

BEATRIX CIRCULAR ECONOMY & NATURE-BASED SOLUTIONS PROJECT

A JUST TRANSITION CASE STUDY FOR MATJHABENG, FREE STATE
JANUARY 2025



Dedicated to Africa's Renaissance



INTRODUCTION

In a landmark partnership, Thrive Land Restoration collaborated with Sibanye-Stillwater, a prominent mining house, to establish a Circular Economy Park in Welkom, Matjhabeng, to value-add waste to compost and other products. This initiative exemplifies how innovative waste management and community empowerment can drive sustainable development and support the Just Transition framework. The biological amendments and compost are also then utilised to build soil and restore land in degraded mining areas. As Sibanye gradually transitions out of its operations in the Free State, the project addresses critical socio-economic and environmental challenges, ensuring lasting positive impacts for the local community.

PROJECT OVERVIEW

The Circular Economy Park, located in the heart of Welkom, functions as a multi-faceted hub for waste-to-value innovation and community development. The waste depot accepts a wide array of waste streams, including municipal waste, garden refuse, and food waste. Through a carefully designed process, these materials are transformed into high-quality biological compost and other natural value-added products, fostering a circular economy model.

Key activities at the Circular Economy Park include:

- **Biological Compost Production:** Organic waste is repurposed into nutrient-rich compost, which serves as the foundation for regenerative agriculture projects in the region.
- **Waste Sorting and Resale:** Entrepreneurs, formed as EcoTransformers (Pty) Ltd, sort recyclables such as plastics, metals, and paper for resale, generating income and reducing landfill waste.
- **Value-Added Products:** The park supports the production of other innovative waste-to-value products, including repurposed furniture, and in due course essential oils and preserved food items.
- **Fresh Produce Processing:** Fresh produce from the follow-on regenerative agriculture project is also to be processed on-site into value-added food products, further enhancing local food security and economic resilience.

OBJECTIVES

The collaboration between Thrive and Sibanye is guided by the following objectives:

1. **Empowering Entrepreneurs:** By training and equipping local entrepreneurs, the project creates sustainable livelihoods and fosters a culture of innovation.
2. **Creating Jobs in a Just Transition:** As mining activities wind down, the initiative provides alternative employment opportunities, ensuring economic stability for affected communities.
3. **Promoting Food Security:** The regenerative agriculture project supplies fresh, healthy produce while enhancing soil health and productivity.
4. **Driving Community Development:** The Circular Economy Park serves as a hub for skills development, economic activity, and environmental stewardship, benefiting the broader community.
5. **Supporting Environmental Sustainability:** By reducing waste sent to landfills and promoting recycling and composting, the project mitigates environmental degradation and contributes to climate resilience.

EXECUTION FRAMEWORK

Thrive enabled turnkey project execution from initial planning to implementation, to monitoring and ongoing support. Some of the key steps were:

- **Secure Funding:** Thrive secured ZAR 2 million for the project and began work on project planning, community mapping, environmental analysis, site design and initial stakeholder identification.
- **Source Entrepreneurs:** Placed local adverts to source waste-preneurs. A vital step was refining the search through targeted questionnaires and initial workshops, searching for entrepreneurs with Integrity, Intelligence, and Energy¹.
- **Initial Training:** Ran intensive workshops and training on Entrepreneurship 101 and Composting 101.
- **Secure and Develop the Site:** Collaborate with the municipality to identify and secure the waste depot. Clear and develop the site into a suitable area for waste receipt, sorting, storing, and composting.
- **On-Site Training and Equipment Supply:** Provide full on-site training, ensuring the provision of all PPE, tools, and equipment.
- **Advanced Compost Training:** As production started, Thrive offered more detailed training on composting processes and techniques, correcting errors and introducing compost teas, Effective Microbes (EM) and Black Soldier Fly (BSF). Started to differentiate different products and grades.
- **Sales and Marketing:** Offered training and guidance on branding, sales, marketing and logistics. Thrive also started to source clients for off-take of bulk waste.
- **Finance and Administration:** Thrive ensured the company (EcoTransformers) was properly incorporated and shareholders registered, helping to setup the board and management structures, whilst refining the financial model and ensuring that all accounting and operational records were properly structured.
- **Logistics Integration:** Purchased and incorporated waste-chippers and three-wheeler bikes for logistics and product delivery.
- **On-Site Garden Development:** Established a garden at the depot to raise seedlings and showcase EcoTransformer's compost products.
- **Eco-Brick Amphitheatre:** Developed a mini-amphitheatre from eco-bricks (plastic bottles) for educational tours.
- **Greenhouse:** Constructed an on-site greenhouse using waste plastic bottles.
- **Supply to Regenerative Agriculture Project:** EcoTransformers have begun selling compost to Phase 2 of the Project i.e. Sibanye's regenerative agricultural project to grow fresh produce for local community supply.
- **Value-Added Product Training:** Entrepreneurs are being trained on creating value-added products from both waste and fresh produce.
- **Ongoing Monitoring and Support:** Thrive continues to provide monitoring, reporting, documentation, and support to ensure the project's long-term success and financial sustainability.

¹ "Somebody once said that in looking for people to hire, you look for three qualities: integrity, intelligence, and energy. And if you don't have the first, the other two will kill you. You think about it; it's true. If you hire somebody without [integrity], you really want them to be dumb and lazy." — Warren Buffett

IMPACT HIGHLIGHTS

The Thrive-Sibanye partnership has already begun delivering measurable impacts, including:

- **Job Creation:** The initiative has created over 15 direct jobs and numerous indirect opportunities for local residents, particularly for women and youth.
- **Entrepreneurial Development:** Over 50 community entrepreneurs have been trained through the process, and their own businesses supported through direct assistance from Thrive, as well as exploring synergies with EcoTransformers themselves.
- **Waste Diversion:** Thousands of tons of waste have already been diverted from landfills, whilst food waste has been rapidly composted, significantly reducing emissions. Thrive is applying for carbon and biodiversity credits for Sibanye in due course.
- **Improved Soil Health:** The production and application of biological compost and natural fertilisers are contributing to local beneficial microbial restoration, revitalized local mine and farm land, whilst enabling sustainable food production.
- **Community Engagement:** Educational workshops and outreach programs are fostering community awareness about the importance of waste management and sustainability.

ROLE OF THE PARTNERS

Sibanye's commitment to this project reflects its dedication to responsible corporate citizenship and its role in facilitating a Just Transition. By providing initial funding and strategic support, Sibanye has laid the groundwork for a self-sustaining model that will continue to benefit the Matjhabeng community long after the company's departure from the region. The Thabo Mbeki Foundation plays a crucial role together with the Matjhabeng Municipality in driving positive change and effective governance at the municipal level.

CONCLUSION

The Circular Economy Park in Welkom, Matjhabeng, stands as a testament to the transformative power of collaboration between industry leaders and community-focused organizations. Thrive Land Restoration and Sibanye have demonstrated how regenerative principles can drive meaningful change, empowering local communities, fostering environmental sustainability, and ensuring economic resilience in the face of transition. This project offers a replicable model for other regions seeking to balance industrial transitions with community development and ecological restoration.

GOING FORWARD

This project holds significant potential to be replicated in the Mpumalanga coalfields, with a significant additional factor to consider i.e. the use of myco- and plant-based hyperaccumulator crops to process coal fines and waste slurry. Thrive has explored proprietary Nature-Based techniques to extract Critical Minerals and Rare Earth Elements from coal fines and slimes.



DISCLAIMER

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