

Strengthening markets, Productive Alliances & financial services in Rural Communities (SPARK) Project

Tomato Paste Processing Plant (1 Ton/Day Capacity) – Kassala State, Sudan

1. Background Kassala State is one of Sudan's most fertile regions, with a significant portion of the population relying on small-scale agriculture. Among its most widely cultivated crops is tomato, a high-value horticultural product with strong local demand. Despite the high production, farmers often face post-harvest losses due to limited market access and lack of agro-processing facilities.

In response to this opportunity, Mercy Corps plans to support the establishment of a **1- ton/day tomato paste processing plant in Kassala**. This facility will be **owned and operated by farmer groups**, with full technical training and capacity building provided. The aim is to **increase farmers' income, reduce waste**, and support **local agro-processing industry growth**.

We are seeking **experienced private sector companies** to express interest in **supplying, installing, training, and supporting** the operations of this facility.

2. Project Overview

- **Location:** Kassala State, Sudan
- **Ownership:** Farmer groups (cooperatives)
- **Operation:** With technical oversight and training by the selected company
- **Capacity:** 1 ton/day tomato paste production
- **Scope:** Turnkey solution including installation, training, and after-sales support

3. **Components of the Plant** The tomato pastes processing plant will consist of the following major components and equipment, designed to handle up to 1 ton of fresh tomatoes per day:

Component	Description
Washing & Conveyor Unit	Used for initial cleaning and transporting tomatoes to the next processing stage.
Pulping Machine	Separates tomato pulp from skin and seeds.
Crusher	Reduces the size of raw tomatoes or peppers for easier processing.
Storage Tanks	Hold tomato pulp, paste, or water at various stages of the process.
Homogenizer	Ensures uniform consistency and smooth texture of the final product.
Evaporation/Concentration Unit	Reduce the water content to thicken the tomato pulp into a paste.
Hot Water & Steam System	Provides thermal energy for processing and sterilization.
Pasteurization Unit	Heats the product to kill microorganisms and extend shelf life.
Vacuum System	Supports evaporation and concentration by lowering the boiling point.
Cooling Tower	Cools the paste after pasteurization.
Filling & Packaging Unit	Automatically fills and seals containers with finished tomato paste.
Control Panel	Central system to monitor and operate the entire production line.
Working Table	Used for manual inspection and supporting operations.
Waste Disposal System	Manages peel, seeds, and other organic waste generated during processing.
Solar Power System	Complete solar PV system and inverters to run the entire factory sustainably