Packaging SA Extended Producer Responsibility Plan – Volume 1 –

As per requirements of Government Notice 41303 dated 6 December 2017 calling on the paper and packaging industry, electrical and electronic industry and lighting industry to develop and submit Industry Waste Management Plans (IndWMPs)

DATE OF SUBMISSION:
5 September 2018
The National Department of Environmental Affairs (DEA) issued the Section 28 call for Industry Waste Management Plans on 6 December 2017.

In response, Packaging South Africa has compiled a consolidated multi-stream Industry Waste Management Plan for the paper and packaging sector based on the Extended Producer Responsibility (EPR) Model. The PACKAGING SA EPR Plan will be submitted to the DEA on 5 September 2018.

PACKAGING SA has however, in response to the Gazette requirements, taken a broader vision and is submitting this document, called the

Packaging SA Extended Producer Responsibility (EPR) Plan,

which goes beyond the requirements for an Industry Waste Management Plan (IndWMP), with the aim of answering the question:

“How can an EPR Plan respond to the needs of South Africa and stimulate an economy that can foster meaningful work opportunities; encourage partnerships and provide a platform for transformation?”

This document has been drafted by Sally-Anne Käsner and Bonté Edwards from JG Afrika (Pty) Ltd, on behalf of PACKAGING SA and the representative PROs.

Cited as:

Please note that the document consists of three volumes:

- Volume 1: The PACKAGING SA EPR Plan (this document)
- Volume 2: Record of Stakeholder Engagement and Comments and Responses Report
- Volume 3: Individual PRO IndWMPs
Acknowledgements

The PACKAGING SA EPR Plan has taken a great deal of effort to compile with the input from a variety of stakeholders to date and these are acknowledged here. It is with further input from the public and interested parties that will further contribute to ensure that a successful plan will be submitted.

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Sustainable Retailers Forum – represented by the Moss Group
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Tourism Business Council of South Africa (TBCSA) - Boitumelo Moleleki, Jodene Erasmus

Producer Responsibility Organisations (PROs) and respective Board Members:
Packaging SA, Polyco, PETCO, MetPac-SA; Polystyrene Association of South Africa, SAVA, PRASA/PAMSA, The Glass Recycling Company

Packaging SA Stakeholder Engagement

Two (2) adverts were placed in national newspapers on 15 July 2018, including the Sunday Times Newspaper and the City Press as per the requirements of the Gazette.

Further to the adverts, the following Public sessions were available to attend:
- 25 July – Johannesburg – Plastics SA, 18 Gazelle Avenue, Corporate Park South, Old Pretoria Road, Midrand
- 31 July – Cape Town – Townhouse Hotel, 60 Corporation Street, Cape Town
- 2 August – KZN – Mount Edgecombe Country Club, Gate 2, Golf Course Drive, Mount Edgecombe
- 7 August – Port Elizabeth – The Beach Hotel, Marine Drive, Summerstrand
- 15 August – Bloemfontein – Protea Hotel Bloemfontein, 202 Nelson Mandela Drive, Brandwag

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Disclaimer

Neither Packaging SA nor the associate PRO’s guarantee, or accept legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained in this plan or in any associated plan.
INTENTION OVER 5 YEARS...

We have a plan that moves the recycled tonnage from 2.2 million tons to 2.7 million tons over 5 years, achieving a 90% compliance rate.

MONEY

Collecting R2.5 billion to re-invest in EPR in South Africa.

OBJECTIVES

1. NDP GOALS
   - SUSTAINABLE DEVELOPMENT GOALS
   - INCREASED RECYCLING RATE
   - REDUCE LITTER & MATERIAL LEAKAGE
   - JOBS & TRANSFORMATION

PACKAGING MATERIALS INCLUDED

- GLASS
- PAPER & PAPER PACKAGING
- METALS
- POLYOLEFINS
- POLYETHYLENE TEREPTHALATE
- POLYSTYRENE
- VINYLS
- FUTURE ALTERNATIVES

EPR FRAMEWORK

- Least cost to society, industry and government
- Collaboration

EXTENDED PRODUCER RESPONSIBILITY

An environmental policy approach where a producer is responsible for the entire life cycle of its product in order to meet legal obligations. This means that the producer is responsible for designing its products with materials that are the least damaging to the environment and in such a way that the recycling of the product is optimized.

PACKAGING SA EPR PLAN

- REDUCE LITTER & MATERIAL LEAKAGE
- COLLECTIVE LEARNING INTO ENVIRONMENTAL PROTECTION
- MINIMISE LEAKAGE INTO THE ENVIRONMENT
- MINIMISE PACKAGING
- FUTURE ALTERNATIVES

WASTE PICKERS / INFORMAL COLLECTORS

Support and recognition for the service provided, including access to market, critical component of the value chain, and ensure value is added / beneficiation.

PACKAGING SA EPR PLAN

- DECENTRALISED ROLE: coordination of 7 PRO’s and proven models, combining decades of experience and success.
- Collaborative approach to address individual obligations by exerting EPR responsibility collectively.
- Industry led and industry managed by the OBLIGED industry.
- Aim to reduce contamination and obtain clean materials for recycling.
- Focus on transformation, education, and awareness, separation at source, assisting waste pickers and the informal sector.
- Support, integration, collaboration of all stakeholders, including municipalities.

R&D - TECHNICAL WORKING GROUPS

- Collaborative
- Voluntary
- Inform how projects are developed

NO LONGER VOLUNTARY = COMPLIANCE IS MANDATORY

5 YEAR PLAN

- GOOD GOVERNANCE
- TRANSPARENT
- TRUSTED

Complies with Section 28 and aligns with the National Pricing Strategy for Waste Management.
Contents

INTENTION OVER 5 YEARS ............................................................................................................ 3
DEFINITIONS ................................................................................................................................ 7
ABBREVIATIONS ......................................................................................................................... 15

1 Introduction ................................................................. 17
  1.1 Social and economic transformation ................................. 18
  1.2 A phased approach .......................................................... 21
  1.3 Alignment with the National Pricing Strategy for Waste Management ………………….. 21
    1.3.1 General challenges in the Packaging Industry ......................................................... 22
    1.3.2 Tax burden on society ................................................................................................. 23
    1.3.3 Industry Led-Industry Managed EPR Plan ............................................................... 23

2 Overview of Packaging South Africa ................................................................. 26
  2.1 Federation of Plans ......................................................... 26
  2.2 Timeframes ....................................................................... 27
  2.3 Approach ........................................................................... 27
  2.4 Incorporating the Waste Hierarchy with a Circular Economy Approach ................. 29
  2.5 Targets ............................................................................... 32

3 Proposed PACKAGING SA EPR Structure ......................................................... 36
  3.1 Governance ........................................................................ 36
  3.2 Conduct Committee .......................................................... 37
  3.3 Packaging South Africa (PACKAGING SA) – Board .................................................. 38
  3.4 Producer Responsibility Organisations (PRO) ......................................................... 40
  3.5 Technical Working Groups ................................................... 40
    3.5.1 Technical Working Groups – Packaging Sector ......................................................... 40
    3.5.2 Technical Working Groups – Collection & End-of-Life Solutions ......................... 41
  3.6 Obligated parties to the EPR Plan ........................................... 41
  3.7 Summary of reporting roles and responsibilities of obliged parties to the EPR Plan …. 42

4 Financial Model ............................................................................. 44
  4.1 EPR Fees ............................................................................ 44
  4.2 Budget ................................................................................... 46
    4.2.1 Black Industrialist Scheme support ........................................................................ 46
    4.2.2 Municipal Initiative Fund ...................................................................................... 46
    4.2.3 Waste Pickers Fund ............................................................................................... 46

5 Implementation – A focus on Transformation & Inclusive Growth ................................. 49
  5.1 Black Industrialist Scheme Support ........................................ 49
  5.2 Data collection and management ........................................... 52
5.3 Municipal Initiative Fund ................................................................. 52
  5.3.1 Separation at Source ........................................................................ 53
  5.3.2 Material Recovery Facilities (MRFs) ................................................ 54
5.4 Informal sector integration ................................................................. 54
5.5 Packa-Ching ..................................................................................... 57
5.6 National Awareness and Education Campaign ................................. 57
5.7 Design for a Circular Economy .......................................................... 58
5.8 Research and Development ............................................................... 59

6 Overview of the PROs ........................................................................... 60
  6.1 Glass ............................................................................................... 60
  6.2 Paper and Paper Packaging .............................................................. 64
  6.3 Metals ............................................................................................ 68
  6.4 Polyolefins ..................................................................................... 70
  6.5 Polyethylene terephthalate ............................................................... 71
  6.6 Polystyrene .................................................................................... 72
  6.7 Vinlys .............................................................................................. 73
  6.8 Summary of Job Opportunities Targets ............................................ 74

7 Stakeholder Engagement ....................................................................... 74
  7.1 Stakeholder engagement ................................................................. 74
  7.2 Comments and Responses .............................................................. 75

8 Conclusion .......................................................................................... 76

9 References .......................................................................................... 77

Figures
  Figure 1: Paper and Packaging material value chain .............................. 28
  Figure 2: Integrated waste management hierarchy .................................. 29
  Figure 3: Transitioning to a circular economy 2.0 (Lemille, A.) .............. 30
  Figure 4: Collected paper and packaging materials to date and forecast (BMI, 2018) ............................................. 33
  Figure 5: Proposed Structure ................................................................. 37
  Figure 6: Potential enterprise development opportunities (Godfrey, L. 2014) .................................................... 50
  Figure 7: Overview of Packaging SA Structure ........................................ 76

Tables
  Table 1: Paper and Packaging Consumed and Collected 2012-2016 (BMI, 2018) ................................................................. 34
  Table 2: Paper and Packaging collection forecast (BMI, 2018) ................ 34
  Table 3: Summary of reporting roles and responsibilities ...................... 42
  Table 4: EPR Fees per material stream ............................................... 44
  Table 5: PACKAGING SA Proposed EPR Plan Budget ......................... 48
  Table 6: Job Opportunity Targets ......................................................... 74
Annexures

Annexure 1: Legislative Review ................................................................. 81
## Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylonitrile butadiene styrene (ABS)</td>
<td>Combines acrylonitrile and styrene polymers with polybutadiene rubber. The cost of producing ABS is roughly twice the cost of producing polystyrene however, it is considered superior for its hardness, gloss, toughness, and electrical insulation properties. The styrene gives the plastic a shiny, impervious surface. The polybutadiene, a rubbery substance, provides toughness even at low temperatures.</td>
</tr>
<tr>
<td>Beneficiation (waste beneficiation)</td>
<td>The treatment of raw material (as iron ore) to improve physical or chemical properties especially in preparation for smelting. Waste Beneficiation is the treatment of waste to improve its physical or chemical properties to use it as a raw material input into production processes and extracting economic value.</td>
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<tr>
<td>Black Industrialist</td>
<td>A juristic person that includes co-operatives, incorporated in terms of the Companies Act (2008), owned by Black South Africans as defined by the B-BBEE Act who creates and owns value-adding industrial capacity and provides long-term strategic and operational leadership to a business. A Black industrialist can also be a natural person. The following are characteristics of a Black industrialist: • provides strategic and operational leadership to the business; • has a high level of ownership (&gt;50%) and/or exercises control over the business; • identifies opportunities and develops business to take advantage of these opportunities (entrepreneurial); • takes personal risk in the business; • does business in the manufacturing sector, with particular reference to IPAP focus areas; and • makes a long-term commitment to the business and is a medium to long-term investor.</td>
</tr>
<tr>
<td>Brand Owner</td>
<td>A brand owner is an organization or company that is the registrant of a trademark; if the brand/trademark is unregistered, then the organization or company that owns the intellectual property rights to the brand / trademark takes on the role of “brand owner”.</td>
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<tr>
<td>Circular Economy</td>
<td>A circular economy is a regenerative system in which resource inputs and waste, emissions, and energy leakage are minimised by slowing, closing, and narrowing energy and material loops. This can be achieved through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling.[1] This is in contrast to a linear economy which is a ‘take, make, dispose’ model of production.[2]</td>
</tr>
<tr>
<td>Clearinghouse</td>
<td>Third-party central agency or corporation acting as a regulator for a competitive market</td>
</tr>
<tr>
<td>Collector</td>
<td>A company, co-operative or individual (usually a business) that collects or purchases post-consumer packaging material for on-sale to another collector or recycler. Sorting and baling material activities are typically undertaken, and in some cases, flaking of PET material. Collectors often handle multiple material types.</td>
</tr>
<tr>
<td>Collected packaging materials</td>
<td>All paper and packaging material collected for export, recycling, reprocessing, energy recovery or any other conversion process employed as an alternative to direct disposal to landfill</td>
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<tr>
<td>Co-mingled collection</td>
<td>Co-mingled collection refers to the collection of a mix of dedicated waste materials which is subsequently sorted for recycling at specialised facilities.</td>
</tr>
<tr>
<td>Communication campaigns</td>
<td>Communication campaigns encompass strategies for producing effects on the knowledge, attitudes, and behaviour of large populations across a variety of domains. They are purposive attempts to inform, persuade, or motivate behaviour changes in a relatively well-defined and large audience by means of organized communication activities.</td>
</tr>
<tr>
<td>Consumer Goods (including Fast moving consumer goods – FMCG)</td>
<td>Consumer goods are products that are purchased for consumption by the average consumer. Alternatively called final goods, consumer goods are the end result of production and manufacturing and are what a consumer will see on the store shelf. Clothing, food and jewellery are all examples of consumer goods. Basic materials such as</td>
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copper are not considered consumer goods because they must be transformed into usable products.

There are three main types of consumer goods: durable goods, nondurable goods and services. Durable goods are consumer goods that have a long-life span and are used over time. The life span is typically three years or more. Examples include bicycles and refrigerators. Nondurable goods are consumed in less than three years and have short life spans. Examples include food and drinks. Services include repairs and haircuts. Consumer goods are also called a final good, or end products. These items are sold to consumers for use in the home or school or for recreational or personal use. Consumer goods exclude motor vehicles.

**Fast Moving Consumer Goods**

One of the largest consumer goods groups is called fast moving consumer goods. This segment includes the nondurable goods like food and drinks. Companies and retailers like this segment as they are the fastest-moving consumer goods from stores, offering high shelf space turnover opportunities.

### Consumption Calculation

The sum of all packaging and paper manufactured, including direct and indirect imports, is reduced by direct and indirect exports and then summed to the indirect imports volume. This net result is the total packaging and paper consumption size which is, effectively, the available material which potentially could reach South African landfill sites, **definition as supplied by the BMI and used within their calculations**.

### Converter (Processors) Refer also to “Packaging Producer”

Packaging companies (known in the materials industry as “converters”) are engaged in the conversion of commodity raw materials such as polymer, board or paper into value-added consumer or industrial packaging.

Processors are also referred to as Converters. Processors/Converters do not only operate in the use, recycling, recovery, treatment or disposal of waste, but also in terms of the processing of virgin material into Products.

### Corporate social responsibility (CSR)

The European Commission defines CSR as the responsibility of enterprises for their impacts on society.

To fully meet their social responsibility, enterprises should have in place a process to integrate social, environmental, ethical human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders.

### Decent work

As defined by the International Labour Organisation (ILO) involves opportunities for work that are productive and deliver a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.

### Deposit-refund system / scheme

A deposit-refund system is a surcharge on a product when purchased and a rebate / refund is paid when it is returned. A well-known example is when container deposit legislation mandates that a refund is given when a glass / PET beverage container is returned.

### Design for recycling

The strategy and/or operation to design a product or packaging in such a way, that it can be entirely recycled, and if not entirely recyclable, the share of contents that are recyclable is optimized.

The designed-for-recycling method incorporates recycling and recyclability criteria (e.g. easy to dismantle, easy to remove parts/components, etc.) into the design phase of products, with the aim of making the recycling of the packaging possible or easier. Examples are the avoidance of multilayer packaging, preferring clear PET instead of using certain colours, avoiding full-body sleeves around bottles etc.

### Disposal

According to the EU Waste Framework Directive, disposal means “any operation which is not recovery even where the operation has as a secondary consequence such as the reclamation of substances or energy”.
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<th>Term</th>
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<tr>
<td>Dual system</td>
<td>The organization of collection infrastructure and collection services, run by private organizations, parallel to municipal collection systems. The “Dual” system is characterized by the fact that a second packaging waste collection system is run in parallel to the waste collection system of the local authorities without their physical and/or financial involvement. It is run physically and financially by one or more compliance schemes on behalf of obliged companies without the involvement of local authorities. It was invented in 1990 in Germany by Der Grüne Punkt Duales System Deutschland GmbH and implemented in a similar way in Austria and Sweden. France then developed the “shared responsibility” approach followed by most of the other European countries.</td>
</tr>
<tr>
<td>Economic instruments</td>
<td>encourages or discourages particular behaviour and augments other regulatory instruments.</td>
</tr>
<tr>
<td>Economic Transformation</td>
<td>The term is defined by the Strategy for Broad-Based Black Economic Empowerment as the transition from an economy that confined wealth creation to a racial minority to an economy that benefits all citizens; and is characterised by ownership, management and control of factors of production by previously marginalised communities (the dti, 2003).</td>
</tr>
<tr>
<td>Employed</td>
<td>persons are those aged 15–64 years who, during the reference week, did any work for at least one hour, or had a job or business but were not at work (i.e. were temporarily absent) – definition as per Statistics South Africa.</td>
</tr>
<tr>
<td>Expanded polystyrene</td>
<td>Rigid, tough and lightweight thermoplastic product. Made of pre-expanded polystyrene beads. EPS is ideal for the packaging and construction industries due to its light weight, strong and excellent thermal insulation properties. e.g. trays, plates, bowls and fish boxes.</td>
</tr>
<tr>
<td>Extended Producer Responsibility (EPR)</td>
<td>An environmental policy approach in which a producer’s responsibility for a product is extended to the post-consumer stage of a product’s life cycle (i.e. end of life management of the product)</td>
</tr>
<tr>
<td>Extruded polystyrene</td>
<td>A rigid, insulating foam that is formed with polystyrene polymer, but manufactured using an extrusion process. Often manufactured with a distinctive colour to identify product brand. Used in crafts and model building, in particular architectural models.</td>
</tr>
<tr>
<td>Federation of Plans</td>
<td>Collection of PRO plans under PackagingSA</td>
</tr>
<tr>
<td>Filler</td>
<td>The filler, or the brand name owner, is usually the economic player in the packaging chain that has developed the product and puts it into specific packaging.</td>
</tr>
<tr>
<td>Free Rider</td>
<td>Obliged companies that do not fulfil their legal obligations, either by not participating in any recovery system at all or by not reporting all obliged packaging. Producers who do not contribute financially to any compliance scheme, but still benefit from their existence and action</td>
</tr>
<tr>
<td>Full Time Equivalent</td>
<td>At least the income of a full-time job paid at minimum wage. R20 per hour, 8 hours per day, 5 days per week, 52 weeks per year.</td>
</tr>
<tr>
<td>Global Trade Item Number (GTIN)</td>
<td>The GTIN is a globally unique 14-digit number used to identify trade items, products, or services.</td>
</tr>
<tr>
<td>Good governance</td>
<td>According to the UN, governance can be defined as “the process of decision-making and the process by which decisions are implemented (or not implemented)”. In this context, good governance has the following eight key characteristics: · participatory; · rule of law i.e. fair legal frameworks that are enforced impartially; · consensus oriented; · accountable; · transparent; · responsive; · effective; and · efficient.</td>
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| Green Dot                                | The mark “The Green Dot” on packaging means that, for such packaging, a financial contribution has been paid to a national packaging recovery company (organization) that
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<td>Term</td>
<td>Definition</td>
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<tr>
<td>High Impact Polystyrene</td>
<td>Versatile, economical and impact-resistant plastic that is easy to machine and fabricate. HIPS is often specified for low strength structural applications when impact resistance, machinability, and low cost are required.                                                                                                                                                                                                                                                                                                                                ison.</td>
</tr>
<tr>
<td>Composting (including home composting)</td>
<td>A stabilised, homogenous, fully decomposed substance of animal or plant origin to which no plant nutrients have been added and that is free of substances or elements that could be harmful to man, animal, plant or the environment. Controlled biological process in which organic materials are broken down by micro-organisms.</td>
</tr>
<tr>
<td>Industrial Composting</td>
<td>Industrial composting is an established process with commonly agreed requirements concerning temperature and timeframe for transforming biodegradable waste into stable, sanitised products to be used in agriculture. This process takes place in industrial or municipal composting plants. The criteria for the industrial compostability of packaging are set out in EN 13432. Materials and products complying with this standard can be certified and labelled accordingly.</td>
</tr>
<tr>
<td>Industry waste management plans (IndWMPs)</td>
<td>Industry waste management plans enable collective planning by industry to manage their products once they become waste and to collectively set targets for waste reduction, recycling and re-use.</td>
</tr>
<tr>
<td>Informal Collectors</td>
<td>An informal collector is a person who salvages post-consumer reusable or recyclable materials that have been discarded. He/she operates in the informal market. In this context, an informal collector operates by going door-to-door to salvage recyclable materials or salvages from a landfill site. Cross reference to “waste picker”</td>
</tr>
<tr>
<td>Informal employment</td>
<td>Informal employment identifies persons who are in precarious employment situations irrespective of whether or not the entity for which they work is in the formal or informal sector. Persons in informal employment therefore comprise all persons in the informal sector, employees in the formal sector, and persons working in private households who are not entitled to basic benefits such as pension or medical aid contributions from their employer, and who do not have a written contract of employment.</td>
</tr>
<tr>
<td>Informal sector</td>
<td>The informal sector has the following two components: i. Employees working in establishments that employ fewer than five employees, who do not deduct income tax from their salaries/wages; and ii. Employers, own-account workers and persons helping unpaid in their household business who are not registered for either income tax or value-added tax.</td>
</tr>
<tr>
<td>Job</td>
<td>A job is the work that someone does to earn money</td>
</tr>
<tr>
<td>Littering</td>
<td>Littering is the (illegal) act of leaving packaging waste in an open or public place.</td>
</tr>
<tr>
<td>Material producer</td>
<td>The material producer is the company that develops those materials that packaging is made of: the plastic, paper, glass or metal producer. In case of glass and metals the material producer can also be the packaging producer.</td>
</tr>
<tr>
<td>Material Recovery Facility (MRF)</td>
<td>A specialized plant that receives, separates and prepares recoverable materials for marketing to end user manufacturers.</td>
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</table>
| Material recycling                        | Following the ISO guidelines on material recycling 18604:2013, material recycling refers to “reprocessing, by means of a manufacturing process, of a used packaging material into
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<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>a product, a component incorporated into a product, or a secondary (recycled) raw material; excluding energy recovery and the use of the product as a fuel&quot;.</td>
<td></td>
</tr>
<tr>
<td>Material Organisation</td>
<td>Material Organisation, i.e. a collective entity set up by producers or through legislation, which becomes responsible for meeting the recovery and recycling obligations of the individual producers.</td>
</tr>
<tr>
<td>Also refer to</td>
<td></td>
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<tr>
<td>Product Responsibility</td>
<td></td>
</tr>
<tr>
<td>Organisation</td>
<td></td>
</tr>
<tr>
<td>Obligated Industry</td>
<td>Those companies with whom Extended Producer Responsibility lies as per the Gazette.</td>
</tr>
<tr>
<td>Packaging</td>
<td>‘packaging’ shall mean all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer. ‘Non-returnable’ items used for the same purposes shall also be considered to constitute packaging. ‘Packaging’ consists of:</td>
</tr>
<tr>
<td>a)</td>
<td>sales packaging or primary packaging, i.e. immediate contact with the product; in other words, it is the first packaging layer in which the product is contained</td>
</tr>
<tr>
<td>b)</td>
<td>grouped packaging or secondary packaging, i.e. is intended to protect not only the product, but also the primary packaging, which often is the packaging most visible to the consumer in retail displays. The most common examples of secondary packaging include cardboard cartons, cardboard boxes and cardboard/plastic crates.</td>
</tr>
<tr>
<td>c)</td>
<td>transport packaging or tertiary packaging, i.e. Tertiary packaging facilitates the protection, handling and transportation of a series of sales units or secondary packaging in order to group everything into unit loads during transit. This type of packaging is rarely seen by the consumer.</td>
</tr>
<tr>
<td>Packaging Producer</td>
<td>A packaging producer is the company that converts raw materials into packaging.</td>
</tr>
<tr>
<td>Refer also to</td>
<td></td>
</tr>
<tr>
<td>&quot;Converter&quot;</td>
<td></td>
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<tr>
<td>Paris Agreement</td>
<td>South Africa has ratified the Paris Agreement on Climate Change and has since submitted its instrument of ratification to the Depository under the United Nations Secretary-General in New York. Ratification of the historic treaty, adopted at the 21st international climate change talks in France on 12 December 2015, was assented to by the National Council of Provinces on 27 October 2016, and the National Assembly on 1 November 2016. In accordance with decision 1/CP.19 and 1/CP.20 of the Conference of the Parties to the United Nations Framework on Climate Change, South Africa has submitted its intended nationally determined contribution (INDC) on adaptation, mitigation as well as finance and investment requirements for both.</td>
</tr>
<tr>
<td>PET Bottles</td>
<td>PET packaging associated with beverages, food, household items etc excl Edible Oil. i.e. cooking oil.</td>
</tr>
<tr>
<td>PET Edible Oil</td>
<td>PET packaging associated with food such as cooking oils.</td>
</tr>
<tr>
<td>PET Thermoform</td>
<td>PET packaging such as punnets, trays, blister packs.</td>
</tr>
<tr>
<td>Point of Sale (POS)</td>
<td>Is the point at which a customer makes a payment to the merchant in exchange for goods or services.</td>
</tr>
<tr>
<td>&quot;polluter pays&quot; principle</td>
<td>The selection and use of economic measures, including pricing, taxation, subsidies, incentives and fiscal measures will also be aligned with the principles established by NEMA, including the “polluter pays” principle. According to the “polluter pays” principle, all generators of waste (including businesses and households) are responsible for the costs of managing the waste generated. These include not only the direct financial costs of collection, treatment and disposal of waste, but also externalities such as health and environmental impacts.</td>
</tr>
<tr>
<td>Post-consumer</td>
<td>After use by the consumer.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
| Prevention | According to the Waste Framework Directive, prevention can be defined as: “measures taken before a substance, material or product has become waste, that reduce:  
  a) the quantity of waste, including through the re-use of products or the extension of the life span of products;  
  b) the adverse impacts of the generated waste on the environment and human health; or  
  c) the content of harmful substances in materials and products.” |
| Processors (Converters) | Processors are also referred to as Converters. Processors/Converters do not only operate in the use, recycling, recovery, treatment or disposal of waste, but also in terms of the processing of virgin material into Products.  
  Packaging companies (known in the materials industry as “converters”) are engaged in the conversion of commodity raw materials such as polymer, board or paper into value-added consumer or industrial packaging. |
| Producer Responsibility Organization (PRO) | Producer Responsibility Organisation, i.e. a collective entity set up by producers or through legislation, which becomes responsible for meeting the recovery and recycling obligations of the individual producers. |
| Recyclable | Recyclable materials or products can be used again after they have been treated using a mechanical or chemical process.  
  The following four conditions should be met for a product to be considered recyclable:  
  • The product must be made with a material that is collected for recycling, has market value and/or is supported by a legislatively mandated program  
  • The product must be sorted and aggregated into defined streams for recycling processes  
  • The product can be processed and reclaimed/recycled with commercial recycling processes  
  • The recycled material becomes a raw material that is used in the production of new products. |
| Recyclability | Recyclability is the ability of a material to be captured and separated from a waste stream for conversion and further treatment. |
| Recycler | A recycler is a business that converts sorted recyclable materials into a new product (secondary raw material). |
| Recycling | Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes.  
  It includes the reprocessing of organic material, but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations. (Definition from Waste Framework Directive 2008/98/EC, Article 3.) |
<p>| Refillable packaging | Packaging that can be refilled or reused more than once. |
| Retailer | A retailer is a business that sells (packaged) goods to the consumer, as opposed to a wholesaler or supplier, who normally sell their goods to other businesses. |
| Reuse | Packaging is refilled or used for the same purpose for which it was conceived. |
| Reverse vending machine | A reverse vending machine accepts used (empty) beverage containers and returns money to the user (the reverse of the typical vending cycle). |
| Separation at Source | Separation at source refers to the end consumer separating recyclables from other waste at the point of generation. In the context of this document it refers to the end consumer separating recyclables from other waste at household-level for separate collection. The end consumer also includes businesses such as restaurants and hotels. |
| Shared cost system | A system where the extra costs of separate collection of waste are divided among the mandated companies and/or the compliance schemes and municipalities. This is related to several parameters and variables therefore there are no fixed shares. |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>Within a shared cost system obliged companies within the mandated compliance schemes pay only a part of the costs for the separate collection, sorting and recovery of used packaging to local authorities. The exact share is different from country to country and usually depends on a political compromise between the stakeholders. Often, the shares of the costs are the incremental costs. This approach was developed in France and implemented in a similar way in Spain, Italy, Belgium, Czech Republic and almost all other European countries.</td>
<td></td>
</tr>
<tr>
<td>Single-use</td>
<td>Designed to be used once and then disposed of or destroyed.</td>
</tr>
<tr>
<td>Stewardship organisation</td>
<td>Usually used as synonym to a PRO, mainly used in the US and Canada.</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>All participants involved in the value chain of a product: producers, retailers, consumers, local authorities, public and private waste management operators.</td>
</tr>
<tr>
<td>Sustainable Development Goals</td>
<td>The Sustainable Development Goals (SDGs), are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. These 17 Goals build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected—often the key to success on one will involve tackling issues more commonly associated with another. The SDGs came into effect in January 2016, and they will continue to guide UNDP policy and funding until 2030, led by the United Nations Development Agency (UNDP) across 170 countries and territories.</td>
</tr>
<tr>
<td>Sustainable Materials Management (SMM)</td>
<td>Sustainable Materials Management (SMM) is a policy approach that aims to address the social, environmental and economic considerations throughout the life-cycle of a product or material, thereby improving resource security and competitiveness through better resource productivity.</td>
</tr>
<tr>
<td>Take-back obligation / system</td>
<td>Obligations for producers or distributors to take back their products from end users at the end of the products’ useful life.</td>
</tr>
<tr>
<td>Tonnage collected</td>
<td>Tonnage of material bought from collectors, waste collecting companies and or collected from recycling banks (pre-and post-industry waste as well as post-consumer waste), i.e. volumes diverted from landfill.</td>
</tr>
<tr>
<td>Tonnage exported</td>
<td>Tonnage of material collected and exported.</td>
</tr>
<tr>
<td>Tonnage used for other applications</td>
<td>Tonnage collected and used for other applications other than recycling e.g. packaging burned to produce energy (does not get recycled). This volume is not used to produce other packaging materials.</td>
</tr>
<tr>
<td>Total Industry Tons (including imports, excluding exports)</td>
<td>Tonnage of packaging placed on the market for local use. This tonnage excludes volume exported.</td>
</tr>
</tbody>
</table>
| Waste | **Waste** means any substance, whether or not that substance can be reduced, re-used, recycled and recovered—
  a) That is surplus, unwanted, rejected, discarded, abandoned or disposed of;
  b) Which the generator has no further use of for the purposes of production;
  c) That must be treated or disposed of; or
  d) That is identified as a waste by the Minister by notice in the Gazette, and includes waste generated by the mining, medical or other sector, but-
    (i) A by-product is not considered waste; and
    (ii) Any portion of waste, once re-used, recycled and recovered, ceases to be waste. |
<p>| Waste Bureau | The Waste Bureau refers to the Bureau established by The Department of Environmental Affairs in terms of section 34A (1) of the National Environmental Management Act: Waste Act, 2008 (Act No. 59 of 2008). One of its functions is to support and advise on the development and implementation of Industry Waste Management Plans. |
| Waste Disposed | Balance of Waste Generated less Waste Recycled. |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Generated</td>
<td>Total tonnage of packaging placed onto the South African market, locally produced and imported.</td>
</tr>
<tr>
<td>Waste Hierarchy</td>
<td>The waste management hierarchy consists of options for waste management during the lifecycle of waste, arranged in descending order of priority. All stakeholders must apply the waste management hierarchy in making decisions on how to manage waste.</td>
</tr>
<tr>
<td>Waste Picker</td>
<td>A waste picker is a person who salvages post-consumer reusable or recyclable materials that have been discarded from a landfill or door-to-door. Cross reference to “informal collector”</td>
</tr>
<tr>
<td>Waste Recycled</td>
<td>Total tonnage of post-consumer waste that: 1) Originates from South Africa and is purchased by recyclers for the purposes of recycling plus 2) Tonnage that is exported from South Africa e.g. in bale or flake form.</td>
</tr>
</tbody>
</table>
### ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>b</td>
<td>Billion</td>
</tr>
<tr>
<td>B-BBEE</td>
<td>Broad-Based Black Economic Empowerment Act</td>
</tr>
<tr>
<td>BIP</td>
<td>Black Industrialists Policy</td>
</tr>
<tr>
<td>BIs</td>
<td>Black Industrialists</td>
</tr>
<tr>
<td>BIS</td>
<td>Black Industrialist Scheme</td>
</tr>
<tr>
<td>CGCSA</td>
<td>Consumer Goods Council of South Africa</td>
</tr>
<tr>
<td>DEA</td>
<td>National Department of Environmental Affairs</td>
</tr>
<tr>
<td>DEA&amp;DP</td>
<td>Department of Environmental Affairs and Development Planning</td>
</tr>
<tr>
<td>DfE</td>
<td>Design for Environment</td>
</tr>
<tr>
<td>EPR</td>
<td>Extended Producer Responsibility</td>
</tr>
<tr>
<td>EXCO</td>
<td>Executive Committee</td>
</tr>
<tr>
<td>EXPRRA</td>
<td>Extended Producer Responsibility Alliance</td>
</tr>
<tr>
<td>FSA</td>
<td>Forestry South Africa</td>
</tr>
<tr>
<td>FTE</td>
<td>Full Time Equivalent</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>HDI</td>
<td>Historically Disadvantaged Individual</td>
</tr>
<tr>
<td>HDPE</td>
<td>High density polyethylene</td>
</tr>
<tr>
<td>IDC</td>
<td>Industrial Development Corporation</td>
</tr>
<tr>
<td>IndWMP</td>
<td>Industry Waste Management Plan</td>
</tr>
<tr>
<td>IPAP</td>
<td>Industrial Policy Action Plan</td>
</tr>
<tr>
<td>IPSA</td>
<td>Institute of Packaging South Africa</td>
</tr>
<tr>
<td>ITAC</td>
<td>International Trade Administration Commission of South Africa</td>
</tr>
<tr>
<td>KZN</td>
<td>Kwa-Zulu Natal</td>
</tr>
<tr>
<td>LL/LDPE</td>
<td>Linear Low and low-density polyethylene</td>
</tr>
<tr>
<td>MPRH</td>
<td>Municipal Polystyrene Recycling Hub</td>
</tr>
<tr>
<td>MRF</td>
<td>Material Recovery Facility</td>
</tr>
<tr>
<td>NCPC-SA</td>
<td>National Cleaner Productions Centre – South Africa</td>
</tr>
<tr>
<td>NDP</td>
<td>National Development Plan</td>
</tr>
<tr>
<td>NEMWA</td>
<td>National Environmental Management: Waste Act, No 59 of 2008</td>
</tr>
<tr>
<td>NIPF</td>
<td>National Industrial Policy Framework</td>
</tr>
<tr>
<td>NWMS</td>
<td>National Waste Management Strategy</td>
</tr>
<tr>
<td>NPC</td>
<td>Not for Profit Company</td>
</tr>
<tr>
<td>Mill</td>
<td>Million</td>
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<tr>
<td>PACKAGING SA</td>
<td>Packaging South Africa</td>
</tr>
<tr>
<td>PACSA</td>
<td>Packaging Council of South Africa</td>
</tr>
<tr>
<td>PAMSA</td>
<td>Paper Producer Responsibility Organisation of the Paper Manufacturers Association of South Africa</td>
</tr>
<tr>
<td>PDIs</td>
<td>Previously Disadvantaged Individuals</td>
</tr>
<tr>
<td>PET</td>
<td>Polyethylene terephthalate</td>
</tr>
<tr>
<td>PETCO</td>
<td>The South African PET Plastic Recycling Company</td>
</tr>
<tr>
<td>Polyco</td>
<td>Polyolefin PET Plastic Recycling Company</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>--------------</td>
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<tr>
<td>p/kg</td>
<td>Per kilogram</td>
</tr>
<tr>
<td>PP</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>PPS</td>
<td>Price Preference System</td>
</tr>
<tr>
<td>PPI</td>
<td>Producer Price Index</td>
</tr>
<tr>
<td>PPPFA</td>
<td>Preferential Procurement Policy Framework Act</td>
</tr>
<tr>
<td>PRASA</td>
<td>Paper Recycling Association of South Africa</td>
</tr>
<tr>
<td>PS</td>
<td>Polystyrene</td>
</tr>
<tr>
<td>PS-E/EPS</td>
<td>Polystyrene - Expansible</td>
</tr>
<tr>
<td>PS-HI/HIPS</td>
<td>Polystyrene – High Impact</td>
</tr>
<tr>
<td>PSL</td>
<td>Pressure Sensitive Labels</td>
</tr>
<tr>
<td>PRO</td>
<td>Producer Responsibility Organisations</td>
</tr>
<tr>
<td>PTH</td>
<td>Polystyrene Trading Hub</td>
</tr>
<tr>
<td>PVC</td>
<td>Polyvinyl Chloride</td>
</tr>
<tr>
<td>R</td>
<td>Rand</td>
</tr>
<tr>
<td>RB</td>
<td>Returnable Bottles</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
</tr>
<tr>
<td>RDI</td>
<td>Research, Development and Innovation</td>
</tr>
<tr>
<td>REDISA</td>
<td>Recycling and Economic Development in South Africa</td>
</tr>
<tr>
<td>SALGA</td>
<td>The South African Local Government Association</td>
</tr>
<tr>
<td>SAVA</td>
<td>South African Vinyl Association</td>
</tr>
<tr>
<td>SAWPA</td>
<td>South African Waste Pickers Association</td>
</tr>
<tr>
<td>SLA</td>
<td>Service Level Agreements</td>
</tr>
<tr>
<td>SMMEs</td>
<td>Small, Medium and Micro-sized Enterprises</td>
</tr>
<tr>
<td>T</td>
<td>Tonne</td>
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<tr>
<td>TBCSA</td>
<td>Tourism Business Council of South Africa</td>
</tr>
<tr>
<td>TGRC</td>
<td>The Glass Recycling Company</td>
</tr>
<tr>
<td>The dti</td>
<td>Department of Trade and Industry</td>
</tr>
<tr>
<td>UBC</td>
<td>Used Beverage Cans</td>
</tr>
<tr>
<td>UWC</td>
<td>University of the Western Cape</td>
</tr>
<tr>
<td>WEIGO</td>
<td>Women in Informal Employment: Globalizing and Organizing</td>
</tr>
<tr>
<td>Wits</td>
<td>University of the Witwatersrand</td>
</tr>
<tr>
<td>XPS</td>
<td>Extruded Polystyrene</td>
</tr>
</tbody>
</table>
1 Introduction

Packaging South Africa (PACKAGING SA) has drafted an Industry Waste Management Plan (Plan) in response to Government Notice 41303 dated 6 December 2017 calling on the paper and packaging industry, electrical and electronic industry and lighting industry to develop and submit Industry Waste Management Plans (IndWMPs). The Plan needs to adhere to the requirements as included in the National Environmental Management: Waste Act, 59 of 2008 (NEMWA), Section 30(2) as well as what has been proposed in the abovementioned Notice issued in the Government Gazette.

This Packaging SA Extended Producer Responsibility Plan (EPR) aims to grow recycling revenues for the Consolidated Recycling Industry from a current estimated value of R 93 billion to R 118 billion over 5 years on a sustainable basis (a projected growth rate of 26 percent). Landfill diversion will increase from 2 258 300 tons or 58.2% to 2 768 409 tons or 66.9%. The plan projects an income of R 2 482 million that will be invested in growing collections, developing infrastructure, training and development, litter reduction and most importantly the creation of an inclusive Recycling industry and its supply chains.

It is important to note that whilst a 5-year IndWMP has been drafted, the plan is part of a bigger Packaging Industry Extended Producer Responsibility (EPR) strategy to transition South Africa toward a more Circular Economy. The longer-term vision is to stimulate a secondary resources economy which would bolster additional employment and transformation opportunities through the development of supplementary material markets.

A question that this EPR Plan needs to answer is:

“How can an EPR Plan respond to the needs of South Africa and stimulate an economy that can foster meaningful work opportunities; encourage partnerships and provide a platform for transformation?”

South Africa’s commitment to sustainable development is aimed at balancing the broader economic and social challenges of a developing and unequal society while protecting environmental resources. For the waste sector in South Africa this means care must be given to raw material use, product design, resource efficiency, waste prevention, and minimization where avoidance is impossible.

However, economic development, a growing population and increasing rates of urbanization in South Africa have resulted in increased waste generation which requires establishing and implementing effective waste management policies and programmes. A number of issues continue to be challenges for effective waste management. These include ineffective data collection systems and lack of compliance and enforcement capacity, lack of education and awareness amongst stakeholders within the waste sector, operational costs for management of waste, support for waste reduction at local government level, availability of suitable land for waste disposal, lack of structured incentives for reduction, and recycling and/or reuse of waste (DEA 2009a). The official country problem statement according to the National Waste Management Strategy (NWMS) (DEA 2012a) lists the following as the major challenges faced by South Africa in the waste management arena:

- A growing population and economy, which means increased volumes of waste generated. This puts pressure on waste management facilities which are already in short supply;
- Increased complexity of the waste stream due to urbanization and industrialization. The complexity of the waste stream directly affects the complexity of its management, which is compounded when hazardous waste mixes with general waste;
• A historical backlog of waste services for urban informal areas, tribal areas and rural formal areas. Although 61 percent of all South African households had access to kerbside domestic waste collection services in 2007, this access remains highly skewed in favour of more affluent and urban communities. Inadequate waste services lead to unpleasant living conditions and a polluted, unhealthy environment;

• Limited understanding of the main waste flows and national waste balance because the submission of waste data is not obligatory, and where data is available, it is often unreliable and contradictory;

• A policy and regulatory environment that does not actively promote the waste management hierarchy. This has limited the economic potential of the waste management sector, which has an estimated turnover of approximately R10 billion per annum. Both waste collection and the recycling industry make meaningful contributions to job creation and GDP, and they can expand further;

• Absence of a recycling infrastructure which will enable separation of waste at source and diversion of waste streams to material recovery and buy-back facilities;

• Growing pressure on outdated waste management infrastructure, with declining levels of capital investment and maintenance;

• Waste management suffers from a pervasive under-pricing, which means that the costs of waste management are not fully appreciated by consumers and industry, and waste disposal is preferred over other options;

• Few waste treatment options are available to manage waste and so they are more expensive than landfill costs; and,

• Too few adequate, compliant landfills and hazardous waste management facilities, which hinders the safe disposal of all waste streams. Although estimates put the number of waste handling facilities at more than 2000, significant numbers of these are unpermitted.

1.1 Social and economic transformation

The Paper and Packaging Industry has already been achieving great successes in terms of the recovery of recyclables and diverting waste materials from landfill. These systems have been operated by Producer Responsibility Organisations (PROs) funded by Industry on a voluntary basis.

The total market value of the packaging sector is approximately R67 billion and contributes about 1.2% to the Gross Domestic Product (GDP), so how can this impact on the economy be leveraged to assist in alleviating poverty and inequality within the sector, which is currently perceived to be dominated by multinational companies and large-scale waste management companies. The latter is seen as an opportunity for the development of business partnerships and the building of new enterprises.

However, the PACKAGING SA EPR Plan goes much further and embraces the opportunity for the paper and packaging industry to participate in creating social and economic transformation within their sector.

Speaking at the Nedlac Labour School in Pretoria on Tuesday (30 January 2018), President Cyril Ramaphosa said that the key priority was the creation of decent work on a scale that makes a decisive
impact on poverty and inequality. This will require far higher levels of economic growth and sustained investment by both the public and private sectors in productive economic activity, he said.2

The above statement is a bold vision and linked to the National Development Plan (NDP) and Vision 2030 for the country. The NDP aims to eliminate poverty and reduce inequality by 2030. According to the plan, South Africa can realise these goals by drawing on the energies of its people, growing an inclusive economy, building capabilities, enhancing the capacity of the state, and promoting leadership and partnerships throughout society3. The NDP also recognises the importance of improving the quality of the economy for the purposes of both sustainability and impact on inclusion. A more dynamic growth requires South Africans to work together to implement measures that can create a united society and an inclusive economy that is characterised by equality and creates more and sustainable employment and equitably shares the wealth produced4.

A number of policies, regulations and requirements in order to assist the transformation including have been developed over the years, including, but not limited to:

- **The National Industrial Policy Framework (NIPF)** articulates South Africa’s overarching approach to industrial development. The re-industrialisation trajectory is implemented through successive Industrial Policy Action Plan (IPAP) iterations that respond to change in global and domestic economic opportunities and dynamics. The IPAP guides South Africa’s industrial development path towards sectors and capabilities, which will provide sustained inclusive growth and increase participation of marginalised citizens and regions. This is an acknowledgement that if no special measures are put in place, the country cannot industrialise rapidly and become globally competitive, but will instead continue deepening apartheid patterns of economic development and wealth distribution. The IPAP also outlines specific measures that are required to achieve a more dynamic and sustainable economic growth, which is a core goal of the NDP.

- **The B-BBEE Amendment Act, 2013 (Act No. 53 of 2003).** Government’s fundamental objective is to create a transformed adaptive economy that is characterised by high levels of growth, job creation and enhanced economic participation by the majority of the population. Government has made significant strides and substantial progress in addressing the above challenges. The B-BBEE Act is an intervention to address the systematic exclusion of the majority of South Africans from full participation in the economy. No amount of revision of history can eradicate the reality of systematic and institutionalised disempowerment of communities and individuals. The underdevelopment of black South Africans took the form of systematic destruction of their productive assets, deliberate denial of access to skills and jobs and a range of interventions to prevent self-employment and entrepreneurship. In combination, these policies restricted and suppressed the wealth and skills endowments in black communities, thereby structurally inhibiting their participation in a legislatively race-based economy.

- **Preferential Procurement Policy Framework Act (PPPFA) (Act 5 of 2000) and subsequent Regulations, 2017.** In realising that it possesses a significant amount of purchasing power, Government has introduced the PPPFA to expand its base of suppliers to achieve broader economic developmental goals. Given its economic significance, public expenditure has the

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potential to influence the economy in terms of production and consumption on a large scale. Therefore, public procurement is one of the key strategic levers for industrial development objectives in the IPAP.

This EPR Plan has taken cognisance of all that is outlined above and is further committed to the Black Industrialists Policy and this EPR Plan seeks to engage meaningfully to change.

The following extract is taken from the Black Industrialists Policy (Department of Trade and Industry):

**South Africa’s current socioeconomic predicament is firmly rooted in its past and requires measures that will change the historic imposition of inequality and economic disenfranchisement by colonial and apartheid administrations. To this effect, the National Development Plan (NDP) acknowledges that transforming the economy also means changing the patterns of ownership and control. To date, efforts to transfer ownership of productive assets have not yielded the desired results, with employee share schemes playing a relatively minor role. A bolder approach and clearer targets are required (NDP – 2030, 2012: 31). The Black Industrialists Policy is a key part of Government’s broad industrialisation initiatives to expand the industrial base and inject new entrepreneurial dynamism into the economy. It calls for bolder policy interventions on the part of the state to expand the industrial base of the country and grow the economy through dedicated support to black industrialists, as highlighted in the latest iteration of the Industrial Policy Action Plan (IPAP). (page 6).

The Presidency will play a leading role in providing overall oversight of the Black Industrialists Policy. Other key institutions will include Cabinet and the different cluster departments, with the Presidential Advisory Council on B-BBEE playing an advisory role. the dti, being the custodian of the policy, will be responsible for coordinating implementation. The Minister of Trade and Industry will report to Cabinet biannually on the implementation of the policy, its achievements and emerging challenges. (page 10)

The private sector has an important role to play in facilitating economic inclusion through among others, supplier development providing off-take agreements, assisting new comers to adhere to standards and quality requirements and establishing the necessary industry networks. South African and multinational corporations can play a significant role as a vehicle for black industrialists to access international markets by enabling Black Industrialists to be part of local and global supply chains. Participation in such supply chains can lead to technology transfer and more efficient business models, thereby raising the international competitiveness of black industrialists. (page 25)

The Paper and Packaging Industry forms part of the productive sectors identified by the Black Industrialist Policy. The EPR Plan can play a direct role in supporting measures (as outlined in the BIP, page 25 and 26), including:

- **Training and capacity building** – through upskilling and mentorship programmes with industrial partners.

- **Matchmaking and information sharing** – the EPR Plan has included the development of a database in order to consolidate information (e.g. informal and formal sector collector; materials collected; obligated and participating industries; buy-back centres and Material Recovery Facilities (MRFs); Brand owners etc.) in an attempt to geographically identify where potential gaps in the market are and where efforts need to be increased to provide additional service thereby opening new potential markets.

- **Research and Innovation Support** – a strong focus of the EPR Plan especially for problematic materials. There are potential beneficiation opportunities where the BIS would be a perfect fit for new enterprise development.

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• **Quality Standards and Productivity support** – *A specific enterprise development project has designed a quality system in order to build in a quality system whereby the enterprise would be able to meet the rigorous standards of ISO9001:2015 at the end of the incubation period. This would assist with building confidence in locally manufactured products especially for the export market.*

Therefore, this EPR Plan wants to collaborate with Government to achieve its objectives of economic transformation and economic growth through a diversified industry. The intention is to build resilience to external factors (i.e. raw material imports and price fluctuation) over time by influencing the transition to the types of paper and packaging materials that have inherent value to be collected, transported, recycled / beneficiated into new products and new markets.

1.2 **A phased approach**

This EPR Plan attempts to implement strategies from the ground up as well as at the top of existing industries. This acknowledges that skills and new enterprise development can take time and individuals / cooperatives / small business may not necessarily be ready to enter into programmes or support offered by programmes such as the BIS immediately. Therefore, a programme will be developed in direct consultation with the DEA Waste Bureau and the Department of Trade and Industry (dti) in direct response to the BIP to ensure a phased and supportive approach.

In the same light, changing structures in big Corporate or Multinational companies can take time, and needs to be phased in to ensure stability. **PACKAGING SA**, as a membership-based organisation and operating as a Not for Profit Company (NPC), aims to indirectly influence these individual companies through this EPR Plan.

**PACKAGING SA** supports the principle of transformation in alignment with the Codes of Good Practice of dti. **PACKAGING SA’s** approach to transformation will entail the development of an action plan that will include the consideration of guidelines, engagement with the relevant stakeholders to produce a strategy as well as performance indicators. The goal is to support employment equity at senior management level. Strategies, such as head hunting succession planning, will be considered and supported. This is to redress historic inequality and to facilitate broader social development of all South Africans.

**PACKAGING SA**, as a NPC, does not necessarily have direct influence into these individual companies. As such, the focus in these instances will be on engagement and securing buy-in.

1.3 **Alignment with the National Pricing Strategy for Waste Management**

Government Gazette 1353 dated 06 December 2017 in Section 6(m) stated that the submitted Industry Waste Management Plan (IndWMP) must “be aligned to the National Pricing Strategy for Waste Management (Extended Producer Responsibility; government managed model) as published under Government Notice 904 of 11 August 2016”.

It is noted in the Pricing Strategy that the potential approach to collect EPR fees would be through the Customs and Excise Act, 1964, as amended. The current Plastic Bag levy is collected via this mechanism at 12c per bag through Part 3A as an environmental levy. A Tyre levy is being collected via Part 3E at a cost of R2.30 per kilogram from September 2017 (prior to this the Tyre levy was being paid directly to REDISA).
Here are 2 levy collection methods – one through the customs and excise act originally, i.e. the plastic bag levy; and the other, the tyre levy, initially through a DEA appointed Management Company. Both have not necessarily been successful and have had many challenges.

The plastic bag levy was introduced 14 years ago and has raised close to R2 billion; however only around half is reported to have been used for developing the recycling economy as originally intended\(^6\). Levies collected in this way cannot be ring-fenced and therefore the revenue collected can be used for other priorities identified by government.

The REDISA managed plan was not designed or managed by the obliged industry, and whilst the plan itself was a good one, it was poorly managed. Buyisa e-bag, similarly a scheme not designed or managed by the obliged industry, also failed.

Based on the above-mentioned examples, valuable lessons have been learnt and it is believed that by putting adequate, transparent processes in place, as presented in this EPR Plan, an obliged industry led and managed model will be the best approach.

The basis of the submission of the PACKAGING SA EPR Plan is an Industry led, Industry funded Model. Whilst this may seem in contravention to the requirement of the Gazette, as stated above, it is believed that it is the most appropriate model to follow and will serve to meet the objectives and intentions of the NEMWA requirements.

\textit{“Policymakers should ensure that taxes are not increased merely so as to satisfy revenue collection needs without consideration of the long-term fiscal impacts of the whole tax system.”}\(^7\)

1.3.1 General challenges in the Packaging Industry\(^8\)

An additional motivation for an industry led and managed model is that industry understands the complex challenges faced by the packaging industry as well as the economic and market related forces at play.

The local packaging industry experienced minor growth. In recent years, the South African packaging landscape saw a lot of international packaging companies coming into the market either through acquisition or through new plants.

The capacity of the industry to adapt to market changes will be tested by additional challenges. These could include price volatility and rising costs of raw materials, e.g. aluminium, plastic and paper; caused by the demand-supply cycles that are typical of these materials which could mean increased costs for the production of consumer packaging and reduced margins for manufacturers. The search for cheaper substitutes will therefore need to become more widespread.

A statement by Deloitte (2018), said that highly fragmented markets caused by the presence of several players in South Africa, as well as internationally, has disrupted and hindered the growth of the overall


\(^8\) BMI, 2018
packaging market, as intense price competition has led to vendors reducing the prices of products to remain competitive.\(^9\)

In Section 6, the challenges and risks specific to each material stream are highlighted.

1.3.2 Tax burden on society
There is a real concern that an additional tax through the implementation of an environmental levy on paper and packaging, will have negative unintended consequences, including, but not limited to:

- Increase in costs for consumer goods across the board. A generalised packaging levy based on the customs and excise act is likely to be higher than the cost of an EPR fee managed by the industry. Therefore, like the tyre and carrier bag levy, it will impact all consumers as industry will pass this onto the price of goods.
- The levy will not be ring-fenced\(^10\) and therefore there is no guarantee that the intended use for the levy will be realized for stimulating the paper and packaging recycling economy and developing secondary economies.
- The current voluntary Producer Responsibility Organisations (PRO’s) active in driving the recovery and recycling of paper and packaging material, may face real challenges and potentially need to close operations if they lose access to their full funding requirement. This would have dire consequences for recyclers, especially smaller to medium enterprises that are being supported directly by the PRO’s.
- If PRO’s are unable to control the timing of fee disbursements and guarantee that the money will be received in time to maintain a cash flow, this will corrode capital investor confidence, and impact on the ability to implement projects without the risk created if it is not known if the full funding requirements will be paid, or if it will be paid on time.
- Should this levy be managed by government, industry may reduce efforts in the recovery of paper and packaging as a means to reduce costs, as technically, the government would be legally responsible for fulfilling the producer’s responsibility of managing the EPR system. This shift in responsibility could result in a decrease in recycling rates and collectors losing their source of income, amongst others.

1.3.3 Industry Led-Industry Managed EPR Plan
It is therefore, for the above listed reasons and motivation that this EPR Plan is submitted as an Industry Led-Industry Managed Model. Various measures have been put in place to build on the successes of the existing voluntary systems already in place and mitigate the potential repeat of some of the challenges of the Tyre and Plastic Bag levy models, as the PACKAGING SA EPR Plan is an Industry Led-Industry Managed model.

Whilst this EPR Plan may be an Industry Led-Industry Managed Model; the intention is to work closely and in collaboration with Government to achieve common goals of social and economic transformation through inclusive growth.

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\(^10\) This was confirmed by DEA at the workshop held on 1 August 2018.
The motivation for an industry led industry managed EPR plan is based on learnings from international best practice and applying it to the South African context, by including job creation and transformation.

Filip Ivanovski from Pakomak, in his presentation entitled “Role of National and Local Government in a EPR Scheme of Packaging and Packaging Waste” made at the 3rd Congress on Recycling 13-14 May 2015, Bogota, Colombia stated the following:

- If the EPR scheme is founded by producers (fillers/packers) or so called Obliged Industry, it has by definition a control mechanism that will create value-for-money model.
- The stakeholder that has to monitor and control the efficiency (recycled quantities) is the Government (Ministry).
- The stakeholder that has to fulfil the targets (recycling rates) and control costs for that is the industry.
- Both have to cooperate with Local Authorities.

He also states that every EPR organization has to execute two basic activities:

1. Establish a separate collection system for packaging waste (together with Local authorities) by investing in: infrastructure (bins, containers, collection points, trucks), recycling capacities, shared costs for collection and transport.
2. Increase public awareness among the population about the necessity and benefits of separate collection and recycling.

Extended Producer Responsibility Alliance (EXPRA) recommend that the EPR organ isation should be founded, run, financed and controlled by the obliged companies themselves. It is the best guarantee to ensure the lowest cost to society and that the scheme will be both sustainable and compliant with environmental and legal objectives. When obliged companies financing the EPR organisation are sitting in the boards and committees of this organisation they have the control about the expenses for all operations of the EPR organisation and will keep them in their own interest to the necessary minimum. Moreover, they can agree to dedicate funding to necessary long-term projects, like education campaigns, to increase the long-term performance of the system, which would not be run in the case of multiple systems competing just on price. To achieve this, the obliged companies should not only pay a contribution to the EPR organisation, but they should also be actively represented in the EPR organisation.

EXPRA also provide the following best practices for Packaging EPR:

- The essence of EPR is the producer’s responsibility for a product throughout its life cycle
- PROs should be owned, run and steered by the obliged companies
- PROs should be not-for-profit / profit-not-for-distribution
- Collectors, sorters or recyclers of waste should not be active as PROs but deliver good services
- There should be a strong EPR legal framework enforced by public authorities
- Successful EPR must be based on a partnership between public authorities and PROs
- There should be a level playing field for the provision of EPR services in a given territory
- Obliged companies should receive equal treatment and fees should be publicly available
- The industry-owned PROs are pursuing a public service mission
- PROs should support obliged companies to improve the environmental performance of their products and packaging
Based on the above best practices, Packaging SA is proposing an EPR model managed by the obliged industry, working in strong collaboration and partnership with all tiers of government.

Packaging SA’s EPR model will be based on following key principles:

1. Establishing a system of packaging waste management that will create the greatest environmental benefits with minimal economic cost and effort whilst ensuring enterprise development, job creation and transformation in the sector.
2. Calculation of EPR fees with no profit for Packaging SA as a NPC.
3. Publication of annual collection and recycling targets
4. Accountability, good governance, transparent operations and continuous review which will be publicly available.
5. Equal treatment of all stakeholders across the value chain.
6. Building partnerships with government and municipalities to achieve national targets for addressing packaging waste.

There will be no shareholding or payment of dividends.
2 Overview of Packaging South Africa

The Packaging Council of South Africa (PACSA) was founded in 1984 and rebranded in 2015 as PACKAGING SA. PACKAGING SA is a registered NPC (Registration number: 1985/001427/08). Its members are in two broad categories, Converters and Associates. The Converters represent some 70% of the revenue generated by the industry. Associates are in effect the major raw materials suppliers, PROs, brand owners, retailers and other organizations and associations with interests in the packaging industry. Collectively the packaging industry directly employs some 100 000 people in South Africa.

One of the main objectives of PACKAGING SA is to promote standards for the packaging industry which meets the mutual criteria of the industry, the Community and Government to increase technical competence.

PACKAGING SA also:

• Supports education & training programmes to improve the technical competence of individuals & companies engaged in packaging.
• Supports programmes & policies relating to the protection and improvement of the environment through the conservation of resources, control of litter and effective solid waste management, including recycling of resources, recovery & separation thereof.
• Supports conferences, exhibitions and programmes aimed at improving understanding & awareness by Government, industry, commerce, unions, educational establishments & the public.
• Provides a central reference point for the packaging industry for services to members, government and other organisations on economic and legislative aspects of the industry.
• Co-operates with other professional trade associations, institutions and bodies with interests in packaging & act in bring these together with common interest in specific issues.
• Creates and maintains a meaningful basis of continuing dialogue between Government, local authorities, commerce & industry on matters pertaining to or affecting the packaging industry.
• The sector supports minimisation of packaging and paper waste sent to landfill through the support of material reduction, recycling, recovery and other related activities with the vision to strive for zero packaging and paper waste to landfill.

PACKAGING SA therefore has a broad mandate in the paper and packaging industry and therefore is well placed to oversee the implementation of the EPR Plan covering multiple material streams and industry role players.

2.1 Federation of Plans

PACKAGING SA and PROs formed the Federation of Plans in response to Government Notice 41303 dated 6 December 2017 calling on the paper and packaging industry, electrical and electronic industry and lighting industry to develop and submit Industry Waste Management Plans (IndWMPs). The Federation of Plans therefore includes the following paper and packaging material streams:

• Glass (represented by The Glass Recycling Company (TGRC))
• Paper & Paper Packaging (represented by PAMDEV12)

12 PAMDEV is a non-profit special purpose vehicle established for the purpose of becoming the Paper Producer Responsibility Organisation of the Paper Manufacturers Association of South Africa (referred to as “PAMSA”) and the Paper Recycling Association of South Africa (referred to as “PRASA”).
• Metals (represented by MetPac-SA)
• Polyolefins (represented by Polyco)
• Polyethylene terephthalate (represented by PETCO)
• Polystyrene (represented by the Polystyrene Association of South Africa)
• Vinlys (represented by South African Vinyl Association – SAVA)

The purpose of the Federation of Plans is to compile a multi-stream, collaborative and consolidated EPR Plan approach to address the complex problem of extracting individual materials from the post-consumer waste streams which are usually mixed, even in source separation schemes which are generally implemented on a commingled (i.e. dry recyclables) basis.

It is important to note that PACKAGING SA has a history of engaging with the DEA and previously submitted voluntary Industry Waste Management Plans in August 2011 and an updated version of the 2011 plan in September 2014. PACKAGING SA has continued to engage and is submitting this EPR Plan to meet the requirements of the DEA’s Section 28 Notice.

2.2 Timeframes
The timeframe provided for submission of a plan, as outlined in Government Notice 41303, was nine months from the date of publication of the Notice, therefore submission by 6 September 2018.

At the DEA facilitated workshop on 1 August 2018 the following timeframes were provided by the DEA:

- 5 October 2018 Branch Assessment conducted
- 19 October 2018 Departmental Assessment conducted
- 31 October 2018 Interdepartmental Assessment conducted
- 15 November 2018 Recommendation to the Minister & Minister publishes the Plans for 30 day public consultation
- 15 November to 5 December 2018 Public Hearings held
- 31 January 2019 Consideration of comments received
- 28 February 2019 Ministerial decision on the submitted Plans

2.3 Approach
The approach that will be undertaken in the fulfilment of the call for an Industry Waste Management Plan is via EPR considering the full value chain of paper and packaging material, refer to Figure 1 for a simplified overview.
The PACKAGING SA Federation of Plans recognises the complexity within the local (South African) context especially in terms of collection, transport, recovery, reprocessing (recycling) of materials, secondary markets and the demand of recyclables, recyclate and developing end-use markets. A multi-pronged approach, therefore, is proposed through multi-level projects with the aim of social and economic transformation within the sector.

The Plan further recognizes that the proposed EPR scheme has a role to play (financial and/or organisational) across the entire material value chain, including working together with municipalities and the informal sector. The focus is on packaging and paper materials generated at both pre- and post-consumer level, with an emphasis on post-consumer (household) as opposed to pre-consumer (industry) level where the latter is considered to be less complex and already well managed through private initiatives and existing company systems.

Further to EPR and acknowledging the complexity, the PACKAGING SA Federation of Plans has a longer-term vision in line with the National Development Plan’s Vision 2030 as well as Global Goals, including the Sustainable Development Goals, of which South Africa is a signatory. Therefore, the EPR Plan takes cognisance of the global market forces which impact the local paper and packaging markets through raw material imports and ready filled and unfilled packaging imports.

Figure 1: Paper and Packaging material value chain

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Adapted from CEFLEX. https://ceflex.eu/
2.4 Incorporating the Waste Hierarchy with a Circular Economy Approach

The management of waste in South Africa has been based on the principles of the waste management hierarchy from early waste policy (DEAT 2000) and entrenched in recent waste legislation. The adoption of the hierarchy has been in the policy since 2009, but the management of waste has not necessarily followed the hierarchal approach. It is only because of the promulgation of the National Environmental Management Waste Act (No. 59 of 2008) (NEM: WA) and finalization of the National Waste Management Strategy (NWMS) that the implementation of the hierarchy approach was prioritized. Management of waste through the hierarchal approach is a recognized international model for the prioritization of waste management options. It offers a holistic approach to the management of waste materials and provides a systematic method for waste management during the waste lifecycle addressing, in turn, waste avoidance, reduction, re-use, recycling, recovery, treatment, and safe disposal as a last resort. This aims to eventually reduce the reliance of South Africa’s waste disposal on landfills, as currently most of our waste ends up therein.

The waste hierarchy includes:

- **Avoidance and Reduction**: Products and materials must be designed in a manner that minimizes their waste components or in a manner that reduces the natural material quantities used and potential toxicity of waste generated during the production, and after use;
- **Re-use**: Materials can be used for similar or different purposes without changing form or properties. This approach seeks to re-use a product when it reaches the end of its life span. In this way, it becomes input for new products and materials;
- **Recycle**: This involves separating materials from the waste stream and processing them as products or raw materials. The first elements of the waste management hierarchy are the foundation of the cradle-to-cradle waste management approach;
- **Recovery**: Reclaiming components or materials or using the waste as a fuel; and
- **Treatment and disposal**: This is a ‘last resort’ within the waste hierarchy. Treatment refers to any process that is designed to minimize the environmental impact of waste by changing the physical properties of waste or separating out and destroying toxic components of waste. Disposal refers specifically to the depositing or burial of waste onto, or into land.

![Figure 2: Integrated waste management hierarchy](image)

The PACKAGING SA EPR Plan take the principles of the waste management hierarchy a step further and includes a Circular Economy perspective to ensure that all aspects of the packaging value chain are incorporated into the plan and the Vision for 2030.

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15 Need to acknowledge that the current plans requested by Government are only for a 5-year implementation horizon, however, the drafting of these plans recognises the need to plan beyond 5 years and therefore provides a vision in line with the NDP 2030 plan.
The popular “butterfly diagram” as presented by the Ellen MacArthur Foundation to represent the Circular Economy Model has been adapted to include people. Often the focus is on the material and biological cycles only; however, the human element cannot be overlooked, especially in a South African context (refer to Figure 3).

The EPR Plan whilst recognising the role of the waste hierarchy, proposes that more needs to be done and therefore a Circular Economy approach is undertaken.

The paper and packaging industry and the associated waste sector is complex and has organically formed with many different layers in the system, including formal and informal economies. It is for this reason that the approach to this EPR Plan is far broader than the conventional EPR Plans in place internationally. There are many aims of developing a broader and people-focused EPR Plan:

- Build new opportunities from the ground up through collaboration, partnerships and mentorship programmes.
- Transform the industrial sector through innovation and the development of new end-use markets for recyclate.
- Transform the post-consumer waste sector to be more inclusive.
- Through a circular economy approach, it is likely that this EPR Plan could stimulate alternative support services required beyond waste, for example, the focus on renewable energy has stimulated the need for further expansion of Photo-voltaic (PV) panel suppliers.

EPR is not a new concept or approach in South Africa and voluntary programmes have been in place for most of the material streams already, i.e. metals, glass, polyethylene terephthalate (PET); polyolefins, paper and polystyrene. Evidence suggests that voluntary industry initiatives are more effective than mandatory, government-imposed regulations (as in the plastic bag industry) in stimulating recovery and ultimately recycling16.

The industry acknowledges that with the assistance of a legislated requirement to belong to an approved plan, it will require current free-riders and imported materials to be obligated to participate.

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in an approved EPR scheme. The benefits of this will be realised by working closely with DEA to encourage and enforce compliance.

The materials covered by this Plan are purchased every day by consumers irrespective of their income levels. As implementation costs incurred by producers and/or others in the material value chain of packaging will ultimately be included in product prices it is imperative that the Plan delivers its objectives as cost-effectively as possible.

A large number of organisations and individuals already work closely with municipalities i.e. the collection and sorting of waste. Many do an excellent job, generating materials for recycling and providing numerous people with an income. Collection arrangements within each municipality will need to involve these enterprises. The involvement of these varied enterprises, together with the wide range in income levels and different types of housing in SA, means that collection and sorting models may vary significantly between municipalities. The Plan therefore cannot be simply based on a single “one size fits all” model.

The EPR Plan illustrates how producers intend to grow existing markets for recycled materials and develop new markets to deal with the additional tonnages of good quality recyclable materials that will be collected. For this objective to be realised, it is essential that materials delivered for recycling are clean and uncontaminated. This requires recyclable materials to either be separated at source when collected, and/or delivered to a local buyback and sorting centre and/or delivered to a larger-scale clean material recovery facility (MRF) where materials are sorted through a combination of manual and mechanical means.

Experience around the world highlights the difficulty of tracking the consumption, collection and recycling of packaging and paper accurately. The statistics provided by BMi Research are the best independent source of data currently available in SA - all data will continue to be cross-checked and refined during the life of the EPR Plan. Implementation of the EPR Plan will build on the many successful existing programmes and initiatives that have been voluntarily undertaken by the various packaging and paper PROs in SA.

Key performance areas necessary for the Plan to succeed include the development of appropriate collection systems for packaging and paper from households (‘supply-side’). Mandatory separation at source is imperative to ensure that recyclers get better quality and a higher quantity of materials. Source separated materials further ensures that the recyclables stay cleaner, which makes them less contaminated and easier to recycle as well as creating better working conditions. Recyclables delivered to a “dirty” MRF co-mingled with organics and other fractions of waste suffer from contamination making them either less valuable or completely useless. This contamination is made worse by the nature of many general waste collection vehicles (compactor trucks), which are designed to mix up the waste. One of PACKAGING SA’s aims is to secure sources of material for recycling that are as clean as possible.

The development of end-use markets to achieve or exceed recycling targets to raise the ‘demand-side’ is the responsibility of the individual PROs. The issues facing each material or substrate are different, so the tasks to be undertaken by each PRO varies. Therefore, each material will continue to be represented by a specific PRO and set its own strategy to support or facilitate design for recycling, collection systems, processing and conversion strategies.

The development and expansion of new and existing end-use markets for recyclable materials remains a key priority as it will encourage the roll-out of new collection systems by guaranteeing an outlet for the collected materials and providing a stable income for a growing number of collectors.
There can be no single collection and separation model and the collection arrangements need to be tailored to the local situation. Arrangements will differ, taking into account circumstances such as existing infrastructure, community and municipal needs, transport distance, population density, income levels and housing types as well as the existence of enabling mechanisms for the implementation of public/private partnerships. Where and how to best implement this will be another of PACKAGING SA’s aims and implemented under the Municipal Fund.

South Africa straddles the developing and developed worlds and the EPR Plan recognises the vitality and flexibility of the informal sector and the organisational and financial strength of formal waste management sector. In South Africa, as elsewhere in the developing world, informal collectors will play a key role in collection. This is desirable both as it provides an effective and flexible way to create employment opportunities and entrepreneurship.

The economic drivers of recycling are embedded in the industry it affects, the basic costs of recycling are for the collection, separation, cleaning and transport of recyclable materials with the location of recycling centres and the quality of the recyclates, being intrinsically linked. The less waste that reaches landfills, the greater the landfill airspace saving for municipalities.

For recycling to be beneficial it is important to focus on generating local economic benefits, however these depend on the volume and quality of recyclable materials that can be collected, the market for these materials as well as incentives and available technology. Recycling adds value to waste and creates jobs by stimulating a secondary resources economy. To ensure that packaging material is collected for recycling better collection systems are required, while stimulating the demand for the materials and this will require investment, research and development and testing of potential solutions.

The recovery of resources from waste, through recycling and recovery activities, allows for valuable materials or energy to be re-introduced into the economy, while also reducing the costs and externalities associated with virgin raw material extraction.

International literature suggests that waste should not be conceived as a ‘waste’ and it should rather be regarded as a resource. Design is also shifting from the concept of general material usage to planning for recycling and reuse within closed-loop systems. Some literature refers to this as Design for Environment (DfE) and this is often combined with extended producer responsibility (EPR) schemes. An increasing trend is to design products with cognisance of their future dismantling or remanufacturing and it is that PACKAGING SA is proposing a Circular Economy framework for the EPR plan.

2.5 Targets

It is important to note that in 2016, 58%\(^{17}\) of packaging waste material was collected for recycling in South Africa largely through the existing PRO voluntary EPR Programmes that are currently in place.

The contribution from the informal waste sector to the post-consumer portion of this percentage is acknowledged and the EPR Plan aims to obtain better data in the 5 years of implementation to truly understand the contribution.

\(^{17}\) Source: BMi Data. Please note statistics provided by BMi Research are the best independent source of data currently available in SA - all data will continue to be cross-checked and refined during the life of the EPR Plan
Figure 4 represents the progress made to date under the voluntary EPR programme and the forecast figures leading to 2023, based on the what is proposed in this EPR Plan i.e. the collection targets for each material stream (refer also to Table 1 and Table 2).
Table 1: Paper and Packaging Consumed and Collected 2012-2016 (BMI, 2018)

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<th>Packaging Type</th>
<th>Consumption (tonnes)</th>
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<th>% Collected</th>
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<th>Collected (tonnes)</th>
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TOTAL COLLECTED PACKAGING MATERIAL - '000 TONNES

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<td>149.2</td>
<td>83.4</td>
<td>153.5</td>
</tr>
<tr>
<td>Paper</td>
<td>2 051.8</td>
<td>1 151.3</td>
<td>56.1</td>
<td>1 407.0</td>
<td>68.3</td>
<td>1 434.7</td>
<td>69.0</td>
<td>1 406.8</td>
<td>69.6</td>
<td>1 381.7</td>
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<tr>
<td>Plastic</td>
<td>734.1</td>
<td>291.0</td>
<td>39.6</td>
<td>410.7</td>
<td>46.6</td>
<td>433.7</td>
<td>48.0</td>
<td>460.3</td>
<td>49.4</td>
<td>492.5</td>
</tr>
<tr>
<td>Total</td>
<td>3 881.4</td>
<td>1 930.2</td>
<td>49.7</td>
<td>3 715.8</td>
<td>1 959.1</td>
<td>52.7</td>
<td>3 437.3</td>
<td>1 854.6</td>
<td>54.0</td>
<td>3 543.8</td>
</tr>
</tbody>
</table>
The collection targets provided in Figure 4 and Table 2 can be summarised as follows for the 5 year implementation of this EPR Plan:

- Taking recycling targets from 58.2% to 66.9% of the total paper and packaging placed on local market.
- Taking recycled tonnages from 2.2 million tons to 2.7 million tons.

In addition to the environmental collection and recycling targets to divert waste from landfill and address litter and material leakage into environment, the following 5 year targets have also been set by PACKAGING SA:

- Creation of 11 067 Jobs / direct and indirect work opportunities.
- 50% disbursement of funds to 51% black owned companies and organisations\(^\text{18}\) over the 5 year period.
- 90% of EPR Fees will be spent directly on meeting the EPR objectives.
- Recycling value-add growth in local market of 26%.
- Collecting R2.5 Billion to re-invest in EPR in South Africa to meet the set targets.
- Raise R200 Million by means of EPR Fees collected on imported packaging

\(^{18}\) In line with the Draft 2018 Mining Charter requirements
3 Proposed PACKAGING SA EPR Structure

PACKAGING SA, will remain as a membership-based organisation and operate as a Not for Profit Company (NPC).

PACKAGING SA will:

- Coordinate the implementation of the EPR Plan using a decentralised approach.
- Collect and manage EPR funds for imports and certain Brandowners / Retailers for ease of administration\(^{19}\).
- Be subject to annual third-party independent audits.
- Be managed by a Board representing the entire packaging industry value chain (i.e. raw materials suppliers, converters, retailers, recyclers etc.).
- Be overseen by a Conduct Committee which will include representatives of DEA, Waste Management Bureau, Waste Pickers / Collectors and SALGA.
- Oversee and manage the packaging industry Producer Responsibility Organisation included in this plan.
- Ensure data collection and verification from the entire packaging industry value chain.
- Manage implementation of the approved EPR Plan.
- Report to DEA and the Waste Management Bureau on a regular basis.

3.1 Governance

Corporate Governance is defined as the exercise of ethical and effective leadership by the governing body towards the achievement of the following governance outcomes: Ethical culture; good performance; effective control and legitimacy (King IV Report, 2016).

In terms of PACKAGING SA, the Board of Directors is the governing body and therefore has primary accountability for the governance and performance of the organisation. The primary governance role and responsibility include:

- Steer and set strategic direction with regards to the organisations strategy and the way in which specific governance areas are to be approached, addressed and conducted.
- Approve policy and planning that give effect to the strategy and set direction.
- Ensure accountability for organisation performance by means of, among others, reporting and disclosure.
- Oversees and monitors implementation and execution by management.

Good governance is essential with the implementation of a plan such as the PACKAGING SA EPR Plan. Within the Board of Directors, a Governance Sub-Committee will assure members (EPR Fee contributors) that their fees are being used responsibly and for the intended purpose. Effective Governance means an effective board of directors, which in turn leads to a more functional and efficient non-profit organization.

The roles of the Board of Directors in terms of good Governance will be to:

- Set norms, strategic vision and direction and formulate high-level goals and policies.

\(^{19}\) It is possible for the EPR Fees to be paid directly to the PROs too.
• Oversee management and organizational performance to ensure that the organization is working in the best interests of the public, and more specifically the stakeholders who are served by the organization’s mission.
• Direct and oversee the management to ensure that the organization is achieving the desired outcomes and to ensure that the organization is acting prudently, ethically and legally.
• Monitoring the Transformation process at Board Level and with suppliers.
• Reporting on the transformation to the Oversight/Conduct Committee.

The proposed PACKAGING SA EPR Structure aims to provide the most efficient and cost-effective model to ensure transparency, good governance and ethical conduct. The tiers of operation are therefore limited to:

• An Oversight or Conduct Committee
• PACKAGING SA (Board and Operations)
• The Material Streams represented by the respective PROs

The relationship between the different tiers will be governed by Service Level Agreements (SLA) and a behaviour charter to ensure good governance and accountability. Every tier of the structure will commit to a transformation target in an attempt to be representative of the population of South Africa over the 5 year period.

Figure 5: Proposed Structure

3.2 Conduct Committee
The intention of the Conduct Committee is to provide a multi-stakeholder oversight role to monitor the implementation of the PACKAGING SA EPR Plan. The Conduct Committee will include representatives from the Department of Environmental Affairs (the DEA), the Waste Bureau, Waste
Pickers / Informal Collectors, SALGA and Academia. Transparency is the core to the implementation of the Packaging SA EPR Plan in line with the Competitions Act, Act 89 of 1998 (as amended).

The role of the Conduct Committee will be to ensure that:

- Meet quarterly to discuss the EPR Plan implementation. The meeting should have an Agenda and minutes should be taken.
- Provide insight into the implementation of the EPR Plan where required.
- Members of the Packaging SA EPR Plan are operating within the ethics and conduct as required and set by the Packaging SA EPR Plan. A behavioural charter will be drafted for each level of participant including; the Conduct Committee Members; Packaging SA and respective Board Members\(^\text{20}\); the PROs; contributing members of the EPR Plan, e.g. converters, retailers and brand owners.
- The EPR Plan as described within this document is adhered to:
  - The targets set out in this EPR document are met.
  - Annual reporting takes place.
  - Data and information is verified by independent third parties.
  - Annual audits take place by a reputable third party BBBEE certified audit company, with the aim of ensuring an audit trail that indicates that the funds are used for their prescribed purposes.
  - Ensure funds are spent in line with the approved budget.

3.3 Packaging South Africa (Packaging SA) – Board

The Board of Directors is the governing body and therefore has primary accountability for the governance and performance of the organisation. The primary governance role and responsibility include:

- Steer and set strategic direction with regards to the organisations strategy and the way in which specific governance areas are to be approached, addressed and conducted.
- Approve policy and planning that give effect to the strategy and set direction
- Ensure accountability for organisation performance by means of, among others, reporting and disclosure
- Oversees and monitors implementation and execution by management

The Packaging SA Board currently consists of the following:

<table>
<thead>
<tr>
<th>Name</th>
<th>Company / Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adri Spangenberg</td>
<td>Polystyrene Association of SA</td>
</tr>
<tr>
<td>2. Andre de Ruyter</td>
<td>Nampak Limited</td>
</tr>
<tr>
<td>3. Anton Hanekom</td>
<td>Plastics SA</td>
</tr>
<tr>
<td>4. Arnold Vermaak</td>
<td>Constantia Afripack</td>
</tr>
<tr>
<td>5. Bernhard Mahl</td>
<td>Safrisol</td>
</tr>
<tr>
<td>6. Bill Marshall</td>
<td>IPSA</td>
</tr>
<tr>
<td>7. Bruce Strong (Chairman)</td>
<td>Mpact</td>
</tr>
<tr>
<td>8. Cheri Scholtz</td>
<td>PETCO</td>
</tr>
<tr>
<td>9. Dave King</td>
<td>Shave &amp; Gibson</td>
</tr>
<tr>
<td>10. David Drew</td>
<td>Alpla</td>
</tr>
<tr>
<td>11. Gavin Jackson</td>
<td>Pailpac</td>
</tr>
<tr>
<td>12. Grant Page</td>
<td>SRF Limited</td>
</tr>
</tbody>
</table>

\(^{20}\) Also governed by the Companies Act, Act 71 of 2008
The current Board will require more diversified representation to represent contributors and participants to the EPR Plan (e.g. Converters, Brand owners, Retailers, Academia).

A request during the Stakeholder engagement period was made to include collectors (informal) on to the board. However, it is felt that no collectors (formal or informal) should be included onto the PACKAGING SA Board of Directors for the following reasoning:

“Waste Management Companies and/or investors cannot be EPR Organisations and vice versa the natural inclination of investors and waste management companies in an open market is to maximise profit and grow market share – a method that strives for the highest price per tonne of collected and recycled material. Moreover, investors and waste management companies have an interest in increasing the amount of packaging put on the market. This, of course, is contrary to the legal objectives of the waste hierarchy and thereby creates a conflict with serving the public interest.

The focus of the EPR organisation on the other hand is to fulfil the obliged company’s obligations in the most efficient and effective way possible. In other words, at the lowest possible cost for the obliged companies and society in general. The EPR organisation should work in close collaboration with the local authorities and negotiate and tender in an open market for collection, sorting, and recycling services. The legal framework should be set up in such a way that the role of waste management companies is focused on and restricted to the supply of the highest quality services. On the one hand, waste management companies should not interfere in the execution of the EPR. On the other, the EPR organisation should not enter into the collection, sorting, and recycling process itself. Both parties have a distinct and separate role to play in the fulfilment of the EPR – preferably based on a close partnership” (EXPRA, 2013)

Therefore, it is proposed that the request for Informal Collectors (Waste Pickers) to be represented could be done on the Conduct Committee.

**Transformation Plan**

Directors of the Board have a 3-year cycle and are all non-executive and voluntary. This provides an opportunity for an appropriate handover to new entrants onto the Board.

- By Year 5 the PACKAGING SA Board shall have at least a 50% HDI representation
o Endeavour to use suppliers during the 5 year implementation to be a minimum of 51% black owned (although Level 1 BBBEE is preferred, this may not be available and up to Level 4 BBBEE will be considered in such cases).

3.4 Producer Responsibility Organisations (PRO)
Each material stream will be represented by an existing PRO. Many of these existing PROs have been operating on a voluntary basis for many years and have achieved great success with demonstrable recovery and recycling rates. The Packaging SA EPR Plan presents a unified plan incorporating all the PRO contributions and projects to be undertaken.

Transformation plan
Each PRO will need to submit a Transformation Plan to Packaging SA to provide an overview of how they will transition the current PRO structure to a more diversified and representative board and operating structure. Each PRO will need to undertake a BBBEE level certification at the outset (if not already conducted) and then put a plan in place as to how the structure and positions will be filled over the 5 year EPR plan. Many of the PROs, however are very small organisations and do not carry a big staff complement or budget. Whilst this is the case, there must be a commitment to transformation presented.

3.5 Technical Working Groups
Technical Working Groups (TWG) stimulate the optimal functioning Packaging SA’s implementation activities by gathering, pooling and sharing information on the collection, sorting and recycling of packaging waste as well as end-use development markets, technological updates best practice trends.

The information will be shared with both members, obliged industries and key stakeholders of Packaging SA.

Technical Working Groups are brought together for fixed, short periods of time to work on very specific tasks. Individuals participating in these groups are expected to have the time, interest, and commitment to participate in the production of deliverables assigned to the group. These groups will work on topics of strategic importance. It is expected that no more than 2-3 working groups will convene each year. The size and composition of group participation will be dependent on the group’s task. Technical working groups will typically include professionals within the respective (identified) industry / field of expertise; academia and government with demonstrated expertise.

3.5.1 Technical Working Groups – Packaging Sector
Working groups to be arranged under Packaging SA with the relevant or all PROs. These working groups may be held bi-annually and should consist of:

- Packaging Design & Design for Recycling with the aim of transitioning to a Circular Economy.
- Implementation of necessary standards, e.g. the SANS 154 Food Contact Standard for Recycled Plastics: Part 1 PET that PETCO has already initiated with the South African Bureau of Standards (SABS).
- End use market development, Re-use and Recovery Working Group.
- Research and Development.
• Working with DEA to look at phase-out plans rather than outright bans to address single-use packaging material streams that are problematic and pose challenges from a circular economy perspective.

3.5.2 Technical Working Groups – Collection & End-of-Life Solutions
Working groups to be arranged under PACKAGING SA or where relevant directly via the respective PRO, with members consisting primarily of those in the Collection, Recycling and Recovery value chains as well as Municipal representatives. These working groups will be held bi-annually and should consist of:

• Energy Recovery Forum
• National Awareness Working Group
• Collection & Sorting including MRFs, Kerbside collection and Buyback Centres
• Waste Pickers, Informal sector & Reclaimer support
• Research and Development for end use market development

3.6 Obligated parties to the EPR Plan
Obliged members to the EPR Plan include:

• Brand-owners
• Retailers\textsuperscript{21}
• Converters;
• Producers; and
• Importers

\textsuperscript{21} This includes online retailer platforms
3.7 Summary of reporting roles and responsibilities of obliged parties to the EPR Plan

Table 3 provides a summary of the roles and responsibilities of the obliged parties to the EPR plan.

Table 3: Summary of reporting roles and responsibilities

<table>
<thead>
<tr>
<th>Obliged Party</th>
<th>Type of Reporting</th>
<th>To</th>
<th>About</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obliged parties according to the Section 28 Notice:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand-owners</td>
<td>• Registration</td>
<td>PRO (Locally produced packaging)</td>
<td>Amount of packaging produced</td>
<td>Rebate for exported packaging</td>
</tr>
<tr>
<td>Converters</td>
<td>• Monthly/Quarterly declaration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producers</td>
<td>• Payment of EPR Fee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brand-owners</td>
<td>• Registration</td>
<td>Packaging SA</td>
<td>Amount of packaging produced</td>
<td>Only required if not reporting directly to a PRO for a specific material</td>
</tr>
<tr>
<td>Converters</td>
<td>• Monthly/Quarterly declaration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producers</td>
<td>• Payment of EPR Fee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packaging SA</td>
<td>• Monthly invoice</td>
<td>• Brand-owners</td>
<td>EPR Fee based on quarterly declaration</td>
<td></td>
</tr>
<tr>
<td>PRO’S</td>
<td>• converters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Producers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional obligations for parties that are also importers:</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Importers</td>
<td>• Registration</td>
<td>Packaging SA</td>
<td>Amount of packaging imported – filled and unfilled</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quarterly declaration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retailers</td>
<td>• Registration</td>
<td>Packaging SA</td>
<td>Amount of packaging imported (this includes the packaging around imported goods and house brands)</td>
<td>Including online retail platforms</td>
</tr>
<tr>
<td></td>
<td>• Quarterly declaration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Converters</td>
<td>• Registration</td>
<td>Packaging SA</td>
<td>Amount of packaging imported – filled and unfilled</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Quarterly declaration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packaging SA</td>
<td>• Quarterly invoice</td>
<td>• Importers</td>
<td>EPR Fee based on quarterly declaration of imported packaging</td>
<td></td>
</tr>
<tr>
<td>PRO’S</td>
<td>• Converters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Retailers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governance Structures</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRO’S</td>
<td>Quarterly EPR Plan Meetings</td>
<td>PRO Board</td>
<td>• Data collected (volumes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Packaging SA</td>
<td>• Registrations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Financial reporting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Implementation progress</td>
<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>• Recycling and collection EPR Targets</td>
<td></td>
</tr>
<tr>
<td>Obliged Party</td>
<td>Type of Reporting</td>
<td>To</td>
<td>About</td>
<td>Notes</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------</td>
<td>---------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Packaging SA</td>
<td>Quarterly Board Meetings</td>
<td>Packaging SA Board</td>
<td>• Implementation progress</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Recycling and collections EPR Target</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Data collected (volumes)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Registrations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Financial reporting</td>
<td></td>
</tr>
<tr>
<td>Conduct Committee</td>
<td>Quarterly Conduct Committee Meetings</td>
<td>Packaging SA Board</td>
<td>• Approval of Annual Business plans and EPR targets</td>
<td></td>
</tr>
<tr>
<td>Packaging SA Board</td>
<td>Quarterly Conduct Committee Meetings with Annual Reporting</td>
<td>Conduct Committee</td>
<td>• Aggregated Data</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Registrations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Financial reporting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Third party audited financial statements</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Business Plan</td>
<td></td>
</tr>
<tr>
<td>Packaging SA Board</td>
<td>Annual Board Meeting</td>
<td>Waste Management Bureau &amp; DEA</td>
<td>Free-riders/non-compliance</td>
<td></td>
</tr>
<tr>
<td>Waste Management Bureau</td>
<td>Quarterly Conduct Committee Meetings</td>
<td>Conduct Committee</td>
<td>• Monitoring and evaluation report</td>
<td>Chairs Conduct Committee</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Review of data and third party audited financials</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Annual EPR Targets</td>
<td></td>
</tr>
<tr>
<td>DEA, dti, SALGA, Academia, Waste Pickers</td>
<td>Quarterly Conduct Committee Meetings</td>
<td>Conduct Committee</td>
<td>• Monitoring and evaluation report</td>
<td>Feedback, approval and input</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Review of data and third party audited financials</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Annual EPR Targets</td>
<td></td>
</tr>
<tr>
<td>Technical Working Groups</td>
<td>Annual Conduct Committee Meetings</td>
<td>Conduct Committee</td>
<td>• Progress and planning for implementation</td>
<td></td>
</tr>
<tr>
<td>Packaging SA Board</td>
<td>Annual Report</td>
<td>All stakeholders and interested parties including the public</td>
<td>• Third party audited financial statements</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Annual EPR Targets</td>
<td></td>
</tr>
</tbody>
</table>
4 Financial Model

The implementation of the EPR Plan will be managed by PACKAGING SA with active project implementation of projects being done by both PACKAGING SA and the PROs. The Federation of Plans Model therefore presents a consolidated budget.

The budget is determined by the EPR fees raised based on a Rand per tonne for locally manufactured and imported filled or unfilled packaging as well as Membership fees attracted by PACKAGING SA.

4.1 EPR Fees

EPR fees will be paid according to material stream on a rand per tonne basis by (see Table 4):

- All importers of packaging (filled/unfilled). This EPR Fee is paid directly to PACKAGING SA.
- All converters, producers, manufacturers and brandowners for local packaging. This EPR Fee is paid directly to the PRO responsible for the specific material stream.

The proposed EPR Fees are as follows:

Table 4: EPR Fees per material stream

<table>
<thead>
<tr>
<th>Material</th>
<th>Categories (if applicable)</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET</td>
<td>Total EPR Fee Bottles</td>
<td>R 521</td>
<td>R 711</td>
<td>R 710</td>
<td>R 708</td>
<td>R 706</td>
</tr>
<tr>
<td></td>
<td>Total EPR Fee Edible Oil</td>
<td>R 253</td>
<td>R 388</td>
<td>R 548</td>
<td>R 767</td>
<td>R 872</td>
</tr>
<tr>
<td></td>
<td>Total EPR Fee Thermoforms</td>
<td>R 376</td>
<td>R 510</td>
<td>R 575</td>
<td>R 807</td>
<td>R 1 126</td>
</tr>
<tr>
<td>Polyolefins</td>
<td>Rigid and Flexible</td>
<td>R 250</td>
<td>R 265</td>
<td>R 280</td>
<td>R 295</td>
<td>R 310</td>
</tr>
<tr>
<td></td>
<td>Multi-layer &amp; Carrier bags</td>
<td>R 420</td>
<td>R 440</td>
<td>R 460</td>
<td>R 480</td>
<td>R 500</td>
</tr>
<tr>
<td></td>
<td>Recyclate</td>
<td>R 100</td>
<td>R 100</td>
<td>R 100</td>
<td>R 100</td>
<td>R 100</td>
</tr>
<tr>
<td>Glass</td>
<td>Cullet</td>
<td>R 41.36</td>
<td>R 41.37</td>
<td>R 43.05</td>
<td>R 44.98</td>
<td>R 46.68</td>
</tr>
<tr>
<td>Metals</td>
<td>Steel</td>
<td>R 70</td>
<td>R 74</td>
<td>R 77</td>
<td>R 81</td>
<td>R 85</td>
</tr>
<tr>
<td></td>
<td>Aluminium</td>
<td>R 48</td>
<td>R 50</td>
<td>R 53</td>
<td>R 56</td>
<td>R 58</td>
</tr>
<tr>
<td>Polystyrene</td>
<td>R 200</td>
<td>R 210</td>
<td>R 221</td>
<td>R 232</td>
<td>R 243</td>
<td></td>
</tr>
<tr>
<td>Polystyrene</td>
<td>R 200</td>
<td>R 210</td>
<td>R 221</td>
<td>R 232</td>
<td>R 243</td>
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</tr>
<tr>
<td>Liquid Board Packaging (including cups)</td>
<td>R 75.00</td>
<td>R 82.50</td>
<td>R 90.75</td>
<td>R 99.83</td>
<td>R 109.81</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:

- All importers of packaging (filled/unfilled) will be required to sign a compliance agreement with PACKAGING SA. Under this agreement, all quantities of packaging that is put into circulation is reported to PACKAGING SA on a quarterly basis and the importer pays the

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22 It is important to note that in terms of Glass, in excess of R1 billion in annual operational costs by some of the most recognisable brand owners has been invested in the returnable bottle system. In terms of Paper, R 2.97 billion rand was spent by the sector during 2017 on collecting, purchasing, baling, and transporting waste paper in order to recycle it. (this excludes exported waste paper)
corresponding EPR Fees, while at the same time transferring to PACKAGING SA the legal obligations stipulated by the PACKAGING SA EPR Plan for these quantities of packaging.

- All local packaging Producers which includes Converters and Brandowners (in terms of the Section 28 Notice definitions) will be required to sign a compliance agreement with the relevant Material Specific PRO or PACKAGING SA. Under this agreement, they report all quantities of packaging they put into circulation to the respective PRO on a quarterly basis and pay the corresponding EPR Fee, while at the same time transferring to the respective PRO the legal obligations stipulated by the collaborative PACKAGING SA EPR Plan for these quantities of packaging.

- Retailers will assist with monitoring compliance of their local suppliers who place products on their shelves with the PACKAGING SA EPR Fee.

- Multi-national and National Brandowners will be responsible for ensuring that imported products and packaging are compliant with the PACKAGING SA EPR Fee. They will be encouraged to include reporting of compliance in their annual sustainability reporting.

- Retailers have a direct responsibility for ensuring that their Housebrands that are imported are compliant with the PACKAGING SA EPR fee. This will be managed in a number of ways which will require engagement to establish the best possible methods, however the following potential solutions are currently being proposed:
  
  - An annual membership fee for Retailers that will be sufficient to cover the anticipated EPR fees. The aim of this would be for ease of reporting and as initial solution while systems to report on actual tonnages and packaging type are put in place.
  
  - The Retailer could choose to provide specifications around the packaging requirements. Declarations on the weight of packaging will be a requirement and will need to be submitted to PACKAGING SA in order for the EPR fee to be calculated based on the material streams being imported. The EPR Fee per material stream will be the same as the local EPR fee. A phased approach would be taken and an average EPR Fee (R/t) will be levied to the Retailer until more specific data per material type can be declared.

  - Further investigation into the current bar code systems that are in place, to understand if they can provide the required packaging data and what additional systems and information may be required.

- Retailers understand that they need to meet their EPR obligations and have expressed the desire to continue working with PACKAGING SA to understand how this information is best collected and provided. This is regarded as an ongoing engagement process. Each PRO will report aggregated data of EPR Fees collected on a per tonnage basis to PACKAGING SA on a quarterly basis.

The EPR Fee is directly linked to the tonnage of a specific material stream being placed on the market in the form of paper or packaging material. The EPR Fee is paid per material stream for all material streams. Converters/brandowners and manufacturers etc. cannot select which material stream they

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23 Please see Volume 2: Stakeholder Engagement
wish to pay for and will be required to pay for all material streams that make up the packaging of a product.

Examples: PET bottle with polypropylene lid, polystyrene punnet with flexible plastic wrapping, PET punnet with cardboard label.

4.2 Budget
A budget has been drafted in collaboration with all the PROs to ensure that a consolidated approach is provided for the implementation of the EPR Plan. Every attempt has been made to be as accurate as possible. Refer to Table 5.

The budget figures are based on the EPR Plan being implemented from early 2019 for a period of 5 years pending DEA approval of this Plan.

The budget consists of EPR Fees, membership income and income from imported packaging. These figures are based on the current available information which is fairly sound and consistent for the local market. There are some gaps in information regarding imported packaging which the EPR Plan has accounted for and has built in a phasing in to allow for importers of finished goods.

4.2.1 Black Industrialist Scheme support
The budget has included an annual spend on providing support to the BIS. The intention here is to assist with the identification of potential existing or new entrants into the Paper and Packaging Manufacturing sector specifically in recycling and the secondary materials markets. The reason for this is to ensure that end-use markets are developed locally to ensure that there is an off-take for the recyclables and the recyclate.

A close working relationship with the dti, the DEA and the Waste Bureau is intended in this regard.

4.2.2 Municipal Initiative Fund
The Municipal Initiative Fund is an amount in the budget that will allow for engagement and collaboration with local government, i.e. local municipalities. This annual amount is specifically for projects undertaken in a municipal area and projects may include:

- Separation at source
- Infrastructure
- Equipment
- Operational assistance

Fixed amounts are not set specifically for any of the above items; however, the total annual amount is set. The intention here is that there needs to be a degree of flexibility in order to identify the most appropriate project for implementation in an area.

4.2.3 Waste Pickers Fund
As with the Municipal Fund, a set amount has been allocated on an annual basis for Waste Pickers. A set figure is included to ensure that there is ongoing engagement – outside of project or support
spend. The intention behind this is that the potential projects identified at this early stage, may in fact need to shift to better align with the needs of the Waste Pickers. The main aim of this segment of the budget is to provide an inclusive approach and ensure ongoing budget allocation.

Other aspects of the budget are discussed under “Section 5 Implementation”.
### Table 5: PACKAGING SA Proposed EPR Plan Budget

#### 5 Year Summary: Packaging SA EPR Plan

<table>
<thead>
<tr>
<th>Figure in R’000</th>
<th>GLASS</th>
<th>METPAC</th>
<th>PAPER</th>
<th>PETCO</th>
<th>POLYCO</th>
<th>POLYSTYRENE</th>
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<tr>
<td>Fed of Plans</td>
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<tr>
<td>Contribution by P&amp;O to PSA</td>
<td>85 885</td>
<td>81 315</td>
<td>10 000</td>
<td>18 315</td>
<td>10 577</td>
<td>16 577</td>
<td>16 577</td>
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<tr>
<td>P&amp;O Revenue (net of PSA)</td>
<td>1 159 016</td>
<td>33 860</td>
<td>108 187</td>
<td>1 006 250</td>
<td>850 068</td>
<td>35 281</td>
<td>11 907</td>
</tr>
<tr>
<td>Total Raised from Industry</td>
<td>1 282 896</td>
<td>45 860</td>
<td>125 601</td>
<td>1 022 867</td>
<td>866 644</td>
<td>38 046</td>
<td>12 042</td>
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<td><strong>Imports</strong></td>
<td>200 000</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Total Revenue Raised by PSA EPR Plan</strong></td>
<td>1 482 896</td>
<td>48 860</td>
<td>126 502</td>
<td>1 022 867</td>
<td>866 644</td>
<td>38 046</td>
<td>12 042</td>
</tr>
<tr>
<td>Revenue % Cont Fed of Plans</td>
<td>0.9%</td>
<td>1.8%</td>
<td>5.1%</td>
<td>41.2%</td>
<td>34.9%</td>
<td>1.5%</td>
<td>0.5%</td>
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<tr>
<td>Revenue % Cont to PSA</td>
<td>21.8%</td>
<td>11.9%</td>
<td>21.8%</td>
<td>19.8%</td>
<td>19.8%</td>
<td>3.7%</td>
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<tr>
<th>Source</th>
<th>Total Revenue</th>
<th>R 153 506</th>
<th>R 33 860</th>
<th>R 108 187</th>
<th>R 1 006 290</th>
<th>R 850 068</th>
<th>R 35 281</th>
<th>R 11 907</th>
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<td>Industrial Support</td>
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<td>R 22 561</td>
<td>R 12 495</td>
<td>R 49 467</td>
<td>R 34 500</td>
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<td>Awareness Campaign</td>
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<td>R 4 950</td>
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<td>R 35 154</td>
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<td>Admin and Operating</td>
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<td>R 9 650</td>
<td>R 86 669</td>
<td>R 101 000</td>
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<td>Municipal Initiatives</td>
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<td>R 17 988</td>
<td>R 64 100</td>
<td>R 23 041</td>
<td>R 10 800</td>
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<td>Training / Mentorship Programme</td>
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<td>R 3 045</td>
<td>R 11 388</td>
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<td>Waste picker / informal Collectors</td>
<td>87 054</td>
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<td>-</td>
<td>-</td>
<td>R 52 068</td>
<td>R 12 241</td>
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<td>Research &amp; Development</td>
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<td>R 1 040</td>
<td>-</td>
<td>R 67 000</td>
<td>R 1 107</td>
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<td>Existing Recycling Sector Support</td>
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<td>R 52 700</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Infrastructure Development</td>
<td>392 800</td>
<td>-</td>
<td>-</td>
<td>R 392 800</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Demand Support</td>
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<td>-</td>
<td>R 886 448</td>
<td>-</td>
<td>-</td>
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</tr>
</tbody>
</table>

**TOTAL** | **R 482 896** | **R 153 506** | **R 33 860** | **R 108 187** | **R 1 006 290** | **R 850 068** | **R 35 281** | **R 11 907**

### (Surplus) / Deficit
- - - - -

#### Levv/ton (average over 5 years)

<table>
<thead>
<tr>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
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<tbody>
<tr>
<td>Current Recycled (ton)</td>
<td>58.1%</td>
<td>51.5%</td>
<td>54.5%</td>
<td>45.5%</td>
<td>44.0%</td>
<td>16.8%</td>
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<td>Projected Recycled (ton)</td>
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<td>54.5%</td>
<td>45.5%</td>
<td>34.5%</td>
<td>24.0%</td>
<td>18.9%</td>
<td>12.7%</td>
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<tr>
<td>Additional Tonneage recycled over 5 years (ton)</td>
<td>58 557</td>
<td>44 557</td>
<td>30 557</td>
<td>16 557</td>
<td>12 557</td>
<td>8 557</td>
<td>4 557</td>
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<tr>
<td>Incremental cost per recycled ton</td>
<td>83.726</td>
<td>83.726</td>
<td>83.726</td>
<td>83.726</td>
<td>83.726</td>
<td>83.726</td>
<td>83.726</td>
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<tr>
<td>Recycling Revenue (Current 5 years)</td>
<td>R 2 077 756</td>
<td>R 4 170 000</td>
<td>R 8 100 000</td>
<td>R 15 350 000</td>
<td>R 15 350 000</td>
<td>R 15 350 000</td>
<td>R 15 350 000</td>
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<tr>
<td>Recycling Revenue (Projected 5 years)</td>
<td>R 2 817 300</td>
<td>R 4 142 880</td>
<td>R 6 740 000</td>
<td>R 15 210 000</td>
<td>R 15 210 000</td>
<td>R 15 210 000</td>
<td>R 15 210 000</td>
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<tr>
<td>Assumed Aggregate Recycle Rate / ton</td>
<td>88.3%</td>
<td>88.3%</td>
<td>88.3%</td>
<td>88.3%</td>
<td>88.3%</td>
<td>88.3%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
<th>Rate %</th>
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</thead>
<tbody>
<tr>
<td>Growth</td>
<td>26.7%</td>
<td>83.4%</td>
<td>6.4%</td>
<td>8.8%</td>
<td>12.6%</td>
<td>32.0%</td>
<td>972.0%</td>
</tr>
</tbody>
</table>
5 Implementation – A focus on Transformation & Inclusive Growth

The PACKAGING SA EPR Plan has been designed on a bold vision to further the current South African Packaging economy to a more circular economy by 2030. Therefore, this plan could not only be designed only around a 5 year implementation plan, but rather is a 5 year plus plan and a bold 2030 vision.

A number of projects are outlined within this section with a common theme of a focus on transformation and inclusive growth. PACKAGING SA are aware that there are many changes required across the sector including within current internal structures as well. PACKAGING SA are therefore committed to this change and welcome the participation and collaboration opportunities that this EPR Plan outlines.

The PACKAGING SA EPR Plan is a consolidation of all the PROs already in existence and adds cross cutting projects required to reach PACKAGING SA’s goals. Projects detailed within this EPR Plan include common national priorities, some of which have already been identified through various mechanisms, such as the Waste Phakisa, as well as Material specific projects. There are also certain common national priorities that may also be implemented by a specific PRO but cover more than one material stream because projects have already been initiated.

The development of the EPR plan was guided by the outcomes of the Phakisa24 which included a number of recommendations to take forward. Whilst the outcomes of the Phakisa have not yet been ratified, they were still used as a base to work from for the development of the PACKAGING SA EPR plan and PRO IndWMP’s:

- 17 MRFs operated by 17 SMMEs
- Increased diversion of total packaging from landfill
- Establish 9 Transfer Stations per metro
- Increase first line recyclers
- Increase job creation opportunities in the packaging sector
- Integrate informal collectors
- Transform the industry

5.1 Black Industrialist Scheme Support

Recycling is an integrated process that begins with recyclable material collection from locations, such as households, drop-off points, construction and demolition centres and businesses. After collection, these recyclable materials go through a thorough sorting process to separate various materials as well as different quality goods. For plastic, paper, metal and glass, collected items go through a rigorous process to be usable as a raw material to produce new goods. From the collection of materials to selling them, recycling businesses need varying degrees of skilled and semi-skilled employees to perform recycling industry jobs.

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24 Phakisa is a government led approach to waste and chemical management in South Africa, the aim is to bring about rapid and meaningful change within the industry
Budget has been set aside to work with the dti, IDC and the Waste Bureau to identify potential candidates that can be supported as new entrants into the paper and packaging material value chain through the Black Industrialist support programme implemented by the dti. As it is not possible to know who, or what these ventures will be, a set amount has been set aside at this stage. There are multiple potential entry points along the whole material value chain to develop new enterprises.

An extract from the dti’s Black Industrialist Scheme (BIS) Programme Guidelines, page 4:

3.2 A black industrialist refers to a juristic person, which includes co-operatives incorporated in terms of the Companies Act, 2008 (as amended) that are owned by black South Africans as defined by the Broad-Based Black Economic Empowerment (B-BBEE) Act, that creates and owns value-adding industrial capacity and provides long-term strategic and operational leadership to a business. A black industrialist can be a natural person.

3.2.1 The following are characteristics of a black industrialist:
   a) high levels of ownership (>50%);
   b) dominant black ownership and management control may be considered for projects that are deemed strategic by the dti, but may need to include other shareholders to attract relevant skills, finance and scale-up the investment opportunities;
   c) exercises control over the business;
   d) takes personal risk in the business;
   e) does business in the manufacturing sector with particular reference to IPAP focus areas; and
   f) makes a long-term commitment to the business and is a medium- to long-term investor

The BIS refers to key focus areas of the programme and sectors that may be applicable within this EPR Plan which could include Industrial Infrastructure; Pulp, Paper and furniture; Chemicals Pharmaceuticals and Plastics; Manufacturing related logistics; and Designated sectors for localisation.

To qualify, there are mandatory requirements that a candidate must meet, including, as per the BIS (extract):

- Be a registered legal entity in South Africa in terms of the Companies Act, 1973 (as amended) or the Companies Act, 2008 (as amended); the Close Corporations Act, 1984 (as amended) or the Co-operatives Act, 2005 (as amended).
- Be a taxpayer in good standing and must provide a valid tax clearance certificate at assessment and before the grant is disbursed.
- Be involved in starting a new operation or in expanding or upgrading an existing operation or the acquisition of an existing business/operation.
- Be aligned to the productive sectors of the economy within the identified sectors as outlined in section 3.4 above.
- Have more than 50% shareholding and management control.
- Have a valid B-BBEE certificate of compliance.
- Be directly involved in the day-to-day running of the operation and must have requisite expertise in the sector.
- Have a project with a minimum investment of R30 million.
- Undertake a project that should result in securing or increasing direct employment.

In addition to the mandatory conditions, the black industrialist will have to achieve other criteria (a minimum of four) to participate in the programme, including:

A. Employment Securing/retaining or increasing direct employment.

B. Market Share New business/operations: Securing market share for the entity; or Existing business/operations: Increase market share for the entity.

C. Quality Improvement Reduction of relative prices and/or increasing the quality of products to consumers.

D. Green Technology and Resource Efficiency Improvements Savings or better use of energy or materials and/or cleaner production improvement and/or waste management improvement and/or water usage improvement and/or use of renewable energy.

E. Localisation Increasing the localisation of production activities (diversification and exports).

F. Regional Spread Projects should be located in rural areas or areas with unemployment higher than 25%.

G. Personal Risk Demonstrate own financial and/or non-financial contribution to the business.

H. Empowerment Achieve at least a level four B-BBEE contributor status as per revised B-BBEE Codes of Good Practice published in October 2013 (as amended).

The budget amount has been set aside based on a grant / seed capital for a new entrant or to assist with enterprise development, with a special focus on assisting existing and new entrants into recycling and secondary materials markets.

Initially the identified candidate may not meet the required qualifying criteria for the BIS, therefore, this finance could also be used to develop or provide the necessary partnering, and / or the initial capital investment required to qualify.
5.2 Data collection and management

The voluntary EPR system currently in place provides annual reports generated by a third party (BMi) detailing the packaging market, collected and recycled tonnage. This information is largely based on industry supplied information and import and export data via ITAC\(^\text{26}\).

The EPR Plan intends to extend the reach of the data but implementing a rigorous database which would include the complete material value chain. The database would require various levels of entry for the different contributors including informal collectors and recyclers.

The database would also assist with annual reporting that will be required by PACKAGING SA to the Waste Bureau.

The development of the database has been included into the budget and would be outsourced to a company with a good BBBEE certification (i.e. Level 1 to 4 BBBEE is preferred if available). Should there not be a company that can meet this criterion, there will be a requirement in the Tender document requiring at least 30% be sub-contracted to a SMME and / or a mentoring / internship programme in order to upskill candidates.

There will be a need to provide support and ongoing maintenance, and this would again have the above-mentioned requirements.

After 5 years, information from the database would be able to provide (aggregated data):

- Number of informal collectors, location, what materials were collected, quantities (tonnages) and income generated
- Location of buy back centres participating in the PACKAGING SA EPR Plan
- Location of material recovery facilities (MRF) and who owns and operates these
- Number and location of formal collectors
- Quantity and type of imported products and packaging
- Quantity of exported recovered material types
- Number of recyclers/processers
- Number of new / additional secondary processing facilities established
- End-use markets developed
- Permanent/part-time/decent work opportunities created\(^\text{27}\)

5.3 Municipal Initiative Fund

It is important to state that the EPR Plan has set up a Municipal Initiative Fund or the Municipal Fund which is an amount that then can be accessed for use for Separation at Source Programmes or the financing of infrastructure, e.g. the building of MRFs; or mechanical equipment for existing municipal facilities, etc.

Specific municipal areas have not yet been selected for implementation of this aspect of the EPR Plan. It is envisaged that a working group will be set up in conjunction with DEA and SALGA to identify where

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\(^\text{26}\) The International Trade Administration Commission of South Africa (ITAC) is a schedule 3A Public Entity established in terms of the International Trade Administration Act, No 71 of 2002, and came into force on 1 June 2003.

\(^\text{27}\) There is a difference between permanent / part-time and decent work and there would need to be a description of the qualifiers developed in the database, e.g. a person may have decent work and not be a permanent employee.
to start with piloting or implementing project and programmes that will assist in alleviating the burden on municipalities and diverting waste from landfill.

DEA has already undertaken a number of projects in conjunction with the GIZ\(^{28}\) to understand the status quo of selected municipalities (twelve in total) in relation to waste management practices and identifying barriers to alternative waste treatment implementation (“enablers/ constraints” also termed “gaps and opportunities”). These municipalities have considered scenario (strategy) development and high-level interventions based on short and medium-term interventions, to improve the IWMS with emphasis on waste diversion away from landfills, climate change mitigation and job creation per municipality. Bankable business plan and an implementation plan for a selected project (intervention) from the preferred scenario was developed.

DEA has also developed a Draft Status Quo document for Separation at Source.

It is likely that this type of existing information and level of readiness will be used as a basis to take the Municipal Fund forward.

### 5.3.1 Separation at Source

Areas for inclusion in a source separation project will be identified in close collaboration with municipalities. The intention is to focus in Metropolitan and Secondary Cities within this 5 year EPR Plan, and further to this, PACKAGING SA will find the most appropriate solution to an area through:

- Discussions with the DEA / Waste Bureau to identify the Metropolitan / secondary Cities most ready based on existing work done to date as a foundation. A broad Status Quo Assessment is currently underway to detail this information and therefore, it is reasonable that the outcomes of this process should be used by PACKAGING SA as opposed to re-doing any investigations.
- Conducting a more focussed and localised status quo assessment of the selected area to understand the current waste management service, including formal and informal collectors (municipal/contracted/informal collectors).
- Continued engagement with informal and formal contractors – directly and through organisations like the South African Waste Pickers Association (SAWPA), WEIGO, groundWork as well as researchers currently active in this area, i.e. Dr Melanie Samson\(^{29}\) and Professor Catherina Schenck\(^{30}\).
- Propose most effective method for the PACKAGING SA EPR Plan to recover the dry recyclables, for example:
  - 2 bag system (dry and residual waste)
  - Informal or formal collectors or a combination of both
  - Buyback centre, Municipal or private MRF, sorting facility, etc.
- Implementation, reporting and monitoring.

In order to ascertain what the potential budget inclusion figure is, the CSIR were approached in terms of the Separation at Source Costing Model referred to as SASCOST (Nahman, 2018). Whilst the tool is

\(^{28}\) Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

\(^{29}\) Dr Melanie Samson is a senior lecturer in Human Geography at Wits and is currently developing a Guideline Document for the Integration of the Informal Sector

\(^{30}\) Professor Catherina Schenck DST/NRF/CSIR Chair in Waste and Society, Department of Social Work, University of the Western Cape
still in development, the intention was to obtain an indication of what the potential costs would be for a weekly service based on 2 collection scenarios (separated recyclables collected in a 4 tonne caged truck (separate vehicle option), or in a trailer hitched to the back of the normal waste collection vehicle (truck & trailer option)). It is noted that neither of these scenarios includes informal collectors, but the plan takes cognisance of this.

5.3.2 Material Recovery Facilities (MRFs)
Material Recovery Facilities can be of the large, high capital-intensive variety (R250m+), or of the medium sized capacity (~R30m) or small buyback centre with sorting facilities (R7m).

The range, scope and nature of interventions requires coordination with municipalities over the five-year period, including a legal framework for intervention in separation at Source.

In the interim our Plan for MRFs consists of allocating funds for such interventions which will be used to fully support two medium-sized MRFs.

5.4 Informal sector integration
The informal sector collectors, including street waste pickers and landfill waste pickers, currently play an important role in the recovery of recyclables. Many studies have been conducted over the years and research is ongoing to understand how this sector can be included more formally into the system.

Informal Sector Integration is regarded as methods to organise and recognise the informal recycling sector as part of official waste management strategies. Integration is not formalisation, as studies done to date clearly show that informal reclaimers do not want to be formalised, but rather recognised and integrated (CSIR,2012)

Research thus far includes the following areas that need to be included with informal sector integration:

- Recognition for the service they provide.
- Participation in the system in a way that they are not ostracised.
- Source separation would make it easier to collect recyclables that are cleaner and have a measure of pre-sorting.
- Safe and dignified working conditions to sort recyclables, store material and have access to facilities.
- Maintain inclusivity within the broader system.
- Protecting livelihoods.

The intention of the EPR Plan would be to work closely with the informal sector so that over time, informal collectors will no longer need to pick off a landfill site and secondly from mixed waste kerbside bins. This is a longer-term vision of the EPR Plan and one that will require a platform of inclusion, participation, mentorship and entry to market.

Any work undertaken in the informal waste sector by PACKAGING SA will be undertaken in consultation and collaboration with the informal sector, experts and researchers in the field and other role-players or stakeholders. Any changes to existing systems, formal or informal will include a comprehensive and articulated approach that addresses the impacts on waste pickers and the informal sector.
The position paper developed by WIEGO for dump closures provides good core principles to be considered when the informal sector is involved and will be used as a guideline:

### PRINCIPLES TO SUPPORT WASTE PICKER LIVELIHOODS

**Extract directly from WIEGO**

#### CORE PRINCIPLE

Any change to the way solid waste is managed—whether upgrading from dumps to controlled landfills, introducing recycling schemes or “modernizing” a system—must begin with a comprehensive plan that considers the needs of the informal workers who are already engaged in gathering, sorting and recycling waste. Any suppressed activity should be replaced with another of at least equal value to waste pickers. And waste pickers must be involved as equal partners in all phases of planning and implementation.

#### SPECIFIC GUIDELINES

Build on existing solid waste systems/recycling systems by including waste pickers. This requires adequate research into livelihood impacts on informal waste workers. A comprehensive approach has to address the multi-dimensionality of the occupation.

Broad consultation and ongoing participation is essential. Waste picker representatives should be engaged as full partners. Multi-stakeholders’ forums/platforms have proven effective to allow dialogue between governments, informal worker organizations and other key stakeholders.

National solid waste policies should mandate livelihood plans to address waste pickers needs. Funding mechanisms must ensure that livelihood protection plans are implemented.

Municipal solid waste systems should address and ensure waste picker livelihoods are protected through comprehensive plans that include as many waste pickers as possible, and these elements:

- proper contracts with payment for service collection and sorting services
- improved basic working conditions
- occupational and health programmes to address the risks that waste pickers face
- options for employment and income generation that respect waste pickers’ right to work
- restructuring of the recycling value chain to ensure equitable distribution of profits, empowering waste pickers and improving both their position in the chain and their earnings (examples: floor prices payment for environmental services rendered by waste pickers)
- infrastructure for sorting/processing of recyclables
- financing/credit for waste picker organizations (e.g. collectives) for equipment (scales, shredders, etc.) as well as micro-financing schemes
- capacity building for waste picker organizations to enable them to increase efficiency and enter new niches to compete in the market; training in business management, cooperative principles, and processing or semi-processing of recyclables
- social protection schemes to address specific needs of waste pickers
- improved housing and living conditions for waste pickers
- eradication of child labour in waste picking (solutions could involve incentives such as cash benefits/grants to help parents keep kids in school; child care facilities close to the workplace/home)

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changes to the legal framework/municipal legislation to support recognition and the integration of waste pickers. Integration must take into account ownership and the empowerment of waste pickers.

In addition to the above, the Waste Picker Integration Principles provided by Dr Melanie Samson, Senior Lecturer in Human Geography at the University of the Witwatersrand, have been included to guide integrating Waste Pickers. Dr Samson’s comments are rooted in the waste picker integration principles that are guiding the work of the National Stakeholder Working Group developing DEA’s National Guidelines on Waste Picker Integration. These principles are based on an extensive review of international and national literature, as well as deep engagement between stakeholders on the working group. They are:

Waste Picker Integration Principles (Samson, 2018 – See Comments and Responses Report)

1. **Recognition, Respect and Redress** - Waste pickers’ role in the recycling system is recognised and taken into account. Waste pickers are engaged respectfully, and unequal power relations between waste pickers and municipal and industry officials, as well as those rooted in gender, race, class, nationality etc are recognised and addressed.

2. **Waste pickers know best what they want** - Officials cannot presume to know what waste pickers want or what the best form of integration would be. Successful integration programmes are based on waste pickers’ needs and interests and waste pickers must want to participate in them.

3. **Meaningful engagement** - Legitimate platforms are created to meaningfully engage waste pickers in decision-making related to recycling programmes and waste picker integration. Officials involved have decision-making power.

4. **Build on what exists** - Waste pickers’ informal system to collect, prepare and sell recyclables is valued, recognised and integrated in the development of new formal recycling programmes and contracts.

5. **Cost effective, increased diversion** - New waste picker integration and recycling initiatives increase diversion of recyclables from landfills and are cost effective.

6. **Evidence-based** - Waste picker integration and recycling policies, programmes and contracts are evidence-based. Piloting can assist in generating necessary evidence. Information generated through monitoring and evaluation contributes to revisions and future developments.

7. **Enabling environment** - An enabling environment is created for waste picker integration. This includes – development of fit-for-purpose funding mechanisms, supportive legislation and policy, programmes to capacitate stakeholders and assist them to implement waste picker integration.

8. **Improved conditions and income** - Official waste picker integration and recycling programmes and contracts improve waste pickers’ working conditions, incomes, and social security. Waste pickers are provided with alternatives and compensated for any displacement or deterioration of conditions and/or incomes resulting from official waste picker integration and recycling programmes and contracts.

9. **Payment for services and savings** - Waste pickers are compensated for the collection services they provide, costs saved for municipalities and industry, and environmental benefits they generate.

10. **Holistic integration** - Successful integration of waste pickers in formal recycling programmes and contracts requires changing how they are seen and engaged by residents, industry and the state. Waste pickers are recognised as active and equal participants in political, economic, social, cultural and environmental processes.

A budget has been allocated to work closely with this sector through existing networks to understand their needs and the most appropriate entry point; however, the first port will be registration of informal collectors through the development of an application which can also be used for more secure
payment, i.e. a cashless system to minimise the risk of carrying cash as an option. Through this platform, there will be various entry points for mentorship programmes should the collector / waste picker want to engage on a more formal level.

The number of waste pickers vary, and one of the intentions of the cashless registration platform would be to start understanding the true number of waste pickers and generally where they are located. This information could also then inform additional strategies to assist the informal sector integration.

The intention is to also roll-out free Wi-Fi at registered buy-back centres. During discussions with various role-players it was confirmed that many (if not most) waste pickers have mobile phones and many are smart phones. Therefore, the intention would be to provide free Wi-Fi zones so that the waste pickers can be connected.

5.5 Packa-Ching

The EPR Plan already has projects that are currently underway or in the process of being finalised. An example of Packa-Ching (http://www.packaching.co.za) is a flagship project of the plan and discussions with a big Retailer are underway to roll-out 40 Packa-Ching Owner Managed Kiosks around the country with the focus being on Black Ownership. Packa-Ching is essentially a mobile buy-back centre and accepts all material streams. It uses a cashless system to pay individuals directly for their materials collected.

The budget includes roll-out, from Year one, the establishment of 10 new kiosks annually. This would result in 10 new Black Business owners per year, and countless opportunities for income for a number of community members.

Where appropriate, Packa-Ching will be linked to other projects, for example:

- to meet the needs of a buy-back centre to the Informal Sector, and
- if identified as a need by the status quo assessment, it could serve as an interim solution for municipalities who may require a more immediate and shorter-term solution as MRF or buy-back centre infrastructure is developed.

5.6 National Awareness and Education Campaign

An integral part to the adoption of a mandatory EPR Plan for paper and packaging waste in South Africa will require a strategic awareness campaign. There will be a need to be multi-dimensional as there need to be a clear and consistent message. This EPR Plan is not only about increasing collection and recycling rates and cleaning up the environment. It has a broader vision of social and economic transformation through the programmes listed within this plan, including:

- integration of the informal sector / waste pickers.
- providing various entry points for upskilling waste pickers.
- stimulating end-use markets which will in turn stimulate the collection and recycling rates.
- enterprise development, i.e. providing support to HDI recyclers (existing and new entrants).
- encourage good (appropriate) design of packaging materials and understanding the true meaning of a material being recyclable.

32 Registered with PACKAGING SA
Part of the national awareness campaign needs to address the issue of recyclability, as there appears to be confusion in the market about this. The following four conditions should be met for a product to be considered recyclable:

- The product must be made with a material that is collected for recycling, has market value and/or is supported by a mandated program.
- The product must be sorted and aggregated into defined streams for recycling processes.
- The product can be processed and reclaimed/recycled with commercial recycling processes.
- The recycled material becomes a raw material that is used in the production of new products.

Budget has been allocated to develop a clear communication and marketing strategy within the first year in collaboration with National DEA and the Waste Bureau to ensure that messaging is consistent. Year 2-5 will be the implementation of the Marketing Strategy.

In order to ensure that there are still campaigns in place at the start of the first year of the EPR Plan, partnerships will be continued with a number of organisations, including:

- Clean up & Recycle SA - River, Catchment & Marine Projects
- Collaborative and Association networks (e.g. African Marine Waste Network; Plastics SA; Consumer Goods Council of South Africa (CGCSA) amongst others)

5.7 Design for a Circular Economy

Design for Recycling Guideline documents have been designed by PACKAGING SA with the latest iteration released in October 2017. PACKAGING SA represents all packaging material and therefore is well placed to transition the design to include the broader vision of Designing for a Circular Economy.

The intention would be to link in with International organisations that are already engaged as the packaging market is not localised within South Africa but very connected to international networks. Packaging is imported by brand owners and retailers (filled or unfilled) and there is a need for brand owners and retailers to start stating the required minimum standards for imported packaging, i.e. local recyclability would be a great start.

The Design for a Circular Economy Guideline will therefore be a collaborative effort across the value chain to ensure that all role-players and aspects are included into the specification decision making matrix.

When evaluating packaging, it is important to understand that it plays a key role along the entire value chain and consumer goods supply chain because optimum packaging reduces waste, protects against damage and theft, makes logistics more efficient, makes products shelf-ready, preserves their quality and adds to shelf-life, as well as serving as a communication medium for consumer information, beyond advertising.

Serving all these purposes equally is not always an easy or simple task. Packaging is one part of the overall life-cycle of a packaged product and should not be evaluated in isolation from the product itself.

A Technical Working Group will be formed, including the key role-players and with the following long-term key objectives (based on the New Plastics Economy targets):

- Eliminate unnecessary and problematic single-use plastic packaging through redesign and innovation.
- Ensure all packaging is returnable, reusable, recyclable, or compostable.
- Increase the reuse, collection, and recycling of packaging.
- Increase recycled content in packaging.

In addition, the Design for a Circular Economy Guideline will follow EXPRA’s **Packaging Optimisation and Prevention** Principles as follows:

*The PRO should help the obliged companies to improve the environmental performance of their products and their packaging by providing advice and information on packaging optimisation. Packaging optimisation efforts include improved design of the combined product/packaging, guaranteeing the greatest functionality and longest life, while using safe materials and a minimum of raw materials and resources. Through its co-ordination efforts, the PRO functions as a ‘bridge’ between the obliged companies and the recyclers. This ensures that the obliged companies gain insight into the recyclability of their packaging and enables them to take the end-of-life treatment into account during the design of the packaging.*

Budget has been provided for the development of the Design for a Circular Economy Guideline and for the provision of 2 workshop sessions per year. In addition, budget is included under Research and Development for a Technical Working Group.

### 5.8 Research and Development

A big focus of the R&D component of the EPR Plan is on identifying and stimulating secondary markets / end-use demand for additional recyclate into the market. Part of this process will be linked to the black industrialist programme as the intention is to stimulate this growth in line with enterprise development and additional Black owned recyclers and / or new end-use markets.

Material beneficiation in the form of waste to energy cannot be ignored. It is not necessarily a priority area as in terms of the waste hierarchy, the recovery of energy from waste is far down the list of priorities.

R&D will be undertaken to assess whether there is a need (or desire) to “Brand” the EPR system to achieve greater awareness and / or to provide a sense of assurance to consumers about the product choices they are making. Research would be necessary to understand what the intention and aim of the branding would be.
6 Overview of the PROs

The EPR Plan is a collaborative effort and would not be achievable without the PROs. This section provides an overview of the PROs and their respective roles in the EPR Plan. The full PRO IndWMPs are provided in Volume 3.

6.1 Glass

<table>
<thead>
<tr>
<th>PRO Name</th>
<th>The Glass Recycling Company (TGRC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Streams included</td>
<td>This IndWMP encompasses all glass packaging placed on the South African market that could potentially enter the waste stream. Glass packaging refers to –</td>
</tr>
<tr>
<td></td>
<td>Glass containers used for or in connection with the containment, transport, handling, protection, promotion, marketing or sale of any product or substance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed EPR Fee</th>
<th>Proposed fees –</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• 2019: R41.36/ton</td>
</tr>
<tr>
<td></td>
<td>• 2020: R41.37/ton</td>
</tr>
<tr>
<td></td>
<td>• 2021: R43.05/ton</td>
</tr>
<tr>
<td></td>
<td>• 2022: R44.98/ton</td>
</tr>
<tr>
<td></td>
<td>• 2023: R46.68/ton</td>
</tr>
</tbody>
</table>

Proposed fees are subject to change on an annual basis depending on actual tonnage placed on the market and required budgets for the implementation of the programmes.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Domestic Glass Production: 964 424 tonnes</td>
</tr>
<tr>
<td></td>
<td>• Direct Exports: 77 365 tonnes</td>
</tr>
<tr>
<td></td>
<td>• Indirect Exports: 147 647 tonnes</td>
</tr>
<tr>
<td></td>
<td>• Direct Imports: 7 000 tonnes</td>
</tr>
<tr>
<td></td>
<td>• Indirect Imports: 24 000 tonnes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of packaging market</th>
<th>20.2% for Glass</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>2017 Collection Rate (tons)</th>
<th>41.5% in TGRC’s 2016/17 financial year</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Collection Targets (2019 to 2023) – Tonnages</th>
<th>In the absence of mandated and enforced separation at source –</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• 2019: 42.9%</td>
</tr>
<tr>
<td></td>
<td>• 2020: 44.7%</td>
</tr>
<tr>
<td></td>
<td>• 2021: 46.4%</td>
</tr>
<tr>
<td></td>
<td>• 2022: 48.6%</td>
</tr>
<tr>
<td></td>
<td>• 2023: 51.2%</td>
</tr>
</tbody>
</table>

Should there be mandated and enforced separation-at-source, we anticipate that we could increase our collection targets to –

|                                       | • 2019: 46.4% |
|                                       | • 2020: 52.5% |
|                                       | • 2021: 58.5% |
|                                       | • 2022: 64.6% |
|                                       | • 2023: 65.4% |

We also intend on having a returns rate in excess of 90% for returnable bottles for all years of the plan.
These targets are dependent on several assumptions as outlined in the full plan. Should any of these not hold true, the targets will change.

| Job Creation Targets (by 2023) | We anticipate that we could unlock 1 500 job opportunities through the additional glass packaging recovered and recycled as a result of the implementation of this plan. We anticipate that this could be doubled if separation-at-source were to be mandated and enforced. |
| Transformation Targets (by 2023) | TGRC is a level-1 Broad-Based Black Economic Empowerment (B-BBEE) provider. It is also our intention that the majority of our efforts are directed towards historically-disadvantaged individuals and black-owned and managed enterprises. Our objective is for a minimum of 70% of the job and business opportunities to be allocated to historically-disadvantaged individuals and black-owned and managed enterprises. We also aim to direct 50% of our support towards those operating in the informal recycling sector. |
| Material Specific Projects included (PRO Plan) | We have seven programmes. Of these, two of them are material-specific - Programme 6: Servicing Outlying Areas Looking to support collection of glass packaging from areas outside of Gauteng and the Western Cape. Programme 7: Looking for Alternative Markets Investigating the feasibility of alternative markets for recovered glass. |
| Alignment with Macro/PSA Projects (show linkages to Federation of Plans) | Programmes that could fall under the Federation of Plans are as follows – Programme 1: Separation-at-Source Mandated and enforced separation-at-source and separate collection of recyclables. Programme 2: Collaboration with Municipalities Working with municipalities to look at ways of implementing separation-at-source and separate collection of recyclables. Programme 3: Creating Awareness Creating awareness around recycling of glass packaging in an effort to change behaviour. Programme 4: Developing Enterprises Supporting enterprises in the recycling industry with a minimum of 70% of those supported being historically-disadvantaged individuals or black-owned and managed enterprises. Programme 5: Focusing on Schools Working with schools to educate learners on recycling of glass packaging. |
More detail on these programmes is contained in the full plan.

<table>
<thead>
<tr>
<th>% of market currently participating/member on a voluntary basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry representation and participation will be addressed by encouraging all TGRC shareholders to subscribe to the plan. Together, the shareholders above represent all domestic container glass production and the majority of food and beverage brand-owners who package their products in glass. It is estimated that the industry representivity of TGRC is around 75% of total glass of glass buyers/brand owners by volume.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identified Risks/Other market forces</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have grouped identified risks and material-specific complexities together. We have outlined some of the challenges below –</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material specific complexities</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Lack of mandated and enforced separation-at-source is a challenge in unlocking additional volumes of glass packaging for recycling.</td>
</tr>
<tr>
<td>b) There are thresholds in terms of how much cullet (recovered glass) can be used by a glass container manufacturer as a proportion of the batch fed into a furnace. These thresholds are as follows –</td>
</tr>
<tr>
<td>• 50% amber cullet to produce amber glass;</td>
</tr>
<tr>
<td>• 40% flint cullet to produce flint glass; and</td>
</tr>
<tr>
<td>• An average of 72% green and mixed cullet to produce green glass (includes a range of different shades of green glass).</td>
</tr>
<tr>
<td>Some raw material or virgin batch is always required when producing glass. These thresholds mean that the glass container manufacturers are limited in terms of how much cullet they can use. We have calculated the theoretical maximum glass recycling rate in the full plan.</td>
</tr>
<tr>
<td>c) The quality of cullet received is a barrier to realising the theoretical maximum glass recycling rate –</td>
</tr>
<tr>
<td>• The cullet is often crushed too fine to allow for it to be optically-sorted.</td>
</tr>
<tr>
<td>• The cullet is not necessarily washed before being optically-sorted.</td>
</tr>
<tr>
<td>• The cullet may also contain impurities and other materials (ceramics etc.) that would need to be removed before using the cullet.</td>
</tr>
<tr>
<td>The glass container manufacturers are typically limited in terms of cullet plant capacity to process this poor-quality cullet.</td>
</tr>
<tr>
<td>d) The difference in the cullet split of glass produced and cullet received from the market is also a challenge in realising this theoretical maximum glass recycling rate. Percentage-wise, 18% of the glass produced is amber, 37% is flint and the remaining 45% is green glass. However, only 11% of the cullet collected from the market is amber, 20% is flint and the majority (remaining 69%) is green and mixed cullet.</td>
</tr>
<tr>
<td>The high percentage of green and mixed cullet results from glass containers being crushed into small pieces or getting broken during collection and transport. Cullet plants can only sort down to a certain size fraction and some</td>
</tr>
</tbody>
</table>
of these pieces of glass are too fine to be optically sorted, reporting to mixed cullet. Also, all decorated glass and glass with pressure sensitive labels ends up being mixed cullet irrespective of whether the base glass is flint or amber.

The difference in the cullet split of glass produced and cullet received from the market means that if a glass container manufacturer wants to achieve the theoretical maximum glass recycling rate then it would need to find sources of only flint and amber cullet or stockpile excess green and mixed cullet in order to obtain the flint or amber cullet. This stockpiling has financial implications.

For this reason, the maximum glass recycling rate is actually lower than the theoretical maximum.

e) A challenge in realising the maximum recycling rate is the issue of ‘colour imbalance.’ This refers to the geographical disparity between manufacturing and consumption as far as colour is concerned. For example, much of the green glass is manufactured in the Western Cape, but consumed in Gauteng. The green cullet then needs to be transported back to the Western Cape for use in the manufacturing process. The cost of transport in relation to the economic value of the cullet poses a challenge. This ‘colour imbalance’ challenge is not unique to South Africa, but internationally as well. However, in other countries, distances may be shorter, reducing the cost of transport. This, in turn, allows for it to be feasible to transport the different colours of cullet between areas and countries as the need dictates.

f) Collecting glass from outlying areas can be a challenge, particularly when these areas are not situated close to the manufacturing facilities. In some cases, this challenge is exacerbated by low volumes being available in these areas, the informal nature of the scrap market and the low quality of the glass collected. This makes it very costly for glass to be transported and recycled from outlying areas. Our Programme 6 aims to address this issue.

g) Currently, cullet is used in bottle-to-bottle recycling. Bottle-to-bottle recycling has the benefit of realising the full environmental and economic benefit of this cullet. In many other countries around the world, only a portion of this cullet is used in bottle-to-bottle recycling with some being used in downcycled applications such as for aggregate. Although this has a reduced environmental benefit, it does mean that the glass recycling rate is not as dependent on how much cullet can be absorbed by the glass container manufacturers. Alternative markets for cullet should be further investigated in South Africa. Programme 7 aims to achieve this. However, it is acknowledged that one of the challenges would be that the price of cullet in these markets appears to be insufficient to justify the recovery of this glass. This will be further investigated.
6.2 Paper and Paper Packaging

Excluded as a result of the definitions in the regulations is any paper that is not used for writing, printing, or as a wrapping material (i.e. tissue). All paper used for printing, writing or as a wrapping material is included in the scope of our plan. All paper used for packaging is included in the scope of our plan.

Pamdev are in the process of identifying various products that are a combination of paper and other materials (i.e. liquid carton board etc.) and looking at including these within their plan. This is an ongoing process as we continue to engage with stakeholders.

<table>
<thead>
<tr>
<th>PRO Name</th>
<th>PAMDEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAMDEV is a non-profit special purpose vehicle established for the purpose of becoming the Paper Producer Responsibility Organisation of the Paper Manufacturers Association of South Africa (PAMSA) and the Paper Recycling Association of South Africa (PRASA). Note that we are in the process of changing the name of PRASA.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Material Streams included</th>
<th>Paper, paper packaging, liquid board packaging (which includes cups). Definitions provided below –</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Paper - means any substance made from wood pulp, rags, straw, or other fibrous material for writing, printing, or as a wrapping paper</td>
</tr>
<tr>
<td></td>
<td>• Paper Packaging - means paper used for or in connection with the containment, transport, handling, protection, promotion, marketing or sale of any product or substance, which may be primary packaging, containing the</td>
</tr>
</tbody>
</table>
actual product, or secondary packaging, typically containing products already packaged in primary packaging.

- **Liquid Board Packaging** - means multi-ply paperboard with high stiffness, strong wet sizing and a high barrier coating that are traditionally composed of 75% paperboard with 25% polyethylene and aluminium.
- **Cups** - means a disposable cup made of thin cardboard that are traditionally composed of 95% paperboard with a 5% coating layer for wet strength.

Paper packaging is assumed to include paperboard, paper sacks and other forms of packaging that make use of paper. In the first year of implementation, we may identify other types of packaging that make use of paper that should be encompassed by this plan. They will be included as and when identified and post proper consultation with the value chain and other identified stakeholders.

### Proposed EPR Fee

<table>
<thead>
<tr>
<th>Product Type</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Board Packaging (including cups)</td>
<td>R75.00/tonne</td>
<td>R82.50/tonne</td>
<td>R90.75/tonne</td>
<td>R99.83/tonne</td>
<td>R109.81/tonne</td>
</tr>
</tbody>
</table>

PAMDEV will collect the EPR fee from all producers located in South Africa and all importers of paper, paper packaging and liquid board packaging, both filled and unfilled.

The difference in quantum between the proposed paper and paper packaging and liquid board packaging fees results from –

- The quantity of paper and paper packaging versus the quantity of liquid board packaging – There is more paper and paper packaging sold into the South African market than liquid board packaging.
- The current and ongoing investment by paper and paper packaging manufacturers in recycling – The paper and paper packaging industry collects paper and paper packaging at kerbside from 300 000 households, has over 500 buy-back centres and has placed a large number of paper banks at schools and in community centres.
- The current recycling rates – The current recycling rate for paper and paper packaging is 70% as opposed to 10%.
- The value of paper and paper packaging versus the value of liquid board packaging – Liquid board packaging fetches a higher selling price than paper and paper packaging.

Fees are subject to change depending on the paper, paper packaging and liquid board packaging placed on the market and defined budgets required for the programmes.

### Amount of packaging produced (tons) 2017

| 2 255 075 tonnes of paper and paper packaging consumed in South Africa in PAMDEV’s 2017 financial year. |
Estimated 80 000 tonnes of liquid board packaging and cups placed on the South African market each year.

<table>
<thead>
<tr>
<th>% of packaging market</th>
<th>Material stream as a % of the total packaging market</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tons</td>
</tr>
<tr>
<td></td>
<td>Paper</td>
</tr>
<tr>
<td>Splits</td>
<td>Abs</td>
</tr>
<tr>
<td>Of SA production (locally consumed)</td>
<td>349,962</td>
</tr>
<tr>
<td>Of Imports</td>
<td>491,327</td>
</tr>
<tr>
<td>Of total</td>
<td>841,289</td>
</tr>
</tbody>
</table>

Note: SA Consumption only. That is Exports are excluded.

2017 Collection Rate (tons) 70.7% in PAMDEV’s 2017 financial year for paper and paper packaging. Estimated 10% recycling rate for liquid board packaging and cups.

Collection Targets (2019 to 2023) – Tonnages For paper and paper packaging, we aim to achieve a recycling rate of 77.3% in 2023. For liquid board packaging, we aim to achieve a recycling rate of 37% in 2023. Note that the above are dependent on a number of assumptions holding true. These assumptions are detailed in the full plan.

Job Creation Targets (by 2023) It is our intention that our plan achieves the following by the end of the five-year period –
- Facilitate the creation of 897 income opportunities as a result of the additional paper, paper packaging and liquid board packaging unlocked for recycling.
- Facilitate the creation of 179 businesses as a result of the additional paper, paper packaging and liquid board packaging unlocked for recycling.
- Train and mentor 1 000 people.
Note that the above are dependent on a number of assumptions holding true. These assumptions are detailed in the full plan.

Transformation Targets (by 2023) Two-thirds of the PAMDEV Board Positions are occupied by historically-disadvantaged individuals. Also, all staff currently employed by PAMDEV are historically-disadvantaged individuals. Under this plan, we aim to ensure that 80% of the support offered under our programmes is directed to historically-disadvantaged individuals and black-owned and managed businesses. We also commit prioritising Board-Based Black Economic Empowerment (B-BBEE), along with cost, in our procurement of goods and services.

Material Specific Projects included (PRO Plan)

- a) Programme 3: Training, Mentorship and Skills Providing formal training and mentorship to develop the skills of collectors, buy-back centres and others that are already operating or have a desire to operate in the recycling industry. We have developed our own training course and will be scaling this up and also offering mentorship. Although the training course speaks to the other materials, the training is done by PAMDEV. We can discuss.

- b) Programme 2: Awareness Creation Developing and implementing targeted awareness creation campaigns to encourage separation-at-source and recycling by households and businesses. Some of this can take place at PSA-level, but there is some awareness that we need to do specifically around paper, paper packaging and liquid board packaging (i.e. targeting offices for printing and writing grades of paper etc.).

- c) Programme 5: Supporting Small-Scale Farmers
Supporting the organisation, co-ordination and capacitation of small-scale timber growers and new entrants into the forestry sector. This is specific to the paper and paper packaging sector.

**Alignment with Macro/PSA Projects (show linkages to Federation of Plans)**

Programmes that could fall under the Federation of Plans but are currently managed by a PRO –

d) Programme 1: Collection and Processing of Recyclables
Collaborating with municipalities to set up and support the separate collection of paper, paper packaging and liquid board packaging. This could take place at a PSA-level as any enterprise would need to collect all material streams to be sustainable.

e) Programme 2: Awareness Creation
Developing and implementing targeted awareness creation campaigns to encourage separation-at-source and recycling by households and businesses. Some of this can take place at PSA-level, but there is some awareness that we need to do specifically around paper, paper packaging and liquid board packaging (i.e. targeting offices for printing and writing grades of paper etc.).

f) Programme 4: Enterprise Development Fund
Making funds available for the establishment of businesses or growth of existing businesses in the recycling industry (i.e owner-driver schemes, buy-back centres etc.). This could take place at a PSA-level as any enterprise would need to collect all material streams to be sustainable.

<table>
<thead>
<tr>
<th>% of market currently participating/member on a voluntary basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>In terms of industry representivity, PAMSA’s membership covers in excess of 90% of the paper and board produced in South Africa. These manufacturers have links to the converters, corrugators and printers and will assist in encouraging subscription to the plan.</td>
</tr>
</tbody>
</table>

**Identified Risks/Other market forces**

- It is acknowledged that there is a need for mandated and enforced separation-at-source and separate collection of recyclables. We will collaborate with municipalities to set up and support separate collection and processing of recyclables under Programme 1, but we remain reliant on government to mandate and enforce separation-at-source in order for recycling rates to increase further.

- The paper and paper packaging industry is currently experiencing a decline in demand and consumption.

  Over the past 10 years, demand for and consumption of printing and writing paper grades have declined due to digitised information storage and the move towards electronic media. This has led to the closure of facilities producing super-calandered papers, coated papers and newsprint. Consumption of printing and writing grades has declined from 23.9 kg/person in 2012 to 15.3 kg/person in 2017.

  Paper packaging grades have also experienced a decline in consumption related to the weak agricultural sector. Consumption of packaging grades has declined from 24 kg/person in 2012 to 21.6 kg/person in 2017.

- The industry already invests an estimated R2.97 billion on collecting, purchasing, baling and transporting waste paper in order to recycle it. The industry will continue to invest in these activities. This investment sits outside of the above-mentioned programmes. This and the fact that the sectors recycling rate is higher than 70% form part of the reasons that we applied to the DEA for exemption from section 28 notice. DEA did not even have the courtesy to reply.
### 6.3 Metals

<table>
<thead>
<tr>
<th>PRO Name</th>
<th>MetPac-SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Streams included</td>
<td>Steel/Tin-Plate and Aluminium</td>
</tr>
<tr>
<td>Proposed EPR Fee</td>
<td>• Aluminium: R48 per ton</td>
</tr>
<tr>
<td></td>
<td>• Steel: R70 per ton</td>
</tr>
<tr>
<td>Amount of packaging produced (tons) 2017</td>
<td>216 000 tons</td>
</tr>
<tr>
<td>% of packaging market (2017)</td>
<td>If the total packaging market is 3 400 000 te’s then metals are 6.4%</td>
</tr>
<tr>
<td>2017 Collection Rate (tons)</td>
<td>138 900 tons - 75.8% Collection Rate</td>
</tr>
<tr>
<td>Collection Targets (2019 to 2023) – Tonnages</td>
<td></td>
</tr>
<tr>
<td>Market Size</td>
<td>179 605</td>
</tr>
<tr>
<td>Volume Collected</td>
<td>139 525</td>
</tr>
<tr>
<td>Collection Rate %</td>
<td>77.7%</td>
</tr>
<tr>
<td>Job Creation Targets (by 2023)</td>
<td>10 Direct Jobs</td>
</tr>
<tr>
<td></td>
<td>25 Indirect Job</td>
</tr>
<tr>
<td></td>
<td>450 Income Opportunities for waste pickers</td>
</tr>
<tr>
<td>Transformation Targets (by 2023)</td>
<td>10 balers/mobile balers provided to collectors to grow aggregation and value-add opportunities</td>
</tr>
<tr>
<td></td>
<td>25 Bursaries</td>
</tr>
<tr>
<td></td>
<td>450 Entrepreneur Training participants</td>
</tr>
<tr>
<td>It should be noted that the investments and targets set by individual MetPac-SA members (industry) are not included but if considered would increase the above targets.</td>
<td></td>
</tr>
<tr>
<td>Material Specific Projects included (PRO Plan)</td>
<td>• Collection, Transport &amp; Recycling – provision of 2 Balers/Mobile balers per year</td>
</tr>
<tr>
<td></td>
<td>• Training &amp; Mentorship: Bursaries - 5 students per year</td>
</tr>
<tr>
<td></td>
<td>• Training &amp; Mentorship: Entrepreneurship Training - 90 people</td>
</tr>
<tr>
<td></td>
<td>• Membership drive/general awareness &amp; marketing</td>
</tr>
<tr>
<td></td>
<td>• Data &amp; information management</td>
</tr>
<tr>
<td></td>
<td>• Value-add by Aggregation of materials</td>
</tr>
<tr>
<td></td>
<td>• Knowledge sharing platform</td>
</tr>
<tr>
<td></td>
<td>• R&amp;D/ Problematic Material/Packaging working group for metals</td>
</tr>
<tr>
<td>Alignment with Macro/PSA Projects (show linkages to Federation of Plans)</td>
<td>• Packa-Ching</td>
</tr>
<tr>
<td></td>
<td>• Municipal Fund and Collection system infrastructure investments</td>
</tr>
<tr>
<td></td>
<td>• Waste picker support will benefit all materials</td>
</tr>
<tr>
<td></td>
<td>• SMME support</td>
</tr>
<tr>
<td></td>
<td>• Data management system</td>
</tr>
<tr>
<td></td>
<td>• Circular Economy Design Guidelines</td>
</tr>
<tr>
<td></td>
<td>• Research and Development; Technical Working Groups</td>
</tr>
<tr>
<td>% of market currently participating/member on a voluntary basis</td>
<td>40% participation rate</td>
</tr>
<tr>
<td>Identified Risks/Other market forces</td>
<td>• Identify the risks compared to the benefits of product light weighting in the South African context.</td>
</tr>
</tbody>
</table>
| **Material specific complexities** | **-** Safety requirements for aerosol collection and recycling;  
| | **-** Foil tray collection and recycling;  
| | **-** Food can recycling – health risks;  
| | **-** High reliance on the scrap dealer market for collection, as opposed to the collection channels used by other material streams such as Waste Management companies |

- Product light weighting reduces the tonnages being put on to the market and is an international trend.  
- Smaller businesses may be unable to afford the EPR fee  
- Free riders may not be penalised for non-contribution, rendering MetPac-SA unable to meet targets.  
- International metal market pressures and fluctuations  
- Imported metal packaging not being regulated or traceable  
- High export duties could result in scrap dealers trying to circumvent the legal export permit route, which will affect tracking of export tonnages and reduces recovery rates
## 6.4 Polyolefins

<table>
<thead>
<tr>
<th><strong>PRO Name</strong></th>
<th>POLYCO</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Material Streams included</strong></td>
<td>LDPE, LLDPE, HDPE, PP and multi-layer films</td>
</tr>
<tr>
<td><strong>Proposed EPR Fee</strong></td>
<td>R250/te for normal waste and R420/te for challenging waste streams (MLF and carrier bags)</td>
</tr>
<tr>
<td><strong>Amount of packaging produced (tons) 2017</strong></td>
<td>600 000te’s</td>
</tr>
<tr>
<td><strong>% of packaging market</strong></td>
<td>If the total packaging market is 4 000 000te’s then we are 15%</td>
</tr>
<tr>
<td><strong>2017 Collection Rate (tons)</strong></td>
<td>259 000te’s</td>
</tr>
</tbody>
</table>
| **Collection Targets (2019 to 2023) – Tonnages** | 2019 – 271kte’s  
2020 – 284kte’s  
2021 – 302kte’s  
2022 – 323kte’s  
2023 – 342kte’s  
1 522kte’s |
| **Job Creation Targets (by 2023)** | 2 000 Direct Jobs  
1 500 Indirect Jobs  
2 500 Income Opportunities for waste pickers |
| **Transformation Targets (by 2023)** | 23 - Collector SMME’s grown and developed  
9 - Collector to granulator progressions  
9 – Granulator to small recycler progressions  
9 – Small recycler to larger recycler progressions  
5 – Plank convertors established – rural areas |
| **Material Specific Projects included (PRO Plan)** | R460mill infrastructure investment to grow polyolefin recycling  
R70mill end use development  
R32mill - External business skills  
R6mill – Quality ISO certification  
R39mill – R&D  
R22mill – Project incubation |
| **Alignment with Macro/PSA Projects (show linkages to Federation of Plans)** | • Packa-Ching  
• Collection infrastructure investments will grow collection of all material sources  
Waste picker support will benefit all materials |
| **% of market currently participating/member on a voluntary basis** | On volumes of polyolefin packaging being produced in SA, we receive EPR fees for approximately 20% of these tonnes |
| **Identified Risks/Other market forces** | • Government Tax and IWMP management is a big risk.  
• Multiple IWMP’s being approved will cause fragmentation  
• Lack of credible import data of primary and secondary packaging  
• Lack of compliance by retailers and brand-owners .  
• Lack of DEA enforcement for non-compliance  
• Commodity markets are subject to market conditions and can fluctuate |
| **Material specific complexities** | • Multilayers not recyclable  
• Carrier bags not currently being recycled due to fillers  
• Overall cost of logistics for moving product around the country  
• High volumes of small wrapping packaging items that will never get collected for recycling  
• Lack of clear identification of material types can cause confusion |
6.5 Polyethylene terephthalate

<table>
<thead>
<tr>
<th>PRO Name</th>
<th>PETCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Streams included</td>
<td>Polyethylene terephthalate</td>
</tr>
<tr>
<td>Proposed EPR Fee</td>
<td></td>
</tr>
<tr>
<td><strong>Total EPR Fee Bottles Per Tonne</strong></td>
<td>2019</td>
</tr>
<tr>
<td>R359-R521</td>
<td>R476-R711</td>
</tr>
<tr>
<td><strong>Total EPR Fee Edible Oil Bottles Per Tonne</strong></td>
<td></td>
</tr>
<tr>
<td>R253</td>
<td>R388</td>
</tr>
<tr>
<td><strong>Total EPR Fee Thermoforms Per Tonne</strong></td>
<td></td>
</tr>
<tr>
<td>R376</td>
<td>R510</td>
</tr>
</tbody>
</table>

| Amount of packaging produced (tons) 2017 | 211 000 |
| % of packaging market | 5.57% (211 000 / 3788 000) ~PackagingSA 2017 stat |
| 2017 Collection Rate (tons) | 93 235 |
| Collection Targets (2019 to 2023) – Tonnages | | | | | |
| Waste recycled | 2019 | 2020 | 2021 | 2022 | 2023 |
| 123 | 140 | 160 | 185 | 211 |
| Job Creation Targets (by 2023) | 710 Direct Jobs |
| | 75 000 Income Opportunities |
| Transformation Targets (by 2023) | At least one 51% black-owned recycler |
| | New recyclers to be 51% black owned |
| | Existing recyclers to meet BBBEE Level 4 by end of year 5. |
| | PETCO Board and new staff hires to reflect Economically Active Population by year 5. |
| Material Specific Projects included (PRO Plan) | Demand Support programme (end use demand support for PET recycling value chain). |
| | Establishment of at least one 51% black-owned recycler. |
| Alignment with Macro/PSA Projects (show linkages to Federation of Plans) | National Awareness programme |
| | Collection, sorting, storage and transport programme |
| | Municipal Engagement and Support programme |
| | Separation at Source fund |
| | Waste Picker and informal Sector Support programme |
| | Cleaning Up Programme |
| % of market currently participating/member on a voluntary basis | PET Bottles 90% |
| | PET Edible Oils 0% |
| | PET Thermoforms 0% |
| | Total PET Market ~ 61% of Total PET Market (local, excl imported finished goods) |
| Identified Risks/Other market forces | Most notable are the PET virgin resin price, rPET fibre price, and local bottle price. |
| Material specific complexities | PET Bottles that are heavily pigmented or have full-body shrink sleeves. Hard to separate out PVC bottles. |
| | PET Edible Oil Bottles – oil residue attracts dirt, difficult to wash off. Storage risk wrt spontaneous combustion. |
| | PET Thermoforms – hard to distinguish from “look-alike” alike contains. Some have Polyethylene layers. |
## 6.6 Polystyrene

<table>
<thead>
<tr>
<th>PRO Name</th>
<th>Polystyrene Association of South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Streams included</td>
<td>Polystyrene (EPS,XPS,ABS,HIPS)</td>
</tr>
<tr>
<td>Proposed EPR Fee</td>
<td>R200 per ton (2019) with 105% increase per year</td>
</tr>
<tr>
<td>Amount of packaging produced (tons) 2017</td>
<td>33250 tons packaging</td>
</tr>
<tr>
<td>% of packaging market</td>
<td>64% packaging material; 26% non-packaging of polystyrene</td>
</tr>
</tbody>
</table>
| 2017 Collection Rate (tons) | PS Collected in total (input): 7929 tons  
PS Collection rate (input): 20.41% |
| Collection Targets (2019 to 2023) – Tonnages | PS Collected in total (input)  
PS Recycling rate (input)  |
| Job Creation Targets (by 2023) | 225 Direct Jobs  
675 Indirect Jobs  
225 Income Opportunities |
| Transformation Targets (by 2023) | 80% |
| Material Specific Projects included (PRO Plan) | Polystyrene Trading Hubs (Cape Town, Tshwane, Durban).  
Polystyrene Municipal Recycling Hubs (Distributed outlying municipalities; already starting with two pilot projects at Drakenstein Municipality (Paarl) and Eden Municipality (George). |
| Alignment with Macro/PSA Projects (show linkages to Federation of Plans) | Include the following that are either:  
• Polystyrene Hubs and MRF’s/buyback centre  
• PSA project’s geographical location will be a guideline as to where future hubs will be located, ensuring the maximising of material collection and access. |
| % of market currently participating/member on a voluntary basis | Currently 65% membership. 35% free riders. It is imperative that all the producers and importers are included in the PRO efforts. Our projects speak to our members Supply chain and enterprise development and Social responsibility goals. We are therefor able to add value to our members goals in this regard. These projects have increased our membership participation and will continue to do so as we reach our targets. |
| Identified Risks/Other market forces | The focus on single use plastics where polystyrene is often the product of choice by replacement of other products.  
Lack of separation at source programmes to access material.  
Slow down in the economic market. |
| Material specific complexities | Transport and storage of polystyrene remains a challenge but this is where all our efforts are directed to.  
Awareness and education of recyclability of polystyrene. |
### 6.7 Vinyls

<table>
<thead>
<tr>
<th>PRO Name</th>
<th>South African Vinyl Association (SAVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Streams included</td>
<td>Polyvinyl Chloride (PVC)</td>
</tr>
<tr>
<td>Proposed EPR Fee</td>
<td>R200 per ton (2019) with 105% increase per year</td>
</tr>
<tr>
<td>Amount of packaging produced (tons) 2017</td>
<td>10 016 tons Packaging (sheets and film); 718 tons Bottles</td>
</tr>
<tr>
<td>% of packaging market</td>
<td>Flexible packaging (8%) and Rigid packaging (1%) of a total PVC 160 000 tons</td>
</tr>
<tr>
<td>2017 Collection Rate (tons)</td>
<td>The recycling rate is currently 11.3% as recorded by the recyclers 1 212.94 tons of rigid and flexible PVC were recycled 2017 (Further research is commissioned to obtain collection and recycling rates)</td>
</tr>
<tr>
<td>Collection Targets (2019 to 2023) – Tonnages</td>
<td>(Further research is commissioned to obtain collection and recycling rates)</td>
</tr>
<tr>
<td>Job Creation Targets (by 2023)</td>
<td>100 Direct Jobs 250 Indirect Job</td>
</tr>
<tr>
<td>Transformation Targets (by 2023)</td>
<td>80%</td>
</tr>
</tbody>
</table>
| Alignment with Macro/PSA Projects (show linkages to Federation of Plans) | Include the following that are either:  
  - Material specific projects: MRF’s/buyback centre  
  - Introduction to viable buyers  
  - Specific programmes to increase recycling rate from targeted markets like the health sector. |
| % of market currently participating/member on a voluntary basis | 3 current members representing 60% of the cling film industry  
No bottle manufacturer are members but are being targeted to join |
| Identified Risks/Other market forces | Contamination with other plastics and paper labels  
Not sufficient separation at source programmes with education to gain access to material  
Current lack of end markets – this is a high priority within the Industry Waste Management Plan |
| Material specific complexities | Lack of tonnages for viable recycling projects. The recycling in the Pipe industry has grown exponentially, we are therefor able to increase the rigid packaging recycling rate due to end market development. The focus is on further R&D is required to develop sustainable end markets for the film industry. |
6.8 Summary of Job Opportunities Targets

The implementation of the EPR Plan will aim to create job opportunities as summarised below.

Table 6: Job Opportunity Targets

<table>
<thead>
<tr>
<th>Estimated number of Job Opportunities Created by Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct &amp; Indirect Jobs</td>
</tr>
<tr>
<td>11 067</td>
</tr>
</tbody>
</table>

Note:

These numbers are conservative estimates and are highly dependent on a number of factors such as participation rates, support from government and industry etc. They also do not include secondary jobs, businesses or additional industries and income opportunities or full time equivalent jobs created.

The intention is to create more jobs than presented above and this doesn’t take into account opportunities that aren’t strictly defined by the terms direct or indirect jobs such as decent work and full time equivalent jobs. Every year the EPR Plan will report on and present job creation targets and potential enterprise development targets.

7 Stakeholder Engagement

Stakeholder engagement is a key part of the development this EPR Plan. Initial engagements were held with key stakeholders from industry, government and academia.

A notification letter was also sent out by all the PROs and PACKAGING SA to all members inviting interested and affected parties to register to stay informed of the progress of the EPR Plan.

This was followed by public engagement sessions held in 5 locations across South Africa.

The details of the stakeholder engagements is provided in Volume 2.

7.1 Stakeholder engagement

Two (2) adverts were placed in national newspapers on 15 July 2018, including the Sunday Times Newspaper and the City Press as per the requirements of the Gazette.

Further to the adverts, the following Public sessions were available to attend:

Time: 12h00-13h30

- 25 July – Johannesburg – Plastics SA, 18 Gazelle Avenue, Corporate Park South, Old Pretoria Road, Midrand
- 31 July – Cape Town - Townhouse Hotel, 60 Corporation Street, Cape Town
- 2 August – KZN – Mount Edgecombe Country Club, Gate 2, Golf Course Drive, Mount Edgecombe
- 7 August – Port Elizabeth – The Beach Hotel, Marine Drive, Summerstrand
- 15 August – Bloemfontein – Protea Hotel Bloemfontein, 202 Nelson Mandela Drive, Brandwag

Further to the public engagement, there were designated sessions for government / municipal officials and waste pickers / informal sector to attend to speak about the specific aspects of the EPR Plan.
7.2 Comments and Responses

A comments and responses report is submitted as part of this final submission to the DEA as Volume 2.
8 Conclusion

PACKAGING SA has drafted an EPR Plan in response to Government Notice 41303 dated 6 December 2017 calling on the paper and packaging industry, electrical and electronic industry and lighting industry to develop and submit Industry Waste Management Plans (IndWMPs). The EPR Plan adheres to the requirements as included in the National Environmental Management: Waste Act, 59 of 2008 (NEMWA), Section 30(2) as well as what has been proposed in the abovementioned Notice issued in the Government Gazette.

Whilst this EPR Plan may be an Industry Led-Industry Managed Model; the intention is to work closely and in collaboration with Government to achieve common goals of social and economic transformation through inclusive growth.

It is however recommended that a Socio-Economic Impact Assessment (SEIA) is undertaken by DEA as part of the approval process, as require by the Department of Planning, Monitoring and Evaluation (DPME) to understand the full costs of the proposed regulations and the potential impact on the economy. DPME recommend that Policies and Regulations that are internally signed by Ministers should also be subjected to SEIAs.

PACKAGING SA look forward to continuing the discussion around the proposed EPR Plan.
9 References


Canadian Stewardship Services Alliance. No date. Guidebook for Stewards. http://guidebook.cssalliance.ca/part-one/1-0-introduction/1-10-how-do-i-determine-if-my-business-or-organization-is-responsible-as-the-brand-owner-franchisor-or-first-importer/1-10-1-what-is-a-brand-owner/


Department of Science and Technology (2014). A National Waste R&D and Innovation Roadmap for South Africa: Phase 2 Waste RDI Roadmap. The economic benefits of moving up the waste management hierarchy in South Africa: The value of resources lost through landfilling. Department of Science and Technology: Pretoria


Exploration of the Role of Extended Producer Responsibility for the circular economy in the Netherlands June 27th 2016, E&Y, Maarten Dubois (EY Belgium), Diana de Graaf (EY Netherlands), Joachim Thieren (EY Belgium)


Samson, M. 2018. Comments received as per the Stakeholder Engagement Process on Packaging SA Draft EPR Plan (Included in Volume 2).


The South African metal recycling industry in focus. Date: 12 May 2017 Tutwa Consulting Group


WIEGO’s POSITION on DUMP CLOSURES. Sonia M. Dias, Waste Specialist for WIEGO. June 2018.

WRAP. (2010). Single Trip or Reusable Packaging - Considering the Right Choice for the Environment. WRAP.


Annexure 1: Legislative Review
1 Legislative Review

1.1 Scope

This Section considers the overarching legal framework to be taken into consideration when developing EPR and waste diversion strategies and the duties of local government in the context of the Industry Waste Management Plan (IndWMP). This overarching framework considers:

- The power and function of local government;
- Considerations impacting waste diversion; and
- Considerations regarding international trends in best practice, policy and regulations.

1.2 Power and function of local government

The aim of the IndWMP is to divert packaging waste from landfill. It is critical to understand that Municipalities can only undertake activities if it is within their mandate, power, and function to do so.

In terms of Section 156(1)(a) of the Constitution of the Republic of South Africa Act No. 108 of 1996 “a municipality has executive authority in respect of and has the right to administer the local government matters listed in Part B of Schedule 4 and Part B of Schedule 5”. Part B of Schedule 5 lists that local government are responsible for “refuse removal, refuse dumps and solid waste disposal”.

Local government thus has the power and function for municipal solid waste service delivery, including disposal of municipal solid waste collected. Because the local government has the power and function it thus must plan, and budget to deliver the service and to enforce plans through promulgation and implementation of by-laws. These executive and legislative powers vest in the Council of the Municipality.

In terms of Section 152(1) of the Constitution, the objects of local government include “(b) to ensure the provision of services to communities in a sustainable manner” and “(d) to promote a safe and healthy environment”. The provision of municipal services is further regulated by the Local Government Municipal Systems Act and the Local Government Municipal Finance Management Act.

Various environmental obligations and principles are prescribed by the Municipal Systems Act. Section 4 states that “(2) The council of a municipality, within the municipality’s financial and administrative capacity and having regard to practical considerations, has the duty to -

(d) Strive to ensure that municipal services are provided to the local community in a financially and environmentally sustainable manner;
(i) Promote a safe and healthy environment in the municipality; and
(j) Contribute, together with other organs of state, to the progressive realisation of the fundamental rights contained in Section 24 [i.e. environmental rights] of the Constitution."

In terms of Section 73 of the Systems Act, municipal services must be equitable and accessible, as well as environmentally and financially sustainable.

Municipalities thus have the power and function to consider and develop strategies regarding refuse removal, refuse dumps and solid waste disposal. This includes the legislative (bylaws), executive (planning and strategy development decision making regarding institutional structuring) and administrative (project implementation and by-law enforcement) functions.
1.3 Legal Framework for waste diversion

Having confirmed local government has the power and function for municipal solid waste services, we consider the waste sector framework to identify key legislation, Regulations and Norms and Standards which would impact the municipality’s development of a waste diversion strategy.

Historically, waste management in South Africa focused primarily on end-of-pipe technologies such as landfilling for general and hazardous waste and incineration for medical waste. With the promulgation of the National Environmental Management Act No. 107 of 1998, as amended (NEMA), which aims to give effect to Section 24 of the Constitution – ‘to secure an environment that is not harmful to the health and well-being of the people of South Africa’ – and the National Environment Management: Waste Act, No. 59 of 2008, as amended (NEM:WA), which aims to, amongst others, implement the principles of the waste hierarchy. In recent years, waste management in South Africa has evolved to include additional requirements including waste diversion from landfill through waste minimisation and recycling. The NEMA and the NEM:WA are guided by integrated environmental management principles that aim to ensure negative environmental impacts are prevented, mitigated and regulated. They provide a range of tools and measures to monitor and manage activities that generate environmental impacts, including integrated planning and institutional arrangements regulating the various stakeholders. With the promulgation of the NEM:WA in 2008, all organs of state (including local government) were bound to achieve the objectives of the waste management hierarchy. Among other things, the NEM:WA sets out to achieve the following objectives:

- minimise the consumption of natural resources.
- avoid and minimise the generation of waste.
- reduce, re-use, recycle and recover waste.
- treat and safely dispose of waste, as a last resort.

To achieve the objectives of the NEM:WA, the National Waste Management Strategy (NWMS) was developed in 2011. The objectives of the NWMS are to promote the waste management hierarchy and ensure effective service delivery, whilst growing the waste economy by improving job creation and business development.

Waste Minimisation Goals, Indicators and Targets Specified in the NWMS are listed in Table 1:

<table>
<thead>
<tr>
<th>GOAL</th>
<th>PROPOSED INDICATOR</th>
<th>TARGET (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1: Promote waste minimisation, re-use, recycling and recovery</td>
<td>• % of recyclables diverted from landfill sites for re-use, recycling and recovery</td>
<td>• 25% of recyclables diverted from landfill sites for re-use recycling or recovery by 2015</td>
</tr>
<tr>
<td></td>
<td>• No. of municipalities in which separation of waste at source initiatives are being implemented</td>
<td>• All metropolitan municipalities, secondary cities and large towns have initiated separation at source programmes by</td>
</tr>
</tbody>
</table>

Table 1: Waste Minimisation Goals, Indicators and Targets Specified in the NWMS

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1 Table extracted from Western Cape Government Environmental Affairs and Development Planning Municipal Waste Management Guidelines 205
<table>
<thead>
<tr>
<th>GOAL</th>
<th>PROPOSED INDICATOR</th>
<th>TARGET (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 3: Growing the contribution of the waste sector to the green economy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 1: Stimulate job creation in the waste sector</td>
<td>No. of new jobs created in the waste sector</td>
<td>69,000 new jobs created in the waste sector</td>
</tr>
<tr>
<td>Objective 2: Broaden participation by SMEs and marginalised communities in the waste sector</td>
<td>No. of additional small and medium enterprises and cooperatives participating in waste service delivery and recycling</td>
<td>2,600 additional SMEs and cooperatives participating in waste service delivery and recycling</td>
</tr>
<tr>
<td><strong>Goal 4: Ensure that people are aware of the impact of waste on their health, well-being and the environment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 1: Municipalities to create awareness of waste management issues</td>
<td>% of municipalities running local awareness campaigns</td>
<td>80% of municipalities running local awareness campaigns</td>
</tr>
<tr>
<td>Objective 2: Add waste content to the school curriculum and ensure that there are practical waste projects in the basic education curricula</td>
<td>% of schools implementing waste awareness programmes</td>
<td>80% of schools implementing waste awareness programmes</td>
</tr>
<tr>
<td><strong>Goal 5: Achieve integrated waste management planning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 1: Establish an effective system of IWMPs at local government level</td>
<td>The % of municipalities that have integrated their IWMPs into their IDPs</td>
<td>100% of municipalities have integrated their IWMPs with their IDPs</td>
</tr>
<tr>
<td></td>
<td>The % of municipalities that have met the targets set in IWMPs</td>
<td>100% municipalities have met the targets set in their IWMPs</td>
</tr>
<tr>
<td>Objective 2: Establish and maintain an information base on waste flows.</td>
<td>The % of waste management facilities with waste quantification systems</td>
<td>All waste management facilities required to report to SAWIS have waste quantification systems that report information to the Waste Information System</td>
</tr>
<tr>
<td><strong>Goal 6: Ensure sound budgeting and financial management for waste services</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 1: Ensure full-cost accounting for waste at municipal level</td>
<td>% of municipalities that provide waste services that have conducted full-cost accounting for waste services</td>
<td>100% of municipalities that provide waste services have conducted full-cost accounting for waste services</td>
</tr>
<tr>
<td>Objective 2: Implement cost reflective and volumetric tariffs</td>
<td>% of municipalities that provide waste services that have implemented cost reflective tariffs</td>
<td>100% of municipalities that provide waste services have implemented cost reflective tariffs</td>
</tr>
<tr>
<td><strong>Goal 8: Effective compliance with and enforcement of the NEM:WA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 1: Systematically monitor and enforce compliance with regulations, authorisation conditions and plans</td>
<td>% of successful enforcement actions against non-compliant facilities</td>
<td>50% increase in the number of successful enforcement actions against non-compliant facilities</td>
</tr>
<tr>
<td>Objective 2: Environmental Management Inspector (EMIs) capacity expanded to enforce the NEM:WA</td>
<td>Number of EMIs dealing with NEM:WA at local, provincial and national level</td>
<td>800 EMIs appointed in the three spheres of government to enforce the NEM:WA</td>
</tr>
</tbody>
</table>

1.3.1 National Environmental Management Act No. 107 of 1998

Section 2(4)(a)(iv) requires that waste is avoided, or where it cannot be altogether avoided, minimised and reused or recycled where possible and otherwise disposed of in a responsible manner.
1.3.2 National Environmental Management Waste Act No. 59 of 2008

The waste management hierarchy of avoiding, minimising, reducing, reusing, recycling, recovering and as last resort treating and safely disposing is one of the main objectives in Section 2 of the Waste Act.

In terms of Section 16(2) of the NEM:WA, a holder of waste must, within his/her powers, take all reasonable measures to -

- Avoid the generation of waste and where such generation cannot be avoided to minimise the toxicity and amounts of waste that are generated;
- Reduce, re-use, recycle, and recover waste;
- Where waste must be disposed of, ensure that the waste is treated and disposed of in an environmentally sound manner;
- Manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour, or visual impacts;
- Prevent any employee or any person under his or her supervision from contravening this Act; and
- Prevent the waste from being used for an unauthorised purpose.

In terms of Section 16 (2) of the NEM:WA, any person selling a product that may be used by the public, and that is likely to result in the generation of hazardous waste, must take reasonable steps to inform the public of the impact of that waste on health and the environment.

Section 3 requires the state, including local authorities, to put in place uniform measures to ensure that this is achieved.

To this end municipalities may, in terms of Section 9(3) of the NEM:WA, amongst other things, set-

- Local standards for the separation, compacting, and storage of solid waste that is collected as part of the municipal service or that is disposed of at a municipal waste disposal facility;
- Local standards for the management of solid waste that is disposed of by the municipality or at a waste disposal facility owned by the municipality, including requirements with respect to the avoidance and minimisation of the generation of waste and the reuse, recycling and recovery of solid waste; and
- Local standards with respect to solid waste that is collected as part of the municipal service or that is disposed of by the municipality or at a municipal waste disposal facility to specific waste treatment and disposal facilities.

Whilst waste reduction, reuse, recycling, and recovery are encouraged, Section 17 of the NEM:WA requires that it must be done in a manner which uses less natural resources than disposal and must be less harmful to the environment than disposal.

1.3.2.1 Waste Bureau

One of the primary functions of the Bureau is to review and approve, and to conduct monitoring and evaluation of IndWMPs. The IndWMP’s will be drafted by each waste sector and submitted to the Bureau for approval.

In terms of NEM:WA Amendment Act, 2014, the Bureau is responsible for the direct monitoring and
evaluation of—

- Systems for the implementation of volumetric tariffs by municipalities;
- The national implementation of disposal taxes;
- All EPR schemes (and the implementation of IndWMPs); and
- The impact of incentives and disincentives.

34D. Objects of Bureau

The objects of the Bureau are to—

(a) function as a specialist implementing agent within the Department in respect of matters delegated to the Bureau in terms of this Act;

(b) promote and facilitate minimisation, re-use, recycling and recovery of waste;

(c) manage the disbursement of incentives and funds derived from waste management charges contemplated in Sections 13B and 34D for the minimisation, reuse, recycling, recovery, transport, storage, treatment and disposal of waste and the implementation of industry waste management plans;

(d) monitor implementation of industry waste management plans and the impact of incentives and disincentives;

(e) progressively build capacity within the Bureau to provide specialist support for the development and implementation of municipal waste management plans and capacity building programmes; and

(f) support and advise on the development of waste management plans, tools, instruments, processes, systems, norms, standards and municipal waste management plans and capacity building programmes.

34E. Functions of Bureau

(1) The Bureau must—

(a) implement the disbursement of incentives and funds derived from waste management charges contemplated in Sections 13B and 34D;

(b) identify and promote best practices in the minimisation, re-use, recycling or recovery of waste;

(c) progressively build capacity of the Bureau to support municipalities in the development and implementation of integrated waste management plans and capacity building programmes;

(d) support and advise on the development of industry waste management plans, integrated waste management plans and other tools, instruments, processes and systems, including specialist support for the development of norms or standards for the minimisation, re-use, recycling or recovery of waste and the building of municipal waste management capacity;

(e) monitor the implementation of industry waste management plans;

(f) monitor and evaluate the impact of incentives and disincentives; and

(g) perform any other task or function that the Minister may assign or delegate to the Bureau in relation to the implementation of this Act.

(2) The Bureau may—

(a) invest any of its money, after having complied with Section 34F(2); and

(b) charge fees for services rendered, other than services rendered in terms of Section 13A or to the Minister or the Department.
34F. Funding of Bureau

(1) The funds of the Bureau consist of—
   (a) money derived and allocated from charges referred to in Section 13B;
   (b) income derived by it for services rendered;
   (c) money appropriated by Parliament;
   (d) voluntary contributions, donations and bequests received consistent with the provisions of the regulations made in terms of Section 76(1)(k) or (l) of the Public Finance Management Act, 1999; and
   (e) income derived from investments referred to in Section 34E(2)(b).

(2) The Bureau must utilise its funds to defray expenses incurred in the performance of its functions.

(3) The Bureau must utilise the donations and contributions referred to in Subsection (1)(d) in accordance with the conditions, if any, imposed by the donor or contributor concerned, but those conditions must be approved by the Minister [of Environmental Affairs], in concurrence with the Minister of Finance, and must not be inconsistent with the objects of the Bureau, provisions of this Act, regulations made in terms of Section 76(1)(k) or (l) of the Public Finance Management Act, 1999, or any other law;

(4) The Chief Executive Officer must, with the concurrence of the Minister [of Environmental Affairs] and the Minister of Finance—
   (a) open an account in the name of the Bureau with an institution registered as a bank in terms of the Banks Act, 1990 (Act No. 94 of 1990); and
   (b) deposit therein all money received in terms of Subsection (1).

(5) The Chief Executive Officer is responsible and accountable to the Director-General of the Department as the accounting authority for all money received by the Bureau and the utilisation of that money.

1.3.3 Pricing Strategy

1.3.3.1 Waste Management Charges

13A. Pricing strategy for waste management charges

(1) The Minister must, with the concurrence of the Minister of Finance, by notice in the Gazette, publish a pricing strategy, contemplated in Subsection 13A(5)(b), to achieve the objectives of this Act in relation to waste management or any waste stream, within three months of the commencement of this Act;

(2) The pricing strategy is to contain the basis and a guiding methodology or methodologies for setting waste management charges, including for the funding of—
   (a) the implementation of industry waste management plans for those activities that generate specific waste streams;
   (b) the re-use, recycling or recovery of waste in previously disadvantaged communities;
   (c) the identification, further development and promotion of best practices in the minimisation, re-use, recycling and recovery of waste;
   (d) implementation of approved guidelines, norms and standards for the minimisation, re-use, recycling and recovery of waste;
   (e) the monitoring of the implementation and impact of industry waste management plans;
   (f) the creation and the monitoring of the impacts of incentives and disincentives for the minimisation, re-use, recycling and recovery of waste; or
   (g) the management of the disbursements of incentives for the minimisation, re-use, recycling and recovery of waste.
(3) The pricing strategy may differentiate—
   (a) in respect of different geographic areas, including on the basis of—
      (i) socio-economic aspects within the area in question;
      (ii) the physical attributes of each area; or
      (iii) the demographic attributes of each area; or
   (b) in respect of different types of uses, including on the basis of —
      (i) the manner in which the waste is generated or disposed of;
      (ii) whether it is re-used, recycled or recovered; or
      (iii) whether any previously disadvantaged group is impacted upon or derives any benefit therefrom.

(4) The pricing strategy may provide for a differential rate for waste management charges, including on the basis of—
   (a) the characteristics of the waste disposed of;
   (b) the volume of the waste disposed of;
   (c) the toxicity of the waste disposed of;
   (d) the nature and extent of the impact on the environment caused by the waste disposed of; or
   (e) the extent of approved deviation from prescribed waste standards or management practices.

(5)(a) Before setting a pricing strategy for waste management charges under Subsection (1), the Minister must publish a notice in the Gazette—
   (i) setting out the proposed pricing strategy;
   (ii) inviting written comments to be submitted on the proposed strategy, specifying an address to which and a date before which the comments are to be submitted, which date may not be earlier than 60 days after publication of the notice; and
   (iii) consider what further steps, if any, are appropriate to bring the contents of the notice to the attention of interested persons, and take those steps which the Minister considers to be appropriate; and

(b) the Minister must consider all comments received on or before the date specified in the notice before publishing the final notice in the Gazette, within 30 days of the date contemplated in paragraph (5)(a)(ii).

13B. Application of pricing strategy
An Act of Parliament, to give effect to necessary elements of the pricing strategy contemplated in Section 13A, is to be tabled in accordance with the provisions of Section 77 of the Constitution, within 3 months of the publication of the pricing strategy contemplated in Section 13A (5)(b) in the Gazette, including detail on—
   (a) the imposition of waste management charges;
   (b) the determination of waste management charges and the review of these waste management charges from time to time;
   (c) procedures for the collection through the national fiscal system; and
   (d) procedures for the appropriation and allocation of such funds referred to in paragraph (c) for the work of the Bureau and the implementation of any approved industry waste management plan for a specific waste stream as outlined in this Act.

1.3.4 Municipal Waste Sector Plan, GN 270 of 2012
The Plan has several objectives besides improving performance and professionalism in municipalities and better service delivery. One of them is to reduce the amount of general and hazardous waste going to
landfills. This is to be achieved through source separation (which is a long-term goal for all municipalities). This intervention in collaboration with the recycling industry could include the establishment of one, or a combination of, buy-back and drop-off centres, kerb-side collection of recyclable materials, and material recovery facilities.

1.3.5 National Domestic Waste Collection Standards, GN 21 of 2011
These Standards state that source separation should be encouraged and supported in line with relevant industry waste management plans. In addition:

- All domestic waste must be sorted at source (i.e. at household level) in all metropolitan and secondary cities;
- The service provider/municipality must provide clear guidelines to households regarding the types of waste, the sorting of waste, appropriate containers, and removal schedules for each type of waste; and
- Community involvement in recycling must be encouraged.

The municipality must provide an enabling environment for households to recycle domestic waste. An enabling environment could include kerbside collection and/or well-kept and easily accessible drop-off centres. Where the municipality does not provide for kerbside collection of the recyclable component of source separated waste, it must co-operate with the recycling sector to ensure either private kerbside collection and/or the provision of facilities where recyclables can be dropped off for collection by service providers. Mainstream recyclables (paper, cardboard, newspapers, magazines, plastic, glass, cans and tins) must therefore, according to the level of service provided, be either collected at households or from communal collection points by the municipality or service providers. Non-mainstream recyclables (electronic waste, scrap metal, batteries, fluorescent lights, used oil, etc.) will in the future be addressed under the approved applicable IndWMPs for these material streams.

1.3.5.1 Guideline for collection of recyclables
The viability of recycling relies heavily on economies of scale. It is therefore important that enough clean recyclables (from separation at source including households) must be accumulated to justify the cost of transport associated with the collection of recyclables. The following issues must be considered:

- The use of existing infrastructure (i.e. garden waste centres, landfills) for temporary accumulation and storage of recyclable waste. This may require an amendment to existing landfill permits;
- Bulk waste transfer facilities for recyclable waste by district municipalities;
- Regionalisation of collection of recyclables to ensure economies of scale especially in remote areas; and
- Collaboration with recycling companies to avoid potential bottlenecks.

If there is no recycling market for source separated recyclables, waste-to-energy options must be considered prior to disposal.

1.3.5.2 Frequency of collection
Recyclable waste must be removed at least once every two weeks and removal must be coordinated with industry (the users of the recyclables) to minimise costs and the clogging of space at transfer stations and depots.
1.3.6 Second-Hand Goods Act, No 6 of 2009
The Second-Hand Goods Act, No. 6 of 2009 (SHGA) requires all dealers of second-hand goods, including scrap metal dealers to register their business in terms of this Act. Chapter 6 details the requirements of all dealers who operate as recyclers of controlled metals to undergo a further registration as a recycler.

1.4 Legal framework for planning
The NEM:WA places considerable emphasis on the development of an integrated waste planning system, through the development of integrated waste management plans (IWMPs) by all spheres of government, and the development of industry waste management plans (IndWMPs) by identified industries.

1.4.1 Government IWMPs
The NEM:WA (RSA, 2009b) requires municipalities to compile and submit integrated waste management plans (IWMP), while provincial departments responsible for waste management are also required to compile and submit IWMPs setting set out how they intend to support municipalities to give effect to the objects of the NEM:WA (RSA, 2009b; RSA, 2014b). The DEA provides strategic guidance through the National Policy for the Provision of Basic Refuse Removal Services to Indigent Households (RSA, 2011b), the Municipal Waste Sector Plan (RSA, 2012a) and the National Waste Management Strategy (RSA, 2012b).

The provision of waste collection services is a municipal function in South Africa and inadequate waste services lead to unpleasant living conditions and a polluted, unhealthy environment (RSA, 2012b). The NEM:WA stipulates that Local Government must prepare an IWMP and must incorporate the IWMP into the municipality’s integrated development plan (IDP). Municipal IWMPs will set out the strategy to achieve appropriate waste collection standards in each community. In these plans, municipalities set targets and describe how they will achieve them. The IWMPs will also contain methods to monitor and measure progress against targets. IWMPs are required to:

- Set out priorities and objectives for waste management;
- **Establish targets for the collection, minimisation, re-use and recycling of waste**;
- Set out the approach to planning any new facilities for disposal and decommissioning existing waste disposal facilities;
- Indicate the financial resources required for implementing the IWMP;
- Describe the implementation mechanisms for the IWMP; and
- For the national and provincial departments, the IWMPs should also set out how they intend to support municipalities to give effect to the objects of the NEM:WA.

IWMP Performance indicators include:
- Number of licensed landfill sites established;
- Number of buy-back centres established;
- Number of households benefiting from waste collection;
- Number of IWMPs developed;
- Number of waste bins provided/installed;
- Kilometres of streets cleaned; and
- Area cleared of illegal dumps.
1.4.2 Industry Waste Management Plans

The Notice Calling on the Paper and Packaging Industry to prepare and submit Industry Waste Management Plans (IndWMP) was published in Government Notice 1353 of Government Gazette 41303 on 6 December 2017.

Section 3 of the Notice requires producers to register with and subscribe to at least one (1) IndWMP, approved by the Minister in terms of section 32 of the NEM:WA. Producers are allowed to register and subscribe to any additional IndWMP on a voluntary basis. Such an IndWMP can be developed by a single producer or a producer can subscribe to an existing IndWMP.

Section 4 of the Notice allows a group of producers to establish a non-profit Producer Responsibility Organisation (PRO) for the development and implementation of an IndWMP.

Section 6(1) details the content of an IndWMP as follows:

An industry waste management plan contemplated in paragraph 5 must:

(a) identify all the parties to the industry waste management plan;
(b) provide details of the governance model for the industry waste management plan, including how industry representivity and participation will be addressed;
(c) provide the annual projections over a five-year period of the-
   (i) quantities and types of waste generated from locally manufactured products and products imported that will become waste and will be managed through the industry waste management plan;
   (ii) quantities of waste that will be reused, recycled or recovered; and
   (iii) quantities of waste that will be disposed of.
(d) indicate how the waste hierarchy is going to be given effect to in the implementation of the industry waste management plan prioritizing reduce, re-use and recycling, then recovery;
(e) include measures to prevent pollution or ecological degradation;
(f) include measures or programmes to minimize the generation of a particular waste stream and final disposal of that waste stream;
(g) include measures or actions to be taken to manage the waste;
(h) identify the manner in which the waste transporters, storage facilities and processors who will receive the waste through the industry waste management plan will be identified and registered;
(i) identify any incentives that will be applied in order to encourage the end user to practice good waste management;
(j) identify the potential number of waste transporters, storage facilities and processors that will be required;
(k) indicate the manner in which the waste collected and processed will be recorded;
(l) provide estimations of the costs of implementing the industry waste management plan for a period of five years and the submission of an annual business plan to the Bureau including a breakdown of the activities of the industry waste management plan together with their costs;
(m) be aligned to the National Pricing Strategy for Waste Management (Extended Producer Responsibility; government managed model) as published under GN904 of 11 August 2016;
(n) provide targets for waste minimization through the reduction, re-use, recycling and recovery of waste for a period of five years;
(o) provide details of the manner in which the previously disadvantaged individuals and transformation...
will be integrated in the implementation of the industry waste management plan;

(p) provide where applicable, an estimate of the revenue that will be generated through the implementation of the industry waste management plan for a period of five years;

(q) indicate how the industry waste management plan will raise national awareness regarding the management of the particular waste stream;

(r) provide detailed measures on how the industry waste management plan will address issues of social responsibility in the specific waste sector and issues of historically disadvantaged communities;

(s) provide specific measures in which historically disadvantaged individuals will meaningfully participate in the waste sector and the implementation of the industry waste management plan;

(t) provide specific targets on job creation, the promotion of small businesses, training and development, including the meaningful participation of the historically disadvantaged individuals that will be realized in the waste sector;

(u) indicate the frequency and methods of auditing and reporting to the Bureau waste management plan envisaged;

(v) provide measures to be implemented to give effect to the best environmental practice for the management of a particular waste stream; and

(w) provide details of the manner in which the informal sector will be integrated in the implementation of the industry waste management plans.

1.5 DEA Waste Phakisa

The Chemicals and Waste Economy Phakisa took place between 23 July and 25 August 2017. Although the final Waste Phakisa report has not been published yet, a Parliamentary Monitoring Group Meeting Report Summary, dated 17 October 2017 includes the following relevant information:

The Department of Environmental Affairs (DEA) presented details of the Chemicals and Waste Operation Phakisa to the Committee where much ground was covered, namely, methodology, work streams, initiatives, awareness campaigns and the way forward.

The Committee asked for a separate, follow-up presentation on the consumer drive to ‘separate at the source’, so that there can be clarity as to how it will function. DEA also endeavoured to return to the Committee to discuss the following in more detail: how tariff formulations were going to work and how certain statistics were arrived at (for example, 36 million tons of ash waste production). It was also agreed that a way must be found to ensure that all the money collected through the levy must reach the implementers of its intended purpose. Further questions were posed on the guidelines for product design, e-waste, ring-fencing of funds to municipalities and metros, transfer stations and involvement of the private sector. It was remarked that although the intention of the Department was well placed, there was much wishful thinking and unanswered questions. Another Member stressed this work of the Department was one that was in progress.

20 initiatives across four (4) workstreams, including two (2) cross-cutting initiatives, were identified:

- **Bulk industrial waste**:
  1. Increase ash uptake for alternate building materials;
  2. Accelerate innovation and commercialise existing research and development;
  3. Export ash and ash products;
  4. Zero sewage sludge to landfill;
  5. Towards zero meat production waste to landfill by 2023;
- **Municipal:**
  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 facilities and pelletization plants to increase plastic recycling rates;
  10.) Produce building aggregates and construction inputs from rubble and glass;

- **Product design and waste minimization:**
  11.) Developing capacity through a specialised programme which upskilled agri-stakeholders to minimize food loss;
  12.) Consumer awareness campaign to use and consume ugly food;
  13.) Compilation / update of packaging design guidelines;
  14.) Formalising the packaging industry producer responsibility plans;
  15.) Establish refuse-derived fuel plants across SA;

- **Chemical:**
  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:**
  19.) Coordinate Small, Medium and Micro Enterprise (SMME) development opportunities across initiatives; and
  20.) Roll out national awareness campaigns.

Mr Gordon agreed that DEA will return with the detail concerning ‘separation at source.’ Firstly, in response to Ms Edwards regarding the statistic of 60-90 000 informal waste pickers, the SA Waste Pickers Association registered about 90 000 waste pickers. The 400 000 waste pickers to which Minister Molewa referred were waste pickers working in the waste space as an estimate throughout the entire country, i.e. informal waste pickers not necessarily registered and that work in the waste space. Secondly, regarding the packaging plan, a final notice was put out last year calling for final plans where producers, manufacturers and importers of products were asked and obliged to submit plans. These plans must address the entire value chain from production and manufacturing to recycling and disposal. According to the Extended Producer Responsibility principle, manufacturers, through the producer networks, have to submit plans to say how they will deal with the product after the consumer used it. The manufacturers were then held accountable. In terms of Section 28 of the Waste Act, these plans were a legal tool and producers and manufacturers were considered illegal if they did not belong to a plan. Thirdly, with these plans, like the E-Waste plan, there were accompanying levies. This levy, like the tyre levy, will be a government collection levy system through a Money Bill, which was a current customs excise duty Money Bill, that will be amended to provide for these new levies, which, as of the pronounced date, will be collected through the SA Revenue Service directly from manufacturers, importers and producers. The levy was ring-fenced. Fourthly, while currently a lot of E-Waste in SA was dismantled and components exported, DEA was asking for beneficiation to take place in SA. Jobs need to be created from the dismantling, disassembly, refurbishment, repurposing and reusing of all electronic waste products. The E-Waste levy will incentivise the entire value chain. There was agreement and consensus in the Phakisa, together with industry, that, by law, there will be a government collection levy system. The policy of Treasury was to ring-fence and allocate funds through collection of the levy.

The Chairperson noted there were various issues to be followed-up on. As soon as it was presented to Cabinet,
the Committee would like some of the details around the Chemicals and Waste Phakisa. There was a need to have discussion around the issue of levies, for example, the plastic levy. Industries seemed to be unduly profiting. What was its impact? How much will be used for the intended purpose? The notion of ring-fencing must be dispensed with. It was concerning that there were only three initiatives that dealt with chemicals.

The emergence of SMMEs in sectors such as waste management contribute to reducing unemployment, poverty and income inequality, reduces impacts to the environment through improved waste separation and recycling initiatives, and reduce transport and waste disposal costs. Job creation in the waste sector is recognized as a local driver for change, as the waste sector is an emerging economic sector with the opportunity to create new jobs, while at the same time absorbing relatively unskilled labour and addressing environmental issues (DEA, 2016c; DST, 2014a). The NWMS sets a target of creating 69,000 new jobs in the waste sector by 2016 (RSA, 2012b).

The Waste Research, Development and Innovation (RDI) Roadmap observes that while waste legislation is intended to drive waste management away from landfilling towards alternatives such as recycling and composting, many stakeholders feel that current legislation is now constraining waste innovation (DST, 2012c) and may inadvertently pose a threat to job creation and supporting the development of SA’s Green Economy (DST, 2012b). The DST (2014c) suggests that the choice in waste streams and technology solutions targeted for waste diversion from landfill be guided by what makes local economic sense, based on, amongst others, the quantities and types of waste generated, the local cost of technology solutions, the value of waste streams to local markets, available skills, the local policy environment, and the local climate for business and investment.

Through the Operation Phakisa: Chemicals and Waste Economy programme, currently in its inception phase, government envisages identifying high impact initiatives to create new jobs, to alleviate poverty, contribute to GDP growth and to reduce the harmful impact of chemicals and waste on the economy (DEA, 2017b).

1.6 National Pricing Strategy for Waste Management
The National Pricing Strategy for Waste Management (NPSWM, 11 August 2016) has been published under the NEM:WA as the framework within which waste management charges will be set in South Africa. The NPSWM recognises that there is currently an under-pricing of waste services. This does not encourage waste generators and holders to reduce waste generation or to re-use, recycle or recover waste, but rather perpetuates the use of landfill which is perceived as the cheapest method of waste disposal. The NPSWM contains a methodology and approach for waste management charges to be applied in South Africa. It outlines possible waste management charges or economic instruments that may be applied in accordance with the overall fiscal and taxation policy of South Africa.

In terms of the IWMS the tariffs must be cost reflective and volumetric. There was also a DEA Municipal Solid Waste Tariff Strategy issued in May 2012. These must be considered when the municipality undertakes its annual budgeting process and executes its tariff determination function.

The following is an extract from the NPSWM:
In the case of EPR schemes, Section 17 of the Waste Amendment Act provides the detail with respect to the transitional arrangements for any existing IndWMPs which may be affected should a waste stream be prioritised by Government; be prioritised for the implementation of waste management charges; or be
identified for the implementation on EPR schemes. If a waste stream has not been prioritised by the Minister for the implementation of a waste charge, and should voluntary EPR schemes (with associated PRO fees) be operating for that waste stream, then these voluntary systems should continue operating to ensure minimal disruption to current waste management activities. These voluntary EPR schemes may however be ‘influenced’ by DEA, through prioritisation of the waste stream for development of the IndWMPs, the approval and implementation of the relevant IndWMPs (e.g. requiring greater support of EPR schemes to municipalities, setting of recycling targets, monitoring and evaluation by government, etc.).

This strategy will be reviewed after a period of 5 years. The government managed EPR scheme is being proposed and there is provision made for the existing EPR schemes to be aligned to the Pricing Strategy. This transition does not change the operations of the PRO, but more align the funding model with what is contained in the Act and the monitoring to be done by the [Waste Management the NEMWA], the strategy also indicated various and relevant role-players for performing certain actions in order to achieve our recycling economy, through the use of the EPR. These role-players and their actions are indicated in the Action Plan (Annexure A) of this strategy document. Also contained in the Action Plan are the associated timeframes for implementation by responsible parties.

The further details of the implementation of this strategy are as contained the Action Plan of this strategy document.

When selecting an instrument (or combination of instruments, such as a tax-subsidy combination), it is important to ensure that “double-taxation” is avoided, i.e. that externalities that have been addressed through taxation at one point along the chain are not further addressed at another point along the chain. Provided that charges are set at an appropriate level that takes external costs along the lifecycle of a particular product into account, it will not be appropriate to impose charges both upstream and downstream. Instead, a choice must usually be made as to where along the value chain a charge will be levied. This choice will often depend on whose behaviour is being targeted for intervention; that is, who has the ability to make decisions that ultimately affect outcomes with respect to waste generation and recycling. Often, for example, it is decisions made by producers (e.g. with respect to input or material use, recycled content or recyclability) that have the most significant impact on waste generation and recycling; while in other cases it may be more appropriate to target the behaviour of waste generators.

1.7 Legal framework for Climate Change
The South African national legal framework for climate change is still relatively undeveloped. The country is party to several international agreements, but national legislation is yet to be enacted. Policy documents in place are the National Climate Change Response White Paper and the National Climate Change Response Policy of 2011. The latter provides an overarching framework for facilitating a just transition to a low carbon, climate resilient, economy. It enables the use of incentives and disincentives, including regulatory, economic, and fiscal measures to provide appropriate price signals to nudge the economy towards a more sustainable growth path.²

A Carbon Tax Policy Paper and Carbon Offsets Paper were compiled in 2013 and 2014 respectively.

² According to the Background section of the Draft Explanatory Memorandum for the Carbon Tax Bill (pg. 2).
The second Draft Carbon Tax Bill was published in December 2017 for public comment. The draft Bill provides for the introduction of a carbon tax in a phased manner. This gradual approach takes cognisance of the developmental challenges facing South Africa and international climate policy developments. It is hoped that this will also help encourage investments in, and the uptake of, more energy efficient and low carbon technologies.³

The Carbon Tax Bill will enable South Africa to meet its nationally-determined contribution (NDC) commitments in terms of the 2015 Paris Agreement (on climate change), and to reduce our greenhouse gas emissions in line with the National Climate Change Response Policy (NCCRP) and National Development Plan (NDP).

Carbon tax seeks to give effect to the polluter pays principle by ensuring that the real cost of GHG emissions to the environment and society are explicitly incorporated into the prices of carbon intensive production activities. The carbon tax will assist, in a least cost manner, in reducing GHG emissions and ensuring that South Africa will meet its NDC commitments.

Cabinet approved the submission of the draft bill to Parliament on 16 August 2017 and noted carbon tax as an integral part of the system for implementing government policy on climate change.

A National Climate Change Adaptation Strategy has also been developed, for which the Second Draft was released in October 2017. The National Adaptation Strategy (NAS) acts as a common reference point for climate change adaptation efforts in South Africa, and it provides a platform upon which national climate change adaptation objectives for the country can be articulated so as to provide overarching guidance to all sectors of the economy. The strategy help gauges the degree to which development initiatives at different levels of government and business integrate and reflect critical climate change adaptation, as such guides stronger coherence and coordination on climate change adaptation activities between different institutions and levels of government, particularly with regards to planning, implementation and reporting, as such provide inputs to the country’s legal framework for adaptation. The strategy is the main vehicle for South Africa in meeting its international obligations under the United Nations Framework Convention on Climate Change (UNFCCC) as contained in the country’s adaptation component of the NDC’s.

Climate change legislation and policies needs to be reviewed in light of waste management initiatives and the IndWMP development, as climate change drivers will have an ever-increasing effect on waste management policies and plans.

1.8 Alignment of the IndWMP to International legislation, policies and strategies

1.8.1 The Paris Agreement

South Africa ratified the 2015 Paris Agreement in November 2016 and endorsed its NDC, which requires that South Africa’s GHG emissions peak in 2020 to 2025, plateau for a ten-year period from 2025 to 2035 and decline from 2036 onwards.

The Paris Agreement comes into operation in 2020, which means that efforts to reduce our GHG emissions and meet our commitments cannot be further delayed. The NDC noted that carbon tax is an important part

³ According to the Background section of the Draft Explanatory Memorandum for the Carbon Tax Bill (pg. 2-3).
of the package of measures to reduce emissions, complemented by appropriate regulations and incentives. The actual date of implementation of the carbon tax will be determined through a separate and later process.

According to the Fifth Assessment Report of the International Panel for Climate Change, Waste and Wastewater sector emissions over the period of 2000-2010 increased substantially in absolute terms but remained around 3% of the total global GHG emissions. In 2010, GHG emissions from waste represented 3.0% of total GHG emissions from all sources (1446 MtCO₂eq), compared to 2.6% in 1970 (734 MtCO₂eq). Solid waste disposal sites accounted for 46% of the waste sector’s emissions or around 1.4% of total GHG emissions in 2010 (IPCC, 2014).

1.8.2 The Sustainable Development Goals

The Sustainable Development Goals (SDGs) were born at the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012. The objective was to produce a set of universal goals that meet the urgent environmental, political and economic challenges facing our world.

The SDGs came into effect in January 2016, and the intention is that they will continue to guide UNDP policy and funding for the next 15 years (2030 Agenda). As the lead UN development agency, UNDP is uniquely placed to help implement the SDGs through our work in some 170 countries and territories, which include South Africa.

The 17 SDGs build on the successes of the Millennium Development Goals, while including new areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among other priorities. The goals are interconnected – often the key to success on one will involve tackling issues more commonly associated with another.

Besides the 2030 Agenda, African countries have committed to implement the African Union Agenda 2063, which is both a vision and a plan to build a more prosperous Africa in 50 years. The 2030 Agenda for Sustainable Development acknowledges the importance of the AU Agenda 2063 and considers it an integral part of it.

1.8.3 EU Packaging and Packaging Waste Directives


To address the environmental aspects of packaging and packaging waste, some Member States started introducing their own measures in this area. As a consequence, diverging national legislation appeared, a situation that called for harmonization at European level.

To harmonize national measures concerning the management of packaging and packaging waste, and to prevent or reduce its impact on the environment, Directive 94/62/EC was adopted in 1994. The Directive aims at providing a high level of environmental protection and ensuring the functioning of the internal market by avoiding obstacles to trade and distortion and restriction of competition.

In 2004, the Directive was amended to provide criteria clarifying the definition of the term 'packaging' and
increase the targets for recovery and recycling of packaging waste. In 2005, the Directive was revised again to grant new Member States transitional periods for attaining the recovery and recycling targets. In 2013, Annex I of the Directive containing the list of illustrative examples of items that are or are not to be considered as packaging, was revised in order to provide more clarity by adding a number of examples to the list.


1.8.4 European Strategy for Plastics

Plastics are an important material in our economy, and modern daily life is unthinkable without them. At the same time however, they can have serious downsides on the environment and health. Action on plastics was identified as a priority in the 2015 Circular Economy Action Plan, to help European businesses and consumers to use resources in a more sustainable way.

The first-ever European Strategy for Plastics in a Circular Economy adopted on 16 January 2018 will transform the way plastic products are designed, used, produced and recycled in the EU. Better design of plastic products, higher plastic waste recycling rates, more and better quality recyclates will help boost the market for recycled plastics. It will deliver greater added value for a more competitive, resilient plastics industry.

The Strategy is part of Europe’s transition towards a circular economy and will also contribute to reaching the SDGs, the global climate commitments and the EU’s industrial policy objectives. This strategy will help protect our environment, reduce marine litter, greenhouse gas emissions and our dependence on imported fossil fuels. It will support more sustainable and safer consumption and production patterns for plastics.

Improving the economics and quality of plastics recycling

Stepping up the recycling of plastics can bring significant environmental and economic benefits. Higher levels of plastic recycling, comparable with those of other materials, will only be achieved by improving the way plastics and plastics articles are produced and designed. It will also require increased cooperation across the value chain: from industry, plastics manufacturers and converters to public and private waste management companies. Specifically, key players should work together to:

- improve design and support innovation to make plastics and plastic products easier to recycle;
- expand and improve the separate collection of plastic waste, to ensure quality inputs to the recycling industry;
- expand and modernise the EU’s sorting and recycling capacity;
- create viable markets for recycled and renewable plastics.

To support these developments, the Commission has already proposed new rules on waste management.

Plastics packaging is a priority area when it comes to design for recyclability. Today it accounts for about 60% of post-consumer plastic waste in the EU, and product design is one of the keys to improve recycling

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4 [http://ec.europa.eu/environment/waste/plastic_waste.htm](http://ec.europa.eu/environment/waste/plastic_waste.htm)

5 Source: Plastics Europe
levels. It has been calculated that design improvements could halve the cost of recycling plastic packaging waste.\(^6\)

Review of Waste Policy and Legislation

The European Commission adopted an ambitious Circular Economy Package, which includes revised legislative proposals on waste to stimulate Europe's transition towards a circular economy which will boost global competitiveness, foster sustainable economic growth and generate new jobs.

The revised legislative proposal on waste sets clear targets for reduction of waste and establishes an ambitious and credible long-term path for waste management and recycling. To ensure effective implementation, the waste reduction targets in the new proposal are accompanied by concrete measures to address obstacles on the ground and the different situations across EU Member States.

Key elements of the revised waste proposal include:

- A common EU target for recycling 65% of municipal waste by 2030;
- A common EU target for recycling 75% of packaging waste by 2030;
- A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030;
- A ban on landfilling of separately collected waste;
- Promotion of economic instruments to discourage landfilling;
- Simplified and improved definitions and harmonised calculation methods for recycling rates throughout the EU;
- Concrete measures to promote re-use and stimulate industrial symbiosis – turning one industry's by-product into another industry's raw material; and
- Economic incentives for producers to put greener products on the market and support recovery and recycling schemes (e.g. for packaging, batteries, electric and electronic equipment, vehicles).

The following legislative proposals on waste amongst others have been adopted:

- Proposed Directive on Waste;
- Annex to proposed Directive on Waste;
- Proposed Directive on Packaging Waste;
- Annex to proposed Directive on Packaging Waste; and
- Analytical note on waste management targets.

1.8.5 Canadian strategy for packaging waste

The Government of Canada defines packaging as follows:

"Packaging refers to all materials, fabricated containers and other components used in the containment, protection, movement and display of a product or commodity. The environmental effects of packaging extend beyond disposal – resources and energy are consumed and pollutants are released during production and transportation of packaging".

In 1990, the Canadian Council of Ministers of the Environment (CCME) developed and endorsed the National Packaging Protocol (NaPP), a voluntary agreement with industry to reduce packaging waste. Though there

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were no official regulations or control measures, real reductions were achieved on targeted wastes.\(^7\)

In the 1990s, some solutions involving the recycling of individual packaging types were introduced such as provincial level deposit-return schemes for some beverage containers and municipal level out-right bans or surcharges on landfilling of cardboard, leading to reductions of packaging in the waste stream. Various programmes were developed, many on a voluntary basis with industry support. While steps taken in terms of these programmes were helpful in reducing the targeted packaging, they could not slow the increasing volumes of packaging challenging waste managers. Many of the programmes involved Extended Producer Responsibility (EPR).

In 2009, CCME approved a Canada-wide Action Plan for Extended Producer Responsibility and also announced a Canada-wide Strategy for Sustainable Packaging. The purpose of the latter is to build on the prior to help create a more consistent Canada-wide approach to EPR for packaging and to support a shift by all packaging actors towards greater packaging sustainability. The Canada wide Strategy for Sustainable Packaging aims to increase awareness and information about packaging sustainability among all packaging actors and to promote reductions in packaging and more sustainable packaging choices at all stages of the packaging life cycle – from packaging design to waste management. CCME’s ultimate goal is to reduce the overall quantity of packaging materials generated and disposed throughout Canada, with an aspirational goal of zero waste.

While the CCME moved toward a country-wide standard, each Province in Canada is responsible for their own packaging and stewardship regulations. However, by 2012, not all provinces had developed regulations, and where regulations existed, there were discrepancies between them. This uneven approach is problematic for importers, manufacturers and distributors as the specific actions and economic commitment required to comply will vary.

The provincial dialogues accompanying the move toward packaging protocols is of vital interest to those in the plastics industry for three reasons.

1. Plastics are not the single most predominant material used in packaging. Compared to other packaging materials, plastics trail wood, glass and paper when weight is considered. But, plastics are an easy target in EPR dialogue in large part because they are often the last package that the consumer sees before using the product inside. The eyes of those in the Ministries developing the regulations are on plastics. Plastics use in packaging is increasing and for all the right reasons. Plastics are versatile, light and cheaper to transport, rupture resistant, leak-proof, colourful and attractive to consumers as well as often the most economical option. Size, shape and properties can be customized to suit application. The individual containers are becoming both lighter and more durable at the same time. Plastics are recyclable and excellent candidates for other treatment including energy capture. Post-use plastics can have value.

2. A very real challenge facing the recovery industry is the commodity value of some packaging plastics. Even as recycling facilities increase in number and capability, collection and transportation of these newer and lighter containers can exceed their value to processors. This is the single strongest argument in favour of stewardship of plastics. Without some form of "top-up" funding, the value of many collected plastics cannot cover the cost of treatment.

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3. The infrastructure required to treat all plastic packaging does not currently exist in all jurisdictions. And where it does exist, it lacks capacity to move from select, targeted packaging to all packaging overnight.

In Canada, both EPR and product stewardship programs are used to manage products at their end-of-life. The key differences in approaches are explained below:

- **EPR program**: EPR is an environmental policy approach in which a producer’s responsibility for a product is extended to the post-consumer stage of a product’s life cycle. It identifies end-of-life management of products as the responsibility of producers. Funding is provided by producers and co.

- **Product stewardship programmes**: Responsibility is allocated to provincial/territorial or municipal governments. Legislated environmental fees and/or public funds are commonly used as a funding base, however these programmes usually do not allocate financial responsibility to producers.

The CCME, through the Canada-wide Action Plan for EPR, supports the move towards greater producer responsibility, including work towards transforming product stewardship initiatives into full EPR programs. The Canada Wide Action Plan for EPR includes:

- Working with stakeholders to achieve greater consistency on key elements of EPR programmes: product lists for EPR materials, definitions, programme monitoring and reporting metrics, and auditing protocols;
- In collaboration with industry, identifying opportunities and sharing best practices for implementing EPR in northern and remote areas; and

1.8.6 Australian strategy for packaging waste

In November 2009, the Australian environment ministers agreed to the National Waste Policy. The aims of the National Waste Policy are to:

- Avoid the generation of waste, and reduce the amount of waste (including hazardous waste) for disposal;
- Manage waste as a resource;
- Ensure that waste treatment, disposal, recovery and re-use is undertaken in a safe, scientific and environmentally sound manner, and
- Contribute to the reduction in greenhouse gas emissions, energy conservation and production, water efficiency and the productivity of the land.

The policy has been developed to complement other government actions to deliver greenhouse gas emission reductions, reduce energy and water use, support jobs and invest in future long term economic growth. It aims to provide the basis for collaboration between the jurisdictions to deliver effective and efficient approaches to national waste issues and ensure that waste management remains aligned with Australia’s international obligations.

The Waste Management Policy is currently being updated. As part of this, Federal Government, state and territory ministers and the President of the Australian Local Government Association met in April 2018 to set a sustainable path for Australia’s recyclable waste. This included, amongst others, a pledge for new product stewardship schemes for photovoltaic solar panels and batteries, while also agreeing to explore waste to
energy further and advocate using recycled materials in government procurement.\(^8\) The update of the National Waste Policy was in part triggered by China’s decision to no longer import certain types of waste from other countries.

In line with the commitments of the National Waste Policy, National Product Stewardship legislation has been developed, including the Product Stewardship Act 2011, which provides the framework to effectively manage the environmental, health and safety impacts of products, and in particular those impacts associated with the disposal of products. The framework includes voluntary, co-regulatory and mandatory product stewardship. This act is also currently under review.

In 1999, the Australian Packaging Covenant Organisation (APCO) was established as a co-regulatory, not for profit organisation partnering with government and industry to reduce the environmental impact of packaging in Australian communities. This model of shared responsibility is delivered through the promotion of sustainable packaging activities including sustainable design, recycling initiatives, waste to landfill reduction and circular economy projects.\(^9\) As part of the April 2018 announcement by the CCME, to meet the target of making packaging 100% reusable, recyclable or compostable by 2025, APCO undertook a sustainability Brand Audit in June 2018. ACO stated that “There are a number of basic packaging requirements that all Australian businesses are required to meet – and these are outlined in the National Environmental Protection (Used Packaging Materials) Measure 2011 (NEPM). One of our responsibilities is to notify the businesses who aren’t meeting these basic obligations and provide them with the tools, resources and pathways to track and improve their packaging sustainability.” The goal of the NEPM is to reduce environmental degradation arising from the disposal of used packaging and conserve virgin materials through the encouragement of re-use and recycling of used packaging materials by supporting and complementing the voluntary strategies in the Australian Packaging Covenant.

1.8.7 Management of packaging waste in the African context

The following extract from the African Waste Management Outlook report (CSIR, 2018) summarises the legislative context of waste in Africa:

“Environmental problems associated with solid waste management have traditionally been addressed through command-and-control regulations. A review of solid waste management in Africa found that a number of countries have regulations and policies on how waste should be managed (Bello et al., 2016). It appears that despite strong legislation in some countries, the implementation and enforcement of this legislation remains weak.”

The African Waste Management Outlook report also provides upstream and downstream examples of economic instruments in the product/waste value chain, see Figure 1.


\(^9\) [https://www.packagingcovenant.org.au/](https://www.packagingcovenant.org.au/)
1.8.7.1 Weak regulatory framework

The legal framework for waste management is often fragmented and the provisions dealing with municipal solid waste, weak. This was found in the case of Egypt, for example, where there is no clear distinction between roles and responsibilities of the governorates, municipalities, service providers and waste generators (NSWMP, 2011). Similarly, Nigeria has a plethora of legislation relating to the environment that touches on waste management, but with a lack of implementation and enforcement of the laws (Nwufo, 2010).

1.8.7.2 Unsupportive policy, legal and regulatory environment

The private sector should play an important role in the management of waste throughout Africa, but in some instances municipal by-laws assign full responsibility for waste management to government bodies, creating a barrier to private sector involvement (Bello et al., 2012). Kenya is a case in point, where responsibility for waste collection and disposal, regulation and monitoring of activities of waste companies and generators of solid waste, enforcement of all laws and by-laws relating to solid waste, and coordination of actors involved in solid waste management are all assigned to the local municipality (Van Dijk and Oduro-Kwarteng, 2007). However, in Nairobi, private sector participation in solid waste collection is spontaneous, unplanned and open to competition without regulation. In addition, it is reported that “companies violate many of the solid waste laws and by-laws, especially those on disposal” (Van Dijk and Oduro-Kwarteng, 2007).

The failure of the waste management laws and regulations is largely owing to ineffective provisions and sanctions to deal with transgressors and the inability or unwillingness of officials to enforce laws (Kazungu, 2010). East African countries have policy, laws and regulatory provisions that restrict improvements in solid waste management by restricting cost recovery, which is necessary for service sustainability in the long run and to cover short-term shortfalls from traditional budget sources. In Ghana, the Local Government Act, 1993 (Act 462) confers power to local authorities to promulgate and enforce by-laws to regulate solid waste management, among other things, but private companies cannot operate without the approval of, or a
The lack of operating institutional functions could be a possible explanation for the knowledge gap in policy-making (Göransson, 2012). Experiences in Kampala, Uganda, highlight the knowledge gap for making urban service delivery pro-poor (Lwasa and Kadilo, 2010). While making waste management a municipal function is seen as being crucial to ensuring that all citizens (rich and poor) receive a service, it can result in municipalities becoming gatekeepers to the waste, especially waste that can be reused, recycled and recovered. Public-private partnerships are key to unlocking this opportunity, however, if municipalities are stuck in traditional collect-transport-dump mode, opportunities to move waste up the hierarchy can be lost. Currently, this problem is being somewhat bypassed in Africa as a result of a large, active informal waste sector that is able to access recyclable waste at kerbside and on landfill in spite of local government policies regarding the private sector.

Waste policies and legislation will at best be an exercise in futility if they are not effectively enforced and complied with (Nwufo, 2010). Oelofse and Godfrey (2008) argue that despite some deficiencies, the mere enforcement of available legislation, including municipal by-laws, will improve the waste situation at community level in municipalities. Indiscriminate dumping and littering are by default illegal activities that should be treated as such by law enforcement officers. It is therefore important that enforcement officers know what their responsibilities are under the law, and what actions can be taken under various circumstances. Nigeria has a well-structured National Policy on Environment (1989) and the Rivers State blueprint on sustainable environmental practices (2004), but enforcement remains poor owing to a number of factors, including poor staffing, weak penalties, conflicting roles and attitudinal problems (Nwufo, 2010, Elenwo and Urho 2017). A study in Uganda (Göransson, 2012) found that the solid waste ordinance had not been implemented owing to a lack of enforcement mechanisms. Gray (2003) argues that the gap between legislation and enforcement may be symptomatic of centralized government decision making processes that do not account for the weakness of lower-level institutions.

### 1.8.7.3 Policies to prevent waste

In August 2017, Kenya joined a number of other African countries that regulate the use of plastic bags through legislation aimed at waste prevention (Njugunah, 2017). These regulations vary considerably, from a ban on only single-use (thin) plastic bags and associated requirements for bag thickness to complete bans on all plastic bags. This movement to ban plastic bags across Africa is sparking discussions between governments and industry on possible further bans on other single-use plastic products, such as polyethylene terephthalate (PET) beverage bottles and food services industry products such as plastic cups, containers, utensils and straws. Zimbabwe, for instance, instituted a ban on expanded polystyrene containers in the food industry in 2017 (Mhofu, 2017). However, while many opportunities for “greener” product replacement exist, such bans must be carefully considered in terms of broader health and safety issues, like access to clean drinking water and safe food in Africa, and opportunities for local recycling of such products.

### 1.9 Other Legislative Considerations

Minister Dr. Edna Molewa tabled the DEA’s 2017/18 Budget Vote Policy Statement on 25 May 2017. The following is an extract of this statement.
1.9.1 Planning and Supporting the Green Economy – The Phakisa Approach - The recycling or circular economy

The transition to a circular approach to sustainable socio-economic growth and development is emerging as a priority on the international political agenda. The issue was a key policy discussion point at the recently concluded World Economic Forum for Africa.

For South Africa, growing the circular economy and broadening access to the opportunities it presents is a fundamental part of government’s programme of radical socio-economic transformation.

This firstly requires a radical rethink of our perception of waste; it is a resource with value once it is recovered, reduced, re-used and recycled; and provides the opportunity for beneficiation, enterprise development, and innovation.

Given the potential to significantly scale up green economy initiatives in this sector, we are preparing to host a Chemicals and Waste Phakisa that will see the Annual Waste Khoro for 2017 taking the form of a Chemicals and Waste Circular Economy Lab Programme.

In taking the industry waste management plans forward, we are currently evaluating the inputs received from various sectors on Industry Waste Management Plans (IWMP’s) for the Paper and Packaging, Electrical and Electronic and Lighting Industries. These will be published for implementation this financial year.

1.9.2 Supporting broader integrated Green Economy development

At the recently convened World Economic Forum (WEF) for Africa in Durban, integrating climate change and the SDGs into development planning featured high on the agenda.

To this end, we are implementing phase one of our Greenhouse Gas Emission Mitigation system to allocate carbon budgets to companies that are significant emitters of greenhouse gases.

We will finalise South Africa’s National Climate Change Adaptation Strategy, which sets out programmes for responding to expected climate change impacts on our economy, society, and environment.

Notably, South Africa is increasingly becoming a destination for investment in the green economy, and more specifically as a top 10 renewable energy investment destination globally.

By 2016, South Africa’s Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) had already attracted over R200 billion in investment. The Department of Environmental Affairs supported this programme with Strategic Environmental Assessments.

In the past year, the Department finalized authorisations for 124 Renewable Energy development applications, amounting to a total of some 55000 Megawatts of renewable energy, as well as development applications for some 43 Strategic Infrastructure Projects (SIP’s).

1.9.3 Enhancing the Regulatory System – The Environmental Justice Approach

The NDP states that pursuing a sustainable development trajectory requires an efficient and effective
regulatory system that reduces cost and increases the ease of doing business; whilst at the same time ensuring the sustainable use and protection of our natural capital and heritage.

This must comprise of coherent legislation; supported by more accessible, user-friendly and efficient decision-making tools, as well as effective enforcement.

The recent experience in developing our “one environment system” in the mining and water sectors has indicated many areas for improving and integrating our environmental regulatory system. To this end, we have conducted a comprehensive review of our environmental legislation with the aim of improving procedural efficiency; reducing duplication and fragmentation, as well as standardizing, streamlining and aligning legislative requirements.

This comprehensive regulatory review process will also address any emerging areas of concern, gaps or inadequate coverage in our regulatory system, among others, including:

In the waste area:
- We need to manage the detrimental impacts of plastics and the phase out of micro-plastics in terms of UN General Assembly and UN Environmental Assembly resolutions, as well as the findings of a Plastic Material Study that we will conduct this year in collaboration with the plastics industry, the South African Bureau of Standards, the National Regulator for Compulsory Specifications, the National Treasury and Department of Health;
- We are considering measures that allow for independent operators to run clean-up and processing operations in the different waste management sectors and their appointment through an open and competitive tender system; and
- We are conducting a feasibility study into the option of a landfill disposal tax as a disincentive to landfill, in conjunction with National Treasury.

To this end, the Department is developing the following:
- A Consolidated Integrated Permitting System (CIPS) to provide a single environmental authorisation and permit application and processing interface. This will enable the issuing of multiple authorizations such as Environmental Impact Assessment (EIA), Waste Licence and an Air Emission Licenses. This work is at an advanced stage and the initial platform will become operational this year.
- An EIA Screening Tool, integrated with the CIPS that will provide for an early focussing of assessments and accelerate the assessment and authorisation process.
- A special initiative in plastic design to improve the recycling of plastic bags, working with the SABS and National Regulator for Compulsory Specifications (NRCS) to ensure that the manufacturers of plastic carrier bags comply with regulatory requirements.

1.9.4 Implementation and Investment – The Economy-Wide Service Delivery Approach
Let me turn to our third strategic thrust, which is to provide the support and services for on-the-ground implementation in promoting scaled up economy-wide investment.

The National Green Fund continues to support investment projects, research and development and capacity development initiatives across the green economy. The government has to date allocated R1.2 billion to the Fund, creating approximately 6 620 direct jobs.
One such project being supported by the Fund is the construction of the flagship Hammarsdale Waste Beneficiation centre in Kwa-Zulu/Natal, that will maximize waste diversion from landfill through innovative recycling technologies. Phase 1 of this project, that is being run by a non-profit called USE-IT, will lead to the creation of 153 permanent jobs, as well as 80 construction jobs. Since its inception, USE-IT has created 2 400 jobs from waste beneficiation and has won a number of national and international awards.

However, the onus to create green jobs cannot be on government alone. In this regard, forging partnerships and incentivising private sector investment, both domestically and internationally, is key.

To this end:
- South Africa is a member of the Partnership for Action on Green Economy (PAGE), that seeks to put sustainability at the heart of economic policies and practices
- Internationally we will continue to enhance our cooperative engagement in the United Nations Environment Assembly (UNEA), the Global Environment Facility (GEF) and the Green Climate Fund (GCF) where we serve on the Board and have Co-Chaired the Board for two terms.
- We continue our cooperative engagement in Multilateral Environmental Agreement bodies to advance the environment, climate change, and sustainable development agenda.
- We continue our cooperative engagement within the African Union and SADC; fostering bilateral relations with key African countries and strengthening South-South Co-operation within key emerging developing markets such as BRICS.
2 References


DEA. (2017). *South Africa National Adaptation Strategy (draft for comments)*. Department of Environmental Affairs. October 2017


