



SALGA
South African Local Government Association

A Strategic Agenda for the development of
a National Sanitation Policy Framework
in South Africa

Concept Paper

September 2008

1. Introduction

This concept paper seeks to highlight some of the challenges faced by municipalities in tackling sanitation improvement, so as to motivate the development of a national policy framework for South Africa. Equally, it draws attention to the impacts on people and the environment where sanitation is inadequate. It suggests that the primarily rural focus of the 2001 White Paper on Basic Household Sanitation offers limited guidance to municipalities in addressing sanitation in other settlement areas. This is complicating the eradication of service backlogs and the provision of sustainable services nationally.

Now that we have moved towards a single capital fund for infrastructure – the Municipal Infrastructure Grant (MIG) – it is imperative that we broaden the scope of the national sanitation policy framework so that it speaks more effectively to the range of challenges which confront municipalities across the diversity of settlements they must service. Municipalities need considerably guidance, and government needs a policy framework which allows for more effective regulation in the national interest.

The paper is divided into five sections:

- Emerging sanitation challenges in the era of municipal service provision
- Why sanitation matters
- What is needed for lasting service and health improvements
- Key areas where policy should be reviewed
- Some preliminary recommendations for a way forward

2. Emerging sanitation challenges in the era of municipal service provision

The White Paper on Basic Household Sanitation (2001) speaks primarily to the challenges of addressing service *backlogs* in low density rural areas, where on-site dry toilets are generally the most suitable technical option. It favours a demand responsive approach, where a direct contribution by each household to the construction of the toilet is taken as a proxy for demand. It draws on international best practice to argue for direct household involvement in planning and implementing sanitation improvements, and emphasizes the importance of health-focused, developmental approaches. This policy is premised on providing households with support around provision of a basic toilet, with user education around operation and maintenance and health and hygiene improvement. From there, households are on their own.

Yet the thrust of water sector policy – notably the 2003 Strategic Framework for Water Services – emphasizes sustainable *servicing* by municipalities, and this the 2001 White Paper does not address. Indeed, the White Paper promotes measures to ensure that households are equipped to maintain and service their toilets themselves. Notwithstanding the content of the 2001 White Paper, in practice we have moved decisively from a household assistance programme to a municipal provision programme. Cabinet has endorsed both, the 2001 White Paper, which is demand responsive, and the principle of free basic services, which is essentially supply driven. The two are not easily reconciled.

If sanitation policy is to speak to, and complement, the Strategic Framework, we need to revisit the Sanitation White Paper. Issues are emerging in the current municipal era which are not addressed by the White Paper, and this policy framework does not speak adequately to the current municipal environment, and cannot easily be aligned with free basic services policies.

At present, two broad approaches to sanitation improvement are being implemented:

- A demand-responsive approach, primarily in rural areas, broadly in line with the 2001 Sanitation White Paper – replete with user education, household involvement and provision of capital funding for mainly VIP toilets; and
- A supply side approach, in urban areas and increasingly elsewhere. Here the focus is on the installation of infrastructure, with little accompanying hygiene promotion or user education. This approach is not guided by a coherent national sanitation policy framework, and, in a growing number of instances, is leading to cost recovery crises, service failures, environmental contamination and a growing risk of disease outbreaks.

Difficulties in reconciling these two approaches, with their disparate conditionalities, is vastly complicating the eradication of service backlogs and the provision of sustainable services. Since we have moved towards a single capital fund for infrastructure – the Municipal Infrastructure Grant – it is increasingly imperative that a coherent national policy framework which speaks to the range of complex challenges confronting municipalities across the diversity of settlements they must service is formulated. Some of these challenges include:

- Pressure from voters to redress profound service backlogs;
- Service pressures accentuated by the social and health impacts of HIV, which make reliable, accessible and affordable water and sanitation services an urgent imperative;
- The rapid growth of informal settlements, which are frequently the most difficult areas to service;
- High unemployment and rising poverty levels, which impact on cost recovery for service provision;
- Rising municipal debt;
- Implementation of free basic services policies;
- Failing toilet, sewage and treatment systems; and
- Faecal contamination of water systems.

The scope of the 2001 sanitation policy does not provide municipalities with adequate guidance to address the unique challenges many face:

- How should hygiene and user education be funded?
- What constitutes a free basic sanitation service in a remote rural area?
- What precisely is the sanitation mandate of a rural Water Services Provider?
- Should households contribute or participate in the construction of their own toilets for free – is a sanitation project a developmental or a welfare intervention? - and is this equitable in relation to urban approaches?

- How can a municipality secure funds for institutional sanitation where other responsible line Departments are unable to address this?
- Will capital funds be made available for household toilets in settlements scheduled for relocation or redevelopment within two or three years, or where health risks outweigh environmental contamination hazards?
- What are the real life cycle costs of different sanitation technologies, and what are the implications of this for how the Equitable Share is calculated, disbursed and targeted?
- Should service upgrades in informal settlements be prioritised over other settlement types, given the extremely high incidence of HIV / AIDS there and the importance of good basic sanitation for those infected with and affected by the virus?
- What degree of service failure warrants an intervention in municipal management in terms of Section 139 of the Constitution?

The lack of a coherent policy framework, with agreed norms and standards, has led to misalignment between the programmes of different national and provincial departments, and offers DWAF little scope to play an effective regulatory role in the national interest.

We need to shift from chasing targets to achieving sustainable service provision, with progress in eradicating toilet backlogs monitored as just one of several performance indicators. If we do not make this shift, we are laying the basis for new backlogs when these new systems fill or fail. National policy must inform and guide this shift.

3. Why sanitation matters

The term 'sanitation' is used here to refer to the safe management of human excreta. For most people, sanitation is first and foremost an issue of personal dignity, privacy and convenience. In a context of historical discrimination and poverty, sound sanitation amenities have become an important index of development and people's quality of life. One unintended consequence of the growing priority assigned to sanitation in service provision is that its health and environmental dimensions are frequently neglected.

3.1 Health considerations

Households with poor sanitation and water services are at risk of contracting infectious diseases. Excreta and wastewater may host a range of infectious microbiological agents such as bacteria, parasites and viruses. Micro-organisms transmitted through faeces can result in bacterial enteric diseases, including a range of diarrhoeas, bacillary dysentery, typhoid fever and cholera. Urine, although generally sterile and harmless, forms part of the transmission cycle for typhoid and paratyphoid fevers, hepatitis A and other diseases. Exposure to urine should not be discounted entirely as a health risk. The risk of becoming infected by pathogens depends on a number of factors, including an individual's state of health. Children, the elderly, the sick or immunocompromised individuals are at particular risk.

Most, but not all, human waste-related pathogens rely on faecal-oral transmission. Toilets are necessary but not sufficient to contain the dispersal of human waste and its associated pathogens. For example, household water used to wash a baby may be contaminated with faeces, and cholera can be spread by hand or where water used to wash soiled clothing returns to a water course. Safe management of household grey water must be included in any sanitation improvement strategy, alongside regular hand-washing, good domestic hygiene, fly reduction and so on. These all have a human behavioural component which mere provision of infrastructure does not address.

Good sanitation supports good health by putting in place barriers to the disease-causing organisms that are spread through poor waste management. At the centre of good sanitation are people and their practices, not just infrastructure. Thus an essential aspect of any sanitation improvement initiative is the provision of simple information to households which strengthens their understanding of the linkages between good sanitation, safe drinking water and sound hygiene. This underlines the importance of integrating infrastructure improvement initiatives with health information, and of aligning and co-ordinating technical and health interventions as highlighted further on in this paper.

3.2 The importance of good sanitation in a context of HIV / AIDS

Good sanitation has particular relevance in a context of high HIV / AIDS prevalence. The health and well-being of those infected with the HI virus are directly affected by the quality of their living environment. Poor sanitation and water services present the risk of exposure to infectious diseases and illnesses to which HIV positive people are particularly susceptible – including diarrhoeas and cholera. Good water and sanitation services reduce a significant area of stress on the ailing immune systems of those with the virus, and can thereby support the maintenance of strong immune functioning; this in turn can extend the period before anti-retroviral treatment becomes necessary, or before people fall prey to a range of opportunistic infections which eventually prove fatal.

For those who have AIDS, and for those who care for them, clean water, accessible and hygienic toilets and effective grey water disposal systems are essential. Where hospital admission is not feasible, the burden of care is shifted to the home. It is essential that basic services ease this burden as much as possible.

3.3 Environmental considerations

Human waste and grey water contains a number of chemical and bacterial agents which are harmful both to people and to ecosystems. Any toilet or sanitation system has the potential to pollute ground or surface water sources, and impact on the health of the soil.

For dry on-site systems, key variables are the height of the water table, the nature of the substrate and the density of the settlement. The issue is not whether there will be any contamination, because some degree of groundwater contamination is likely, however small, and certainly long term. Rather the issue is whether the aquifer is strategically important. This requires a far more complex assessment, and should form part of a national and regional water resource strategy, supported by DWAF. This would, in turn, considerably strengthen the application of the existing Groundwater Protocol, used to assess some environmental impacts of on-site sanitation installations.

Water-borne systems pose a far greater risk of polluting ground and surface water than dry on-site, because of leaking sewers, blockages, spills and malfunctioning treatment works. Ground and surface water quality are often early casualties of a municipality's cost recovery problems. Where municipalities try to limit tariff increases to the minimum to keep them affordable to users, budgets for maintaining, rehabilitating and augmenting sewer and waste treatment infrastructure are often cut. Under-recovery of revenue means less money for monitoring and maintenance, and a greater likelihood of environmental contamination.

3.4 Concluding comments

Sanitation is more complex than most people acknowledge, because of the need to integrate technical, health and environmental dimensions, because of the need to engage individuals, not communities, through household-level user education, and because different technologies have different vulnerabilities and operating requirements. Provision of safe domestic water claims primacy in most services planning, yet failure to consider the close interplay between water and sanitation services can compromise the quality of our drinking water, threaten the health and well-being of our people, undermine infrastructure functioning, jeopardise the financial viability of municipal management and result in polluted groundwater and river systems. Sanitation is more than an adjunct component of a water service, and should inform settlement planning, housing design and broader service provision policies.

4. What is needed for lasting service and health improvements

4.1 Appropriate technical systems

It is helpful to divide South Africa broadly into urban and rural areas, and to remember that the greatest toilet backlogs are in rural areas. But realities on the ground are more complex, and the distinctions between urban, peri-urban and rural settlements are often blurred. It is more useful to distinguish between high and low density settlements, and their spatial position in relation to administrative centres and hubs of economic activity and opportunity. In combination, these factors have important implications for the type of toilet technologies that are suitable, affordable and sustainable in a given settlement area.

Technology choice is also heavily influenced by the carrying capacity of the physical environment. In dense settlements, off-site waste management is the norm, with excreta conveyed by water to waste treatment facilities. Yet there are many densely settled areas where the supply of water, or the reliability of water supplies, cannot support flush toilets. Equally, a settlement might be too far from existing bulk infrastructure to allow for a swift connection into existing infrastructure with treatment capacity; or be too small or remote to make this technically, institutionally or financially feasible; or simply be too poor to fund the operating costs of this type of service without extensive subsidies. Alternatively, the settlement might be scheduled for redevelopment in the near but not immediate future. Some kind of on-site option will then be necessary.

In areas where water-borne sanitation is not feasible for a variety of reasons, dry toilets are often installed as a reluctant compromise, and are frequently regarded as an inferior interim option until 'real' toilets can be installed. The recipients often perceive themselves to have been disadvantaged, and this can lead to profound user dissatisfaction – often accompanied by misuse or even vandalism.

The simplicity of dry on-site systems allows little room for errors in design and construction. The unfortunate reality is that there is abundant evidence of bad dry toilets, as a result of poor construction and limited understanding of the operating requirements of an odourless hygienic dry toilet. Technical training at tertiary level focuses almost exclusively on conventional water-borne systems, and thus engineers and technicians are often poorly equipped to design alternative systems which use less water or require no water at all. When this is compounded by poor construction methods and materials, the result is stinking toilets which give VIP toilets and other systems a bad name. Hence the reservations of many people about dry toilets are warranted and entirely understandable.

Dry toilet systems that vent properly, do not foul and do not smell are readily achievable, and offer a simple, robust, cost-effective and resource-wise solution to the management of human waste. When properly designed and constructed, they provide a highly effective remedy to pressing service backlogs and do not constitute an inferior level of service to a flush toilet. High-level political advocacy is needed to shift perceptions about the acceptability of dry toilets where these are the most appropriate technical option – and tertiary and artisan training institutions need to address this key gap in their curricula as a matter of urgency.

Debates over levels of service have badly skewed thinking around appropriate sanitation technologies. In a dense settlement with plot sizes below 200 square metres, off-site management of waste with water-borne sanitation is frequently the only viable option, and this would be better categorised as the appropriate level of service, rather than a high level of service. Water-borne systems are certainly resource-intensive, requiring water, house connections, sewers, pumping systems, treatment plant capacity, technical and managerial expertise, maintenance capability and complex billing and administrative systems to ensure cost recovery and sustainability - but these issues should not be conflated with simplistic debates around service levels. Equally, a water-borne sanitation system that is vulnerable to failure does not deliver a high level of service. One consequence of the distinction between a basic and high level of sanitation service is that dry systems are stigmatised.

4.2 Life-cycle planning

Every infrastructural development requires a long term sustainability plan which addresses its total life-cycle operating and maintenance requirements. The consequences of not addressing this are explored under section 5.2.

4.3 User involvement

Any sanitation intervention needs to be preceded by a comprehensive programme of information provision which targets both decision-makers and end-users. The intended beneficiaries of a sanitation intervention need to be educated about the operating costs and requirements of different systems, so that they are able to assess their implications and make informed choices appropriate to their needs and circumstances. Bucket eradication programmes in some areas, for example, have run into difficulties where residents have been provided with flush toilets, but are unable to afford toilet paper; newspaper and other materials lead to toilet blockages which are costly to fix. Where the household cannot afford to pay for unblocking, and the municipality is unwilling to do this at no charge, the toilet sits blocked and unusable.

Conversely, where users are engaged actively in assessing their options and making informed decisions, and are given information on how to make their toilets work for them, the result is a lasting improvement in people's quality of life and well-being. Local leaders and politicians have a decisive role to play shaping debate about realistic approaches to sanitation improvement, and should be encouraged to play this role more prominently.

Ward committees are the obvious structure through which to co-ordinate user involvement. User involvement entails considerably more than participation by a select few in a project steering committee. Ward structures need to promote and facilitate local discussion of needs, options and priorities, and ward-level decision-making needs to be informed by active engagement with local residents. In a growing number of projects, a sub-structure of the ward committee functions as the project steering committee, with representatives from each settlement addressed by the project. Municipal community development officers and environmental health workers play an important complementary support and liaison role.

4.4 User education

Sanitation concerns more than infrastructure. Yet all too often sanitation is approached solely from an engineering perspective, with an emphasis on capital investment. Toilets are crucial, as they contain human waste within a closed system. But toilet systems form just one part of a much bigger picture, which should address:

- Safe handling of drinking water;
- Safe disposal of waste water;
- Safe disposal of human faeces and urine;
- Maintaining a hygienic toilet;
- Personal hygiene;
- Food hygiene; and
- Safe disposal of solid waste.

Allied to this is the provision of clear information on household roles and responsibilities for routine and long-term toilet maintenance.

These factors underline the need for close co-ordination with Health personnel. Experience in South Africa and elsewhere demonstrates conclusively that sanitation programmes which focus exclusively on toilet delivery tend to have limited and short-lived benefits. User education is essential for any sanitation installation, regardless of whether it is urban or rural, on-site or off-site, wet or dry. Every programme must promote awareness of the linkages between health, hygiene and sanitation, and provide users with information on how to keep their toilet functioning well. Unless users understand the basic requirements for operating and maintaining a hygienic toilet it is likely to malfunction and – particularly for on-site toilets - provide a powerful disincentive to being used.

Municipal health officials, together with provincial officials working at municipal level, need to be an integral part of planning, implementing and sustaining every sanitation intervention. Many have excellent skills and experience which can strengthen project planning, implementation and monitoring significantly. Projects which proceed without the active involvement of Health personnel are likely to deliver limited lasting benefits.

It is possible to separate out construction from user education, and assign responsibility to different agencies, but this requires strong co-ordination, driven by the municipality, with close working relationships between different role-players, regular meetings and careful synchronization of activities.

5. Key areas where policy should be reviewed

This section reviews seven key areas where the policy framework should be revisited to inform effective and sustainable sanitation servicing. The key themes explored here are:

- Current realities require a more comprehensive policy framework;
- Emphasis on infrastructure delivery, rather than sustainability;
- Questions raised by Free Basic Sanitation proposals;
- Institutional requirements for sustainable on-site sanitation;
- Funding;
- Roles of different government departments; and
- Sectoral training and support.

5.1 Current realities require a more comprehensive policy framework

The RDP programme was conceived at a time when the restructuring of local government was just beginning, and its role in rural service provision had not yet been elaborated. Thus the rural sanitation programme was premised on engaging citizens directly in helping to extend services to meet their needs, through involvement in project management and contributions to the cost and / or construction of a toilet. Long term servicing would be the responsibility of individual households, with an implicit assumption that those involved in toilet construction would have the skills needed to address long-term maintenance and construction of new toilets, as required.

Some years on, municipalities now have primary responsibility for service provision in all settlement areas. Municipalities are struggling with the enormity of the service backlogs they must address, particularly in rural areas. Service provision in rural settlements is frequently more expensive than in dense urban settlements, because of different scale economies and the sheer logistics of managing projects in scattered or dispersed settlements far from the municipality's administrative hub. The realities of rural poverty make cost recovery unlikely in most instances.

The *Strategic Framework on Water Services* (2003) detail the water services responsibilities of municipalities and other role players. This framework is not easily reconciled with the provisions of the 2001 Sanitation White Paper. The National Sanitation Programme assumes that rural households will continue to take full responsibility for long-term maintenance and servicing, while the Strategic Framework implicitly assigns responsibility for servicing in all areas to municipalities. In practice, neither households nor municipalities are adequately equipped to address this at present.

There is no coherent framework that speaks to sustainable sanitation improvement in all areas. The 2001 White Paper does not provide sufficient guidance on what a sanitation *service* should address – as opposed to an intervention to address *backlogs* – and nor does it speak adequately to the challenges presented by dense, low income settlements. Aligning rural programmes conceived in terms of the 2001 White Paper with infrastructure-focussed programmes in other areas is leading to inequities, anomalies and disjunctures.

With MIG projects currently underway, it is imperative that a coherent policy framework is developed to guide capital investment and safeguard long-term sustainability.

5.2 Emphasis on infrastructure delivery, rather than sustainability

Commitment to achieving the national target of eradicating sanitation backlogs by 2010 has led to a widespread emphasis on capital projects, at the cost of adequate consideration of the far more challenging requirements of sustainable operation.

Every infrastructural development requires a long term sustainability plan which addresses its total life-cycle operating and maintenance requirements. MIG project business plans call for information on operating requirements and costs for any capital investment they fund, but there is no expectation that this field should be completed for on-site sanitation projects. There are no requirements for sustainability measures on sanitation programmes or schemes funded by other departments, whether for on-site or water-borne systems.

Water-borne systems have the advantage of centralising waste disposal and treatment, but the requirements for successful operation and maintenance costs can be onerous to municipalities. Water supplies must be adequate and reliable, even in times of acute drought, and must make allowance for augmentation of the reticulation system over time. Treatment works must have sufficient capacity to manage waste loads, if pollution of water sources with poorly treated effluent is to be avoided. Sewers must be maintained and replaced periodically to minimise spills and blockages. All this requires adequate funding, through realistic tariffs, cross-subsidies and supplementary funding from other sources.

Revenue shortfalls lead to cutbacks in essential maintenance and system development, and raise the risk of service failures and their associated health and environmental hazards. Yet far too few municipalities have accurate data on what it really costs them to provide flush sanitation, which takes into account all the costs associated with water provision, sewer maintenance, waste treatment, user education and support, staffing, vehicle maintenance, revenue collection and service extension. The consequences of funding shortfalls are all too evident in the large number of failing waste treatment systems nationally.

Life-cycle planning is just as imperative for on-site systems. In retrospect, constructing VIP toilets in many outer lying settlements has been poorly informed, as planners have often neglected to make provision for the day when those pits would be full. More than a decade later, many of these settlements are now densely built-up areas, with few roads to allow access for desludging equipment, no room on-site for a second pit, and narrow hilly walkways and footpaths providing the only access to many houses. These lessons should increasingly shape municipal thinking and inform the introduction of alternative appropriate technologies.

In rural settlements, VIP toilets are being built with growing momentum. Yet little attention is being given to the long-term requirements of pit servicing. A pit with a volume of three cubic metres should serve a family of six for at least seven years, and potentially far longer. Broadly speaking, there are five ways of dealing with a full pit:

- Seal the full pit and abandon the old toilet; dig a new pit and build a new toilet. This presupposes sufficient space on-site for a second toilet, and raises questions around funding for the new toilet;
- Seal the full pit, dig a new pit and relocate the old top-structure over the new pit. This has implications for the materials used to construct the top structure;
- Empty the pit regularly to prevent a build up of waste. Urine diversion, or desiccating systems, are designed to permit frequent removal and secondary disposal of dry excreta. Double pit VIP toilets allow access for less frequent removal of matured waste;
- Add biological agents to accelerate the breakdown of pit waste and make room for new material; and.
- Empty the pit through manual or mechanical desludging. The simplest way of disposing of the sludge is to dig another pit adjacent to the existing toilet, pump the contents of the full pit into the new pit; seal the new pit, then continue using the existing toilet. However, desludging is expensive, and access for heavy vehicles in dense settlements or remote rural settlements is frequently problematic. Desludging intervals depend on the volume of the pit, and on what else has been put in the pit. This underlines the importance of user education to maximise the length of the pit.

Households are not being given information on what to do when their pits are full, and few municipalities have begun formulating strategies to address this. In areas with difficult ground conditions, small volume pits will start filling even sooner. Already toilets built under the DWAF CWSS programme are beginning to fill. If free basic services are to address pit servicing, comprehensive guidelines will be needed to assist municipalities prepare for this task. Yet the institutional and funding implications of municipal sanitation servicing in rural areas have not yet made their way onto the national policy agenda.

5.3 Questions raised by free basic sanitation proposals

Where a municipality is able to provide a free basic sanitation service, it should. Municipalities will need extensive support in devising policies measures appropriate to their circumstances and the needs of their constituents.

In urban areas, municipal management of services is relatively straightforward where funds and personnel are available. Tariffed services offer scope for cross-subsidies, with additional funding available from the Equitable Share. Yet preliminary financial modelling has indicated that current allocations from the Equitable Share are not remotely adequate to fund free basic sanitation for the 4 million+ poor households who currently have water-borne sanitation. Even if the Equitable Share is increased substantially to meet the cost of free basic services, there is no assurance that this grant to a municipality will necessarily reach its intended beneficiaries – the poorest households – or that sanitation services will be allocated the funding they require. The reality is that many municipalities use the Equitable Share to cover their existing expenditure obligations, and there is a heavy urban bias here.

What precisely will be provided for free in rural settlements? Provision of a toilet does not necessarily constitute a service – and the complexities of providing ongoing support to residents with dry toilets in a myriad of small dispersed settlements should not be underestimated. In many rural settlements, the only way households will continue to enjoy the benefits of improved sanitation after construction of toilets is where they share responsibility for managing their services – attending to simple toilet maintenance, undertaking pit desludging where feasible, relocating or reconstructing toilet structures when pits fill, or disposing of desiccated waste from urine diversion systems.

It is for this reason that the 2001 White Paper places such emphasis on household involvement: so that households are able to make an informed choice about which type of toilet system best meets their needs, so that they accept that toilet type and its operating requirements, and so that they are provided with simple information on how to keep that toilet functioning without external assistance.

In many parts of the country, municipalities will be hard-pressed to address existing backlogs in line with the 2010 / 2014 target. If their responsibilities must also now extend to provide ongoing servicing for on-site sanitation in rural settlements, this will surely divert municipal resources from the primary national objective of providing at least a dry toilet for each household that needs one. The requirements of ongoing servicing of on-site toilets add a dimension that has not been addressed or accommodated in the institutional framework of rural service provision, and for which funding streams do not currently exist.

5.4 Institutional requirements for sustainable on-site sanitation

The long-term requirements for sustainable on-site sanitation servicing need to be made explicit in national policy. In particular, the respective roles of households, ward structures, municipalities, adjunct service providers and provincial authorities must be clarified.

If free basic services are indeed extended to rural settlements with on-site toilets, the role of Water Services Providers will need to be reconsidered. At a practical level, expanded WSP functions will require funding, investment in desludging equipment where desludging is feasible, and provision of training in:

- Desludging;
- Safe management of pit sludge or composting of human waste where appropriate;
- Relocation of top-structures;
- Construction of replacement toilets; and
- Construction of new toilets for households formed after the initial backlog programme.

Municipalities will require a coherent programme of support to address this – perhaps through provincial programme management support units.

A range of WSP mechanisms are feasible here. Where the municipality is unable to attend to servicing on its own, the arrangements most likely to succeed are those which rest on partnerships between municipalities and / or their WSPs, on the one hand, and beneficiary communities on the other. At settlement level, these could be structured through sub-contractual relationships between the WSP and designated local contractors, community-based organisations or sub-structures of a ward committee, with cohesion provided through Service Support Agencies. There is an immense reservoir of goodwill among people living in rural settlements who want better services and are willing to share responsibility for achieving this; another issue is how best to mobilise and organise this, so that skills and support are available when and where they are needed.

These service provider arrangements will need to be properly resourced. Voluntary structures which undertake service provision are no longer tenable in a context of free basic services; conversely, given the extent of rural joblessness, assigning formal responsibility for supporting on-site sanitation servicing to sub-contracted small-scale local service providers offers scope for long-term job creation. For the foreseeable future, this pragmatic approach is likely to offer rural households better prospects for effective servicing than mechanisms which pre-suppose extensive municipal capacity; additional benefits are greater cost effectiveness for the municipality than service arrangements provided from centralised urban hubs.

In many areas, there is no realistic scope for cross-subsidisation of rural servicing out of existing revenue streams. Consequently the Equitable Share will have to be revised to take into account the cost of servicing remote rural settlements. Municipalities should be encouraged to allocate funds and personnel appropriately to support servicing of on-site toilets. Even if the actual work of desludging pits, relocating toilets or constructing toilets is out-sourced, municipalities will still need to retain responsibility for co-ordination and oversight. This has significant personnel and cost implications.

5.5 Funding

In the past, the DWAF capital subsidy for on-site toilets was conceived of as assistance to the household, rather than a full grant. The subsidy is now a household capital grant under the Municipal Infrastructure Grant MIG programme. Under MIG, municipalities do have considerably more discretion over how they allocate capital funds to sanitation projects.

This poses a new and complex question: on what basis should budgetary provision for sanitation improvement be calculated at a national level, if municipalities have discretion over how those funds are deployed locally? If there are no spending ceilings at municipal level, funds earmarked for addressing backlogs annually at national level may well result in far fewer toilets being built than anticipated at macro-planning level.

Similarly, if subsidies for free basic sanitation remove a key financial constraint on installing water borne sanitation systems as the default wherever possible, will municipalities necessarily consider non-financial viability constraints adequately? What policy measures are required to guide wise capital investment?

How best can policy measures ensure that an increased Equitable Share will indeed be used to subsidise basic sanitation services, not merely in urban sewered settlements, but in all areas – informal settlements, dense rural settlements and the range of other settlement types where poor families live?

And is user education around sanitation infrastructure a component of the capital cost, or the operating cost? This has important implications for how funding requirements are calculated at national level, and managed and disbursed at local level.

Finally, policy should consider mainstreaming grey water management as an integral part of sanitation, particularly in dense settlements. One option here is to make funding provision for an on-site soak away wherever an on-site toilet is installed.

5.6 Roles of different government departments

The 2001 Sanitation White Paper spelt out the roles and responsibilities of different national and provincial departments in achieving the objectives of national policy. These roles need to be reviewed in the light of recent developments and practical experience to date. Every department has a role to play in supporting successful achievement of government's sanitation objectives, but the following departments warrant specific comment:

The Department of Water Affairs is the co-ordinator of the national sanitation programme, and plays a major role in funding and supporting sanitation improvement in rural areas. As its role shifts increasingly to support and regulation in all settlement types, its own internal competencies need to be strengthened to address the range of service problems confronting municipalities in dense settlements. Water Quality Management and Geo-hydrological personnel should play an active support role in municipal sanitation forums, and co-ordination between Water Resource Management and Water Services should be strengthened, with sanitation more centrally on the departmental agenda.

National and provincial Departments of Health have a leading role in sanitation-related health and hygiene education, health monitoring and crisis interventions, as well as provision of amenities in clinics and other health installations. The new National Health Act assigns responsibility for most aspects of environmental health to municipalities, and complex transfer arrangements are underway. The sanitation role of Health must now be redefined to address implementation of the revised mandates of Environmental Health and Health Promotion Directorates and municipalities.

National and provincial Departments of Education have responsibility for school sanitation. Schools constitute an essential intervention site in any sanitation improvement programme, because learners spend a large part of their day at school, and because the school curriculum offers a range of opportunities for building understanding of why sanitation matters and how to achieve it. Provincial Education departments now provide water and sanitation infrastructure in every new school, and attend to backlogs through general school refurbishment programmes. But it does not have the resources to provide facilities in the thousands of (mostly rural) schools which are not scheduled for imminent refurbishment. This constitutes a significant hole in current sanitation programming.

A growing number of municipalities are now willing to include schools in community sanitation projects, and DWAF has approved a number of business plans which make provision for this. Municipalities should not be required to take responsibility for addressing school sanitation, but where they are willing and able; provision should be made to address this. However, building school toilets is comparatively straightforward; the real challenge is to achieve sustainable operation and maintenance, as this requires robust school management arrangements and some funding. The respective roles of funders, Education, Public Works and Health departments, construction agencies, school governing bodies, learners, and, where relevant, municipalities, must be clarified. A coherent national school sanitation programme is urgently needed, and institutional and funding arrangements must be resolved as soon as possible.

The national **Department of Provincial and Local Government**, together with its provincial counterparts, play a key role in supporting local government to deliver on its service provision mandate. This covers a wide range of activities, including integrated development planning support, managing disbursement of funds for infrastructure development through MIG, co-ordination of Equitable Share allocations, oversight of capacity building programmes and associating monitoring systems. National and provincial Local Government departments must begin to address the sustainability aspects of sanitation servicing more pro-actively, in line with an expanded national sanitation policy framework.

National Treasury has a pivotal role to play in developing financial policies, norms, standards and guidelines around the use of MIG and Equitable Share funds.

Public Works Department sanitation responsibilities currently include building and servicing school buildings, clinics and other institutions. National norms and specifications are needed to inform design and construction.

The Expanded Public Works Programme has been expanded significantly to support government's job creation and skills development objectives, and sanitation has been identified as a sector where EPWP can play an important role. Sensitivity to the need to align with and conform to municipal sanitation programmes needs to ensure that municipal programmes are not disrupted but enhanced. It is entirely possible to achieve alignment, where the municipality appoints local contractors through its own procurement procedures, with those contractors then employing local residents with EPWP support. But municipalities must retain the leading role.

National and provincial Housing departments play a major role in urban sanitation provision, through providing facilities in new housing developments. Housing agencies frequently have their own norms and standards for sanitation infrastructure which do not necessarily align with municipal servicing capabilities. Far closer co-ordination with municipal technical and health authorities is needed to achieve sustainable servicing, in line with an expanded national sanitation policy framework.

The role of the **National Sanitation Task Team** is to co-ordinate the sanitation interventions of national departments. The NSTT has had some success in promoting alignment nationally around the 2001 Sanitation White Paper, but because the White Paper focuses primarily on sanitation in low density settlements, the NSTT's effectiveness as a co-ordination forum is constrained. A revised policy framework could greatly enhance the functioning of the NSTT.

5.7 Sectoral training and support

The problems identified in this concept paper stem in large part from limited understanding of *what* is needed to achieve sustained improvements to sanitation, and *how* best to achieve it. Training programmes to strengthen implementation of the National Sanitation Programme are being developed, in conjunction with the ESETA, but these fall far short of what is required.

Municipal sanitation personnel need considerably more guidance in translating the 2001 White Paper into practical programming, and in tackling the range of issues not addressed by that policy framework. High level training is needed to equip those shaping municipal sanitation strategies, WSDPs and IDPs, and to guide planning, implementation and servicing across the range of settlement type which municipalities must service. With few exceptions, these issues are not addressed adequately in existing tertiary training institutions.

As an interim measure, consideration should be given to developing short professional courses under the auspices of professional technical bodies such as the South African Institute of Civil Engineers (SAICE).

Training alone will not remedy the problems that exist, as no training programme can anticipate all contingencies. Thus hands-on support from sanitation professionals is needed to strengthen municipal decision-making and programming, through active participation in municipal planning and project management forums. This should not be regarded as the exclusive preserve of engineers.

The MIG Programme Management Units, which offer municipalities a provincial call-down facility to guide decision-making around water, sanitation and potentially other services, will go some way to meeting the support needs of municipalities. Yet PMUs themselves will need to be supported if they are to tackle, usefully and coherently, the practical and strategic difficulties confronting municipalities. This may require the establishment of a national sanitation support entity to support PMUs and their municipal clients – not as a top-down umbrella body, but as a highly mobile resource facility which is attuned to the regionally-specific support needs of municipalities.

Municipalities are grappling with complex challenges, many of them inherited from previous administrations. They face difficulties that are frequently unique to their area.

Many – if not most – would welcome guidance and support in planning how best to address the problems that confront them daily.

6. Some preliminary recommendations for a way forward

This concept paper illustrates some emerging gaps in existing national sanitation policy which should be acknowledged if the service needs of households – particularly poor households – are to be met sustainably.

Any review of sanitation policy must be informed by the perspectives of municipalities and the needs of their constituents. Many municipal representatives maintain that the 2001 Sanitation White Paper was formulated without adequate consultation with municipalities, does not address their needs adequately, and does not acknowledge the role of current municipal institutions.

The emphasis of policy must be to provide municipalities with clear guidelines around what is needed to achieve sustained improvements to sanitation in the current context. Service challenges vary widely from settlement to settlement and region to region. These challenges must be acknowledged, and explored in depth through detailed regional discussions in clustered theme groups, with municipal and other role players. These discussions would lay the basis for identifying and distilling core policy principles that apply to all areas.

Any policy framework revisions must speak to the realities of municipal service provision. The resulting document should be pragmatic, user-friendly, and provide a coherent framework for action, with practical guidance around implementation contained in support tools. This would need to be complimented by extensive hands-on support, with the emphasis on working with municipalities on their turf. Issues that should be addressed by a revised national sanitation policy framework are outlined in **Appendix 1**.

The core challenge is to balance municipalities' desire for maximum flexibility and autonomy, with a framework of clear principles and norms that lay the basis for effective regulation in the national interest. This is no easy matter.

One possible means of achieving this balance is to also strengthen existing municipal capacity around sanitation planning and provision through the introduction of a mandatory Municipal Sanitation Strategic Plan. Issues that should be addressed by this plan are outlined in **Appendix 2**. This plan could be used:

- By municipal constituents to hold municipalities accountable to service commitments;
- By the municipality as a management tool and source document for the Water Services Development Plan and Integrated Development Plan;
- By National Treasury and DPLG as a tool to inform macro budgetary planning, and as a mechanism for monitoring expenditure through the Municipal Infrastructure Grant and Equitable Share;
- By DWAF for monitoring adherence to sectoral policy; and
- By other departments and role-players as required.

Such a strategic municipal plan should not be approached as a top-down bureaucratic procedure which requires compliance to satisfy external agencies. Municipalities are now fully responsible for sanitation servicing in all areas, and must take comprehensive responsibility for long-term planning and provision in ways that address local circumstances, needs and priorities. The development of a coherent and comprehensive municipal sanitation strategy must be driven from within the municipality, and must take into account the constraints and opportunities that exist there. This will take time, with the emphasis on building understanding among municipal role-players around the scope of issues that must be addressed, and strengthening relationships between the different sections of a municipality that contribute to sustainable service provision.

It is imperative that municipal sanitation plans be informed by a pragmatic and user-friendly national policy framework, and supported by a range of support tools which speak to the complexities of specific settlement types.

APPENDIX 1

Proposal: Develop a national Sanitation Policy Framework

The objective and emphasis of developing a national Sanitation Policy should be on providing a clear framework for sanitation management and service delivery within a defined regulatory environment, and should include guidelines around what is needed to achieve sustained improvements to sanitation in the current context and beyond.

It is imperative that the scope of a national Sanitation Policy should speak effectively to a range of challenges which confront government decentralization across a diversity of settlements.

Service challenges vary widely from settlement to settlement and region to region - these rural, peri-urban and urban challenges must be acknowledged, and should be explored in depth in order to lay the basis for identifying and distilling core policy principles that apply to all areas.

Emerging from within the sanitation sector, it is evident that the following broad policy elements are key areas to be further defined and captured during the actual development of a national Sanitation Policy:

- Defining the sanitation challenge within South Africa
- Developing core policy principles
- Outlining various appropriate strategic interventions
- Defining institutional arrangements
- Clarifying available resources – financial and human resources
- Outlining effective monitoring, data capture and evaluation systems in order to ensure policy implementation

The above-mentioned aspects should lay the basis for embarking on the process for the development of a national Sanitation Policy so as to achieve a pragmatic, user-friendly and coherent framework for action which should balance maximum flexibility with clear principles and norms as a basis for effective regulation in the national interest of all South Africans.

Core elements of a national Sanitation Policy

Having analysed various issues generated during numerous local government consultations over the past few months, as well as having assessed the contents of various other international sanitation policy documents, the following key aspects do emerge as strategically important content elements to be captured within a national Sanitation Policy.

It should be noted that the elements listed below are preliminary and could only be finalized during the actual development process of formulating a national Sanitation Policy:

Introduction

- Sanitation within the Global context
- Sanitation within the African context
- Sanitation within South Africa and its links to the Constitution of South Africa
- Sanitation within the existing Legislative context of South Africa

Defining the sanitation challenge in South Africa

- Health Problems
- Social Problems
- Economic Impacts
- Environmental Impacts

Policy Principles (incorporating political linkages)

- Equity Issues
- Human Rights and Responsibilities
- Community Participation
- Environmental Pollution Issues
- Health, Hygiene and User Educational Aspects
- Water Resource Aspects
- Economic and Sustainability Factors

Strategic Interventions (methodologies)

- Health, hygiene and user educational programmes
- Community participation methodologies
- Prioritization mechanisms (vulnerable areas)
- Job creation and poverty alleviation mechanisms
- Local resource utilization methodologies
- Specified approaches toward various levels of service (on and off site, wet and dry)
- Guidelines on upgrading service levels
- Technical options, norms, standards and innovations
- Operations and maintenance implementation plans and strategies
- Waste removal and treatment options and initiatives
- Implementation of "free basic sanitation"
- Approaches to disaster management
- Project implementation plans, formats and approaches
- Strategic framework of targets and time frames (MDGs)
- Approaches on integrated environmental management
- Applicable approaches to waste management (i.e. ecosan and biogas etc)
- Mandatory groundwater protocol assessments
- Clean water supply as an integrated aspect of sanitation programmes
- Special programmes for institutional sanitation (schools, clinics, hospitals, public places & other institutions)
- Greywater (sullage) management approaches (including industrial wastewater)
- Sanitation social marketing and awareness creation programmes
- Rural / peri-urban / urban approaches and biases
- Privately and publically owned land strategies and approaches
- Land tenure strategies and approaches
- Approaches to water recycling
- Integrated development planning
- Regulation of sanitation

Institutional Arrangements (collaboration)

- Linkages to the Constitution of South Africa
- Policy context within the legal framework
- Roles and responsibilities of the various spheres of government (including linkages to the decentralization process)
- The importance of collaborative governance in order to ensure sustainable sanitation
- Roles and responsibilities of the various national government departments in sanitation
- Roles and responsibilities of the private sector
- Roles and responsibilities of NGOs and CBOs
- Clarification of sanitation stakeholder co-ordination mechanisms at national, regional and local levels

Resources – financial and human resources

- Various sources of funding defined
- Grants – government and donors
- Revenue and tariffs (unpacking equities and inequities of pricing and targeting)
- Household contributions
- Subsidies (including key linkages to other programmes)
- Planning framework for use to funds in an integrated way
- Capacity building and training programmes based on identified needs (in line with the various strategic interventions listed above)

Monitoring, evaluation and data capture systems

- Key performance indicators (“hard and soft”)
- Inter-governmental and departmental information and data capture systems
- Crisis reporting methods

Implementation

- Endorsement
- Mobilization
- Action

APPENDIX 2

Proposal: Introduce a mandatory Municipal Strategic Sanitation Plan

Municipal funding requests from the Municipal Infrastructure Grant must reflect objectives identified in the IDP. Yet current IDP and WSDP requirements pay inadequate attention to sustainable sanitation servicing. Within a stipulated period – ideally within a year - every municipality in the country should be required to develop a mandatory Sanitation Strategic Plan, to inform and strengthen WSDP and IDP planning processes, and underpin MIG funding requests. Without this, we run the risk of increasing investment in assets that are not sustainable, which do not meet equity objectives, and which focus primarily on infrastructural targets at the cost of lasting health and service improvements. A far stronger emphasis on integrated planning and sustainable servicing is needed, which links with broader planning, housing, health, community development, LED and institutional development objectives.

To date, business plans have been the primary tool to encourage municipalities to think through the long-term requirements and implications of their investment decisions. With the trend towards brief form-based business plans which do not require detailed information on operating or sustainability requirements, this mechanism falls away. With few conditionalities on grant allocations, on what basis would implementation be regulated? Equally, there is a risk that some municipalities might not consider adequately the long-term operating requirements of the infrastructure they intend to install, and later find themselves burdened by the consequences of poorly-advised investment decisions. Conversely, if municipal capital investment in sanitation is informed by a coherent and comprehensive strategy which takes into account a diversity of needs and challenges, MIG spending on sanitation is likely to be strengthened significantly.

Each municipality needs to identify its own particular challenges, assess its own resources and resource requirements, and plan how best to mobilise these resources to best effect.

A municipal strategic sanitation plan should ideally address:

- The status of current sanitation provision
 - existing infrastructure
 - problems with water shortages, leaking sewers, aging treatment works, filling pits, etc
 - maintenance and service extension challenges
 - quality of effluent discharged into water courses
 - cost recovery
 - and so on.
- Identification of inadequately served areas, notably those with bucket toilets.
- Unserved areas, settlement by settlement – informal settlements, formalising areas, rural villages, farms, schools, etc.
- Quantification of backlogs, settlement by settlement.

- Key environmental challenges – high water table, hard rock, proximity to strategic aquifers etc.
- Coherent planning for development trajectories for different areas, linked to municipal policies on sanitation technologies for different settlement types and areas.
 - For example, does the municipality intend to install water-borne sanitation in every settlement and settlement type, or only within ring-fenced core areas? This has major planning implications – not least for managing the expectations of residents within a given settlement, where their neighbours in an adjacent settlement have flush toilets already.
 - Should some informal settlements be served by communal facilities as an interim measure, and if so, what is needed to make these work?
- Prioritisation criteria for interventions and investments.
 - What balance should be struck between maintaining and augmenting existing investments and services, addressing backlogs in unserved areas and upgrading services in inadequately served areas?
 - Should available funds be focussed on settlements with the most urgent need – in terms of health or other criteria – or be spread as broadly as possible across settlements in the interests of equity? This raises complex political questions: where funds are spread widely, there is usually not enough money to address all service challenges within one settlement within one or two years, and the implementation cost of a limited stop-start intervention is high; equally it prompts tensions *within* a settlement, between those who are scheduled for early redress, and those whose needs will not be addressed for several years. Conversely, a more intensive focus which addresses all households in one settlement in one major intervention means other settlements must wait their turn for several years.
 - Should dense informal settlements – likely to have high HIV prevalence profiles – be prioritised over less dense rural settlements? What is needed, and what is equitable?
- Municipal policies to guide the implementation of free basic sanitation, definitions of indigent households, allocation and targeting of the Equitable Share, and so on.
- Alignment with municipal procurement policies, and integration with labour-based construction approaches and LED initiatives.
- Clarity on implementation approaches and methodologies for different settlement areas and types.
- User education initiatives, which identify objectives, content, who will undertake this, when and how frequently, and how this will be funded, managed and co-ordinated.
- Detailed planning for long-term service requirements – including servicing of on-site toilets.
- Practical co-ordination and alignment mechanisms which apply across a municipality, and which align the programmes of municipal technical services, health (notably environmental health), planning, housing, LED and community development, and so on.
- Integration with ward committees and ward-level sectoral committees.

- Co-ordination and alignment mechanisms which integrate municipal activities with those of external agencies, including Public Works, provincial Health, DWAF, Provincial Local Government, and so on.
- Detailed clarification of which aspects of service provision, support and monitoring will be undertaken by municipal personnel, which will be outsourced to a range of designated service providers, and how service provision will be managed and monitored.
- Performance management and monitoring systems which provide clear indicators of achievements and challenges, which encourage constructive reflection on progress made and highlight the need for remedial activities as required.
- Funding requirements for the range of capital projects required, together with a careful cost breakdown of long-term funding requirements for sustainable service provision.
- (Revised) targets and implementation and spending time frames.

It is imperative that local strategic municipal planning is informed by a pragmatic and user-friendly national policy framework, and supported by a range of support tools which speak to the complexities of specific settlement types.