

Restoring a Wetland's Ecosystem by Transforming Invasive Species

Objectives

To restore biodiversity and enhance climate resilience in the Nuwejaars River Nature Reserve by removing invasive alien plant species, while creating income opportunities for disadvantaged communities and promoting sustainable land-use practices through eco-product innovation.

Activities

- Mapping and assessment of areas infested with invasive alien trees.
- Manual removal of invasive species by a team of up to 14 paid-and-upskilled workers from local disadvantaged communities.
- Processing of invasive biomass via pyrolysis to produce:
- **Biochar** and **wood vinegar** (used as eco-friendly fertilizers, herbicides, or animal feed supplements).
- Pellets created from biochar and other additives for domestic animal feed.
- Revenue generation from eco-product sales to support long-term restoration work.

Project Details

Implementing Organisation:

Nuwejaars River Nature Reserve

Duration :

2024 - 2025

Contact:

ross@nuwejaars.com

Ross Kettles

Impacts

- 600 hectares cleared of invasive alien plants.
- 800 tons of invasive biomass removed, directly supporting biodiversity conservation.
- Strengthened ecosystem resilience to climate change.
- Job creation and skills development in rural communities.
- Financially sustainable model for ongoing land restoration through eco-product sales.
- Scalable example of how circular economy approaches can support ecological and social outcomes.



Implemented in the Nuwejaar Wetlands Special Management Area