

Waste Information Today

A Quarterly newsletter that is aimed at communicating the Department of Forestry, Fisheries and the Environment (DFFE) Chemicals and Waste Management projects

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Welcome note

We wish you a healthy and Prosperous 2023!

In this issue, we discuss the Draft Food Losses and Waste Strategy. The strategy will be gazetted for public comments after it has been taken through the socio-economic impact assessment process and internal review. We also highlight the improvements and challenges encountered at two upgraded buy-back centres in eThekweni Metropolitan Municipality. We go on to share the importance of waste picker integration, highlighting the waste picker guideline and provide a summary on the implementation of the Recycling Enterprise Support Programme.

We would like to take this opportunity to thank you for your support. Please feel free to forward any comments regarding this newsletter to sawic@dffe.gov.za We look forward to hearing from you.

Regards,

Waste Information Team

DRAFT FOOD LOSSES AND WASTE STRATEGY

Annually, about 10.3 million tonnes of palatable food earmarked for human consumption does not reach the human stomach in the country. This equates to 34% of local food production, but since South Africa is a net exporter of food, food losses and waste equate to 45% of the available food supply in the country. This indicates significant inefficiency in South Africa's food value chain, and noteworthy at a time when food insecurity is also increasing at an alarming rate (CSIR, 2021).

The bulk of these losses and waste occur prior to retail with 19% occurring during post-harvest handling and storage, and 49% during processing and packaging (CSIR, 2021).

Food waste has long been identified as one of the problematic waste streams in South Africa due to its negative environmental and socio-economic impacts associated with large volumes of waste disposal on landfills, and emissions of harmful greenhouse gases (GHGs). The National Waste Management Strategy (NWMS), 2020 identifies food waste as one area requiring intervention due to the associated growing environmental, social, and economic concerns.

Diverting waste from landfill is critical in terms of the NWMS. This may be done through, among others, the treatment and recovery of soil nutrients and energy from organic waste by composting and energy recovery.

The 2017 Chemicals and Waste Economy Phakisa Lab Outcomes highlighted food waste as one of the waste streams which can improve waste diversion from landfills due to its potential to contribute to a circular economy and waste reduction.

As a signatory to the United Nations Sustainable Development Goals (SDGs), South Africa is required to halve per capita food waste at retail and consumer levels and reduce food losses along production and supply chains by 2030, as part of the targets set out under SDG 12.3. In 2021, food systems were identified by the *African Circular Economy Alliance (ACEA)*-of which South Africa is a signatory to- as one of the five sectors ("the Five Big Bets for the Circular Economy") that have the most significant potential to drive the circular economy.

DRAFT FOOD LOSSES AND WASTE STRATEGY (continued)

To this end, the Department of Forestry, Fisheries and the Environment (DFFE) has developed the Draft Food Losses and Waste (FLW) Strategy, which aims to minimise food loss and waste throughout the food supply chain, reduce undesirable food wastage, and thus improve food security and mitigate adverse environmental impacts. The FLW Strategy only focuses on food losses and waste prior to retail, i.e., from primary production to processing and packaging stages of the food supply chain, and its key outcomes are as follows:

- Establishing baseline - latest data pertaining to the food losses and waste across the value chain, as well as where and why food losses are occurring;
- Determining the country's behavioural issues towards food and management of its related waste and how South Africa compares with other countries;
- Targeted research on food loss establishing direct linkage to ugly fruit and vegetables at farm/production to processing level;
- Highlighting economic opportunities and contribute to the reduction of GHG and climate change mitigation, food security in the country, alignment to waste minimisation and waste beneficiation; and
- A highlight of existing barriers and enablers and relation to policy review/development.

Six strategic pillars are identified as the cornerstones for achieving the FLW reduction prior to retail in the FLW Strategy. These include Circular Economy and Food Recovery, Collaboration, Awareness and Education, Skills Development/Capacity Building, Infrastructure Development and Sustainable Funding.

The Strategy includes an implementation plan which encompasses the following:

- Food Losses and Waste (FLW) legislative framework (barriers and enablers)
- Food Losses and Waste (FLW) beneficiation and Circular Economy (CE) opportunities
- Capacity-building, education, and awareness raising
- FLW baseline and targeting for waste diversion and emission reduction

The Strategy together with the implementation plan have been consulted on extensively and has been approved for public consultation. Prior to gazetting for public comments and implementation thereafter, the Draft Strategy will be taken through the socio-economic impact assessment system (SEIAS) process and this will follow an internal review (to the extent that the SEIAS has not been completed and the document is still subject to internal review, we may need to request the line function / unit to confirm that info on this document can be published and shared with the public. Concerned that detailed info on this report will be shared without relevant internal approvals.) .

It is important to note that the FLW Strategy builds on the existing regulative frameworks such as the National Waste Management Strategy, National Organic Waste Composting Strategy, Food Waste Prevention and Management Guideline, Norms and Standards for Organic Waste Composting, the Norms and Standards for the Treatment of Organic Waste, and it also takes into consideration the Food Loss and Waste Voluntary Agreement.

For queries related to the Draft Food Loss and Waste Strategy, please contact:

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ETHEKWINI IMPROVED RECYCLING INFRASTRUCTURES

The National Department of Forestry, Fisheries and the Environment conducted a site visit at two upgraded buy-back centres in eThekweni Metropolitan Municipality-DSW (Durban Solid Waste): Manaza Recycling centre and Seadonne Garden site and Recovery Site.

The buy-back centres are operated by two women, Ms Lindiwe Cele and Ms Anisha Balam, who started waste collection at a smaller scale from their respective homes, and other sites, gatherings and so forth. Their aspiration is to grow into upcycling, processing plant and to create more employment opportunities. Parts of identified sites in the city were also used for storage purposes. Parts of identified sites in the city were also used for storage purposes..

The projects were born from research conducted in 2018/2019 by Dr. Emmanuel Sakado from Inkwazi Isu (the South African Healthcare Foundation). A pilot project was initially conducted as a collaboration between various stakeholders to holistically address the pollution experienced in the Amanzimtoti Catchment area. The major role players were from Industry, Local government and Civil society, who put together a comprehensive and consolidated plan toward improving Recycling Infrastructure and Education. The project also aims also develop local end markets by establishing buy-back centres for recycled plastic waste, to assist collectors and recyclers, and to unlock value from plastic waste. These two projects were considered low-hanging fruit since the facilities were already existed.

This collaboration involves numerous start-up and existing projects ranging from infrastructure development, which includes recycling centres, and capacity building of collectors and recyclers, as well as education in schools and communities. This includes the Inkwazi Isu (fish eagle) Project aimed at setting up material recovery facilities around the city to facilitate better the collection and sorting of plastic waste for recycling. This is in alliance with Sasol, which supported the upgrade of two facilities and is continuing to support the development of 10 additional facilities within the eThekweni metropolitan municipality.

The enhanced facilities each have a processing capacity of up to 2,400 metric tons of plastic waste and also focus on other waste streams, such as paper. (including cardboard) and cans.

The Centres are also working closely with schools to raise awareness to recruit ambassadors from schools to assist in promoting awareness.

The municipality's involvement includes supporting the centres through a kerbside collection method using orange bags and transporting the recyclables from underserviced areas to the buy-back centres for processing.

22 waste pickers are already integrated into the system. The intention is to integrate and register additional waste pickers with the assistance of the African Reclaimers Organisation (ARO).

Potential upcoming collaborations include Toyota South Africa to assist with paper shredding.

Some of the challenges faced by the centres are:

- Electricity capacity based on the machinery used;
- Resources (Bulk Bags);
- Upgraded security systems;
- Lack of fire safety measures;
- Capacitated transport for collection of waste; and
- Gazebos for outdoor education & awareness (beach collection and sorting)



Figure 1: Ms Lindiwe Cele from Manaza Recycling Showcasing a trailer sponsored by Petco

ETHEKWINI IMPROVED RECYCLING INFRASTRUCTURES (continued)

Key stakeholders include

- Sasol;
- CCBSA;
- Plastics SA;
- Petco;
- Mpact;
- Very Green Packaging;
- Planet care; and
- Polco



Waste sorting at Manaza Recycling centre



Waste sorting at Seadonne Garden site & Recovery centre



DFFE & DWS officials at Seadonne Garden site & Recovery centre

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WASTE PICKER INTEGRATION

From Policy to Implementation

The role of Municipalities in the Integration of Waste Pickers

Waste Pickers: A Boon to Waste Economy

The role of waste pickers in the waste management and waste economy value chain has grown in leaps and bounds. Waste pickers perform the crucial first step in extracting recyclable and reusable materials from the waste stream, thus initiating waste minimisation.

It is estimated that there are between sixty and ninety thousand informal waste pickers working in South Africa's recycling economy, recovering mostly paper and packaging waste from the service chain and introducing these secondary resources into the country's value chain (DEFF and DST, 2020). Government, industry and civil society recognize this important role of waste pickers in the diversion of valuable resources away from landfill towards reuse and recycling.

The National Waste Management Strategy of 2020 emphasises that the recycling industry is built on the collection of recyclables by the informal sector without an enabling policy environment on the livelihoods of waste pickers and norms and standards that advance radical economic transformation and sustainable development

The entrenchment of the role of waste pickers has emerged because the waste pickers contribute significantly to the collection of recyclables, given that the formal systems for separation at source of recyclables is at most, insignificant.

WASTE PICKER INTEGRATION (continued)

The Role of Municipalities in Waste Picker Integration

The 2020 NWMS advocates for the strengthening and expansion of the role of waste pickers through integrated separation at source, in the waste management system and recycling economy, and supporting markets for source-separated recyclables. This should be done through various means, amongst others, ensuring that all stakeholders, including municipalities consider the mechanism of integrating waste pickers from the municipality's conception, planning and implementation of waste programmes.

Pillar 2 of the NWMS talks of effective and sustainable waste services and outcome 2 states that all South Africans live in clean communities with well-managed and financially sustainable waste services of which the waste pickers have been identified here as key contributors. Thus, local government, starting with the Metropolitan municipalities (Metros), Secondary Cities (Intermediary Cities) (IMCs) and the rest of the municipalities having clear waste picker integration programmes in place.

As an initial approach to integration, there is a need that municipalities with the support from other spheres of government supports waste pickers through putting programmes that:

1. Minimise health risks to waste pickers including women, youth and persons living with disabilities through raising public awareness around safe domestic disposal of waste, and
2. Improve the market value of recyclables by stimulating demand and improving waste pickers' livelihoods.

The NWMS further state that waste picking on landfills is undesirable, and where this currently happens local government and private sector recyclers should put in place Material Recovery Facilities (MRFs) that waste pickers can safely recover recyclable materials before waste is disposed to landfill.

There are currently several municipalities that have MRFs or are in planning stages to have MRFs so that the waste pickers can work in an environment that is suitable for minimising health risks that are mostly associated with picking from the landfill. Most of the municipalities that have MRF's are the Metros and a few IMCs either own a functional MRF or are in the process of building such. This includes but is not limited to the five (5) big Metros (excluding Nelson Mandela Metro, Mangaung Metro, and Buffalo City Metro, that is only currently planning to build one).

In the ICM category, there are municipalities such as Steve Tshwete LM (MP), Matjhabeng LM (FS), Rustenburg LM (NW), Stellenbosch LM (WC), Polokwane LM (LP), KSD LM (EC), Sol Plaahtie LM (NC), Umhlathuze LM (KZN), that are currently having the infrastructure in place to serve as an MRF. These are not the only ICM that are looking to operate MRF, others are rolling out MRF construction or retrofitting their Buy-Back centres to be MRFs.

To protect the health of the waste pickers, the DFFE, the provinces, and municipalities provided waste pickers with Personal Protective Equipment (PPE), including Conti suits, masks (COVID Related) and gloves to ensure that the waste pickers are protected from potential hazards associated with waste picking.

Some municipalities, including Stellenbosch LM, JB Marks LM, Newcastle LM and others, have a close working relationship with downstream consumers (BBCs, Business) to enable waste pickers to access markets they would have otherwise not been able to if they were not supported by the municipalities.

WASTE PICKER INTEGRATION (continued)

Waste Picker Guideline

In the advent of the growing number of citizens of municipalities resorting to waste picking to make ends meet, the implementation of waste picker integration needed to be streamlined so that the waste pickers and those working with them can, at the least, have a standard approach. The Waste Picker Guideline was birth from this streamlining need. The guideline provides key considerations, planning and implementation guide for all stakeholders.



Right: The guideline identifies seven key steps to ensure effective integration of waste pickers that would yield results.

Using the guideline will ensure that municipalities can fully implement the integration of waste pickers, thus allowing them to play their significant role in diverting waste away from the landfill site, supporting or pioneering separation at source, ensuring that they benefit from the economic spinoffs of the brilliant work.

Municipalities have an acute responsibility to ensure that they support this integration, and as a start, there is a need to know who the waste pickers that operate in their jurisdiction are. This will enable the municipalities to understand the and extent interventions required. It is, therefore important that the municipalities register the waste pickers to ensure that the planning and implementation of waste picker integration process is seamless, and would yield the desired outcomes.

For queries related to this article, please contact:

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WAR ON WASTE - THE IMPLEMENTATION OF THE RECYCLING ENTERPRISE SUPPORT PROGRAMME

The Recycling Enterprise Support Programme (RESP) was established in the year 2016/17 as a grant initiative to support the establishment and upscaling of the previously disadvantaged owned and managed recycling enterprises in South Africa with the maximum amount of R5 000 000 (Five Million Rand) available per eligible enterprise. This grant funding initiative is the first incentive scheme of its kind for the Department and targeted for the acquisition of waste management related machinery and equipment, infrastructure (with the exclusion of land purchase), commercial vehicles, overheads, business development services and other necessities to grow the enterprise within a period of 2 (two) years.

The RESP key objectives are to:

- Drive a substantial increase in recycling rates and waste diverted from landfills
- Drive entrepreneurship and job creation by ensuring the economic benefits emanating from waste are fully exploited
- Enable significant participation of black businesses in waste beneficiation and the secondary resources economy
- Promote innovation through converting recyclables into marketable products; and
- To encourage sustainability of the projects.

Since its launch, 24 waste diversion, recycling and beneficiation enterprises and cooperatives have been funded between 2017/18 and 2018/19 financial years making a tangible contribution to the participation of SMMES and cooperatives in the circular economy. In 2022, the Department conducted a Socio-Economic Impact Assessment study to further understand the downstream impact of RESP, based on these 24 funded SMMEs. It was discovered through the study that, the SMMEs' environmental savings from their recycling activities is above 3.4 megatons of CO₂ equivalent, which equate to an energy saving of 13 500 MWh- comparable to the energy used to power 270 000 South African households for one year. Furthermore, over 170 permanent jobs were created.

In the current RESP cycle for the 2022/23 financial year, over 250 applications were received. More than 30 of these were identified to have met the requirements to be considered for the grant funding. All these SMMEs and cooperatives are currently in different phases of their projects' implementation. Based on the outcome of the Socio-Economic Impact Assessment study, job creation and waste diversion are anticipated to increase significantly.

Article compiled by Mr. Prince Radzuma and Ms. Martha Malefane

