

# Waste Information Today

A Quarterly newsletter that is aimed at communicating the Department of Forestry, Fisheries and the Environment (DFPE) Chemicals and Waste Management projects

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## Welcome note

Wishing all readers a prosperous 2024!

We would like to take this opportunity to thank you for your continued support. Please let us know if you have any feedback regarding this newsletter to [sawic@dfpe.gov.za](mailto:sawic@dfpe.gov.za).

We look forward to hearing from you.

Regards,

*Waste Information Team*

## INVITATION TO ATTEND ISWA 2024



HOSTED BY



## ISWA2024 CPT: SAVE THE DATE! R7 500 per person

The International Solid Waste Association (ISWA) World Congress 2024 is being organised and hosted by the Institute of Waste Management of Southern Africa, partnered by the City of Cape Town, the Department of Forestry, Fisheries and Environment, South African Airways, ISWA African Chapter and the ISWA Young Professionals Group.

# INVITATION TO ATTEND ISWA 2024 (continued)

The congress theme is Waste to Wealth: Solutions for a Sustainable Future, encompassing a comprehensive range of topics within the waste management field. Some of these are:



- Waste management service delivery
- Waste diversion through treatment
- Advancing waste disposal by landfill
- Social inclusivity in the Waste Sector
- Waste management for environmental protection
- Law, governance and regulation
- Waste streams of concern
- Resource management for circularity
- Funding and financing for waste management and circular economy initiatives

## WHY ATTEND?

The ISWA World Congress is the foremost event in the field of solid waste management. It serves as a global assembly, featuring elevated plenary sessions, technical site visits, and a rich cultural and social itinerary. Here, waste management professionals, government officials, industry leaders, policymakers, scientists, and emerging professionals convene, engaging in constructive dialogues to encourage scientific and technical advancements in sustainable solid waste management.

This congress usually commences with the ISWA General Assembly, alongside the ISWA board and scientific and technical committee meetings. ISWA 2024 offers a platform for the exchange of knowledge, ideas, techniques and technologies. By granting regional and local educators, practitioners, and researchers access to an international network, this conference and exhibition fosters opportunities for regional and local participants to establish novel business connections and research collaborations. This collaborative networking endeavour is poised to stimulate innovation, catalyse ideas, and set research agendas for years to come, and bolster the region's economy.



For information regarding ISWA conference, please visit the link below.

Web: [www.iswa2024.org](http://www.iswa2024.org)

Email: [organiser@iswa2024.org](mailto:organiser@iswa2024.org)

## **AN INTEGRATED SOLUTION TO WASTE MANAGEMENT- MATONGONI GROUP**

The Waste Act is based on the principles of the Waste Hierarchy (methods of managing waste), which requires that the generation of waste is avoided, or where it cannot be avoided, that it is reduced, reused, recycled, or recovered and only as a last resort treated and safely disposed of to landfill.

The National Environmental Management Act, 2008, as amended (NEMWA), places a duty on the State to place uniform measures that seek to reduce the amount of waste generated and, where waste is generated to ensure that waste is reused, recovered, recycled, treated and only disposed of the waste as a last resort and in an environmentally sound manner. However, this does remain the responsibility of the department in isolation, hence it is important to promote public and private partnerships, smme's and the informal waste sector.

Pillar 1 & 2 of the National Waste Management Strategy 2020 (NWMS) places emphasis on:

- "Minimize general waste streams from landfill."
- "Advance Waste as a Resource"
- "Waste Collection including separation at source."

The National Department of Forestry, Fisheries and the Environment (DFFE) conducted a site visit to the Matongoni recycling facility in Muldersdrift, Mogale City Local Municipality on 31 October 2023. The expansive integrated waste management facility comprises solutions for recycling plastic, polymers and e-waste. In addition, the facility is exploring a solution to the challenge of Absorbent Hygiene Products Waste (AHP). Matongoni is a beneficiary of the Recycling Enterprise Support Programme (RESP) of the Department.

The company was founded in 2013 by Mr. Tshifiwa Aubrey Magodi and his wife Dr. Mulalo Winnie Magodi. The company is working in partnership with Producer Responsibility Organisations such as PETCO, POLYCO, E-WASA and PLASTICS SA to assist them in meeting the Extended Producer Responsibility Regulations (EPR) requirements.

### **PLASTIC RECYCLING**

The company collects containers and industrial plastics. These materials are sorted, shredded, cleaned and palletised into reusable products. The company collects the following plastic types: Polyethylene Terephthalate (PET), High-Density Polyethylene (HDPE), Polyvinyl Chloride (PVC), Low-Density Polyethylene (LDPE), Polypropylene (PP), Polystyrene (PS) and Cardboxes. The following products are recycled from plastic materials and sold to markets and retailers.

- Baby care products such as plastic baths
- Plastic toys such as scooters, and
- Toilet paper

### **ELECTRONIC WASTE MANAGEMENT (E-WASTE)**

E-waste is one of the fastest-growing waste streams in South Africa. Unfortunately, the level of e-waste recycling is very low. Many electronic items, such as computer monitors, contain valuable materials such as gold, platinum, and indium but also hazardous materials such as mercury, cadmium and lead. When these items end up in a landfill, the toxic materials can leach into the surrounding environment and poison the groundwater.

Moreover, the valuable finite metals that could have been extracted and recycled would also be forever lost. The improper management and disposal of e-waste has far-reaching consequences environmentally, socially and economically. Annually an average of 360 000 tonnes of e-waste, making up 5%-8% of municipal solid waste is generated in the country (DFFE).

To address this, the Waste Electronic and Electrical Equipment (WEEE) Extended Producer Responsibility (EPR) Regulations came into effect in 2021. Matongoni provides e-waste management solutions on their premises, where electronic equipment such as televisions, refrigerators, Laptops, Computers, Monitors are brought in is brought in for safe disposal, dismantling, recycling and further processing and refurbishing. The e-waste management solution has also assisted in stimulating the economy and job creation at this facility. The solution has not only addressed the challenge of e-waste but has also created a value chain that speaks to SMME's through the creation of a circular economy.

## AN INTEGRATED SOLUTION TO WASTE MANAGEMENT- MATONGONI GROUP (continued)

### AHP WASTE SOLUTION

The Absorbent Hygiene Product (AHP) problem is rooted in an ever-increasing population and a failing municipal service crippled by a lack of capacity and resources to effectively reach rural, informal and backyard dwellings, typically home to the most vulnerable in South Africa.

AHP are products designed to absorb excreted body fluids at various stages of a consumer's life. Every year worldwide, 30 million tons of used AHP's, representing 3-4% of municipal solid waste, end their life in landfills. The drafting of the AHP Strategy will look at the design and disposal of AHP waste, such as baby diapers, adult diapers and feminine care products.

Venturing into the management of AHP waste by Matongoni could serve as a feasible solution to the ever-growing challenge of AHP waste in the country and contribute to informing appropriate technological AHP waste management solutions. With limited options in managing this type of waste, Matongoni has come up with a solution to the problem that will see the waste being palletised and recycled into reusable products, such as plastic recycling products coming out of their facility. Key stakeholders need to work together to explore the circular economy in disposable AHPs to find solutions to this growing challenge. The success in tackling the challenge of AHP waste in the country depends on strong partnerships and collaboration between the public, private and civil sectors of society.

Matongoni signifies the opportunities to maximise waste recycling and expand the value of the waste economy while sustainably minimising the environmental and health impacts by reducing waste as early as possible in the value chain.



Figure 1: Plastic scooters made from the palletisation and moulding process.



Figure 2: Baby care product made moulded through the plastic palletisation and moulding process.



Figure 3: Pallets made from plastic material.



Figure 4: Moulding equipment

## AN INTEGRATED AN INTEG AN INTEGRATED SOLUTION TO WASTE MANAGEMENT- MATONGONI GROUP (continued)



Figure 5: Electronic waste (E-waste)

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Figure 6: Moulding machine