

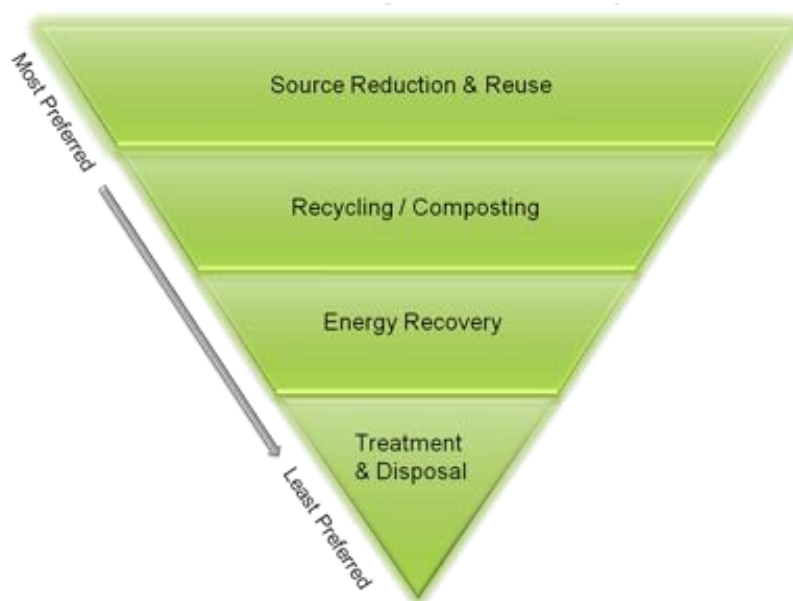


MEDIA RELEASE

South Africa climbing up the Waste Management Hierarchy

IMMEDIATE RELEASE

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[Image source: Environmental Protection Agency, 2016]

[Caption:] The Waste Management Hierarchy (above) is a globally accepted approach to managing our waste. It was developed by the Environmental Protection Agency (EPA) as a guide for prioritising waste management practices according to what has the least impact on the environment. South Africa has adopted this approach by embedding it in our National Waste Management Strategy (NWMS, 2011)¹. This is the foundation that we have established to join the rest of the globe to tackle waste management problems.

“South Africa is beginning to experience a progression in waste management and starting to explore innovative technologies in dealing with waste in a responsible manner. The Institute of Waste Management of Southern Africa (IWMSA) seeks to support this progression which will push us up the waste management hierarchy,” says Jan Palm, president of the IWMSA.

In an ideal world, source reduction is the most desirable option to manage waste; if less is produced then less needs to be disposed of. Reducing waste at its source looks at the very beginning stages of

a product's lifecycle. The challenge that presents itself here is that everything that is newly produced, has to be looked at as if it were waste, even in its newest form. As a producer of a product, one has to take into consideration what happens once the product leaves the factory. 'Design for Environment' (DfE) is a product design concept that encompasses source reduction and takes into consideration the environmental impacts throughout the product's entire lifecycle. Smarter material choices, recyclability, biodegradability and reusability are placing pressure on the producer, extending responsibility past production. This is known as 'Extended Producer Responsibility' or EPR and is currently being used as a regulatory mechanism in our National Environmental Management: Waste Act 59 of 2008 (NEMWA). "It is critical that we adopt such mandatory approaches to implement the first two levels of the waste management hierarchy," mentions Palm.

In Sweden, legislation on EPR requires producers to meet statutory requirements to have their products recycled. In response to this legal requirement, many producers have relied on 'bring back' systems such as product-specific recycling depots. This has mostly extended to paper, electronic waste (e-waste), and tyres.

Mechanisms have been employed to successfully implement EPR in South Africa to support source reduction, recycling and materials reuse. A combination of EPR, conscious consumerism and incentives support the first two levels of the hierarchy. A common example is a 'deposit refund system'² to provide a monetary incentive for the consumer to return a product or a package in order for it to be reused (Haskell, 2004). In South Africa, glass beverage bottles are commonly returned for money. This, however, only addresses one priority product according to the NWMS (2011). Plastic bags, tyres, and e-waste have also been prioritised for an EPR approach.

Tyres as waste have seen a progressive move up the hierarchy with the formation of the Recycling and Economic Development Initiative of South Africa (REDISA). REDISA have had a strong focus on tyre disposal, specifically with the aim of moving away from landfill and burning as this has been a common practice for heat generation in townships during the colder months. According to REDISA, almost 11 million tyres³ become waste in a year. Their Waste Tyre Management Plan supports tyre recycling and reuse instead of polluting the environment.

E-Waste makes up 5% to 8% of municipal solid waste in South Africa (Molewa, 2015) and is growing at a rate three times faster than any other form of waste⁴. South Africa produces 346 kilotons⁵ of e-waste per year and most of it still goes to landfill. A number of European countries have mandated EPR in terms of recovering e-waste with targets of a 50 to 90% recovery rate. In 2008 the e-Waste Association of South Africa (eWASA) was established to work with manufacturers, vendors, and distributors of electronic and electrical goods and e-waste handlers (including re-furbishers, dismantlers, and recyclers) to manage e-waste effectively. This approach in dealing with e-Waste brings us to the next stage of the waste management hierarchy, 'Recovery'. The e-waste stream is one such stream with economic potential that can be mined for secondary 'raw materials'.

Following the approach in many countries in Europe, it is important that South Africa looks at waste as a resource with economic potential. In 2012 the World Bank placed South Africa as the 15th largest waste generator, stating that the average South African produces 25 tonnes⁶ of waste in their lifetime.

Waste-to-Energy (WtE) is an approach which recovers energy that has seen increased implementation worldwide, especially in Sweden. Not only does it address the issue of municipal waste, it also looks at the production of electricity. South Africa has recently joined the momentum by opening its first WtE plant in Athlone, Cape Town; a collaboration between Waste Mart, Clean Energy Africa and New Horizons Energy.

“Currently, South Africa sends the majority of its waste to landfill sites and it, therefore, remains critical that the impacts are effectively controlled. The IWMSA seeks to address the practice so that this waste management option is supported by the best technology and science until we move to more desirable options up the hierarchy,” says Palm.

“To ensure that the correct waste is sent to the correct service provider, visit www.allwastesolutions.co.za; the industry portal for waste management suppliers,” concludes Palm.

For more information on the Institute of Waste Management of Southern Africa visit www.iwmsa.co.za. You can also follow IWMSA on Facebook (<https://www.facebook.com/iwmsa>) and Twitter (<https://twitter.com/IWMSA>).

¹Department of Environmental Affairs (2011). National Waste Management Strategy.

²Haskell D (2004) What is Extended Producer Responsibility, Edited for distribution to the Zero Waste Network Wanganui, <http://www.grrn.org>.

³Recycling and Economic Development Initiative of South Africa. (2017). <http://www.redisa.org.za>

⁴Molewa, E. (2015). Minister Edna Molewa’s address at Government Sector National E-Waste conference, Department of Environmental Affairs.

⁵Ottaviani, J. (2016). E-Waste Republic, Aljazeera.

⁶The World Bank (2012). Waste Generation, Urban Development Series.

⁷News 24 (2017). Waste-to-energy plant opens in Cape Town.

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