

# CHAPTER 11

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## Reviewing Effectiveness of Sanitation Fiscal Instruments and Governance in Enhancing Rural Development

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## 11.1 Introduction

Adequate sanitation<sup>35</sup> infrastructure and services are important for the health and dignity of people. Improving sanitation infrastructure and services, and educating households on the importance of good sanitation practices, reduces the risk of infection from excreta-related diseases (including diarrhoea) that affect in particular children aged 3–5 years. Diarrhoea is the second leading cause of death globally (after pneumonia) of all deaths in children under the age of 5 years (Liu et al., 2012). In South Africa, about 21% of children under the age of 5 years died as a result of diarrheal diseases in 2007 (Nannan et al., 2012).

Since 1994, government has introduced specific programmes aimed at reducing the high sanitation infrastructure and maintenance backlogs. These backlogs are a nationwide challenge but are more serious in rural areas than urban areas. The Bucket Eradication Programme and Rural Household Infrastructure Programme (RHIP) are two of the programmes introduced to address sanitation backlogs in rural areas. Bucket toilets are found in both formal and informal settlements. The government has not achieved its objective of eradicating the bucket system in established formal settlements by the end of 2007, and the end date has now shifted to 2019. The RHIP was introduced specifically to reduce sanitation backlogs in rural areas but has seriously underperformed. Other funding sources for sanitation infrastructure and services include the Municipal Infrastructure Grant (MIG), the local government equitable share (LGES), conditional grants and municipal own revenue. However, as sanitation backlogs remain a challenge particularly in rural areas, the adequacy and effectiveness of these funding instruments are questionable.

This chapter looks at the constraints in the current intergovernmental fiscal relations (IGFR) system and the institutional arrangements that are undermining government's efforts to address sanitation backlogs in rural areas.

The chapter's three main objectives are:

- To analyse the reduction in sanitation backlogs between 1996 and 2015 in different municipal categories.
- To evaluate and analyse the effectiveness of the current sanitation funding arrangements with respect to rural municipalities.
- To evaluate governance and institutional issues relating to the provision of sanitation and focusing on rural municipalities.

## 11.2 Effect of RHIG on Sanitation Backlogs

The different sources of funding for sanitation infrastructure were analysed, including part of the MIG and conditional grants, as well as RHIG that specifically focuses on rural areas. A mixture of qualitative and quantitative analyses was used to look at design issues, performance and challenges for these IGFR instruments.

The effect of the RHIG on sanitation backlogs was assessed using a sampling method to select municipalities that had received the RHIG in 2012. One of the key assumptions was that implementing the RHIP leads to a decrease in the sanitation infrastructure backlogs. Therefore, the sanitation backlog was analysed in 2012 and 2013, before and after the RHIP was implemented through the RHIG, to see whether or not it had declined.

In 2012, a total of 52 municipalities benefited from the RHIG. After calculating the change in sanitation backlogs, the municipalities were put into three categories based on the level of improvement: less than 2%, between 2% and 3%, and between 4% and 5% (Table 33).

**Table 33. Municipal ranking based on improvement in sanitation backlog (2012)**

Ranking	Number of municipalities	Percentage of municipalities	2010/11
4–5%	8	15.4%	87
2–3%	21	40.4%	6
Less than 2%	23	44.2%	7%

Source: Commission's computations

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<sup>35</sup> Sanitation covers a wide range of activities including the collection, transport, treatment and disposal of waste (including human waste) and associated hygiene promotion.

**Table 34. Randomly selected municipalities per improvement category (2012)**

Improvement		
Between 4-5%	2-3%	Less than 2%
Engcobo	Maluti-a-Phofung	Umzumbe
Umzimvubu	Thulamela	Umzimkhulu
Mbizana	Greater Giyani	Dannhauser
Nyandeni	Amahlathi	Phumelela
Matatiele	Ratlou	Ramotshere Moilao

Source: Commission’s computations

From this ranking, five municipalities were chosen from each category using a random sampling. A total of 15 (29%) out of 52 municipalities were chosen.

Data for selected rural municipalities was sourced from Global Insight, while data on the general performance of RHIG was sourced from National Treasury and Department of Human Settlements (DHS) publications. Other data and information for secondary analysis were sourced from other studies undertaken on sanitation and RHIP, including studies undertaken by the Auditor-General and by the DHS (AGSA, 2015; DHS, 2012).

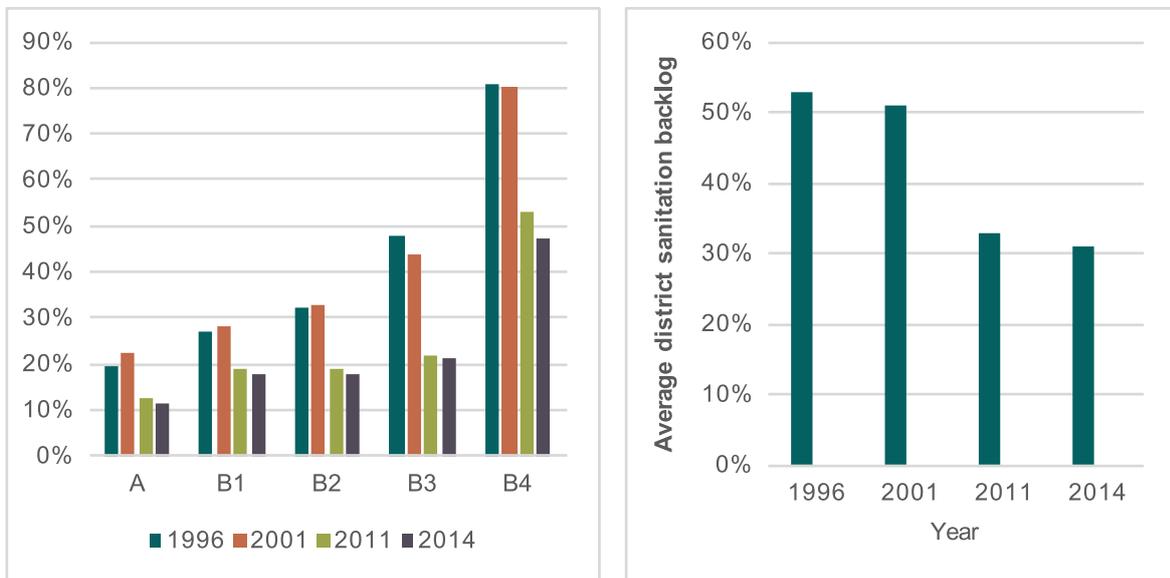
To confirm the analysis and understand institutional challenges, meetings with key stakeholders were held, including with Independent Development Trust (IDT), one of key stakeholders contracted by the DHS to implement RHIP over the past few years. Meetings were also held with the South African Local Government Association (SALGA) and the Department of Water and Sanitation (DWS).

### 11.3 Findings

#### 11.3.1 Progress on sanitation backlogs

Currently, local municipalities are divided into those that are Water Services Authorities (WSA) and those that are not. Local municipalities that are WSA are responsible for implementing and managing water and sanitation services and/or projects within their jurisdictions. Local municipalities that are not WSA rely on district municipalities (C2) to implement and manage water and sanitation infrastructure and services. As Figure 88 illustrates, the sanitation backlog overall has decreased since 1996, but B4 municipalities and district municipalities still had high backlogs, of 47% and 31% respectively in 2014. The backlogs in the other categories were considerably lower, at 11% for A municipalities, 18% for B1s and B2s and 21% for B3s.

**Figure 88. Sanitation backlogs by municipal category (1996–2014)**



Source: Commission’s computations based on data from IHS Global Insight (2015)

### 11.3.2 Intergovernmental instruments

Sanitation infrastructure and services are funded in a very unsystematic manner, and “sanitation in particular has up to now been mainly funded on an ad-hoc basis, while water has enjoyed the benefit of a more matured ring-fenced funding regime”<sup>36</sup>. The effectiveness of the various funding instruments (which include MIG, LGES, RHIG and municipal own revenue) is discussed in the following sections.

#### Municipal Infrastructure Grant

The MIG consolidates all previous capital grants for municipal infrastructure and is supposed to be the main funding source for sanitation. Table 35 describes the MIG’s different components.

**Table 35. MIG’s components**

Component	Purpose
B	To fund basic residential infrastructure, which includes water and sanitation, electricity, roads and other (street lighting and solid waste removal).
P	To fund public municipal services infrastructure
E	To fund social institutions and micro-enterprises and (the N-Component) nodal municipalities

#### Local Government Equitable Share

The LGES is a formula-based allocation to municipalities, as stipulated by Section 214 of the Constitution. It is designed to provide municipalities with the resources to render basic services to low income and poor households and to build administrative infrastructure. It also provides municipalities with funds to cover operational costs associated with providing free basic services to indigent households. Rural municipalities heavily rely on the LGES as their primary revenue source because their revenue base is low.<sup>37</sup> They use LGES funding to finance their operations, which leaves little or no resources to fund basic infrastructure needs, including sanitation. This implies that LGES funding to rural municipalities is not necessarily an effective instrument for providing and maintaining sanitation infrastructure and services.

According to the MIG conditions, 75% of the MIG allocation should be used to fund the B component, and of this share 72% should be for water and sanitation; the other 25% is split between components P and E. A formula determines the share received by each municipality, and then the municipality can decide which type of infrastructure to prioritise and fund through the MIG. Based on the proportion going towards sanitation services, MIG funding is inadequate to address the extent of sanitation needs. While a quota of 6000 litres of water has been determined, beyond which people start to pay, there is no similar quota for sanitation; hence it does not receive adequate resources.

#### Rural Household Infrastructure Grant

In 2010/11 RHIG was introduced as an indirect conditional grant through which national government provides sanitation infrastructure for rural households where connector-services would be inappropriate. As an indirect grant, the national government (or its agents) spends all funds on behalf of municipalities, and no funds are transferred to municipalities (unless a municipality is acting as an implementation agent). Then, in 2013/14, a direct component of RHIG was introduced. However, since being established, RHIG has performed very poorly (Table 36). In its Submission for the 2016/17 Division of Revenue, the Commission recommended that National Treasury and line departments consider the using indirect grants as a measure of last resort, based on an analysis of the performance of some grants including the RHIG.

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<sup>36</sup> Speech made by the Minister of Water and Sanitation, Nomvula Mokonyane (26 August 2014) in response to a debate on “Moving with utmost speed to provide water and sanitation to our people to eliminate the bucket system”.

<sup>37</sup> Chapter 8 of this Submission gives a clear breakdown of transfer shares for rural municipalities compared to other municipal categories.

**Table 36. RHIG budget and expenditure**

Year	Allocation (R-million)	Expenditure (R-million)	Percentage spent
<b>2014/15</b>	113.1 65.6 (direct) 47.5(indirect)	22.6	34.45%
<b>2013/14</b>	240.4	215.3	89.56%
<b>2012/13</b>	340.6	205.6	60.36%
<b>2011/12</b>	258	187.3	72.60%
<b>2010/11</b>	100	62	62.00%

Source: Commission’s computations

One reason for the under-spending of the RHIG is that business plans from municipalities are either received very late or are not detailed enough to comply with the Division of Revenue requirements.

- Some municipalities (Umzumbe, Umzimkhulu, Danhauser, Phumelea and Ramotshere Moiloa) had an increase in sanitation backlogs.

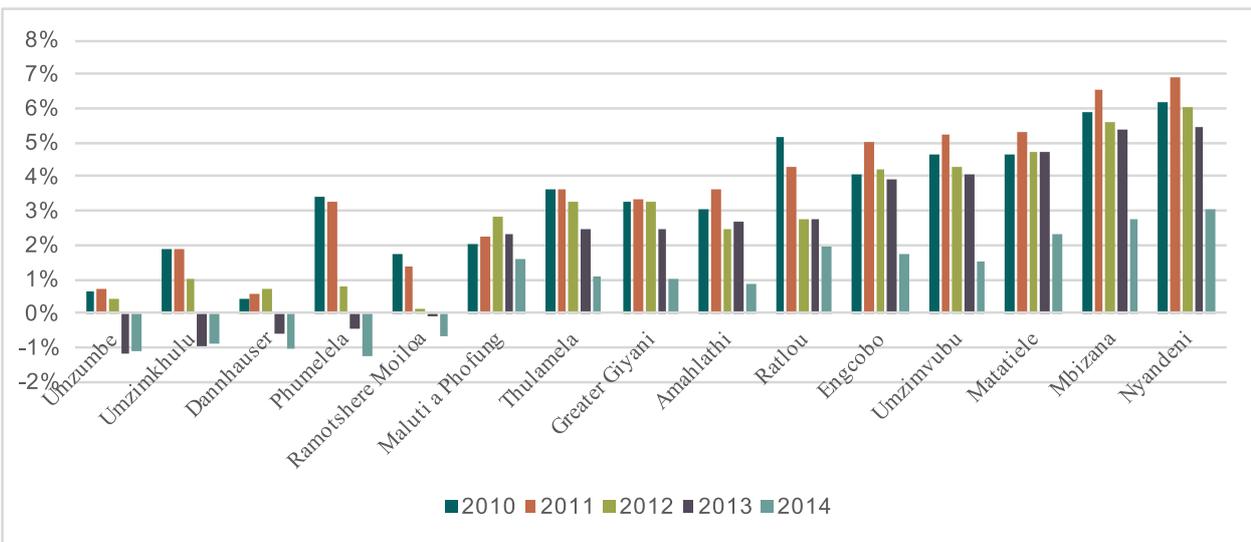
Although the unavailability of data makes it difficult to separate out the impact of a particular grant (MIG vs. RHIG), Figure 89 shows the year-on-year change in the sanitation backlog across the rural municipalities that were part of the RHIP. In brief:

- In some municipalities (Matatiere, Ratio, Engcobo and Umzimvubu), sanitation backlogs remain the same before and after the RHIP was implemented.
- Some municipalities (Nyandeni, Mbizana, Thulamela, Maluti a Phofong and Greater Giyani) saw a marginal reduction of about 1% in their backlogs between 2012/13 and 2013/14.

Unlike other grants, which are spread over a number of years, the RHIG is funded on an annual basis. Some municipalities receive funding for only one financial year, while others are funded for more than a year. What is not clear is why the RHIG funding is discontinued when the sanitation backlog is still high, i.e. the grant has not achieved its objectives. As Table 37 illustrates, some municipalities only received funding for 2012/13 despite their increasing backlogs, i.e. Umzimkhulu, Umzimvubu and Phumelela. Other municipalities received only for 2013/14, while others received for both 2013/14 and 2014/15.

There is some duplication in the sanitation objectives of RHIG and MIG, showing a lack of alignment between these grants. The MIG provides capital finance for basic municipal

**Figure 89. Year-on-year percentage change in sanitation backlogs**



Source: Commission’s computations based on data from IHS Global Insight (2015)

**Table 37. RHIG recipients (2012/13 –2014/15)**

2013/14 and 2014/15	2013/14 only	No RHIG received after 2012/13
Umzumbe	Matatiele	Engcobo
Ratio	Mbizana	Umzimvubu
Dannhauser	Nyandeni	Umzimkhulu
Maluti a Phofung	Amahlathi	Phumelela
Thulamela	Ramotshere Moiloa	
Greater Giyani		

Source: Commission's computations

infrastructure backlogs for poor households, micro enterprises and social institutions servicing the poor, while RHIG provides capital funding for the eradication of rural water and sanitation backlogs.

### Municipal own revenue

Municipal own revenue includes funds from the municipality's tax base e.g. funds collected for municipal service, property taxes, various consumer tariffs levied, etc. These funding sources are very limited in rural municipalities because of their weak tax base. As a result, rural municipalities are limited in their ability to raise sufficient revenue to cover both their operating costs and infrastructural needs.<sup>38</sup> Therefore, the funding of basic services for poor households is mostly addressed through other capital grants and equitable share transfers, and own revenue is not a source of funding for sanitation infrastructure in rural municipalities.

### 11.3.3 Green technology and waterless toilets

Various technologies can be used to improve sanitation, particularly in rural areas. In South Africa, ventilated improved pits<sup>39</sup> (VIPs) are commonly used to improve sanitation, whereas other countries in the world have moved towards ecological sanitation (EcoSan) or waterless toilet technologies. EcoSan is an environmental friendly, sustainable waterless sanitation system that regards human waste as a resource for agricultural purposes rather than something to be disposed of (WaterAid, 2011). It is environmentally sound, as it does not contaminate ground water and other freshwater sources, and reduces the waste by 5–10% percent of its original mass, to be then used as compost. Furthermore, EcoSan technologies do not need expensive vehicles, such as vacuum trucks or tankers ("honey suckers") to remove the waste. In South Africa, EcoSan is currently not considered an option for dry sanitation, despite the presence of EcoSan toilet manufacturers in the country.

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<sup>38</sup> Refer to Chapter 8 of this Submission for more detail about own revenue for rural municipalities.

<sup>39</sup> A VIP is a "dry" toilet facility that is an improvement on standard pit latrines that eliminates flies and odour.

<sup>40</sup> Presentation by Department of Human Settlements to the Select Committee on Public Services on 25 October 2011

### 11.3.4 Institutional arrangements

The three spheres of government have different roles and responsibilities with respect to sanitation. According to the Constitution, municipalities are generally responsible for ensuring a safe and healthy environment and providing communities with services in a sustainable manner. The role of national and provincial governments is to support and strengthen municipal capacity, to enable municipalities to exercise their powers and perform their functions. However, a number of challenges relating to institutional arrangements emerged from interviews with stakeholders.

#### a) Poor coordination of plans by various relevant departments

Programmes are not aligned among the different levels of government (e.g. between a national/provincial department and a municipality), resulting in inefficiencies and lack of service delivery. For instance, the DHS provides housing with full waterborne sanitation technologies, but the municipality has not planned bulk water infrastructure in the area. In these cases, beneficiaries find themselves living in housing units with no working toilet facilities.<sup>40</sup>

#### b) Poor communication between district and local municipalities

For example, the district municipalities did not consult Ditsobotla and Butterworth municipalities about the sanitation projects being implemented. The two local municipalities only knew about these sanitation projects when they were interviewed by the Ministerial Sanitation Task Team (DHS, 2012) – they were unable to provide their sanitation status, which only district municipalities could do.

#### c) RHIG and MIG duplication and underfunding

As RHIG funding is available, some rural municipalities do not allocate or reduce their MIG allocation. As a

result, they rely heavily or only on RHIG funding, which compromises service delivery. The two grants also have common objectives, resulting in duplication. Although sanitation appears to be under-funded by these grants, it is difficult to make a strong case for additional funding when rural municipalities fail to spend the allocated funding. According to a DWS official, National Treasury is willing to increase funding for rural sanitation, but first spending and infrastructure delivery must improve.

#### **d) Shifting of the function from one department to the other**

The shifting of the sanitation function from one department to another affects the continuity of planning and implementation of sanitation projects, which has an impact on delivery outcomes.

#### **e) Funding operations and maintenance**

Major challenges occur after the infrastructure has been delivered. Most rural municipalities do not include sanitation plans in their IDPs or have operational and maintenance plans in place, and so allocate little or no funding to infrastructure. A study undertaken by the DHS (2012) found that sanitation facilities developed through the RHIP are not sustainable because of poor operation and maintenance. However, the study was unable to determine how much is allocated to operating and maintaining VIPs.

### **11.4 Conclusion**

Improving sanitation infrastructure is key for a number of reasons, including reducing the risk of infection from excreta-related diseases and thereby saving lives, particularly those of children under the age of five years. Since 1994, sanitation backlogs have decreased but remain high in rural areas, despite government interventions, such as the Bucket Eradication Programme and the RHIP. Rural municipalities can use a number of funding instruments to provide and maintain sanitation infrastructure, including the MIG, LGES and RHIG. The RHIP has not achieved its expected outcomes because of various reasons, including the grant's design (as an indirect grant), discontinued funding in some municipalities despite high backlogs remaining, and under-spending because of the late transfer of funding, as a result of poor quality and late submission of business plans. Furthermore, in some municipalities sanitation is not included in their IDPs and so is not prioritised. Another challenge is the lack operations and maintenance plans, and funding. These challenges must be overcome in order to reduce the sanitation backlogs and to ensure the health and dignity of South Africans.

### **11.5 Recommendations**

*With respect to intergovernmental instruments and institutional issues pertaining to the provision and maintenance of sanitation infrastructure in rural municipalities, the Commission recommends that:*

1. Rural municipalities that are Water Services Authorities prioritise the delivery of sanitation infrastructure, which must be reflected in municipal IDP. SALGA should play an oversight role in ensuring compliance with this recommendation.
2. Rural municipalities that are Water Services Authorities explore and prioritise EcoSan waterless technologies where feasible and develop a complete municipal sanitation infrastructure project delivery plan, which includes the following:
  - Technologies to be used for emptying toilet latrine pits (VIPs), taking into account community dynamics.
  - Scheduled periodical maintenance of sanitation infrastructure.
  - Full costs of maintenance and sources of funding.
3. SALGA and the national and provincial departments of water and sanitation develop and implement monitoring tools for this recommendation.
4. The Department of Planning, Monitoring and Evaluation, National Treasury and the Department of Water and Sanitation undertake a comprehensive evaluation of the impact of sanitation grants on rural municipalities before discontinuing the grants.
5. District and rural municipalities that are Water Services Authorities submit compliant business plans timeously to the national Department of Water and Sanitation. Should they fail, executives should be held accountable. In cases where Water Services Authorities lack capacity, the national and provincial departments of water and sanitation should intervene and provide requisite capacity.