

Plastics waste management in South Africa

Presentation at the UNIDO multi-stakeholder cooperation dialogue

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National Development Plan of South Africa

The main objectives of the NDP are to:

- Create 11 million jobs by 2030 (5 million new jobs by 2020) focussing on:
 - Unemployed South Africans
 - Young and low-skilled
 - Upgrading of skills and knowledge
 - Increasing the size and effectiveness of the innovation system
- Transition to a low-carbon economy through
 - Raising energy efficiency
 - Managing waste better (Waste hierarchy)
 - Procuring about 20 000 MW of renewable electricity

Plastic bag policy review - 2019

- Plastic carrier bags and Plastic flat bags regulations (GN 24839 GG 24839 of 9 May 2003)
 - Ban on plastic bags <30µ
 - Levy on retailer for thicker bags
- Current considerations in the review process include:

Regulatory options

- Maintain status quo
- Manufacturing material substitutes
- Manufacturing specification related to bag thickness
- Outright ban on all plastic bags





Non-regulatory options

- Bag taxes at manufacturing
- Bag taxes at consumer level
- Tax/levy on all plastics
- Promotion of deposit refund schemes
- Adoption of reusable plastic bags
- Voluntary bag use reduction programmes
- Retail bag product stewardship initiatives
- Move plastics bags away from point of sale

Chemicals and Waste Economy Phakisa

Launched in March 2019

Participants identified 20 initiatives across 4 workstreams, including 2 cross-cutting initiatives

Bulk industrial waste 	Municipal 	Product design and waste minimisation 	Chemicals 
<ol style="list-style-type: none"> 1 Increase ash uptake for alternate building materials¹ 2 Accelerate innovation and commercialize existing R&D¹ <ul style="list-style-type: none"> ▪ Use ash as soil ameliorant ▪ Use ash to treat acid mine drainage and backfill mines 3 Export ash and ash products¹ 4 Zero sewage sludge to land(fill) <ul style="list-style-type: none"> - Anaerobic Digester Biogas to Energy - FBR Thermal Treatment 5 Towards Zero meat production waste to land(fill) by 2023 	<ol style="list-style-type: none"> 6 Introduction of an E-waste levy to increase collection rate 7 Unlocking government ICT legacy volumes 8 Achieving a minimum of 50% of households separating at source by 2023 9 Introduction of materials recovery facilities and pelletization plants to increase plastic recycling rates 10 Produce building aggregates and construction inputs from rubble and glass 	<ol style="list-style-type: none"> 11 Developing capacity through a specialised programme which upskills agri-stakeholders to minimize food loss 12 Consumer awareness campaign to use and consume ugly food² 13 Compilation/update of packaging design guidelines 14 Formalising the packaging industry producer responsibility plans 15 Establish an refuse-derived fuel plants across South Africa 	<ol style="list-style-type: none"> 16 Establish a refrigerant reclamation and reusable cylinder industry 17 Ban import of harmful chemicals (e.g. leaded paint/paint pigments) 18 Collect and dispose stockpiles of harmful substances (asbestos, mercury)
Cross-cutting initiatives	<ol style="list-style-type: none"> 19 Coordinate SMME development opportunities across initiatives 20 Roll out national awareness campaigns 		

Slide 4 1 The large volumes of ash produced enables both beneficiation and export

2 Fruit with high calorific value, but that are physically imperfect



Colloquium planned for 21-22 Nov 2019

Objectives

- Create a platform to engage representatives of government, private sector and civil society in building more effective partnerships to enhance plastic waste management.
- Promote discussions on sustainable management of plastic waste in South Africa.
- Create a national platform for the exchange of information on best practice, and identify and address bottlenecks with regards to management of plastic waste in the country.
- Identify the key economic opportunities that could be realized from plastic waste and discuss how to incorporate the informal sector in plastic waste recycling.
- Deliberate on mechanisms for the effective delivery of waste management services by municipalities and support thereof.
- To deliberate on technologies for plastic waste management suitable for South Africa.

South African Industry Initiative

Purpose: “To accelerate the development and implementation of sustainable solutions to end plastic waste”

10 year vision: A plastic waste free South Africa

5 year strategic outcomes:

- Thriving circular plastics economy
- Problematic waste streams addressed
- Collective responsibility taken by all

Key targets by 2025

- 100% of plastics recyclable or compostable – only in systems with sufficient collection and processing infrastructure available or fit for purpose applications
- X% of plastics actively recycled - IndWMP target is $\pm 60\%$ of all plastics across value chain

South African Industry Initiative

#1 = Why

Vision
10 years

Strategic outcomes
5 years

Key targets
By 2025

A plastic waste free South Africa

Thriving circular plastics economy

- Practical solutions to collect and valorise plastic waste in place at scale
- Strong and consistent demand for recycled materials across a range of applications
- Strategic roadmap in place to grow the circular plastics economy

Problematic waste streams addressed

- Practical solutions in place to address problem plastics waste streams
- Practical solutions to address litter and environmental waste in place at scale

Collective responsibility taken by all

- Approach to design for next life embedded across the value chain
- All stakeholders (incl. consumers) understand and take responsibility for their role in addressing plastic waste
- Removal of unnecessary packaging across the value chain

100% of plastics recyclable or compostable¹

x% of plastics actively recycled²

30% average recycled content across all plastic packaging

Opportunities/Challenges

- Improved waste management infrastructure
 - Adequate waste management infrastructure for all recyclable and difficult to recycle streams at municipalities around South Africa
- Reduced contaminants in the waste stream
 - Compostable and biodegradable material may reduce recycling due to contamination
- Assistance to recyclers to help solve challenges in their operations
- Develop alternatives for difficult-to-recycle plastics.
 - Certain materials and products are not economically viable to collect, transport and recycle. Solutions need to be developed.

UNIDO CSIR joint project funded by Japan

Title:

Support for transitioning from conventional plastics to more environmentally sustainable alternatives.

Objective:

The amount of plastic leakage into the environment (incl. marine environment) in South Africa is reduced.

Output 1:

Develop an Action Plan to support sustainable transition to alternative material

Output 2 (in collaboration with Wits University and Japanese NGO):

Strengthened plastics recycling capacity by capacity building activities including integration of the informal collectors sector.

Project activities – Output 1

- Identification of single use plastics with opportunities for replacement
- Material substitution opportunities for each identified product
- Assessment of potential to produce alternative materials locally
- Assessment of availability of technologies (local and international) for final treatment of these alternatives
- Demonstration of identified technologies/materials through partnership
- Awareness development and outreach activities, including workshops and study tours, will complement all of the above activities.

Project activities – Output 2

- Mapping out the current status in terms of systems, facilities and needs
- Design capacity building interventions
- Implement capacity building activities
- Awareness development and outreach activities will complement all of the above activities

South Africa – Japan collaboration

Extract from the minutes of the South African Cabinet meeting of 7 August 2019:

2. South Africa-Japan Collaboration

2.1. Cabinet welcomes the collaboration initiative between South Africa and Japan to combat plastic pollution by supporting the transitioning of the local plastic industry from conventional plastics to more environmentally sustainable alternatives.

Thank You

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