across the sites indicated that they used “buckets” at home. A bucket is a container for human excreta, commonly referred to as the “night soil”, within the community.

Emptying of buckets

Most households empty the contents of the buckets at the closest and most convenient, but not necessarily the most hygienic or appropriate, place. Fifty percent of respondents emptied the contents of the buckets in the toilets. The balance of the respondents disposed the contents of their buckets in inappropriate and environmentally unsafe places, such as the closest open space, even amongst the shacks, next to the railway line, in the canal, storm water drains, holes in the ground and communal dumping sites. Sometimes the contents are placed inside a “Checkers”, (a plastic shopping bag), but in most instances, the contents are poured out into the open environment.

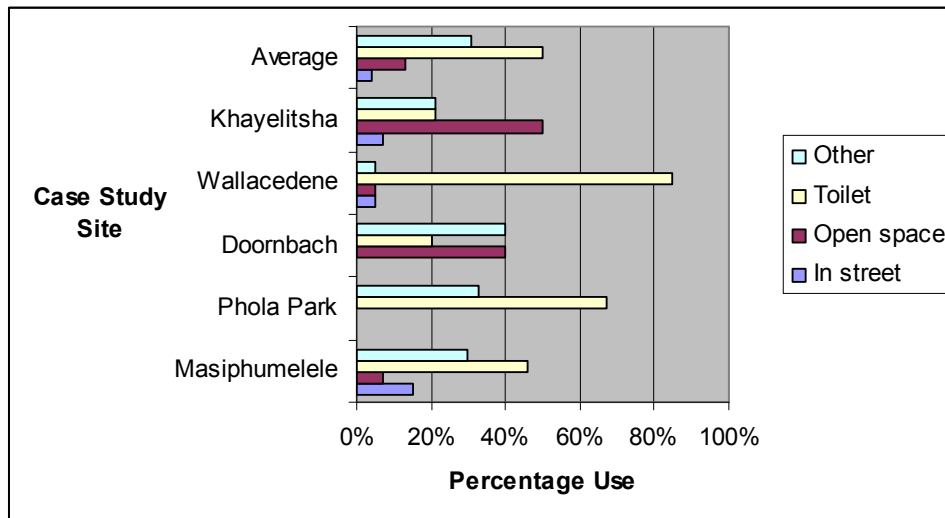


Figure 4.1: Options for emptying buckets

Storage

Fifty one percent of respondents indicated that the buckets are stored outside, whilst 33% stored the buckets under the bed. Sixty three percent of respondents stated that their buckets had lids.

4.2.2.2 Key operation and maintenance indicators

Awareness of household O&M responsibilities

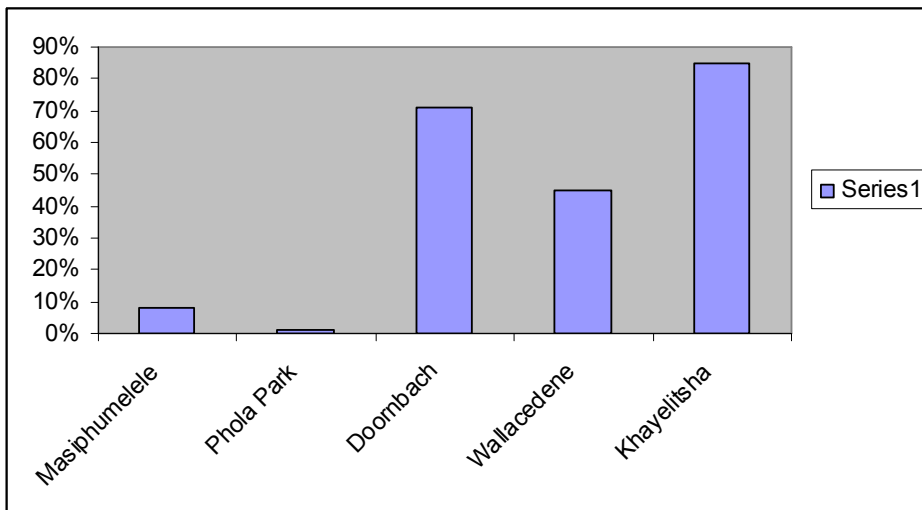


Figure 4.2: Household O&M awareness activities

The results from the survey indicate that there is no targeted household O&M awareness programme across the selected sites. It appears that O&M awareness takes place on an ad hoc basis. Only the respondents from Khayelitsha and Doornbach indicated that some form of awareness activities had taken place within their communities. The awareness activities took place in the form of a community meeting. Figure 4.2 gives a breakdown of respondents who indicated that municipal officials explained how to use the toilets properly and how to clean the inside of the toilets

Vandalism

Seventy nine percent of respondents indicated that incidents of vandalism pertaining to the sanitation facilities took place in their communities. Khayelitsha reported the lowest incidences of vandalism, whilst at Doornbach, 100% of respondents reported that vandalism took place.

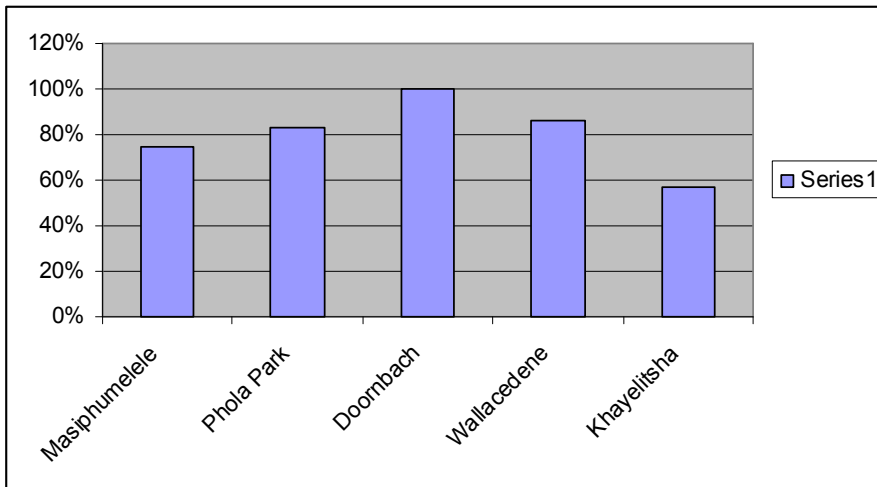


Figure 4.3: Incidence of vandalism

At Doornbach, all incidents of vandalism were repaired by the contractor. However, at the other sites, although the municipality was responsible for the repairs, the repairs took too long to be fixed and so they remained un-repaired, or sometimes the community would arrange and pay for the repairs themselves.

Blockages

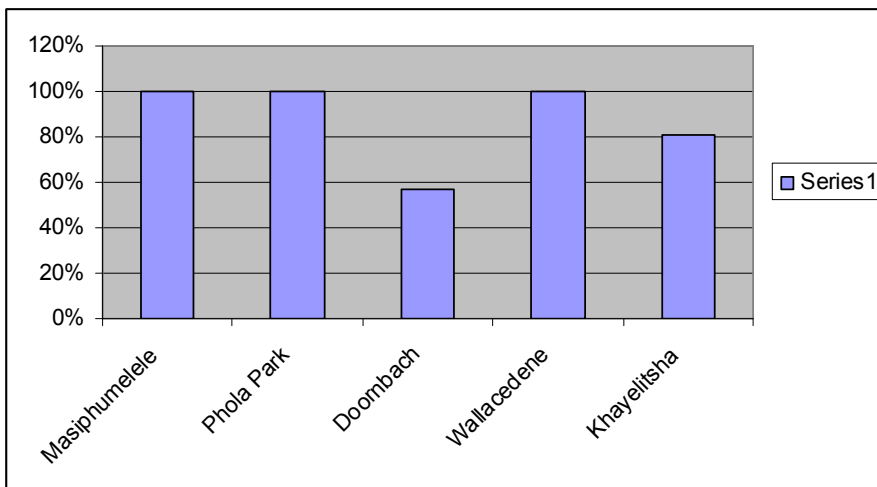


Figure 4.4: Incidence of blockages

The occurrence of blockages is a common problem at all the sites. Ninety two percent of all respondents indicated that the toilets got blocked. The lowest incidence of blockages was reported from Doornbach. This is attributed to the choice of technology. At Doornbach, chemical toilets were installed and the contractor is responsible for emptying and cleaning

the toilets. The sites where pour flush and flush toilets were installed, reported the highest incidence of blockages, namely 100%. As with repairs to damage caused by vandalism, blockages took a while to be unblocked by the municipality.

Access to toilets

Sixty four percent of respondents indicated that the toilets in their community are locked, and that access is gained by contacting the family who has the key. The unlocked toilets are usually unsafe to use. They tend to be filthy, and are usually vandalized. Access to a clean safe toilet is limited to those users who can access a key.

4.2.2.3 Fears and concerns, and suggestions for improvements

Nearly all the respondents raised concern over the fear of the spread of disease and getting ill as a result of the condition of the toilets. Suggestions for improvements include:

- The government needs to build more toilets.
- The municipality needs to provide flush toilets and employ cleaners.
- The municipality must clean the toilets.
- The municipality must employ cleaners.
- Keep the toilets locked.
- Teach people about cleanliness.
- You must speak to neighbours to clean the toilet when it is dirty.
- .The bucket system must change to the flush system.
- The buckets must be emptied twice weekly.

4.2.3 Discussion on stage 1 research outputs

The research highlighted the environmental health risks facing residents of informal settlements due to improper and unsafe sanitation practices as a result of inadequate basic sanitation service provision by the COCT. Both the community focus groups and the survey respondents highlighted the need for additional toilets to be provided and identified the need for the city to take responsibility for the O&M of the sanitation facilities and to appoint caretakers to clean the toilets, as well as to educate households on proper toilet use.

The research also revealed that end-users had a common understanding of the causes of the poor sanitation conditions within their communities, and in particular, the importance of operation and maintenance. They identified insufficient toilets, inadequate O&M being undertaken and a lack of awareness of proper toilet use amongst end-users in informal settlements. The community focus groups and the respondents from the survey suggested the employment of locally-based caretakers and improved awareness on the proper use of

shared toilets at a household level as ways to improve the level of sanitation service delivery within their communities.

The level of awareness of the sanitation situation in community focus groups and respondents from the survey, as well as participants in the focus group discussions, illustrates the extent and value of the “local knowledge” of the community and highlights the need for the Water Services Informal Settlements Department to improve communication channels, to ensure that they have a better understanding of the needs of the communities they serve, and to acknowledge and follow-up on suggestions for improvements to the quality of service provided to their communities. Had the relevant departments acknowledged and responded to the suggestions from the community focus groups at the time of the initial CRA process, perhaps more appropriate interventions could have been implemented earlier.

The research indicated a lack of inter-departmental planning between the Water Services Informal Settlements and the Health Departments on the awareness and promotion of proper toilet use and O&M. This resulted in an inadequate and ad hoc approach to the promotion and awareness initiatives at a community level, which in turn, resulted in the high incidences of vandalism and blockages across the sites. Both the White Paper on Basic Sanitation and the City of Cape Town WSDP identify appropriate health and hygiene practice and education as key components of a basic level of sanitation service. At a micro level, this is example of where local government has failed to fully implement the policies guiding service delivery into operational initiatives on the ground.

A significant number of households use buckets for the night soil, and the inappropriate dumping on the night soil has a major impact on the environmental health conditions of the communities. Only 50% of the respondents interviewed, emptied the nightsoil in the toilets. The other 50% emptied them at unsafe and unprotected sites. The results from this research indicate that the City of Cape Town needs to make urgent provision for the emptying of the nightsoil buckets as an integral aspect of the sanitation service delivery. Failure to do so will result in the continued pollution of the immediate areas, as well as the surrounding communities through the contamination of the ground water and storm water drainage systems. In addition, the City of Cape Town need to ensure that the sanitation technologies selected for informal settlements can accommodate the high volumes of fecal waste when households empty their nightsoil buckets into the toilets.

One of the most significant problems facing end-users of the shared sanitation facilities is the continued occurrence of blockages in the facilities. End-users have no safe alternatives for the disposal of faecal waste when these blockages occur. This reinforces the destructive cycle of unsafe sanitation practice. The results from the survey quantified the extent to which incidents of vandalism and blockages occurred that were initially raised through the community focus group discussions.

The community perspective gave the research group an opportunity to get a better understanding of the local context and recognize and acknowledge the value the “local knowledge” arising from the beneficiary communities.

4.3 Stage 2: Description of the operation and maintenance activities currently in place

The City of Cape Town’s Water Services Informal Settlements Department is responsible for provision of water and sanitation services to an estimated population of over 120 000 in over 220 informal settlements. Five maintenance crews each comprising one foreman and two assistants, are responsible for the O&M of over 5 000 shared toilets. In addition to the five maintenance crews, 40 community workers have been deployed by the Water Services Department, on short-term contracts, to assist with routine cleaning and the reporting of incidents within their immediate communities. The O&M of over 8 000 container toilets has been subcontracted out to private service providers, and 1 800 chemical toilets are leased to the city by private service providers. In the instance where community workers have been deployed in areas where there are chemical or container toilets, they fulfilled a monitoring and reporting function.

4.3.1 The unbundling of the operation and maintenance tasks currently being undertaken

There are various role-players responsible for the O&M of the different technology options available for the provision of basic sanitation services to informal settlements in the City of Cape Town. They include: contractors (SMME and well established contractors), community workers, community caretakers, the Water Services: Informal Settlements Department, the Health Department, the Water Services: Reticulation Department and the end-users.

The technology options for the provision of shared basic sanitation services to informal settlements include: pour flush toilets, full flush toilets, chemical toilets, container toilets and ablution blocks. Photographs of the various sanitation technology options can be viewed in

“Appendix 2: Examples of shared basic sanitation technology options available to residents of informal settlements within the City of Cape Town”.

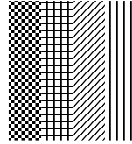
The operation and maintenance of basic sanitation service delivery can be divided into four key components. They are: operations, maintenance, crisis maintenance and monitoring and evaluation (M&E).

Operations refers to the tasks that need to be undertaken for the delivery of the particular service and is dependent on both the users and the service providers using the facilities and equipment with care. Maintenance refers to the activities that ensure that the infrastructure is able to continue to provide the service (WHO, 2000) Crisis maintenance refers to tasks in response to an incident that resulted in an aspect of the service failing. Monitoring and evaluation are key components of the overall project or service delivery cycle, as it allows decision-makers to plan for further improvements to the quality of the service provided.

The O&M tasks for the various technology options providing shared basic sanitation services in informal settlements in COCT are summarized in Table 4.3.

Table 4.3: A breakdown of key O&M tasks undertaken by various role-players for the provision of basic sanitation services to informal settlements within the COCI

| Total pop. served | No. of IS | Technology | Approx No | Operations | | | Maintenance | | | Crisis Maintenance | | | M&E |
|-------------------|-----------|-------------------------|-----------|------------|----------|--------------------|---------------------|---------------|-----------|--------------------|------------------|--|-----|
| | | | | Cleaning | Emptying | End-user awareness | Routine inspections | Minor repairs | Vandalism | Blockages - minor | Blockages -major | | |
| >120 000 | >220 | Full flush | 1500 | | n/a | | | | | | | | |
| | | Pour Flush | 1900 | | n/a | | | | | | | | |
| | | Chemical | 1800 | | | | | | | | | | |
| | | Container | 8000 | | | | | | | | | | |
| | | Ablution Blocks (TRA) | 72 | | | | | | | | | | |
| | | Ablution Blocks – other | | | | | | | | | | | |



Water Services: Informal Settlements Dept comprising 5 x Maintenance Crews of 1 foreman and 2 assistants = 15 people and 40 community workers
 Water Services: Reticulation Dept Contractor
 Community-based cleaners employed through labour-only contractor

4.3.1.1 Operations:

The tasks associated with operations include cleaning both inside the cubicles as well as cleaning the area immediately outside the facility, the emptying and removal of contents from the on-site sanitation facilities and end-user awareness and education.

The operational functions are shared between the end-user, community workers, where they are in place, and the contractors. The Water Services Informal Settlements Department does not have the resources or capacity to get involved with the day-to-day operations nor does it have sufficient resources to effectively monitor and evaluate the operational activities conducted.

At all the sites visited, refuse, and at many places, evidence of night soil were visible immediately outside the sanitation facilities. Wherever rubbish was allowed to accumulate, there was evidence of night soil being dumped. It is therefore imperative that the immediate area surrounding any shared sanitation facility should be kept clear of rubbish. This requires an integrated approach with the Cleansing and Health Department. The removal of the rubbish is a potential job creation opportunity for a locally placed person. Currently, ad hoc refuse removal is undertaken by SMME contracts awarded through the Cleansing Department when funds have been available

Container toilets: the contractor is responsible for cleaning inside, sweeping and spraying the inside with disinfectant. The contractor is responsible for removing any full container and replacing it with a clean and empty one.

Chemical toilets: the contractor is responsible for providing a clean, serviced toilet facility.

Pour flush and full flush: Where community workers have been deployed, they were supplied with the following cleaning equipment: Jeyes fluid; bags and brooms; and the following protective equipment: elbow gloves, gum boots and overalls. The consumables are replaced on a demand basis by the Informal Settlements maintenance crews.

In communities where there are no community workers, the households are responsible for cleaning inside the cubicles. The households are not supplied with any cleaning materials or equipment by the Water Services Informal Settlements Department.

TRA ablution facilities: The Temporary Relocation Area (TRA) janitors are responsible for cleaning the TRA ablution facilities. The Water Services Informal Settlements Department. supplies the TRA vendors with protective equipment and cleaning materials.

End-user awareness and education: The environmental health practitioners (EHP) through the Department of Health are responsible for conducting end-user awareness and health and hygiene promotion activities within the informal settlements. However, as with the Water Services Informal Settlements Department, the lack of resources and capacity resulted in the EHPs doing ad hoc and crisis interventions, rather than a programmatic approach that covers all informal settlements, for their awareness and education activities.

4.3.1.2 Maintenance and crisis maintenance

Maintenance refers to the “activities that ensure that infrastructure remains in a serviceable condition. It covers preventative maintenance, corrective maintenance and crisis maintenance” (Brikke, 2000: 42)

All maintenance undertaken by the Water Services Informal Settlements Department is crisis maintenance in response to reported incidents. Programmed routine inspections do not take place, due to insufficient resources within the Water Services Informal Settlements Department. As a result, no provision is made for preventative maintenance. The community workers report all incidents to the Water Services Informal Settlements Department Call Centre, where the calls are logged and jobs assigned to the Informal Settlements maintenance crews. The Water Services Informal Settlements Department maintenance crews are responsible for conducting minor leaks, repairs and minor blockages. Major blockages are unblocked by the Water Services Reticulation Department. In the case of the chemical toilets which are leased to the municipality by private service providers, all O&M activities are undertaken by the contractors.

In the case of the TRA ablution facilities, the local janitors and plumbers are responsible for doing maintenance.

In instances where a significant numbers of a particular item (e.g. doors) need to be replaced, the Informal Settlements Department. awards a contract based on three quotations less than R200 000.

The 40 community workers have fulfilled cleaning and reporting functions where they have been deployed, and the Water Services Informal Settlements Department maintenance crews were responsible for the maintenance functions. Private service providers were responsible for the operations of the container and chemical toilets. In these instances, the community workers fulfilled a reporting function only.

4.3.1.3 Monitoring and evaluation

Access to reliable information is essential for an effective M&E system. The Water Services Informal Settlements Department does not have the resources to get involved with the day-to-day operational activities nor the M&E at a local level. There are no formal or universally applied M&E systems in place. Where community workers have been deployed, they fulfill a reporting function. However, this is limited to reporting incidents only at sites within the city where community workers have been employed.

4.3.2 Comparison with international case studies of community-based approaches to operation and maintenance

If one compares the O&M of the public toilets in Mumbai Slum Sanitation Programme and Nairobi City Council's public toilet upgrading programme to that of the City of Cape Town, the main different is that the day-to-day operational tasks are carried out by the community-based organizations and community committees. Whereas in Cape Town, these tasks, when carried out, are undertaken by a variety of role-players, including the local municipality as shown in Tables 4.3 and 4.4. In both Mumbai and Nairobi, the local municipalities are not responsible for the day-to-day operational activities. Local government is only responsible for unblocking major blockages and M&E.

The blank blocks, in the case of the COCT, in Table 4.3, indicate a void in most instances, and at best, ad hoc support at limited sites. These are tasks that need to be undertaken, and the municipality needs to allocate additional resources to enable them to be fulfilled. The COCT can either increase the numbers of maintenance crews or create opportunities at a local level. These are the very tasks that are best suited to locally based unskilled caretakers/caretakers/operators. This is the very population that the poverty reduction strategies target, which offers an ideal job creation opportunity.

It must be noted that the Table 4.3 and table 4.4 only describe the tasks undertaken, and do not compare the quality of service provided by the various service providers. In both Mumbai and Nairobi, the service providers generate their own income through tariff collection. The ability to generate sufficient cost recovery to cover the operational costs has a significant impact on the quality of the service provided. In the South African context, local government is responsible for providing free basic services, which should be funded through the Equitable Share grant. In theory, there should be sufficient budget allocation for the operational costs of basic sanitation service provision in informal settlements.

Table 4.4: A breakdown of key O&M tasks undertaken for the provision of sanitation services in the slums of Nairobi and Mumbai

| Case Study Site | Operations | | | Maintenance | | Crisis Maintenance | | | M&E |
|-----------------|------------|----------|--------------------|---------------------|---------------|--------------------|-------------------|-------------------|-----|
| | Cleaning | Emptying | End-user awareness | Routine inspections | Minor repairs | Vandalism | Blockages - minor | Blockages - major | |
| Mumbai | | | | | | | | | |
| Nairobi | | | | | | | | | |

 Mumbai Corporation of Brihan Mumbai / Nairobi City Council
 Community-based organizations

4.3.3 Discussion on stage 2 research outputs

The analysis of the O&M tasks currently being undertaken for the provision of basic shared sanitation services within the COCT reveal a lack of community involvement and that there are significant gaps, duplication and inconsistency in the allocation and application of tasks and responsibilities. These are some of the indicators of poor O&M as identified by Sohail et al. (2005). The Water Services Informal Settlements Department does not have the resources or the capacity to implement the day-to-day operational tasks for all the infrastructure provided, and many of these tasks are best suited to a locally based caretaker position. Insufficient and inconsistent reporting, poor response time to deal with minor leaks and repairs, and restricted access were common problems identified. These are examples of the tasks that are best suited to be undertaken by local community-based caretakers.

The research also illustrated the fragmented nature of the O&M arrangements of the Water Services Informal Settlements Department, and in particular, the challenges of trying to get consistency for the O&M tasks for different technology options into existing institutional arrangements governing sanitation service delivery. This makes reporting and M&E of the sanitation services provided more challenging.

The unbundling of the O&M tasks of the various technology choices provided a framework for the identification of tasks and responsibilities for the O&M of the Khayelitsha Ablution Blocks.

4.4 Stage 3: The identification of an approach for the operation and maintenance of Khayelitsha Ablution Blocks

4.4.1 Introduction

Two separate stakeholder workshops to discuss the operation and maintenance of the Khayelitsha ablution blocks were held on 22 July 2008 at the Community Water Supply and Sanitation (CWSS) office and on 17 August 2008 in Khayelitsha. The purpose of the workshops was to bring key stakeholders together to get input and suggestions on the future O&M of the Khayelitsha Ablution Blocks. The initial workshop was cancelled at the last minute by the Water Services Informal Settlements Department because the director deemed it too sensitive at the time to

bring municipal and community representatives together, as one of the Water Services Informal Settlements staff members had been shot whilst in Khayelitsha. There were tensions between the community and the Water Services Informal Settlements Department pertaining to the non-payment of workers by a previous contractor. As a result, the initial workshop comprised community representatives and representatives from the Khayelitsha Development Forum only, and was conducted at a separate venue. The local ward councillors, community representatives, community workers employed by the Water Services Informal Settlements Department, officials from the Water Services Departments and the Health Department, as well as researchers from the Cape Peninsula University of Technology, were represented at the second workshop. Refer to “Appendix 8: Attendance Sheets for the Operation and Maintenance of the Khayelitsha Ablution Blocks Workshops’.

Specific objectives of the workshops were to:

1. identify operation and maintenance tasks that need to be undertaken to keep the Khayelitsha Ablution Blocks in good working order;
2. suggest appropriate service delivery approaches for the provision of sustainable sanitation services to the Khayelitsha Ablution Blocks, and to
3. suggest procedures for the selection and recruitment of staff.

4.4.2 Focus group outputs

4.4.2.1 Tasks required for the operation and maintenance of the Khayelitsha Ablution Blocks

Participants were divided into groups where they unbundled the tasks required for the O&M of the Khayelitsha Ablution Blocks. Table 4.5 comprises a complete list of operation and maintenance tasks identified by all the groups from both workshops. The tasks were grouped according to operations, maintenance, crisis maintenance and M&E so as to distinguish responsibilities between the municipality and the community-based cleaners, which in turn could be used by the Water Services Informal Settlements Department as a framework for future job descriptions or for the monitoring of tasks undertaken. Each individual group’s outputs can be seen in “Appendix 9 : Khayelitsha Ablution Block workshop outputs”.

Table 4.5: The tasks required for the O&M of the Khayelitsha Ablution Blocks

| Description | Who | | Frequency | | | | |
|--|--------------|-------------------|-----------|--------|-------|--------|---------|
| | Municipality | Local comm. based | On going | Ad hoc | Daily | Weekly | Monthly |
| <u>Operations</u> | | | | | | | |
| Issue toilet paper | ✓ | | ✓ | | | | |
| Issue soap | ✓ | | ✓ | | | | |
| Sweep floors | | ✓ | | | ✓ | | |
| Wash floors | | ✓ | | | ✓ | | |
| Disinfect floors | | | | | ✓ | | |
| Clean and disinfect inside toilet bowl | | ✓ | | | ✓ | | |
| Clean and disinfect the outside surface of toilet | | ✓ | | | ✓ | | |
| Clean and disinfect washbasins | | ✓ | | | ✓ | | |
| Clean and disinfect showers | | ✓ | | | ✓ | | |
| Clean outside yard area (incl. picking up rubbish) up to 3m | | ✓ | | | ✓ | | |
| Stop unauthorized use of facility | | ✓ | | | ✓ | | |
| Empty and clean waste bins | | ✓ | | | ✓ | | |
| <u>Maintenance</u> | | | | | | | |
| Remove blockages from basins | | ✓ | | ✓ | | | |
| Remove minor blockages from toilets | | ✓ | | ✓ | | | |
| Replace light bulbs | | ✓ | | ✓ | | | |
| Repair leaking taps | | ✓ | | ✓ | | | |
| Repair leaking seals | | ✓ | | ✓ | | | |
| Repair broken doors, locks and windows | | ✓ | | ✓ | | | |
| Paint doors when required | | ✓ | | ✓ | | | |
| <u>Crisis Maintenance</u> | | | | | | | |
| Replace damaged/ broken taps | ✓ | | | ✓ | | | |
| Replace broken cisterns and flush mechanisms | ✓ | | | ✓ | | | |
| Replace damaged toilet bowls | ✓ | | | ✓ | | | |
| Replace damaged basins | ✓ | | | ✓ | | | |
| Replace damaged toilet seats | ✓ | | | ✓ | | | |
| Unblock major blockages – sewer | ✓ | | | ✓ | | | |
| Repair damage to building due to vandalism | ✓ | | | ✓ | | | |
| <u>M&E</u> | | | | | | | |
| Report power failures | | ✓ | | ✓ | | | |
| Monitor electricity consumption at facility | | ✓ | | | | | ✓ |
| Report water cuts | | ✓ | | ✓ | | | |
| Monitor water consumption at facility | | ✓ | | | | | ✓ |
| Daily attendance register | | ✓ | | | ✓ | | |
| Weekly checklist of activities | | ✓ | | | | ✓ | |
| Report incidents – minor | | ✓ | | ✓ | | | |
| Report incidents – major | | ✓ | | ✓ | | | |
| Report leakages and blockages in main sewer line | | ✓ | | ✓ | | | |

| Description | Who | | Frequency | | | | |
|---|--------------|------------------------------|------------|---------------------------------------|-------|--------|---------|
| | Municipality | Local comm. based | On going | Ad hoc | Daily | Weekly | Monthly |
| Stock control – equipment and materials in stock Report of repairs conducted and materials used for job End-user monitoring by community, councillors and Envir. Health Dept on the condition of the facility and level of service provided <u>Access</u> Open and close facility on a daily basis (including weekends and public holidays) <u>Security</u> Security guard on duty from 9pm till 5am <u>Education</u> Educate caretaker and users on proper health and hygiene practice and use of the ablution block <u>Fire</u> Fight fires in surrounding community <u>Other</u> Use of facility to promote other health awareness activities. For example, handing out promotional materials, information, etc. Issue condoms | | ✓ ✓ ✓ ✓ | ✓ ✓ | ✓ ✓ ✓ ✓ ✓ | | ✓ | ✓ |

Operation and Maintenance

All groups from both workshops identified the need for a locally based caretaker to be responsible for the day-to day tasks required for the O&M of the facilities. The groups recommended that the caretaker should be responsible for all cleaning tasks, unblocking minor blockages and conducting minor repairs to the toilets, basin, showers and the building, whilst the municipality should take responsibility for major maintenance and the issuing of materials and equipment.

All groups identified the issuing of toilet paper to end-users as a key task to be undertaken by the caretaker. The main reason for this is the high incidence of blockages due to inappropriate anal cleaning materials being flushed down the toilets, instead of toilet paper. Some groups also suggested that soap should be provided at the facilities, as hand-washing is considered a key barrier to the oral-faecal transmission of diseases. As with the supply of toilet paper, the Water

Services Informal Settlements Department would need to issue smaller quantities of supplies more frequently, rather than deliver in bulk, so as to control the supply and use of the materials, and because of as the limited space available for the storage of the materials. A suggestion was made that the City should construct a secure storeroom at each facility. However, some parties disagreed, stating that the construction of a secure storeroom would draw attention to the facilities and could result in increased incidents of theft and vandalism.

Participants at both workshops raised the need for the COCT to make provision for the emptying of the night soil buckets at the ablution facilities, so as to ensure that proper and safe disposal methods are implemented. The monitoring of the emptying of the buckets would be an additional task of the caretaker that is not listed in the table above.

The issue of the provision and emptying of sanitary bins was not raised at the workshop. Unless the COCT makes provision for the safe disposal of sanitary towels and nappies, these too will get flushed down the toilets and result in the occurrence of more blockages.

Participants also identified the need for caretakers to stop people emptying food into the basins or toilets as this practice results in the occurrence of blockages.

The extent to which the caretakers can undertake repairs would be dependent on the level of skills required to do the job. For example, the replacement of basins and toilet bowls would probably require a skilled technician, whereas the replacement of a washer, a light bulb or a tap could be undertaken by an unskilled, but trained caretaker. Major maintenance would be reported by the caretaker, but would be undertaken by one of the maintenance crews from the Water Services Informal Settlements Department. Similarly, repairs and maintenance to the building, such as the repairs to doors and windows, etc., would need to be further investigated in terms of of equipment and skills required. It may be more effective for the caretaker to report the incidents and for the Water Services Maintenance Crews or another service provider to undertake the repairs.

Monitoring and evaluation

It was agreed that the caretakers would play a major role in the monitoring of the service provided at the facilities and to report all incidents. It was suggested that the

caretakers monitor the water consumption. Electricity consumption, where applicable, should also be monitored so as to ensure that no unauthorized electricity connections are made to the facilities.

Access

Controlling access was one of the key responsibilities identified for the caretakers. It was recommended that the facilities be locked at night. The participants felt the facilities would not be used as it would be unsafe for people to go to the facilities at night. Recommended opening times ranged from 5h00 till 22h00 or 6h00 till 20h00. If the facilities are to be locked at night, provision needs to be made for the emptying of the night soil buckets when the facilities open.

Security

Security of the facilities in terms of preventing vandalism and theft and ensuring safe access to the facilities for the user, was raised by each group. Some suggestions included the installation of outside lighting as well as linking up to a community-policing initiative that was investigating the installation of CCTVs in public places. Most groups suggested the deployment of security guards for after hours.

Education

Proper health and hygiene practice awareness as well as proper toilet use were identified as key tasks that needed to be undertaken. There was general consensus that the awareness programmes should be undertaken by the Health Department within the surrounding communities, and that the caretakers would reinforce the messages.

Fire

One of the groups suggested that the ablution facilities should be equipped with fire hoses so that should any fires arise in the surrounding shacks, there would be a means to put them out. The practical implications of such a suggestion need to be further investigated so as to determine whether such a recommendation can be implemented at the ablution facilities.

Another recommendation made, was that each ablution facility should be provided with a fire extinguisher, and that the Water Services Informal Settlements Department should ensure that they comply with the necessary requirements.

Other

Other activities suggested that could take place at the facilities that were not directly related to the operation and maintenance of the facilities, include community health promotion. These activities would be carried out by the Health Department. The use of the facilities as a venue for health promotion would increase the status and value of the facility within the community, and would hopefully therefore reduce the incidence of vandalism occurring. It was suggested that caretakers could hand out condoms as well; however, there was not an overwhelming support for it, as many participants felt it was beyond the scope of work of a caretaker, and that perhaps they should be handed out as part of a broader health awareness programme.

Participants preferred the use of the term “caretaker” to “cleaner” for the position as they felt that the term “caretaker” had more status than the term “cleaner”. Participants of the focus group discussions also identified a list of tools and equipment that would need to be issued to the caretakers to enable them fulfil their tasks.

4.4.2.2 Service delivery approaches for the provision of sustainable sanitation services to the Khayelitsha Ablution Blocks

There was general agreement that initially, the basic cleaning and operation function should be implemented through a local labour-based contract and not a full O&M management service contract. The option of a long-term lease or concession was not applicable or appropriate for the Khayelitsha ablution facilities. There was debate as to whether the labour contracts should be implemented through the municipality or through a labour-only SMME contractor. Concerns were that local SMME contractors have poor labour practice records. In particular, dealing with grievances from the labour. Contract labourers were often exploited by contractors, and the position would not be a permanent job, as they would only be employed for the duration of the contract. There was general consensus that people would prefer permanent jobs through the municipality. The municipality responded that in the past, it was more cost effective for the municipality to go the contractor route.

Concern was also raised over the lack of visibility of contractors within the community, and the tendency for them to “disappear” when workers were not paid.

4.4.2.3 Selection and recruitment of labour

It was agreed that the position of caretaker should be targeted at more mature individuals who understand the importance of proper sanitation practice and who are willing to do the job. If a young person is interested in the position, they would need to demonstrate their commitment by initially working as a volunteer. It was also suggested that the caretaker reside close to the ablution facilities so that access to public transport would not have an impact on the opening and closing times of the facilities. This would be potentially problematic over weekends and public holidays. Participants recommended that the caretaker have sufficient numeracy and literacy skills to compile the required weekly reports and stock-taking of supplies. It was recommended that the Water Services Informal Settlements Department contact the Khayelitsha Development Forum (KDF) to facilitate the recruitment of locals for the caretaker positions. It was also suggested that the KDF advise the Water Services Informal Settlements Department on the issue of the rotation of labour for the caretaker position.

4.4.3 Discussion on stage 3 research outputs

There was overwhelming agreement among the community representatives, the political representatives, and officials and workers from the Water Services Informal Settlements and Health Departments, that local community-based caretakers are best suited for the day-to-day operational activities for the Khayelitsha Ablution facilities.

Participants from both workshops identified a comprehensive list of tasks for the operation and maintenance of the Khayelitsha ablution blocks. Agreement was reached on the type of tasks best suited for locally-based caretakers, recommendations were made on the selection and recruitment of the caretakers, as well as suggestions and comments made on the best approach for the employment of the local caretakers.

Other issues that the focus group raised pertaining to the unbundling of O&M tasks that the Water Services Department need to further investigate include:

- the issuing and supply of materials and equipment, and in particular, investigating the costs of supplying toilet paper and soap;
- access and security to the facilities;

- disposal of night soil; and
- training and skills development for the caretakers.

Monitoring and reporting are key requirements for sustainable service delivery. It was agreed that the caretaker should be responsible for day-to-day monitoring and reporting of incidents. However, it is imperative that the Water Services Informal Settlements Department have adequate M&E systems in place, so that incidents reported are responded to promptly and the quality of the sanitation services provided remains acceptable.

The primary function of the Water Services Informal Settlements Department is to provide sustainable sanitation services and not to create jobs to provide the services. The Water Services Informal Settlements Department need to identify the most cost effective and appropriate model for the delivery of sanitation services to the Khayelitsha Ablution Blocks. A detailed cost analysis for the O&M of the Khayelitsha ablution blocks needs to be undertaken. The cost analysis needs to take into account whether the caretaker function is employed directly through the municipality or by an outside labour-only contract. If the latter is considered, a decision needs to be made as to whether the ablution blocks will be managed separately or as a single contract.

Other factors to take into account include the level of management support provided by the Water Services Informal Settlements Department that is required for each option. Some SMME contractors have limited capacity and resources, which will have an impact on their ability to manage larger contracts. Whatever option is selected, it needs to comply with the City of Cape Town's supply chain management policies and procedures.

The research process brought the Health Department and the Water Services Department together. Although it appears that community health and hygiene awareness responsibility falls under the Health Department, it is imperative that the Water Services Department liaises with the Health Department in creating awareness of the proper use of the toilets, as well as involving the community in monitoring and evaluating the quality of the sanitation services provided.

The PAR approach also served as an opportunity to improve communication channels between the Water Services Informal Settlements Department and the

communitys resident in the informal settlements of Khayelitsha. A recommendation was made that the Water Services Department should continue to engage with the community through the Khayelitsha Development Forum so as to ensure that there is community buy-in and support for the water and sanitation services provided to the Khayelitsha Ablution Blocks.