

The state of domestic waste management in South Africa

Municipalities responsible for general waste service delivery are faced with increasing challenges impacting on both the presence and quality of services. Many waste facilities have shown a decline in operating standards and levels of legal compliance over the past decade. The low priority afforded to waste does little to alleviate this current problem with the potential increasing impacts on human health and the environment.

Pressure for economic growth means an increase in the volumes of general and hazardous waste generated, which need to be safely and responsibly treated and disposed.

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In 1998, waste generation in South Africa amounted to 533 million tonne per annum (MT/a) of which the majority comprised mining waste (ca. 88 %). Domestic and trade waste represented 1.5% and sewage sludge 0.1%. Municipal waste generation per capita differs noticeably across income groups, with low, middle and high income groups generating 0.41, 0.74 and 1.29 kg/cap/day respectively.

Function of local government

In terms of the South African Constitution waste management service delivery is a local government function. Municipalities are obliged to provide waste management services to realise this right. Failing waste services is, however, a reality in South Africa.

With indications of a strong correlation between a country's GDP and waste generation, further economic growth in South Africa will lead to increased consumption of goods and services and consequently an increase in waste, which will require collection, treatment and disposal. The generation of waste in South Africa is expected to increase as a result of population and economic growth at a predicted rate of 2-3% per annum.

The General Household Survey of 2007 revealed that 39% of households, or 50% of the South African population, are not receiving a regular municipal waste collection service, with municipal waste collection having only improved by 2.7% between 1996 and 2001.

A study commissioned by the Department of Environment in 2007 revealed that 54% of the national backlog in waste service delivery can be found in metropolitan and secondary municipalities.

While it is recognised that there are many well operated sanitary landfill sites in South Africa, in line with international best practice, of the 1 280 known landfill sites (general and hazardous) in the country, only 44% are authorised through permits and of those permitted, compliance with permit conditions is seldom audited and often unknown.

Of the non-permitted/unknown permit status landfill sites, more than 90% are thought to be municipal landfills. The biggest offender in terms of compliance of landfill sites would therefore appear to be municipalities.

Challenges facing municipalities

Research by the CSIR shows four broad challenges facing municipalities with regards to waste management:

- Financial management
- Equipment management
- Labour (staff) management
- Institutional behaviour (management and planning).

However, further research shows that these should not be seen as the obstacles but rather the symptoms of a number of underlying root causes that need to be addressed. For example, while municipalities identified the lack of budget as a major obstacle, underlying reasons often include:

- Capping of municipal budgets
- Ineffective cost recovery for disposal at landfills
- Delays in finalising municipal budgets
- Theft of infrastructure
- Reduced operational budgets
- Ineffective utilisation of equipment and personnel.

The current skills shortage specifically around waste management combined with the high turnover of staff within municipalities provide further challenges to sustainable waste management.

Waste has direct and indirect impacts on human and ecosystem health, including contamination of surface and ground waters. In addition methane emissions from waste contribute an estimated 2% of the greenhouse gas emissions profile of South Africa. These impacts could be significantly reduced with improved waste management practices.

Useful resources

Department of Environmental Affairs and Tourism (2006). South Africa Environment Outlook.

Department of Environmental Affairs and Tourism (2007). Assessment of the status of waste service delivery and capacity at local government level.

Department of Environmental Affairs and Tourism (2009). Greenhouse Gas Inventory South Africa 1990-2000.

Oelofse, SHH and Godfrey, L (2008). Towards improved waste management services by local government – A waste governance perspective. CSIR Conference, Pretoria.

Godfrey, L and Oelofse, S. (2008). A Systems Approach to Waste Governance – Unpacking the challenges facing Local Government. Waste2008 Conference, United Kingdom.

Oelofse, S, Godfrey, L, Rasher, J and Sherwood, L. (2008). Minimising the effects of waste on society – A waste governance perspective. WasteCon 2008 Conference, Durban.