



Coffee Innovation Fund – Ethiopia

Supporting innovative and scalable solutions to increase profitability and market access of small-holder coffee farmers

Mechanical coffee drying machine that utilises coffee waste to dry coffee faster

One of the first processing steps in coffee production is drying. The objective of drying is to remove water from the seed in the most efficient way in order to stabilise the coffee and preserve its quality. It is not just the coffee flavour and aroma profiles that are affected by drying; the longevity of the coffee is affected too. Evenly drying the beans is key to ensuring consistency of quality. Environmental variables should not be overlooked, especially temperature and airflow. If the temperature is not controlled, the coffee will dry at different rates, which can create the risk of mould.

Climate change negatively impacts coffee drying

The drying process is labour-intensive as there needs to be a person who constantly monitors and turns the beans to ensure that they dry evenly. With the visible changes in climate conditions, drying coffee beans in a short timeframe is becoming more and more difficult for smallholders. To address these challenges, Green Bean Manufacturing has invented a mechanical coffee drying machine that can dry 5 tons of coffee within 24 hours. The machine also contributes to waste management by utilising the coffee husk as a source of heat energy to dry the coffee beans. If not disposed correctly these residues from coffee production can be toxic and can cause environmental problems.

Partnering with coffee unions to provide drying services

The pilot phase of this project will be implemented together with the Kaffa Coffee Union, Yirgacheffe Coffee Union and Oromia Coffee Union. The drying machines will be installed at the unions' processing sites, where the machines will start to provide drying services to their members.



Project overview

Term: 2019-2020
Region: Oromia, Ethiopia
Partner: Green Bean Manufacturing
Volume: EUR 44,246 (supported by the Fund)
EUR 88,181 (total volume)

Goals

- ❖ Provide drying technology in collaboration with coffee unions to increase production yield.
- ❖ Upgrade commercial grade coffee to speciality coffee.
- ❖ Avoid environmental pollution and utilise coffee waste sustainably.

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