



Comment on Waste Management in South Africa for Engineering News feature

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A brief overview of the evolution of waste management in South Africa from 1990 to now

South Africa is a leader in Waste Management in Southern Africa. The Minimum Requirements series of documents developed by the South African Government at the dawn of waste regulation in the early 1990's, focussed on the protection of the scarce groundwater resources and was based on the precautionary principle. The graded landfill requirement system developed for South Africa was subsequently adopted by other Southern African Countries including Botswana and Namibia. However, when considering waste management throughout the life cycle, it is often said that South Africa is 20 to 30 years behind Europe (and other developed countries). The waste management hierarchy was first legislated in South Africa with the inclusion of Clause 4(a)(iv) "*waste is avoided, or where it cannot be, altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner*" in the National Environmental Management Act 107 of 1998. Despite this change in paradigm, waste disposal by means of landfill remains the dominant technology choice for general and hazardous waste management in South Africa as is evident from the latest South Africa State of Waste Report that was released in 2018.

South Africa's waste in numbers

It is estimated that South Africa generated approximately 55.6million tonnes of general waste and 52 million tonnes of hazardous waste in 2017. Of this, only 34.5% of general waste and 6.6% of hazardous waste were recovered or recycled. The remaining 65.2% of general and 92.7% of hazardous waste was disposed of to landfill. Municipal solid waste (MSW) contributed 23.1 million tonnes of general waste in 2017 (on average 1.12kg/capita/day). Municipal waste collection services fall within local government's sphere of responsibility. National statistics indicate that 65.9% of households had access to waste collection services at least once per week in 2017. However, the remaining 34.1% (5.5 million) households had to rely on their own or communal rubbish dumps or had no facilities at all for waste disposal. This situation amounted to an estimated 7.8 million tonnes of MSW that was not disposed of on sanitary landfill sites in 2017.

Recycling in South Africa

Recycling has been an active form of waste management in South Africa for more than thirty years and it is driven by social and economic needs. Despite waste separation at source not being widely implemented in our country, the local recycling economy is on par with many developed countries, due to an active informal recycling sector. The majority (70 to 90%) of materials recovered for recycling in South Africa is sourced from informal collectors. Waste separation at source is slowly gaining momentum, however household recycling behaviour remains low. A household survey conducted by the Council for Scientific and Industrial Research (CSIR) in 2015 found that only 27% of households show some recycling behaviour. Household recycling behaviour in urban areas is higher than in rural areas. The majority of households (67% in urban areas and 81% in rural areas), did not show any recycling behaviour in 2015.

Upcoming events that focus on the current state and the future of landfilling in South Africa

The biennial Landfill 2019 Conference and Exhibition, hosted by the Institute of Waste Management of Southern Africa (IWMSA) in collaboration with the Western Cape Landfill and Waste Treatment Interest Group (LAWTIG) and the Geosynthetics Interest Group of South Africa (GIGSA), will take place on 06 and 07 November 2019. This year the event will be hosted at The River Club in Observatory (Western Cape) and is aimed at providing a networking and learning platform for role players in the Landfill and Alternative Waste Treatment industries.

This year's conference theme is "The death of landfill? If, and how, landfills will be part of our long-term future". Mr Boyd J. Ramsey, Principal and owner of Boyd Ramsey Consulting LLC in Texas, United States, will be one of the keynote speakers at Landfill 2019. Boyd has been a leader within the geosynthetic, environmental containment and waste disposal industries for over 20 years. Another keynote speaker confirmed for the conference is Prof Linda Godfrey, Principal Scientist at CSIR and Associate Professor at Northwest University (NWU) in South Africa. With over 20-years of sector experience, she currently heads up the Waste Research Development and Innovation (RDI) Roadmap Implementation Unit on behalf of the Department of Science and Innovation, a unit tasked with implementing South Africa's 10-year Waste RDI Roadmap. She will share her local and international waste management and circular economy expertise with the delegates.

IWMSA Landfill conference typically attracts 100 to 150 delegates with 10 to 15 stands/booths in the accompanying exhibition area. Past conferences have hosted decision makers from government and the private sector, prospective users, academics, vendors and suppliers, policy makers and representatives of various national organisations, all working in the arena of Landfill and Alternative Waste Treatment.

To find out more about Landfill 2019 visit the IWMSA web page dedicated to the event: <https://iwmsa.co.za/event/landfill-2019-conference-exhibition>.

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