

Waste Separation at Source in Bugesera

Bugesera District & GIZ

Rwanda's National Circular Economy Action Plan and Roadmap identifies insufficient waste separation as a key gap hindering the transition toward a circular economy (MoE, 2022). The National Integrated Solid Waste Management Strategy also notes that household-level waste separation remains one of the most underperformed practices, contributing to low recycling rates and contamination of organic waste streams (MININFRA, 2022).

Building on these national frameworks, in 2024, Bugesera District and GIZ initiated a pilot on waste separation at source under the SHINE Model, a locally developed approach for cost-efficient solid waste management. Waste separation at source has since been introduced in households in Nyabivumu Village and at Nyamata Market.

Waste is separated into three streams: organic, recyclable, and residual, each managed individually. Organic waste is processed into high-quality compost, recyclables are sold, and residual waste is transported to the local dumpsite for final disposal. This system has proven effective in enabling proper treatment of each waste stream, generating economic value, while also improving cleanliness, reducing waste scattering and open burning.

Household Waste Separation at Source

To support households to separate their waste, three colour-coded bags were provided for sorting into three streams: green bags for organic waste, blue bags for recyclables, and grey bags for residual waste. These bags were complemented by awareness-raising and educational activities to guide households in proper waste separation. Activities included door-to-door visits, village meetings, and the distribution of educational materials, such as leaflets.

Awareness and Educational Materials

Guidance on proper waste separation was provided to households using different strategies.

Door-to-Door Visits: Ten mobilizers, trained under the WCE project, visited 400 households individually to demonstrate proper waste sorting and explain the separation of organic, recyclable, and residual waste. This hands-on approach allowed households to practice sorting, receive immediate guidance, and proved highly effective, 96% of households rated the visits as very helpful during the six-month pilot. This approach will be replicated in other villages during the scale-up phase of SHINE Model.



Educational Materials-Leaflets: Leaflets with colour-coded bag illustrations and waste examples were distributed to households. 80% of households found them very helpful. Based on their proven effectiveness, these leaflets will be used to support proper waste separation during the scale-up phase of SHINE Model.

Village Meetings: During the pilot, village meetings were used to explain the waste separation system, but they proved less effective for practical learning because household helpers who manage waste daily were often absent. In the scale-up phase, this method will be used by community leaders to introduce the topic during general community meetings, while practical training will focus on more effective, personal approaches.

Uptake of Waste Separation in Nyabivumu

Although waste separation was a new approach in this area, 72% of households now correctly sort their waste, demonstrating a strong adoption of the system. The remaining households separate their waste poorly, while a very small minority refuses to separate.

Waste Separation at Nyamata Market

Employees, recruited and managed by a private operator appointed by the Nyabivumu community committee, were trained on proper waste separation and provided with personal protective equipment (PPEs) for market waste

handling. This enabled safe and effective sorting of solid waste at source.

Key Impacts

In six months, through waste separation at source, 8 tonnes of recyclables were collected from households and markets. During the same period, 195 tonnes of organic waste were collected. Instead of being dumped, they were processed at a local facility to high-quality compost. The revenue from the compost sales covers operational expenses and creates savings to be reinvested in future composting activities. In addition, parts of the savings will be used to cover health insurance costs for vulnerable households in the village, creating an additional incentive for households in the community to correctly separate their waste.

In six months of implementation, households noted positive impacts from waste separation at source. Village members mainly note improved household cleanliness, reduced waste littering, and decreased open burning, contributing to better community well-being.

Building on the lessons learned of the initial pilot, waste separation at source will be expanded to other villages in the Nyamata Sector, applying the same successful awareness-raising and educational strategies that guided households in properly separating waste during the pilot.

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