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South African Initiative to End Plastic Pollution in the Environment

Never before has the issue of plastic pollution – and specifically plastics in our oceans – received so much public attention. During the last 2 years in particular, global initiatives such as the New Plastic Economy Global Commitments[1] and the Alliance to End Plastic Waste[2] were created with the aim of encouraging players in the global plastics industry to pledge their commitment to reducing plastic pollution in the oceans.

Whilst these efforts are commendable, they fail to address the unique challenges we face in South Africa with regard to waste management infrastructure, education and awareness. These are all issues that need to be addressed urgently and directly, and we cannot afford to wait 5 years for these international alliances eventually to shift their focus to South Africa.

The South African Initiative to End Plastic Pollution in the Environment

Recognising the need to develop a workable local plan that would fit the South African context and address our unique environmental, social, economic and political issues, the South African Initiative to End Plastic Pollution in the Environment[3] was formed in 2019.

As part of this alliance, all players in the local plastics packaging value chain are represented, including the chemicals sector, polymer and/or raw material producers, importers, packaging converters, retailers, international and local brand owners, fast food franchises, producer responsibility organisations together with many other stakeholders, such as the Department of Environment, Forestry and Fisheries, the Department of Trade and Industry, and the United Nations Environment Programme. All members have committed to join forces and collaborate in order to have a positive impact on the environment by working towards the prevention, and ultimately the end, of plastic pollution in the environment.

Working groups

Coordinated by the Consumer Goods Council of South Africa, finding solutions and developing the best environmentally sustainable application for problematic 'single-use' packaging is top of the agenda for the South African Initiative. This priority is closely followed by the need to develop a plan of action that will increase the collection and recycling rate of plastics in South Africa and to manufacture more products with increased recycled content.

Six working groups were formed to look inter alia at: (1) technology, innovation and design; (2) infrastructure; (3) bioplastics and alternatives; (4) education and awareness in combatting litter; (5) standards and compliance; and (6) integrating waste pickers into the circular economy. The mandate of these working groups is to find solutions to specific problems based on sustainable life-cycle assessments, updated information obtained from research facilities and technological landscapes, and ensuring support and buy-in from government, business, NGOs, existing environmental and community networks, and consumers. Solutions must be based on international best practices but developed specifically for the South African context and with the purpose of changing human behaviour in the process.

Technology, innovation and design

Improving the South African plastics industry's success with design for sustainability; increasing recycled content in products; securing demand for recyclate; scaling the generation of energy from waste; developing end-markets for recycled plastic; and developing refuse-derived fuels, form part of the remit of the Technology, Innovation and Design Working Group. This is done by considering the country's waste management system, exploring existing networks and drawing on existing local and international research and technology.

Infrastructure

According to *The State of Waste Report*[4], 34% of South Africans do not have access to any waste management or removal services. An estimated 70% of all materials recycled originate from landfill and other post-consumer sources.[5] It is a sad reality that in South Africa, recyclables are still being sourced from landfill at high cost and under poor working conditions for informal waste pickers. This is far from an ideal situation, as recyclable plastic is a valuable resource and should be removed from the solid waste stream before reaching landfill where it becomes contaminated and extraction becomes costly. One of our biggest challenges to improve the collection and recycling rate of plastics in South Africa has been getting access to this high value material before it gets sent to landfill or ends up in our oceans via rivers and streams. The only way this can be done is through developing and implementing effective waste management services and infrastructure. This is the primary focus area of the Infrastructure Working Group, which is currently investigating how best to divert plastic waste from landfill and the environment by evaluating existing infrastructure, river catchment projects, the recently launched Good Green Deeds campaign[6] as well as linking existing local and global networks. The ultimate objective is to support infrastructure, create blueprint model(s) for implementation, and roll out relevant waste management projects.

One possibility that is currently on the table for communities that are without waste management infrastructure, is to create materials recovery or technology hubs. These hubs will be facilities established in central points and which operate within a short distance from the sources of waste. These hubs will accept and sort all types of packaging waste, from where it will be baled either for selling to recyclers (high-value waste) or for processing and converting into furniture, building materials or other products to meet community needs (low-value or non-recyclable waste). The idea behind these hubs is to work as much as possible with local communities in creating beneficiation

enterprises and jobs, determining what products are required for the local community and identifying suitable entrepreneurs to be trained and set up in self-funded, sustainable businesses. This type of blueprint will then be applied to identified crisis areas and will be scalable according to the community's location.

Bioplastics and alternatives

The introduction of biodegradable and compostable material remains a major concern for the plastic recycling industry, as the required infrastructure to separately collect and process these materials (e.g. commercial composting facilities) does not currently exist in South Africa. These alternatives to conventional plastic packaging also do not change consumer behaviour when it comes to littering. If these materials inadvertently end up contaminating the recycling stream, there is the potential of simply replacing one problem with another.

In an effort to investigate and address these issues, a special Bioplastics and Alternatives Working Group has been formed. This group is currently developing a position paper on the topic in partnership with the Moss Group. However, the Working Group is also urging retailers and brand owners to consider various factors before introducing such packaging products, for example, emphasising the importance of using appropriate labels and logos to ensure they are easily differentiated from their conventional counterparts.

Education and awareness

The Education and Awareness Working Group's goals are centred around raising awareness about recycling through various educational campaigns that make use of information booklets, pamphlets, websites, mobile apps and clean-up events. The group is developing a plan of action that builds on existing and new networks in communities, industry and government, in order to improve awareness among schools, townships and suburbs, consumers, industry and retailers, government and waste management companies. The group also aims to enhance the development of skills among entrepreneurs, waste pickers and waste management businesses when it comes to identifying, collecting, reusing and recycling plastic.

Standards and compliance, integration of waste pickers

Following a briefing meeting between representatives of the South African Initiative to End Plastic Pollution and the Minister of Environment, Forestry and Fisheries, to inform her of progress made to date by the various working groups, Minister Creecy requested that two more working groups be formed: one with a specific focus on standards and compliance, and another to look at the integration of waste pickers into the circular economy. These two streams play a critical part in stopping plastic pollution and improving the collection and recycling rates of plastics in South Africa.

Building on recycling successes

Despite the inadequate waste management infrastructure and other challenges mentioned earlier, it is important to note that plastic waste is being collected and recycled in South Africa thanks to a dynamic, growing and well-supported plastic recycling industry.

During 2018, 46.3% of plastic waste was collected for recycling, making South Africa one of the best mechanical recyclers in the world.[5] More than 519 370 tons of plastic waste was collected for recycling, providing direct employment to more than 7800 people and creating a further 58 500 income-generating jobs. Moreover, ZAR2.3 billion was injected into the informal sector through the purchasing of recyclable plastic waste.

In addition, in 2018 plastic recycling saved 246 000 tons of CO_2 – the equivalent emissions of 51 200 cars and saved enough oil to fuel 200 000 cars for 1 year travelling 30 000 km/annum. Although more can, and should, be done to encourage South African households to recycle, the plastics industry has already made some important strides forward in recent years. One such achievement has been getting the manufacturers of plastic bags to remove fillers in order to produce bags that are fully recyclable. In addition, 100% certified recycled plastic material is now used to produce some carrier bags. This creates an end-market for recycled plastic products and helps to reduce waste to landfill.

Plans of action

There are various external factors that need to be taken into consideration and that could impact the timeline of implementing the various plans that are currently being developed by the South African Initiative. Most notably would be the impact of Minister Creecy's announcement in December 2019 that she has decided to scrap the Section 28 plan for developing an Industry Waste Management Plan for the paper and packaging industry, in favour of a new Section 18 plan of the *Waste Management Act*[7] that would allow for an industry-managed extended producer responsibility scheme.

The plastics industry welcomed this decision as it has always advocated for an industry-managed plan where the producers of packaging materials are held responsible for managing their waste, by belonging to industry bodies that represent their interests and drive their own recycling and collection efforts. This process needs to be managed in a manner that allows for close cooperation and direct accountability to government, but with the highest commitment to proper governance, transparency and credibility, leaving the industry in control of their own funds and projects.

The framework for the new Section 18 plan is currently being developed in close consultation with industry representatives, and the aims, objectives and progress made to date by the South African Initiative to End Plastic Pollution are also being considered and incorporated into the new strategy.

Conclusion

It is clear that the growing problem of plastic pollution in the environment cannot be solved by one organisation or a single individual. Multiple, supportive projects that run concurrently are needed to be truly effective and create greater change. Such change does not happen overnight: it starts with the desire, and one small step in the right direction.

This Initiative is a collaborative effort and the plastics industry is relieved and excited to have the complete value chain represented as we stand together to find effective and environmentally friendly solutions for our specific waste problems. Whilst much of the detail still needs to be determined, every journey of a thousand miles begins with a single step. Will you join us?

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