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SOUTH AFRICA

PLASTICS: ENABLING THE DEMAND AND SUPPLY FOR RECYCLATE

WHY DO WE NEED TO DRIVE UP THE RECYCLING RATES AND PUSH FOR THE INCREASED USE OF RECYCLATE?

13%
POST-CONSUMER RECYCLED CONTENT IN PLASTIC PACKAGING IN SOUTH AFRICA

The need is evident: we urgently need to reduce the amount of plastic waste which goes to landfills and often ends up polluting our natural environment. Yet, the solutions are complex. Instead of using virgin plastic raw material, we could include post-consumer recycled content – or recyclate – in plastic products to drive up recycling rates.

But there are many inherent barriers, some which overlap between stakeholders in the plastics value chain and some unique to sectors. Plus, various technological and waste management barriers are causing delays to bring about a system-wide shift to a circular plastic packaging economy.

HOW CAN WE TURN CURRENT OBSTACLES INTO OPPORTUNITIES?

The negative impacts of the linear plastics economy need to be countered. The recycling of plastic and the inclusion of recycled content in plastic products are one part of the circular plastics solution. We need to innovate and increase the development of end markets for post-consumer recyclate, specifically in packaging.

Findings from the 2021 report, *Plastics: From recycling to (post-consumer) recyclate: Industry views on barriers and opportunities in South Africa*, show an array of insights obtained from interviews with stakeholders in the South African plastics industry. This report was produced by the South African Plastics Pact, South African Plastics Recycling Organisation and WWF South Africa.

Research interviews were carried out with stakeholders in the full plastic packaging value chain, from polymer producers to brand owners and retailers, to informal recyclers and material converters. The report captures responses on the main issues and barriers to recycling and the use of recyclate, as well as the solutions suggested to address, and avoid, the negative impacts of plastic pollution.

STATE OF RECYCLING AND THE CONVERSION OF RECYCLATE

Recycling rates have increased steadily since first reported on in 2011, but since 2018 there has been stagnation. Combined with the impacts of the coronavirus crisis and the sharp drop in the oil price during the 2020 lockdown, this has highlighted the need for support from all stakeholders in the value chain. We need to increase collection, recycling and the demand for post-consumer recycled content – not incrementally, but on an industry-wide scale – to achieve the systemic shift required.

Material flow analyses from Plastics SA in 2019 show that 70% of plastics collected for recycling originates from landfill and other mixed post-consumer sources such as general waste bins. These are then sorted in informal material recovery facilities.

Of the plastics collected for recycling, only two-thirds of the collected material is converted into recyclate. The largest portion of this is used in durable applications such as irrigation pipes, domestic ware, polyester fibre and construction material. A significantly smaller proportion goes back into primary, secondary and tertiary packaging.

Explore the full report to find out how the plastic industry views the barriers and opportunities at wwf.org.za/report/plastics_from_recycling_to_post_consumer_recyclate

The SA Plastics Pact
PLASTICS PACT
SAPRO South African Plastics Recycling Organisation
NATUR VÅRDS VERKET

INDUSTRY VIEWS ON STAKEHOLDER-SPECIFIC BARRIERS TO RECYCLING

Virgin polymer suppliers (producers and importers): Plastic raw material producers and importers are heavily invested in manufacturing fossil fuel-derived polymers. For them to now invest in chemical recycling processes and equipment is a massive undertaking, which will require a huge capital outlay and possibly lead to low returns.

Converters: There is a common perception among plastic converters that post-consumer recycled plastic is inferior to virgin plastic and could have a negative impact on their operational efficiencies, increase factory waste and possibly reduce profit margins.

Brand owners: The general view is that brand owners are not doing enough to drive design for recycling and the inclusion of post-consumer recycled content in their packaging. They are perceived as making the right noises but not following up with positive actions.

Retailers: With thousands of stock-keeping units (SKUs) on their shelves, both own brands and supplier brands, insisting that packaging be designed for recycling and monitoring progress against internal and external targets become very complex tasks.

Consumers: Due to a lack of credible and accurate labelling on packaging to indicate whether it can be recycled or not, the consumer is not equipped to separate the different waste streams and ensure that materials that are recycled are placed in that stream. Consumers can also not make an informed decision to only buy products in packaging that is recycled in practice or contains post-consumer recycled plastic.

Informal collectors: As self-employed entrepreneurs, informal waste collectors are severely affected by price volatility of different types of post-consumer plastic waste.

Buy-back centres: The high cost to transport recyclables is seen as a barrier to recycling.

Formal waste management organisations: Packaging formats of low value, such as multi-layers and light-weight films and flexibles, are too expensive to transport. These items are therefore not recovered from the waste stream and often end up in landfill or the environment.

Recyclers: Without adequate demand for post-consumer recycled plastic, recyclers are reluctant to invest in new equipment and quality management systems to improve the quality and consistency of the recyclate they produce.

Producer responsibility organisations (PROs): These industry groups experience a lack of funds and resources to support the collection of plastic waste and recycling, and are not able to develop end markets to absorb the recyclate that is produced or to create new applications where existing products and markets do not exist.

Local government: There is almost no infrastructure, resources or funds to implement separation at source systems. Municipal tenders for periods of longer than three years require approval from Treasury, which is difficult to obtain. This is a barrier to investing in either collection or recycling projects because service providers cannot recoup a sufficient return on their investment in such a short period.

SHIFTING THE SYSTEM TO ENSURE THAT ALL PLASTIC IS RECYCLED?

The current plastic packaging value chain consists of too many types of plastics and packaging formats that are not actively recycled, not recycled at adequate scale, or the technology to recycle them is not available in South Africa.

What we really need is for all plastic products and packaging to be designed for recycling and to include recycled content. This means that the change needs to happen at the start of the value chain.

From the upstream point of designing a product for downstream recycling, each sector can support the plastics value chain to increase recycling rates and the use of post-consumer recyclate in packaging.

If packaging is designed for recycling from the outset, it makes the collaboration of stakeholders further down the value chain so much easier.

A NEW ERA OF PLASTICS RESPONSIBILITY

South Africa's new Extended Producer Responsibility (EPR) Regulations are a positive step forward to drive up recycling rates. EPR should lead to more investment in the end-of-life sector, including recycling and the further development of end markets for recyclate. The post-consumer recycled targets for plastic packaging in the regulations should increase the use of this secondary material. From the current 13% post-consumer recycled content in plastic packaging, there is room for rapid growth.

A few voluntary initiatives have also been set up to bring sectors together to address the massive challenges and opportunities. One of these is the South African Plastics Pact. Established in early 2020, it is part of an international network bringing together businesses and other stakeholders for collective action in the plastics value chain. At this stage, the use of approximately 30% recycled content (post-consumer) is possible through certain packaging formats assessed as "low hanging fruit".

The various plastic packaging industry views on the barriers and recommendations reinforce this need for cross-sector collaboration. This makes it clear why agreements such as the South African Plastics Pact will play an important role in driving up recycling and promoting end-market demand for post-consumer recycled plastic.

ESSENTIAL INTERVENTIONS TO SUPPORT RECYCLING AND THE UPTAKE OF POST-CONSUMER RECYCLED CONTENT

1. With a global call to reduce the production of virgin plastic, virgin polymer producers and importers should promote the use of post-consumer recycled content and invest in technology to supply food-grade recycled content to industry.

2. Converters must proactively encourage and provide expert support to their customers on how to design for recycling and how to increase the use of post-consumer recycled content in their plastic packaging.

3. Brand owners and retailers should actively sign up to voluntary collective commitments (e.g. the South African Plastics Pact) to design packaging to be recycled and to include post-consumer recycled content in their packaging. They should make the use of post-consumer recycled content mandatory not only for non-food packaging but also in secondary and tertiary packaging, including items such as trolleys, totes, crates and bags.

4. Brand owners and retailers should communicate the social and environmental benefits of using post-consumer recycled plastic in their products by creating consumer awareness in-store and on product packaging. It must become mandatory to use the standardised "on-pack recycling labels" on all their packaging.

5. It is a complex process to get new packaging approved and expensive to invest in new technologies. Brand owners and retailers should, therefore, work with their respective converters and suppliers of post-consumer plastic to develop testing protocols. This will streamline the approval process for packaging with post-consumer recycled content.

6. Municipalities, industry and the producer responsibility organisations should work together to implement the Extended Producer Responsibility (EPR) Regulations. This will grow the demand for post-consumer recycled content and increase the supply of good-quality plastic waste.

7. Local and national government should specify the inclusion of post-consumer recycled content in their public procurement policies.

8. Producer responsibility organisations should consider a "shared services" model to reduce cost, complexity and the risk of duplicating their efforts. In this way they can increase their membership and align their strategies to drive collection, recycling and end-use development programmes.

In 2018, recyclers and retailers came together proactively and worked towards increasing the post-consumer recycled content of plastic carrier bags from an initial level of approximately 0% to 100%. At that stage only Checkers (subsidiary of the Shoprite Group) sold bags with 100% post-consumer recycled content. High calcium carbonate levels in carrier bags were also reduced from 40% in some cases (which renders the plastic bags unrecyclable) to a maximum level of 8% in order for the carrier bags to be recycled. This is a good example of what can be achieved when different stakeholders work together.

THE IDEAL ROLES OF STAKEHOLDERS IN THE PLASTIC PACKAGING VALUE CHAIN

To increase recycling rates and accelerate the use of post-consumer recycled content, each stakeholder in the plastics value chain is dependent on others also stepping up to overcome the barriers and work together to enable an effective recycling industry. This requires co-ordinated planning and action, involving all sectors.

VIRGIN POLYMER PRODUCERS

Innovate: share their expertise with the value chain to promote and enable the supply of quality post-consumer recycled content.

RECYCLERS

Supply: provide converters with a consistently good quality post-consumer recycled plastic.

CONVERTERS

Manufacture for recycling: provide expert guidance to customers on how to design for recycling and proactively encourage the use of post-consumer recycled content in their packaging.

BRAND OWNERS

Design and demand: ensure that all packaging is designed to be recycled, plus all non-food packaging must include a percentage of post-consumer recycled content.

RETAILERS

Design, demand and inform: communicate the benefits of recycling and the use of post-consumer recycled content in packaging at point of purchase. For 'own brands' the role is the same as with brand owners.

CONSUMERS

Influence and recycle: positively impact the recycling value chain by making informed buying decisions (via standardised on-pack recycling labels) and dispose of the packaging in a manner which allows it to be collected and ultimately recycled.

INFORMAL COLLECTORS

Collect: gather and supply the recycling value chain with raw waste materials (feedstock) by collecting post-consumer packaging from various collection points.

BUY-BACK CENTRES AND FORMAL WASTE MANAGEMENT ORGANISATIONS

Sort: separate, bale and supply raw materials (feedstock) to the recyclers.

PRODUCER RESPONSIBILITY ORGANISATIONS

Facilitate and fund: invest in the development of end-use applications for hard-to-recycle plastics, support collection infrastructure projects and fund technologies to grow the use of post-consumer recycled content.

VOLUNTARY AGREEMENTS

Commitment and action

GOVERNMENT

Enable and enforce: create an enabling environment through policy and regulations.

"Recycling is a complex process: therefore, not everyone has an understanding of how it works."

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