MUAST Hands Over Solarised Grain Threshers to Communities in Binga and Mudzi Districts

Marondera University of Agricultural Sciences and Technology (MUAST), in partnership with University College Cork (UCC), Ireland, handed over four solarised grain threshers to farming communities in Binga and Mudzi Districts on 20 and 28 May, respectively. The initiative is intended to build climate resilience, improve food security, and ease the labour demands of traditional grain production.

Through the Mechanisation and Sustainable Processing Project, MUAST and its partners worked closely with farming communities in Binga and Mudzi using a participatory research and innovation approach. Researchers from MUAST and UCC, together with communities from four wards (two in Binga and two in Mudzi), co-designed solarised grain threshers suited to rural, off-grid areas. The technology cuts processing time, reduces labour and post-harvest drudgery, and improves grain quality and productivity. The research team comprised:

- Team Lead: Dr Nilushni Sivapragasam (UCC, Ireland)
- Partner Country Team Lead: Prof Lesley Macheka (MUAST, Zimbabwe)
- Societal Impact Champion: Dr Faith Angeline Manditsera (HIT, Zimbabwe)
- Research Assistants: Eng. Epson Zindove (MUAST, Zimbabwe), Ms Tafadzwa Musidzaramba (MUAST, Zimbabwe), and Mr Brian Ochieng (UCC, Ireland)

At both ceremonies, MUAST Vice Chancellor Prof Justice Nyamangara praised the communities for their active role in the innovation process and for embracing climate-resilient agricultural technologies. He stressed the important role of universities in developing practical solutions to local challenges and noted that the project supports Zimbabwe's goals of advancing climate-smart agriculture, mechanisation, innovation, and rural industrialisation. He also commended the

partnership among MUAST, UCC, Research Ireland, government institutions, and local communities as a strong example of how collaborative innovation can create lasting benefits.

Also addressing participants in Binga, Dr George Kembo, Director General of the Food and Nutrition Council (FNC), praised the initiative for directly supporting national efforts to promote the production and consumption of traditional grains.

In Mudzi, Chief Nyakuchena praised MUAST and its partners for tackling a long-standing challenge faced by local farmers. Community members welcomed the technology for easing one of the most labour-intensive stages of traditional grain production, with many describing the handovers as transformational for their communities.

To support sustainability beyond the project, MUAST signed Memoranda of Understanding with Kulima Mbobumi Training Centre (KMTC) in Binga and Mudzi Vocational Training Centre (MVTC) in Mudzi. It also handed over welding and fabrication equipment to both centres to build local technical capacity and support the continued production, maintenance, and replication of the technology.