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In cooperation with



Waste water circulation tank.
© Kinogerama Cooperative



COFFEE INNOVATION

Operation and Maintenance Cost Reduction through
Sustainable, Innovative Waste Water Treatment and Recycling

Installation of an eco-pulper for coffee waste improves sustainability



CHALLENGE

Wet coffee processing can be time-consuming and labor-intensive, requiring a lot of water and producing waste water, which can have a negative impact on freshwater resources and downstream environments. Decrease of production due to low rainfall and drought thus leads to loss of livelihood.

INNOVATION

Introduction of an eco-pulper and training increases efficiency within the factory while also decreasing water use.



COMPANY DESCRIPTION

Kinogerama Farmers Cooperative Society is a coffee company employing and empowering coffee farmers in Kenya.

KEY COMPANY STATS

NUMBER OF PRODUCER PARTNERS

One collective, 2,400 farmers

NUMBER OF STAFF

16



COST

COSTS

Cooperatives contribute to cost of equipment

EFFECTS ON YIELD

25 % increase in six months



PREPARATION

TIMELINE

Five months

MATERIALS AND EQUIPMENT

- Eco-pulper machines
- Building materials for waste water tanks

STAFFING REQUIREMENTS

Three staff for eco-pulper training



LESSONS LEARNED

CHALLENGES

- Trainings were conducted online due to COVID-19 restrictions, but poor internet connectivity impaired training and some older cooperative members struggled with digital technology.
- Equipment procurement and building of facilities took a long time.
- Outreach to women was limited because in this region women are not cooperative members.
- Additional equipment is needed to complete the facilities (e.g. for water recycling).

TAKEAWAYS

- Improved cooperative management resulted in 100 % retention of farmers.
- The team suggested that instead of water treatment, the project could install eco pulpers and use waste water recycling to achieve similar results more efficiently.
- Trainings should be scheduled outside of coffee processing periods.
- Equipment sourcing should be done in Kenya to avoid delay and for convenience of repair and maintenance.



Training on good agricultural practices. © Kinogerama Cooperative

As a result of an newly installed eco-pulper and trainings conducted:



2,400 FARMERS WERE TRAINED AND IMPROVED THEIR PRACTICES

resulting in a 25 % increase in productivity within six months and a better managed cooperative (farmers retained at 100 %)



1,200 HECTARES (75 % OF THE LAND CONTROLLED BY THE FARMERS)

have been improved using soil erosion control, agroforestry, and sustainable production approaches



WATER USE HAS DECREASED,

leading to greater sustainability



CAPACITY BUILDING

has strengthened members' negotiation skills and increased awareness on gender equality



STEP

1

Plan training to staff/ management

STEP

2

Procure equipment (operated by staff)

STEP

3

Site selection (raised, on a flat area) in a pulper house, near drying tables

Fresh water engine and pump. © Kinogerama Cooperative

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MISSION: The Fund's objective is to increase the profitability of smallholder coffee farmers, and foster greater, more equitable value distribution along the supply chain through promoting innovative farming systems, transparent and inclusive business models, and access to new markets.

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