



water & forestry

Department:
Water Affairs and Forestry
REPUBLIC OF SOUTH AFRICA

Some for all – forever

THE NATIONAL SANITATION BUCKET REPLACEMENT PROGRAMME

Lessons Learnt



Making knowledge work for us!



Lindiwe Hendricks

Since attaining democracy in 1994 and adopting our Constitution in 1996, our Government has an obligation to ensure that we promote and fulfill the rights of our people, importantly that includes the progressive provision of basic services such as water and sanitation.

When the President made the announcement that all buckets in established formal settlements should be removed by December 2007, we saw all spheres of government put in a great deal of extra effort to ensure these buckets were removed and restored the dignity of our people. When we talk about our Government being a caring government, we can see it from the effort that officials at all levels put into this programme to ensure that the target is met. From all spheres of government we have embraced this challenge with the seriousness and zeal it deserves. We have seen the political support and commitment starting from the President through myself as Minister, to the Premiers, MECs of Local Government, Mayors and councillors. We must also recognize the effort put in by the contractors who were working on the construction of new sanitation systems. This programme is a good example of how much we as a nation can achieve if we work together.

I would like to congratulate all those who have been involved in the programme to eradicate the undignified buckets in formal settlements. To get to this point it has been a long and hard road and we faced many challenges along the way. While we celebrate our success we must be reminded of the many challenges that still remain with us, and the many people who are living in informal settlements that will still need to use buckets until they are provided with proper houses that will have adequate sanitation facilities. So while we are saying that we have eradicated buckets in these established settlements, we are aware that there are communities living in informal settlements that are still using this inhumane type of sanitation system. Our job does not end until we can confidently say that all people in this country have access to decent sanitation.

Minister of Water Affairs and Forestry
Ms Lindiwe Hendricks

OVERVIEW

PROJECT AIM

The National Bucket Sanitation Replacement programme was aimed at replacing all the bucket toilets in formal settlements in South Africa that were established before 1994. This national programme started in February 2005 and was aimed at eradicating all these buckets by December 2007.

BACKGROUND, SCOPE AND SUMMARY OF THE PROGRAMME

Eradicating bucket sanitation: A national priority

The programme of eradicating the bucket sanitation system has been a national priority in South Africa due to the affront to human dignity associated with it and the health risks involved. These toilets are insanitary buckets which are collected by the municipality or a contracted service provider on a regular basis.

The leading policy document in the water sector, the 2003 Strategic Framework for Water Services of the Department of Water Affairs and Forestry (DWAF), approved by Cabinet in 2003, states that all South Africans will have access to basic sanitation facilities by 2010.

The target date for removing all the bucket sanitation systems in the formal settlements of South Africa was set for December 2007.

Funding

To ensure that the buckets were eradicated on time and delivery targets were met, National Treasury allocated a total of about R1,8 billion over three financial years (2005/06 to 2007/08). This has been

Background, scope and summary of the programme (*continued*)

one of the largest allocations for any single government infrastructure project in South Africa yet.

Approach

As a key priority for government, the Bucket Eradication Programme received very high-level political and administrative support.

The programme commenced in February 2005, at which time the estimated number of dwellings in formal areas established before 1994 which had bucket sanitation, was estimated to be 252 254.

Eighty Water Service Authorities in seven provinces were involved in this programme. The only two provinces not involved were Limpopo and KwaZulu-Natal, due to the fact that they had already replaced their bucket toilets. Some 350 projects to the final value of approximately R1,8 billion, were undertaken in the remaining seven provinces of South Africa as part of this programme.

An inter-departmental Task Team was established in 2005 to co-ordinate and facilitate acceleration of the programme, in order to meet the target set by Government to have the bucket sanitation system serving dwellings in formal areas replaced by appropriate sanitation systems by the end of 2007. The Department of Water Affairs and Forestry as a water sector leader led the Task Team.

In January 2006 the Department of Water Affairs and Forestry embarked upon a programme of intensive support to accelerate the eradication of buckets. The Department appointed a consortium of private sector firms, the so-called Bucket Eradication Consortium, led by Sigodi Marah Martin, to help manage and implement the programme.

The Government was not prescriptive as to the types of sanitation systems that were to replace the bucket sanitation system. Beneficiary communities and Water Services Authorities (municipalities mandated by the Constitution of the Republic of South Africa to provide water and sanitation services to communities) decided on sanitation systems within the constraints of funds made available. Certain Water Services Authorities also used their own funds to “top-up” the Municipal Infrastructure Grant funding where the grants were inadequate.

A massive national service delivery programme unfolded which was unprecedented in the history of South Africa.

Outcomes

By the end of March 2008, 91% of the target number of bucket toilets was eradicated through this programme. Most of the buckets were replaced by water-borne sanitation systems and some by upgradable Ventilated

Improved Pit (VIP) toilets. The rest of the buckets are in the process of being eradicated at present. Given the massive unprecedented scale of the programme, one can safely say that the effort has been successful.

This represents a major achievement for the people of South Africa. It is an accomplishment to be proud of and which was made possible by a combination of political mobilisation, sector buy-in and hands-on support to municipalities.



The programme of eradicating the bucket sanitation system has been a national priority in South Africa due to the affront to human dignity associated with it and the health risks involved.



Introduction

More than a decade since the historical change to a democratic government in South Africa, some 252 254 households in formal established areas were still using the dehumanising, unhygienic and unacceptable system of toilets which are buckets.

Following President Thabo Mbeki's State of the Nation address in February 2006, the Government undertook to eradicate all bucket toilets in formal areas by December 2007. The Bucket Sanitation Eradication programme, generally known as the Bucket Eradication Programme, was consequently launched. This was arguably the most intensive, comprehensive programme ever undertaken by this government to accelerate the provision of basic sanitation to all citizens of South Africa. A bucket toilet was regarded as eradicated only when it had been replaced by an appropriate level functional alternative sanitation option.

In his 2007 State of the Nation address, the State President was proud to announce that the backlog was almost halved in a period of one year, and by December 2007, 81% of the backlog was eradicated – a formidable achievement and by March 2008, the backlog was reduced by 91%.

Driven by a combination of political will, sector buy-in and professional support to many local authorities, the programme was a major success. Seven provinces were involved, 80 municipalities and more than 350 projects to the value of approximately R1,8 billion were implemented. This called for an approach of “business unusual” – especially at local government level where the accelerated rate of implementation had to be managed by many municipalities.

As a national service delivery programme, valuable lessons were learnt and insights obtained into aspects surrounding national service delivery in South Africa through this programme.



Commencement of the programme

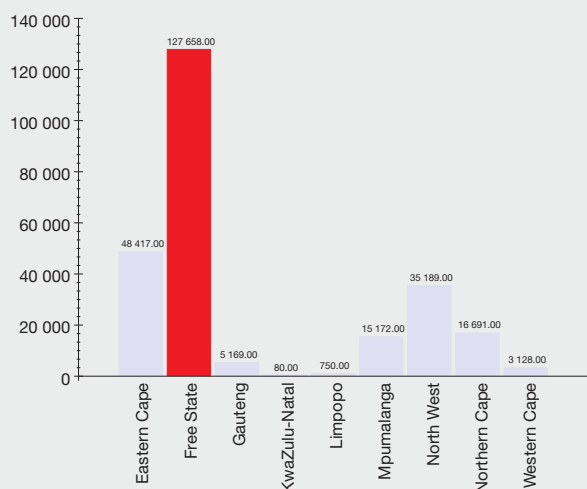


Figure 1: Distribution of buckets per province in February 2005

In February 2005, a total number of 252 254 bucket toilets were being used in formal settlements in South Africa, with most of the buckets in three provinces, namely Free State, Eastern Cape and the North West as indicated in Figure 1.

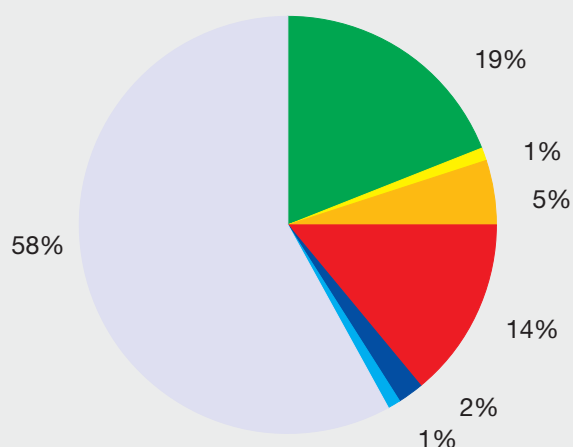


Figure 2: Distribution of the bucket eradication backlog in formal areas in April 2006

Since the Bucket Eradication Programme only covered buckets in formal areas, the distribution of the backlog changed by April 2006, as indicated in Figure 2.

Through the strategic hands-on support and deployment of engineers and technicians at provincial and municipal level, the Department of Water Affairs and Forestry (DWAF) acquired first-hand knowledge and experience of the lessons learnt from the Bucket Eradication Programme.

In response to an announcement by the State President, DWAF, the Department of Provincial and Local Government (DPLG) and the National Treasury were required to collaborate to ensure that this programme succeeded. The support of three departments was necessary as DWAF is the water sector leader, National

Treasury makes the municipal funding allocations and the Department of Provincial and Local Government is responsible for the performance of municipalities.

In view of the widespread capacity challenges experienced by municipalities, DWAF launched an intensive management support programme to ensure that municipalities receive adequate support to accelerate the implementation process in line with the delivery target. A team of 21 engineers supporting the implementation of some 350 projects were deployed to various local municipalities. DWAF arranged this support through the appointment of the Bucket Eradication Consortium.



Cyprian Mazubane

**Director: Sanitation Programme Support
Department of Water Affairs and Forestry**

The bucket sanitation eradication programme is one of the most exciting and challenging programmes that I have managed in my working life. It was exciting because it was accorded the highest political support and priority at all spheres of government namely national, provincial and local government and challenging in the sense that the backlog was huge, timeframes limited, the aspirations of beneficiaries not in line with available resources in some cases as well as hard rock conditions in certain places to name just a few.

Notwithstanding the above challenges, through the co-operation of various departments like Provincial Government, National Treasury and other stakeholders e.g the South African Local Government Association (SALGA) to date about 91% of the bucket toilets have been replaced with adequate sanitation. The programme has definitely changed the quality of lives of beneficiary communities for the better and their dignities have been restored.

The strategy for addressing the challenges

It was not enough just to make funds available for bucket eradication via a national programme.

The Department of Water Affairs and Forestry had to develop a strategy that would ensure that the programme could address the challenges faced by municipalities with regard to the eradication of bucket sanitation.

The bucket eradication strategy in South Africa had four primary elements:

Political support

Ensuring political buy-in at national, provincial and local government levels.

National co-ordination

Ensuring that funding applications move through the required process rapidly by improving co-ordination between the Department of Provincial and Local Government and the Department of Water Affairs and Forestry nationally and that any delays due to policy or funding issues were escalated to the highest political level as a priority.

Support to municipalities

Supporting municipalities through the entire project process from project development to contractor appointment to ensure there were minimal delays and maximum adherence to national policies and guidelines.

Risk mitigation

Providing support to municipalities to mitigate risks involved in the continued sustainability of new sanitation systems which replaced the bucket system.



Political support

The Bucket Eradication Programme received the active support from the highest political levels in South Africa from the State President, Cabinet, Ministers, Members of the Executive Councils in the provinces, through the national and provincial departments down to their officials, councillors and the relevant officials in local government.

As one of many examples, the political support this programme received in the Free State Province with the greatest number of bucket toilets, could be cited. In this province the Premier, Beatrice Marshoff, who is the political head of the province, got behind the achievement of this target.

There was public communication from the Premier's Office about this programme and a high level of accountability was expected from Mayors to the Premier on the performance of their municipalities reaching the targets of the programme. At one point there were weekly meetings where DWAF and the municipalities had to account directly to the Premier about the programme's progress. (The critical role played by the MEC of local government is worth mentioning here)

The programme was also reporting to the Office of the President; so there was very high level political support. However, it was the political support for operational issues close to the ground that ensured that the programme could accelerate in actual delivery.

National co-ordination

National co-ordination was also critical for the success of the Bucket Eradication Programme. This co-ordination was managed through the following mechanisms and initiatives:

- To co-ordinate their efforts, a National Task Team comprising the three key Government Departments involved (DWAF, DPLG and Treasury) was formed to attend to high level financial, technical and managerial challenges of the programme as it progressed. This Task Team would also handle matters escalated from the province-based offices of DWAF.
- National Treasury ring-fenced the programme budget to ensure that it went towards bucket eradication projects only. If there was insufficient funding available, the regional offices of DWAF prepared and submitted motivations together with the DWAF National Sanitation Unit to Treasury for additional funds.
- There was a Manager at Head Office in DWAF dedicated to the programme and ensuring that it was on track and progressing as required.
- A detailed monthly reporting system was established which was developed from project up to national level. This system was able to track progress by project, municipality and province and to provide the national picture.



MJ Mafereka – MEC Local Government and Housing (Free State)

In the Strategic Framework for Water Services a target has been set that all South Africans should have access to basic sanitation facilities by 2010. An additional target has been set to eradicate all bucket systems by 2007, as these systems pose specific risks to human health and the environment. The Free State has the bulk of the bucket backlog in the country and thus is under tremendous pressure to address this need.

As Provincial Government we are committed towards achieving an equitable, accessible, and thriving Free State for all our people, to address their needs and to improve their quality of life. To act on this commitment we have formulated strategies and actions in the Free State Growth and Development Plan including the development of social infrastructure which makes specific provision for the eradication of bucket sanitation systems.

The programme was managed at DWAF Head Office within the National Sanitation Programme Unit, which is headed by the Chief Director Thami Mpotulo. It was through her programme implementation and management experience that key stakeholders from national to local government were able to work in an integrated manner and achieve the set targets. Thami tirelessly visited most municipalities in the country to unlock bottlenecks. She had a lot of passion for the programme and she knew all the municipalities that were faced with the bucket sanitation challenge.



T Mpotulo – Chief Director: National Sanitation Programme

She therefore could easily work with them to identify the intervention measures. Through her commitment and strong leadership, the programme has been a success.

Support to municipalities

From the start of the project, it was clear that if delivery continued at the pace of the previous 12 years of democracy, the programme target would never be met. It was therefore a priority to unblock whatever was holding back or slowing down the implementation of bucket eradication projects.

In support of this element of the strategy, engineers and engineering technicians were seconded to municipalities with the following mandate:

Their first task was to understand the status of all bucket eradication projects in the municipality where they were deployed. This involved identifying the location of every project which was in the project cycle and ascertaining exactly what, if anything, was halting or slowing down their progress.

Their next task was to provide support to municipalities and apply pressure to accelerate these projects. This involved developing a good working

relationship with municipal officials, providing technical assistance where required and even doing some design or administrative work to get the bottlenecks “unblocked”.

If every reasonable measure had been applied and there was still no progress, then the matter was rapidly escalated to the National Sanitation Unit at DWAF’s Head Office. If the Sanitation Unit was unable to resolve the matter, it was escalated to the Director General and the Minister for action. This direct path of escalation was critical to the success of this project.

Once any blockages in the project cycle had been unblocked, the employees had to monitor project progress in terms of an agreed timeline in order to ensure that the projects remained on track until they were commissioned. The steps followed for the projects of the Bucket Eradication Programme, and also for unblocking them if necessary, are shown in Figure 3.

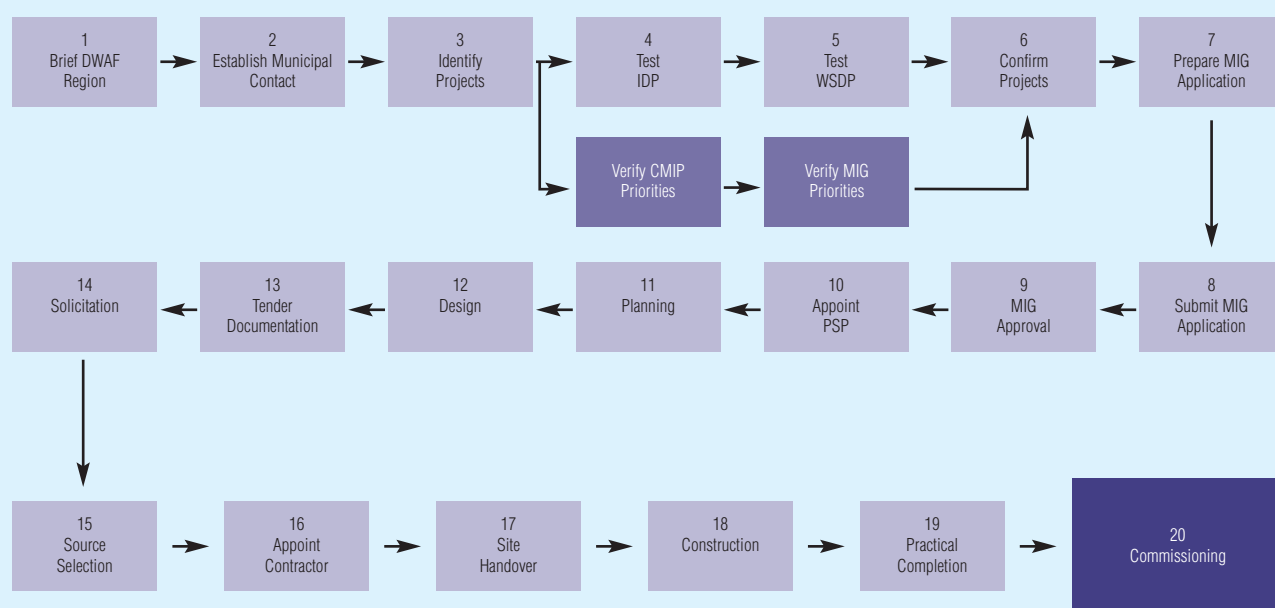


Figure 3: The steps followed for bucket eradication projects

Risk mitigation

In some instances, the municipalities had to be supported through training and consultation on how to mitigate risks associated with higher level of sanitation systems which replaced the old bucket toilets. For example, in cases where new waterborne systems had been introduced, this included ensuring that municipal

staff members were trained for new treatment plants and that the operation of these plants will be successfully sustained in future. The whole strategy around risk mitigation was therefore aimed at mitigating risks involved in the continued sustainability of new sanitation systems.

Key elements of support

- **Inter-departmental Task Team**
- **Structure and operation of Project Support Team**
- **Nature of hands-on technical support to municipalities**

In addition, an inter-departmental Task Team was established to co-ordinate and facilitate acceleration of the programme, to lobby for additional funding and to prioritise actions at provincial level. On the whole, this approach was successful because the Task Team was able to:

- work closely with Cabinet as well as with Ministers of the relevant national departments and Members of the Executive Councils (MECs) of the various provinces;
- co-ordinate actions among the various national and provincial departments involved in the programme, particularly with the Department of Provincial and Local Government;
- liaise closely with the National Treasury to accelerate the approval and release of funds;
- provide support to DWAF's regional offices and the provincial offices of other departments as well as to provincial sanitation managers;
- provide technical assistance to Water Services Authorities; and
- institute a regular reporting procedure and prepare reports for various provincial, national and political forums.

Furthermore, a Project Team was appointed to provide adequate support to the seven provinces involved. This team was divided into three clusters, each cluster comprising a team of professional engineers and engineering technicians reporting to a cluster manager. The cluster managers liaised with their respective provincial departmental officials, Water Services Authority officials and consortium team members on a regular basis. They reported on progress and challenges and prepared progress reports on a regular basis.

Cluster meetings, to which DWAF representatives were also invited, were held in the respective provinces to discuss developments, progress, challenges and action plans pertaining to the projects in the cluster. This arrangement worked well to ensure an even division of work and regularity of reporting. A possible improvement would be for cluster managers to meet on a quarterly basis to share experiences and collectively strategise on action plans, as well as to ensure consistency of

approach in all regions. It might also have been useful for cluster managers to meet with the DWAF Project Manager on a quarterly basis in order to obtain more detailed responses from DWAF to problems or developments in each region.

Policy issues, contractual matters and project oversight were dealt with through regular meetings of the Policy Committee, comprising principals from the three member companies of the Bucket Eradication Consortium. These meetings were also used to inform member companies of new developments or concerns that required a collective response from the consortium.

Two workshops which were conducted during 2006, had a major impact on overall direction and alignment of efforts between the Department of Water Affairs and Forestry and the Project Team. The first workshop in May 2006 dealt in great detail with the backlog and definition of buckets, to the extent that it led to the launching of an extensive verification exercise in all municipalities through which all bucket toilets that qualified for eradication, were physically counted.

The second workshop in October 2006 centred around progress, funding allocations and adjustments such as the R200 million allocation to the Nelson Mandela Metropolitan Municipality in Port Elizabeth. This workshop was extremely useful with regard to collective thinking and strategising around solutions to meet targets.

The project approval process was largely completed early in 2007. Notice of the approval of funds took longer to reach municipalities than was anticipated. The result was that those projects that were affected, started with implementation only in the third quarter of 2007, leaving very little time for the bucket sanitation systems to be replaced before the end of the year. Where communities insisted on waterborne sanitation without adequate supporting infrastructure in their areas, there was not enough time left to complete the projects before the end of 2007, despite the concerted efforts by all parties concerned.

Perhaps the most significant contribution of the programme was the impact of the hands-on support given to municipalities to implement their bucket

eradication projects. Technicians were deployed to priority municipalities based on their backlogs, lack of technical capacity and other challenges. The building of working relationships with municipal technical staff was critical to the successful unblocking of challenges and the overall acceleration of programme implementation.

During the process outlined above, it became clear that in the case of many projects, the critical issues were water resources, the availability of bulk infrastructure and the installation of water and sewerage networks to accommodate the additional loads placed on existing waterborne sanitation systems due to the replacement of the bucket toilets.

In those instances where the bulk infrastructure was lacking, the communities were encouraged to adopt dry sanitation systems. Where the communities were unwilling to do so, the replacement of the bucket toilets took longer than initially envisaged due to inadequacies in the existing infrastructure. In such cases, there was inadequate time to complete the work by the end of 2007, in spite of municipal officials, consulting engineers and contractors working well into the Christmas recess. The position was compounded by factors such as greater quantities of rock occurring on certain projects than had been anticipated at the time the projects were designed and shortages of some types of material as a result of the current building boom.



Khwathelani Phanuel Bologo

Senior Manager – Infrastructure and Development Finance
Department of Provincial and Local Government

The bucket eradication programme was one of the most successful infrastructure programmes from which several lessons can be drawn.

It was crucial to create a platform where all stakeholders (the dplg – national and provincial, Department of Water Affairs and Forestry (DWAF), municipalities and support teams) interact to address the challenges related to the programme. It was crucial that DWAF verify backlog figures in each community, to be translated into projects for implementation.

DWAF provided guidelines on definition of the backlog and level of service to be provided; municipalities that did not follow these guidelines had difficulty removing their backlogs. Communities should also be consulted to avoid delays due to rejection of the level of service being provided.

A communication strategy must be formulated to anticipate possible challenges that may arise with communities, and to address buy-in of timeframes and levels of service. It must guide politicians on promises they make to communities, highlighting restrictions that municipalities may face regarding funding

constraints and to ensure buy-in to services that can realistically be funded.

The programme did not allow municipalities sufficient time for proper project planning, which resulted in delays due to challenges such as tender prices higher than approved project budgets, budget revisions due to unforeseen geotechnical conditions, etc.

Municipalities have learnt that contracts must impose penalties for unnecessary delays, terminate contracts due to poor progress, etc. Building material suppliers also cashed in when they were the only suppliers in the area. Many contractors also did not adhere to the Health and Hygiene regulations on projects.

Municipalities followed lengthy supply chain management processes which dragged out projects unnecessarily. Shortening procurement processes can accelerate project implementation.

Funding shortfalls faced by municipalities must be motivated early. Motivations were submitted very close to the target date making it difficult when there is no access to alternative funding.

Best practices of multi-sector involvement

Some of the methods adopted by national government, the provinces and local authorities with regard to this programme, could be viewed as best practices. The best practices pertaining to the roles of the participants and the procedures followed.



Roles of participants

- The programme had the strong political support from the highest level, including from the State President and Cabinet.
- The political imperatives were strongly driven from the State President's Office and Cabinet to the provincial and local political structures.
- Cabinet Ministers, MECs and Executive Mayors and Municipal Managers played active roles in the programme.
- The programme had a team of professionals within DWAF dedicated virtually exclusively to the programme.
- The "buy-in" by DWAF's regional managers and the officials of the Department of Provincial and Local Government was an essential ingredient of the success of the programme. Their active involvement in and leadership of the programme were key to fast tracking the process and in developing a good relationship with the Bucket Eradication Consortium as well as with other stakeholders.
- Emphasis was placed on the Professional Service Providers supporting the Water Services Authorities that had inadequate technical capacity. This was done by providing experienced practitioners who could assist the Water Services Authorities. At times, human resources from DWAF and other technical assistance agencies were also deployed to provide technical assistance/management support to Water Services Authorities.
- The presence of officials from DWAF's National office at Cluster Meetings provided additional direction to the programme.

Procedures

- DWAF's regional offices communicated on behalf of the provinces and later spoke with a united voice with the Provincial Departments of Local Government. This resulted in a good working relationship between the DWAF regions and the provincial Departments of Local Government which brought focus to the programme.
- Provincial Sanitation Steering Committees created a special forum dealing with the programme. Representatives of stakeholders reported on progress and attended to matters of concern during the forum meetings.
- Projects were broken down into packages to suit the capacities of the Professional Service Providers and contractors appointed for the projects.
- Certain Water Services Authorities allocated additional work to contractors if they had performed well or when they had increased their resources/skills significantly.
- Additional financial resources were made available to some municipalities by respective provincial Treasuries to augment national allocations.

Reporting and communication

It was recognised right from the start that the Bucket Eradication Programme would be more successful if it was well understood by all role players in the water and sanitation services sectors.

These role players included:

- 1 Provincial politicians responsible for local government and housing
- 2 Politicians responsible for health
- 3 Mayors and councillors in the relevant municipalities
- 4 Bulk water providers (Water Boards)
- 5 Municipal water services managers
- 6 Staff involved in other support programmes
- 7 Non-governmental and civil society organisations



Existing structures were used to communicate the roles and responsibilities of these various role players in the programme. This process was led by the provincial offices of DWAF.

In each province the following processes were undertaken:

- 1 The establishment of a programme for communicating and engaging with stakeholders to define their roles in the programme. This included attending co-ordination meetings and having bilaterals with the stakeholders.
- 2 Regular communication and feedback to stakeholders on progress and areas where their assistance/participation was required.
- 3 The escalation of bottlenecks which could not be resolved at a provincial level to higher political levels.

Reporting on project progress, challenges and interventions changed in format and content as the programme proceeded. In general, the initial versions were very generic, consisting of summaries of the main issues per province. More detail was included per project as from August 2006 onwards, starting with an A4 table per municipality, eventually developing into A3 spreadsheets covering each project in considerable

detail. This system worked very well and was easily adapted to report on issues that were peculiar to a particular project or municipality.

Reporting on programme and project related issues was also done on numerous occasions for various political, departmental and inter-departmental forums, including the following:

- Cabinet Lekgotla
- The Portfolio Committee on Water Affairs and Forestry
- The Social Cluster
- The Bucket Eradication National Task Team
- DWAF's Management Committee
- National Treasury

At times, reporting was problematic due to various bodies/individuals reporting on the progress and/or bucket sanitation system replacement initiatives of the same project, but supplying different information. The differences were often due to disparate information sought by stakeholders, the multiplicity of purposes for which the reports were used and the wrong interpretation of definitions as far as the bucket toilets were concerned.

Outcomes of the programme

By the end of December 2007, more than 204 000 bucket toilets out of a February 2005 total of 252 254 had been replaced with better sanitation systems, mainly waterborne sewage. A total of 81% of the initial quantity of bucket toilets in South Africa had therefore been replaced at that stage.

The rate of eradication of bucket toilets through the Bucket Eradication Programme is shown in Figure 4.

By the end of March 2008, close to 229 320 bucket toilets were replaced, representing 91% of the original quantity of 252 254 buckets in South Africa.

The remaining 9% of buckets are being replaced at present. Reasons for the deviation from the original target date, were unexpected challenges such as extensive rock excavations requiring specialist blasting procedures, community rejection of dry sanitation options in areas of low water supply requiring extensive new bulk water supply schemes and construction delays due to adverse weather conditions and a shortage of some materials.

For a vast national programme of this kind, the statement can however be made that the programme was successful and yielded the expected results. This major achievement was made possible by a combination of political mobilisation, sector buy-in and hands-on support at local government level – a combination which was driven by the strategy to implement the programme.

However, the unprecedented pace of the Bucket Eradication Programme had a profound impact on key role players, especially local municipalities, many of whom were not accustomed to such an accelerated rate of implementation. In all, more than 350 projects to the value of approximately R1,8 billion were implemented in 80 municipalities over a period of three years. It comes as no surprise then, that many of the challenges that were addressed during this period, provided valuable lessons and insights into issues surrounding a national service delivery programme such as the Bucket Eradication Programme.

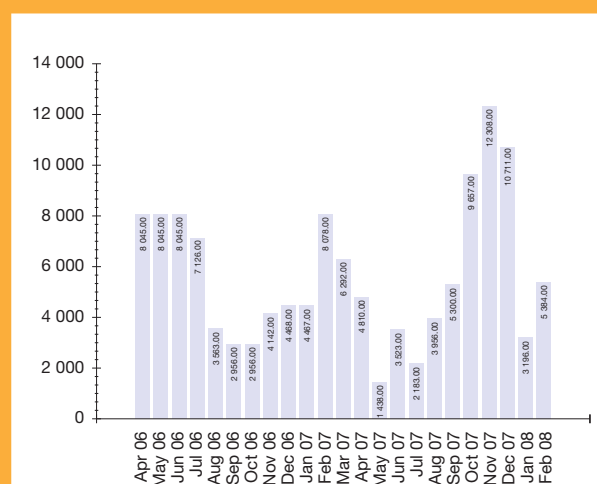


Figure 4: Rate of eradication of bucket toilets through the Bucket Eradication Programme

Achievements of the programme



In numerical terms, the February 2005 backlog of 252 254 buckets was reduced by 81% at the end of December 2007, and by 91% at the end of March 2008. At present, virtually all buckets in formal areas have been eradicated.

When a programme like this one sets out to eradicate a large backlog in service delivery on a national scale, there is a tendency to measure its achievement by a numerical countdown of the backlog from the start to the end of the programme. The Bucket Eradication Programme achieved much more than eradicating a backlog; it brought about successful co-ordination between government departments towards a common goal, it invested skills and technical capacity in 80 municipalities, it streamlined project approval and procurement processes and it boosted local economies and employment provision to a large number of local contractors on an unprecedented scale.

Among the programme's further notable achievements are the following:

- Municipalities were supported to ring-fence and prioritise Municipal Infrastructure Grant (MIG) funding for bucket eradication projects in order to meet targets.
- The necessary technical capacity was provided at municipal level to give impetus and overall guidance to the implementation of the programme by identifying and addressing challenges and bottlenecks, filling in resource gaps at various stages of implementation and building capacity within technical departments of municipalities.

- A “business unusual” attitude was fostered among many municipalities by supporting them to spend, in many cases, at more than double their average expenditure on a sustained basis.
- Shortfalls were estimated early through the rapid development of business plans thereby providing the opportunity to lobby for additional funding timeously where required.

Perhaps the most significant overall achievement was the collective effort of key players in the sector towards a common goal. Government, private sector and local communities marshalled their resources and strengths in a collective way to ensure that what seemed like a daunting challenge, actually came to fruition. National Government brought large scale funding to the programme necessary to improve the quality of life of its citizens and created a platform for a collaborative approach. Provincial Government brought forward their growth and development plans, and provided political support. Local government enhanced their participation and adapted their systems to cope with accelerated delivery. And last, but not least, local communities invested local knowledge, labour and skills towards the implementation of this formidable programme.



Bucket systems (before)

Waterborne toilets (after)

Mrs Sekhute

Mantsopa Local Municipality

Mantsopa Local Municipality implemented several bucket eradication projects in order to replace bucket toilets with safe and hygienic sanitation facilities. The Municipality has since managed to eradicate buckets in two of their towns, Ladybrand and Excelsior, and replaced them with proper and acceptable sanitation facilities shown above.

One of the residents of Excelsior, Mrs Sekhute (pictured above) who lives in House No.651 in Mahlatswetsa, said: "I am grateful and very happy to be given proper sanitation, which is better than the bucket. Sewerage can be flushed away, it is easy to keep the toilet clean, we don't have to wait for them to empty the buckets, and we don't have to worry about the toilets being full anymore."

Positive aspects of the programme

Several strong and positive aspects relating to the programme itself and the manner in which it was undertaken and managed, are the following:

Funding

- A central source of funding facilitated the acquisition and reallocation of funds from less urgent projects while permitting the funds to be augmented from the Water Services Authorities' own funds and other sources. The programme provided impetus to additional funding being made available.
- The Water Services Authorities' own and external funds could be used for project and bridging finance as the need arose.

Programme procedures

- DWAF made the services of the Bucket Eradication Consortium available to the Water Services Authorities to prepare business plans, technical reports and funding applications. As a result, the need for Water Services Authorities to procure the services of Professional Service Providers separately, was obviated (with considerable saving in time and management/administrative effort).
- The people dedicated to preparing the plans, reports and funding applications became proficient at the task and extensive use was made of proforma documentation, which reduced the cost and time for the preparation of the documents.
- DWAF, with the support of the Bucket Eradication Consortium, assisted in monitoring the process of the approval of the documents and in accelerating the approval process.
- Technical assistance was available through the Bucket Eradication Consortium to review the sanitation replacement options selected by the Water Services Authorities, as well as to assist the relevant national departments to approve technical reports and business plans.
- There was a structured method through which the approval of business plans, technical reports and funding applications was handled.
- The verification of the number of buckets still in use or replaced, provided a sound basis for the scope of work and for the identification and monitoring of the projects. A pro forma was developed for this verification process.

The progress reports produced by the Bucket Eradication Consortium on behalf of DWAF became the official reports used by the inter-departmental Task Team

- Support provided by DWAF fulfilled the following important functions:
 - it assisted those Water Services Authorities with limited capacity to procure Professional Service Providers for projects, or assisted in persuading the authorities to appoint service providers for projects;
 - it was available to provide Professional Service Provider services for projects where the Water Services Authorities requested such services;
 - it assisted the in-house staff of Water Services Authorities with design work and construction project management where the authorities did not appoint Professional Service Providers for the projects;
 - it provided full-time support to certain Water Services Authorities to manage their portion of the programme, to monitor progress and to undertake other duties.
- Various sizes of contracts were adopted ranging from a limited number of toilet top-structures for small, inexperienced contractors to large water and sanitation infrastructure contracts for well established and experienced contractors.
- The DWAF Regional offices established reporting structures within the regions.
- The Bucket Eradication Consortium's regular and frequent reports from the regions formed the basis of the reports for DWAF's National Office and for national stakeholders, via DWAF's National Office.
- Numerous Professional Service Providers such as Consulting Engineers and Project Managers were utilised in the programme. Many contractors were also utilised, thereby dividing the work and utilising local contractors.
- Additional resources were made available to the programme by technical assistance bodies such as the European Union, the South African Institution of Civil Engineers, the Development Bank of Southern Africa and the South African Association of Consulting Engineers. These resources assisted with the implementation of the programme.

Relationships and communication

- The inter-departmental Task Team was able to call upon political interventions to address politically sensitive issues as well as to expedite the process of securing funds from the National Treasury.
- When the need arose, interventions were introduced from the most appropriate of the three spheres of government.
- The various Government departments worked well together in the inter-departmental Task Team which was able to address issues and to expedite action.
- The various departments of the provinces and regional offices of DWAF worked well together in the sanitation co-ordination committees. These committees were able to address issues and to expedite action.
- Members of DWAF's team visited the regions periodically to familiarise themselves with matters in the regions, to encourage stakeholders and to verify information that had been received.

Reduced delays and the consequences

- Management support team members actively endeavoured to reduce delays to the minimum and took corrective measures when delays occurred.
- There was excellent co-operation between departments exercising political pressure/ interventions to limit delays as far as possible.

Community issues

- Certain communities agreed to accept a lower level of service than waterborne sanitation, on receiving undertakings by the Water Services Authorities, the Department of Provincial and Local Government and DWAF that waterborne sanitation systems will be provided within three years. This expedited the programme considerably.

Positive interventions

- DWAF assisted the Water Services Authorities to prepare a large number of technical reports in order to enable projects to be entered into the project and finance cycle as required by the Municipal Infrastructure Grant programme and in order to access funds from the National Treasury.
- The hands-on technical support was provided to those municipalities that requested the support services.

Technical assistance was not restricted to Water Services Authorities, nor only to activities that fell strictly within the programme.

- Provincial Sanitation Steering Committees played a key role in co-ordinating the activities of stakeholders engaged in various aspects of sanitation improvement, including the removal of the bucket sanitation system, of which the programme formed a part. The strengthening of national and provincial management provided by the programme, contributed to provincial sanitation co-ordination and to the overall intervention to improve sanitation in South Africa.
- In certain instances, the technical assistance provided to the Water Services Authorities by DWAF through the Bucket Eradication Consortium, improved service delivery beyond the interventions required from this programme.

A particular example is Sol Plaatje Local Municipality where technical assistance and mentoring was provided for a broad range of services such as technical support for municipal infrastructure in general, IT support and project management. The City Engineer's Department was strengthened for the major part of the duration of the programme.

- Where it made technical, managerial and financial sense to include the replacement of sanitation systems other than the bucket system, through the infrastructure provided by the programme, the sanitation of some other households was also improved by this programme.

Programme management

- DWAF's team was committed to the management of the programme.
- The capacities of Water Services Authorities were enhanced with the minimum of administrative and managerial input from the authorities in cases where they took advantage of DWAF's offer to supply resources to them through this programme.



Moqhaka Local Municipality

Municipal Manager

“We are very pleased to provide services for the people that we serve, however, we as the municipality face many challenges both technical and financial constraints impacting on the successful eradication of buckets. For example, we first need to provide provision bulk infrastructure before the buckets can be 100% eradicated. During the process of converting the VIPs into waterborne toilets, we were faced with major delays caused by extensive rock in the area that has to be excavated. We provided communal toilets in the meantime, as community members have no other form of toilets, while the conversion is taking place. I am aware that members are unhappy about the situation, but it is only a temporary measure until the work is done.”



Henk Coetzer
Ngwathe Technical Manager

Ngwathe Local Municipality

- The project has brought back dignity to the community.
- Underground water contamination due to unlined pit latrines has reduced drastically.
- Buckets were a health hazard to the entire community which resulted in a lot of diseases.
- Due to increased effluent, the municipal treatment works and existing sewer system are under great pressure.
- The project has created ± 500 temporary jobs for the Tumahule Bucket Eradication Project.

Lessons learnt

- It is vital to help emerging contractors.
- Maintain transparency and continuous communication between all stakeholders.
- The importance of accelerated expenditure of MIG funds.



David Santata Rathebe – Unemployed

Stand No: 8647 Mandela Section, Tumahule

“I am very happy to have a waterborne toilet as the bucket was unhealthy and caused bad odours. I can’t afford to buy toilet paper and chemicals to clean the toilet every month because I am not working. I am now in peace when I go to the toilet as the structure is well built unlike the one I used before.”

Challenges to be addressed

DWAF has numerous programmes dedicated to local government support which should ensure that risks associated with accelerated delivery are mitigated.



Water resource constraints

When engaging in a national programme like this one, water resource constraints may be overlooked and available water resources may be insufficient. Preliminary calculations indicate that there may be a problem with sufficient water resources in certain parts of South Africa if all buckets (also in the informal areas) were to be replaced with waterborne sanitation.

Lack of capacity

There is insufficient municipal capacity to handle the additional infrastructure. In this case, capacity refers to treatment capacity, financial capacity and staffing or human resource capacity. If infrastructure, finances or staff levels are inadequate, there is a very real danger of the following:

- Overloaded treatment works resulting in possible contamination of water sources which carries potential risk to human health and the environment.
- A lack of operation and maintenance capacity due to inadequate finances available to maintain treatment works and sufficient staffing levels. This

also results in the decay of infrastructure and the further risk of contamination of water sources.

- A lack of adequate human resources or insufficiently qualified human resources which may result in the inadequate operation of treatment works and again in risks of contamination of water sources.

Making appropriate choices

It is critical to ensure that appropriate and affordable sanitation options are offered to community members and that the most appropriate technology is implemented when bucket toilets are replaced.

Support to municipalities

With such a national programme as the Bucket Eradication Programme, it is important that the regional offices of DWAF support municipalities with their water services management functions. This support should be based on the Joint National Water Sector Support Strategy and a five yearly Local Government Strategic Agenda which clearly directs DWAF towards supporting the capacity development of local government.

Unit cost for bucket eradication projects

The primary source of funding for the national bucket eradication programme was the Municipal Infrastructure Grant (MIG), which is a fund aimed at supporting municipalities to expand the delivery of basic services to poor households and to alleviate poverty. MIG funds are determined by a formula and paid into the bank account of the municipality according to a MIG schedule. With respect to the bucket eradication programme, buckets were to be replaced with waterborne, low flush, septic tank systems or VIPs if water is not available. This was funded from the MIG bucket eradication fund. The allocation from MIG ranged from a unit cost of R4 000 to R9 000 (per household), taking into account the need for a sewage treatment plant to be constructed or refurbished. Municipalities with bigger backlogs got more funding than those with smaller backlogs.

A challenge that arose with respect to the MIG allocations was around the issue of unit costs. For budgeting purposes, bucket funds are allocated by national government over a three year (Medium Term Expenditure Framework) period, based on the best estimate of the backlogs at the time, and the guideline unit costs for basic level of service. The MIG unit cost of between R4 000 and R9 000 was, in many instances, insufficient as a result of one or more conditions, including:

- Extensive excavation in hard rock, resulting in higher construction costs.
- Impact of inflation (e.g. higher costs of material).

- High tender prices submitted by contractors due to particular local circumstances.
- Basic level of service rejected by beneficiary communities in favour of a higher (and more expensive) level of service.
- Special provisions in areas where water supply is inadequate, but where communities insist on waterborne sanitation.

The following figures obtained from all provinces during September 2006 will be used to illustrate the unit cost variation. For 29 bucket eradication projects approved for MIG funding, the average unit cost was R10 828, and for the 11 projects that were awarded in that month, the average unit cost was R14 450. In view of limited access that municipalities generally had to additional funds to cater for the increased costs, presentations had to be made to National Treasury on two occasions for R400 million and R200 million respectively in order to complete bucket eradication projects. This was over and above the R1.2 billion that was originally allocated by Treasury for bucket eradication.

Whilst it is important to have guideline unit costs for planning and budgeting purposes, it is equally important for these costs to be regularly updated, to be sensitive to the most common causes for variations, and to have flexible processes that will enable rapid adjustments in funding allocations where such adjustments are justified.

Looking at the lessons

Where role players such as municipalities have insufficient capacity in the technical field, it is necessary that this capacity be enhanced to enable the role players to fulfill their responsibilities and obligations. An appropriate immediate way in which this can be done, is to appoint full-time or part-time service providers.

1. Institutional lessons

These are lessons emphasising the importance of the roles, responsibilities and functions of key role players such as the three spheres of government as well as the processes and procedures followed when dealing with a national service delivery programme such as the Bucket Eradication Programme.

- Being politically and socially sensitive, this type of programme must have political “buy-in” and be driven by the highest political structures – in this instance by the State President and the Cabinet.
- The programme must be inter-departmental (at national and provincial level) with an appropriate department taking the lead, as was the case with this programme.
- As a national department, DWAF's presence in the regions should not be underestimated in terms of direct impetus to the programme.
- A general commitment to the programme by the Water Services Authorities was key to its success.
- It is not enough to have only a programme; there also needs to be a strategy to ensure that the programme succeeds. In this case, the strategy was – amongst others – to ensure national, provincial and local political support and co-ordination and it worked. Even with significant funding and additional technical human resources available, the programme would not have been successful without this strategy.
- The approval process was shown to be very important

– particularly with respect to resources needed to handle the approvals and to avoid bottlenecks as well as to monitor progress of the approvals and to report back to stakeholders.

- In general, it can be stated that the better the co-ordination, commitment and co-operation between the respective role players is, the more effective the processes and procedures are and the more successful a programme like this one is.

2. Technical lessons

These cover the lessons learnt around all technical issues, including appropriate technology with regard to alternative sanitation options and the technical competency necessary for a programme like this one.

- In most cases, bucket systems had to be replaced by a higher level of sanitation service which demanded additional infrastructure such as water supply schemes, increased waste water treatment capacity, new pipe networks, etc. In many instances, waterborne systems had to be installed in relatively isolated and marginalised areas, which sometimes resulted in selecting the most appropriate sanitation option in terms of technical feasibility and speed of construction, but not necessarily in terms of general sustainability.
- In many instances, the use of more appropriate sanitation options than a full waterborne sewage system must be encouraged. Emphasis should be placed on water and sanitation information and education, followed by monitoring and supportive measures once new alternative on-site sanitation systems have been commissioned.
- In some instances, waterborne sewage systems gave rise to problems such as inadequate existing water resources, a lack of existing water and sanitation infrastructure, shortcomings in the design and construction of the infrastructure as well as shortages of skills to operate, manage and maintain the water and sewerage infrastructure.
- Standard guidelines, standard design criteria and designs and standard schedules of quantities/materials lists for toilet top-structures would have expedited the programme where Water Services Authorities have limited capacity or where inexperienced service providers or contractors are appointed for projects.

3. Social lessons

These are lessons learnt around the involvement of communities which are supposed to benefit from programmes such as the Bucket Eradication Programme and how this may impact on projects.

- From a social perspective, it was extremely important to obtain the participation of the relevant communities, to prepare them for the programme and to get their input and involvement.
- Political approaches and the creation of expectations at higher levels, had a major impact on the sanitation replacement options selected by the communities. It was not always clear whether the beneficiaries fully understood the impact and consequences of their preferred choices of sanitation system to replace the buckets.
- The fast tracking of the programme did not always permit the sufficient participation of communities in educating them how to use dry sanitation options which replaced the bucket toilets.
- Communities were reluctant to make concessions unless they were confident that undertakings given by the Water Services Authorities, provincial or national departments to enhance the level of their service in future will be honoured.
- For communities to take ownership of their new sanitation systems, the handover of projects and structures to their beneficiaries should be done as soon as possible after they have been completed.

4. Financial lessons

These lessons cover lessons learnt with regard to the implementation of the Municipal Infrastructure Grant (MIG), municipal budgeting, sources of funding and financial procedures which must be followed to implement a national service delivery programme like this one.

In such a programme, stakeholders need to be informed right from the start of financial aspects such as:

- the sources of funding
- the processes and progress of funding applications
- the status of the approval of funds
- the potential overlap between funding sources (e.g. between the Department of Housing and DWAF/MIG)
- the financial monitoring systems and
- the manner in which funding can be transferred from less urgent projects to projects with a higher priority.
- In particular, the application and approval processes must be defined from the outset and mechanisms must be put in place for rapid approval of funds and prompt notification of the availability of funds. The most critical aspect is therefore the approval of funding and the notification of the Water Services Authorities of the availability of these funds.
- The funding application and financial tracking procedures must be streamlined and there must be regular feedback to the implementing agencies.
- Approved funding for construction is central to the



ability of Water Services Authorities to appoint contractors. Without such approvals and the actual receipt of the funds, it was imprudent for the Water Services Authorities to appoint contractors.

- The financial aspects to be monitored and reported on, had to be clearly ring fenced early in the programme and consideration had to be given to the question as to what is really essential and what is not really necessary to monitor.
- Readily available finance from the MIG programme reduced the inclination of Water Services Authorities to search for other innovative financing options.
- Consideration should be given to form a broader financial team, which would include financial representatives of key provincial and municipal stakeholders.

5. Communication lessons

Effective communication was a key requirement of the Bucket Eradication Programme which involved three national departments, covering seven provinces, 80 municipalities and more than 350 projects. Some useful lessons were learnt pertaining to this communication process.

- Perhaps the most important lesson that emerged in the communication field is that a major accelerated programme of this magnitude must be preceded by an equally major communication/awareness campaign informing all South Africans what the programme will entail and who the beneficiaries will be.
- From the outset, the inter-departmental committee had to establish and define the relationships between the stakeholders/ participants in the programme and the manner in which communication was to take place.
- The stakeholders had to be prepared for the programme and particular care had to be taken of the communication aspects, coupled with the speedy resolution of problems as and when they arose.
- The Water Services Authorities had to be informed well in advance of the information that would be required from them for the execution of the programme.
- The various elements of the programme had to be sorted out with the stakeholders and it had to be determined who would undertake which parts of the programme and what the role of the stakeholders would be, as well as which type of information would be required from them.
- In order to reduce uncertainty, regular reporting back to stakeholders had to take place regarding the status of the progress of applications, delays and the progress of the projects.
- It is advisable to have a specific person available in the programme Management Office who can cater for information required by stakeholders and who can address queries whenever they arise.
- Information provided for key decisions had to be thoroughly verified and cross checked with the Professional Service Provider who was responsible for the verification process.



The mayor and the recipient of a bucket eradication toilet celebrating the completion of the project.



The mayor with the proud owner of a new toilet in Tholo Street after officially handing over on 6 July 2007.

Lessons for municipalities

Important lessons have been learnt regarding the municipal functions needed for service delivery in general and the eradication of the bucket sanitation system in particular. The support needed by municipalities in this regard, also gave rise to a number of important lessons learnt.

- The process of verification of backlogs followed by project identification followed by business planning and technical reports followed by funding applications need to be well understood by municipalities to avoid delays or interruptions. It is therefore important that municipalities carefully plan the milestones and deliverables for this process of verification, project identification, business planning, technical report submissions, funding applications and monitoring of the entire process.
- The reporting requirements and different reports must also be carefully planned and structured early in the programme. The aspects to be monitored and reported on, must be clearly ring fenced and careful consideration must be given as to what is really essential information in the reports and what is merely “nice to have”.
- A monitoring protocol must be put in place for a programme like this one and the monitoring team must be sufficiently resourced so as to obtain the best results in an efficient and effective manner.
- Municipalities must take particular care matching contractors to the nature and size of projects to be undertaken and providing incentives for good performance or for increasing skills/resources.
- In order to limit petty theft and vandalism, structures must be handed over to beneficiaries as soon as they have been completed. Provision for such handovers must be made in contract documentation.
- Municipalities often need support with follow up work on sustainability, risk mitigation, water resources planning, waste water treatment and others. It is absolutely critical to ensure that the municipalities continue to deliver these services on a sustainable basis and must therefore be supported in these fields where necessary.

Conclusion

The National Bucket Replacement programme represents a formidable achievement in the resolve of national government to provide basic sanitation to all citizens, thereby making an important contribution to improving people's lives and giving them dignity. The accelerated bucket eradication programme, with its “business unusual” approach, provided numerous valuable lessons in all spheres of government, in communities, and amongst all stakeholders that were involved in some way or other. This document captures some of the key lessons learnt through this

massive exercise that touched the lives of thousands of South Africans – lessons that will undoubtedly inform similar programmes aimed at accelerated delivery of basic services.

While celebrating the successes of the Bucket Eradication Programme, government is acutely aware of the challenges that still lie ahead, such as the eradication of many thousands more buckets still being used in informal settlements around the country.



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