



**Western Cape
Government**

BETTER TOGETHER.

ORGANIC WASTE LANDFILL BAN AND LICENCING OF ORGANIC WASTE PROCESSING FACILITIES

“Food Waste – The Forgotten Waste Stream”

Tygerberg Nature Reserve

EP Hanekom

15 Sept 2016

Introduction

Organic waste is produced wherever there is human habitation.

The main forms of organic waste are:

- household food waste;
- agricultural waste;
- wood waste;
- human and animal waste; and
- Sewage sludge



World Bank estimates that globally the organic fraction of MSW is 46% by mass (2009)

Waste Source Quantities for SA & WC for 2012

Waste Classification	SA (t)	WC (t)
Municipal Solid Waste		3 841 840
Organic Waste		629 357
Non-Recyclable Municipal Waste		1 678 285
Recyclables		1 534 198
Paper		361 015
Plastic		272 390
Glass		199 784
Metals		649 673
Tyres		51 336
Construction Related Waste		983 613
Settled Sewage Sludge		140 159
Commercial & Industrial Waste		881 100
Agricultural Residues		2 125 082
Volatile Animal Waste		149 681
Forestry Residues		91 022
TOTAL CLASSIFIED WASTE		8 212 496



Organic Waste in WC

= 38% (3.13 mil tons)

Organic waste

Negative impacts of current practices

● **Variety of significant negative impacts - financial, social and environmental:**

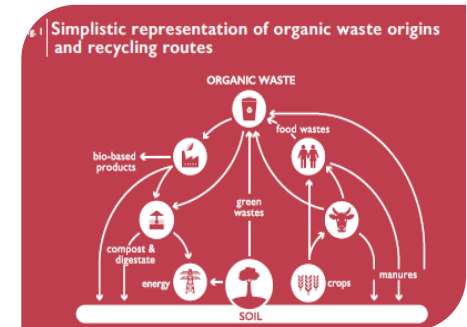
- High volumes of organic waste occupies scarce landfill airspace;
- Produces leachate which leads to subsurface and groundwater contamination;
- Requires expensive landfill containment barriers (liners) to mitigate;
- Contributes towards greenhouse gases from the production of methane gas during decomposition (2% of total Greenhouse Gas Emissions in South Africa); and
- Increase the logistics cost of refuse removal (smell/odours/vectors).



Recycling of carbon and nutrients in organic waste

Recycling of organic waste has significant benefits

- Conserving resources
- Reducing environmental impacts of waste disposal
- Mitigate climate change
- Enhance the functionality of soils
- Feeding ever growing global population
- Decouple product manufacture from petroleum products precursor and the use of fossil fuels
- Promote the waste economy and created jobs



How to divert organic waste from waste disposal facilities?

● Setting of organic waste diversion targets

- Target for green waste already set in Nat Norms and Standards for disposal of waste to landfills – 23 Aug 2013 (25% in 5 years – 2018 & 50% in 10 years – 2023).
- Not aggressive enough and should cover not just waste?

● Landfill charges or taxes

● Landfill bans

- 50% in 5 years & 100% in 10 years

● Valorise organic waste and stimulate a organic waste industry

- Risk based norms and standards for treatment of organic waste.



Authorisation of Organic Waste Processing Facilities

● Waste listed activities in NEMWA:

- Gov Notice 921 (29 Nov 2013)

Storage of waste

- (1) The storage of general waste at a facility that has the capacity to store in excess of 100m³ of general waste at any one time, excluding the storage of waste in lagoons or temporary storage of such waste.
- (2) The storage of hazardous waste at a facility that has the capacity to store in excess of 80m³ of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.

Treatment of waste

- (6) The treatment of general waste using any form of treatment at a facility that has the capacity to process in excess of 10 tons but less than 100 tons.
- (7) The treatment of hazardous waste using any form of treatment at a facility that has the capacity to process in excess of 500kg but less than 1 ton per day excluding the treatment of effluent, wastewater or sewage.

Construction, expansion or decommissioning of facilities and associated structures and infrastructure

- (12) The construction of a facility for a waste management activity listed in Category A of this Schedule (not in isolation to associated waste management activity).
- (13) The expansion of a waste management activity listed in Category A or B of this Schedule which does not trigger an additional waste management activity in terms of this Schedule.
- (14) The decommissioning of a facility for a waste management activity listed in Category A or B of this Schedule.



Progress to date

● WC Integrated Waste Management Integrated Infrastructure Assessment

- DEA considering to delist composting of organic waste
- Very strict norms and standards
- WC to introduce the cost of the norms and standards at national workshop – risk based

● **Abattoir waste:**

- Status Quo report & guideline for abattoir industry
- DEA – considering reducing threshold for treatment of haz waste
- Norms & standards for abattoir industry

● WC RAG seminar on organic waste on 9 June 2016

● **Green waste**

- Status Quo & guideline for industry

● Wood waste in Eden

● **Food waste**

- 2W2W - Survey & awareness
- Research what is currently happening around the globe on food waste:
 - Apps, food waste laws (Italy & France)

OLIO – The Food Sharing Revolution

By Olio Exchange Limited

Open iTunes to buy and download apps.



Waste No Food

By Modha Khammammettu

Open iTunes to buy and download apps.



Innovation



'Waste is just a resource that's in the wrong place.'

Thank you

Contact Us



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