

FINANCIAL AND FISCAL COMMISSION
POLICY BRIEF
**MAKING SOLID WASTE
MANAGEMENT IN SOUTH
AFRICA SUSTAINABLE**
EXECUTIVE SUMMARY

Ways of addressing these challenges include producing energy from landfills and incineration, community recycling initiatives, using full cost accounting, funding alternatives for infrastructure facilities and green jobs initiatives.

According to the South African Constitution (and other legislation) local government must provide communities with equitable, affordable and sustained basic services, which include waste management. Yet today the majority of municipalities and cities in South Africa face serious economic, social and environmental challenges related to solid waste management. New and innovative mechanisms for financing solid waste management are needed in order to address these challenges in an integrated and coordinated manner. The environmental and financial costs associated with current solid waste management practices can be reduced.



BACKGROUND

The South African Constitution (and other legislation) mandates local government to provide communities with equitable, affordable and sustained basic services, which include waste management. Yet today the majority of municipalities and cities in South Africa face serious economic, social and environmental challenges related to solid waste management.¹ The current waste disposal methods, such as landfills, are not environmentally sustainable, and municipalities have difficulty complying with regulations and other environmental laws. The problem is further compounded by the depletion of available landfill² space, particularly in the large cities and metros – in South Africa about 95% of waste is disposed in landfills (Kalule and de Wet, 2009). Most small towns and rural areas struggle to find funds for developing and rehabilitating waste management infrastructure. Municipalities can no longer afford the ‘collect and dump’ approach to solid waste management because of soaring collection and transportation costs. New and innovative mechanisms for financing solid waste management are needed to address these challenges.

FINDINGS

Municipalities traditionally generate revenue through user charges (tariffs), levies, rates and taxes. However, in most cases, these revenue sources are inadequate and, because they are mainly taxes, are becoming unaffordable for communities, especially poor and indigent households. Many South African municipalities contain a large indigent population who cannot afford to pay for basic services. Government’s policy on free basic services (FBS) provides these indigents with basic services that include refuse removal. Ironically, refuse removal is a FBS that most municipalities do not have the resources to offer, as they either do not have (or do not keep updated) a register of the indigent households. For municipalities with large indigent populations, generating revenue from refuse tariffs, rates and levies is neither sustainable nor adequate to run waste management services.

All spheres of government need to take a radically different approach to waste management, which is adequately laid out in the National Waste Management Strategy (NWMS) as promulgated in terms of the National Environmental Management Waste Act, Act 58 of 2009. The NWMS calls for an integrated approach to waste management that adopts waste hierarchical principles: avoid, reduce, recycle, re-use and (only as a last resort) dispose of waste.

The current narrow view of cost effectiveness needs to look further than the limited financial perspective (i.e. the financial cost effectiveness based on the monetary values of the service or product in the market). A broader approach is required, one that considers the socio-economic challenges of South Africa, the equity policy, the Bill of Rights, the environmental cost and the impact of waste management. All of these may result in significant costs and impacts that are not counted in the current financial accounting systems of most municipalities. In order to address these challenges and deficiencies, an integrated cost benefit analysis (CBA) or a full cost accounting (FCA) for municipal waste management should be encouraged and implemented (USEPA, 1996; Higgins, 1999; Shore *et al.*, 1997). The FCA encompasses both internal (i.e. financial) and external (e.g. macro-economic, environmental and social) costs and benefits simultaneously.



Solid waste recycling has the potential to create direct, indirect and induced ‘green’ jobs (Friends of the Earth, 2002). For example, direct jobs can be created at public and private waste recycling facilities, while indirect jobs can be created through businesses that purchase recyclable commodities such as processors (compost manufacturers and scrap metal dealers). Induced types of jobs include remanufacturers or re-users of recyclable materials and charity shops that sell used merchandise. Creating jobs within the waste management sector is about creating valuable and sustainable green jobs, or jobs in sectors that demand less excessive carbon emissions. The waste management sector provides an opportunity to employ poor and previously disadvantaged people in street cleaning, refuse collection, sorting and recycling initiatives.

The recycling industry in South Africa is growing: the period 2006–2009 saw a rise of approximately 32% in tonnes of plastic recycled (SAPRO, 2011; PFSA, 2011). Recycling one additional ton of waste, rather than disposing it in a landfill, would (per ton) pay R1 095 more in salaries, produce R4 905 more in goods and services, and generate R1.3-million more in sales. South Africa has an estimated 200–220 plastics recycling manufacturers, employing approximately 4 800 people and creating over 35 000 indirect jobs, which translates into an annual payroll of R250-million (SAPRO, 2011). The Department of Environmental Affairs (DEA) estimates that the country’s recycling industry provides approximately 90 000 jobs (DEA, 2010). Recycling is becoming an alternative for waste disposal, as land filling – the traditional source of waste disposal – has become more expensive because of closures and stricter operating requirements (Halstead, 1994).

¹ Solid waste is a form of waste that does not pose an immediate hazard to health or environment including domestic waste (NEMA: Waste Act, 2008). Solid Waste Management is the collection, transport, processing, recycling or disposal and monitoring of waste material. (www.wikipedia.org)

² Landfill is a method of waste disposal in which waste is buried between layers of dirt so as to fill in or reclaim low-lying ground. (www.thefreedictionary.com)

Internationally, especially in the United States, United Kingdom and European Union, recycling contributes significantly to the economy through gross value add³ (GVA), tax revenue and provision of jobs (Halstead, 1994). However, these studies caution against jobs displacement within the waste management sector, as too often the employment and social dimensions are overlooked in waste and resource allocation policies – a situation that is even more important in the current unfavourable economic conditions. These challenges can be met through creating opportunities for valuable and sustainable green jobs. In the United States, recycling generates more than twice the revenue of the waste management industry. Recycling also produces ten times more jobs than land filling and incineration because it recovers greater economic value, which is bound up in discarded products and equipment. South Africa needs to use such examples as a benchmark.

A strengthened approach to waste management alternatives and their funding is needed. Alternatives include waste minimisation, recycling, re-use and regionalisation of waste management activities in the form of disposal sites, transportation and waste incinerations. Currently, despite alternatives in place, waste management services favour landfill sites, because of the lack of incentives or punitive measures to act otherwise. The regionalisation of waste management activities can be done in a phased approach to cater for the different capacities of municipalities. For example, eThekweni and the City of Johannesburg have started converting waste to energy, but other non-metros could start with regional landfills, transportation and gradually move to the waste incineration (i.e. burning of waste completely and turning it into ashes) and energy conversion methods. Unlike traditional methods of waste disposal such as landfills, incineration has low carbon emissions but may result in high transportation costs, as waste has to be moved from source to landfills to incineration sites.

POLICY OPTIONS

By the end of the 2015/16 financial year, the government should phase in full cost accounting (FCA) for solid waste management by municipalities. FCA will provide municipalities with an instrument for understanding comprehensively solid waste management and financing.

1. Government should take greater advantage of the opportunities for job creation in the solid waste sector by enhancing the incentive structure for municipalities to create 'green' jobs through labour-intensive service delivery approaches.
2. The DEA should delay implementing the policy on the regionalisation of solid waste landfills until the fiscal risks and benefits for municipalities are better understood and adequate decision-support measures for municipalities are in place.
3. Government should encourage the expansion of access to solid waste services to poor communities while strengthening the policy framework for the provision of free basic refuse removal services.

³ Gross value add (GVA) is a measure of the value of goods and services produced in an area, industry or sector of an economy. (www.wikipedia.org)

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RECOMMENDED READING SOURCES

Friends of the Earth. 2009. *More Jobs Less Waste: Potential for job creation through higher rates of recycling in the UK and EU*. Available online: <http://www.foe.co.uk/resource/reports/more jobs less waste.pdf>.

Halstead, J .1994. *Waste Management and Job Creation*. University of Wisconsin-Madison and Community, Natural Resource and Economic Development Programme, University of Wisconsin Extension, Massachusetts.

Higgins, G. 1999. Basic Principles of Full Cost Accounting. *Business, Labor, and Agriculture Interim Committee*.

Kalule, S and de Wet, J. 2009. Evaluation of Climate Change Impacts. *ReSource*, 4, pp 44-49.

PFSA (Plastics Federation of South Africa). 2011. Available online: <http://www.plasticsinfo.co.za/>

SAPRO (South African Plastics Recycling Organisation). 2011. Available online: www.sapro.biz.

South Africa. 1996. *Constitution of the Republic of South Africa. (Act No. 108 of 1996)*. Pretoria: Government Printer.

The Free Dictionary. Available online: www.thefreedictionary.com

Wikipedia. Available online: www.wikipedia.org



Enquiries: Vincent Makinta (vincent@ffc.co.za) and Nomonde Madubula (nomonde@ffc.co.za)

Financial and Fiscal Commission
2nd Floor, Montrose Place, Bekker Street,
Waterfall Park, Vorna Valley, Midrand,
Private Bag X69, Halfway House, 1685
www.ffc.co.za
Tel: +27 11 207 2300
Fax: +27 86 589 1038

