

Value of resources lost to landfills estimated at R17bn

Plastics|SA recently hosted a seminar on bio-plastics at its head office in Midrand, during which renowned expert on the topic, Prof Christian Bonten from the Stuttgart University in Germany, presented his findings.



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Bonten visited South Africa as guest of Plastics|SA and was also one of the keynote speakers at the Association's African Marine Debris Summit.

He explained that the term 'bio-plastics' refers to a variety of materials, including biodegradable plastics and bio-based plastics, which are materials made from renewable resources like sugar cane or starch. He noted, however, that not all biodegradable plastics are made from natural materials. "In the same way, not all bio-plastics are biodegradable," he explained.

At the same talk, Prof. Linda Godfrey, a principal researcher of the CSIR, shared information on the possible impacts of bio-plastics on South Africa's waste and secondary resources economy at the event. "About 90% of waste in South Africa is still going to landfill. We estimate that the value of resources the country is losing to landfills is around R17bn per annum," Godfrey explained.

Recovered and reintroduced

"These materials could be recovered and reintroduced into the country's manufacturing economy," she said. Various factors have created the perception that the country should be using more biodegradable products.

"People look at the high percentage of materials are going to local landfills and automatically assume that biodegradable packaging material will breakdown in the environment before they cause long-term impacts. Information received from Plastics Europe does indeed suggest that there are certain niche markets where biodegradable plastics make sense, such as in agriculture and horticulture where packaging and content is very similar," Godfrey said.

"The concept of a circular economy is one where we create products that we can recycle and return back into the manufacturing sector." She noted that the major growth is around bio-based substrates that are sourced from plant materials, but can be treated and recycled in exactly the same way as traditional fossil-based packaging. She recommends that packaging manufacturers do a thorough life cycle analysis of products using bio-plastics to identify the sustainability of these materials in comparison to tradition substrates.

Confusion exists

Plastics|SA executive director, Anton Hanekom, said that lot of confusion still existed in the marketplace around some of the environmental claims made by the manufacturers of degradable plastics. "The general perception is that degradable plastics will dissolve and disappear over time versus conventional plastics that will be around forever. Unfortunately, it is not that simple," Hanekom said.

Whilst industry leaders agree that there are certain uses and applications that could potentially be ideally suited to degradable plastics, both Plastics|SA and SAPRO have warned that it introducing bio-plastics to the country's burgeoning and well-developed recycling industry, would contaminate the recycling streams with disastrous and costly consequences. Of special concern is the impact degradable materials will have once this plastic is recycled and used in second and successive applications.

"Biodegradable plastic should not be seen as a quick-fix solution to our country's litter problem. Instead, we are calling for more money and resources to be spent on educating the public about recycling and putting proper recycling infrastructures in place to support the plastics recycling industry has in recent years become an integral part of South Africa's economy," Hanekom concluded.

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