Overview

The Challenge

25%

perishable agriculture produce wasted

This wastage is due to lack of access to proper storage near the farm and unavailability of market price information. Most of the small farmers crash sell their produce at below par prices, thereby making agriculture an unsustainable means of livelihood.

The Solution

On-farm micro cold storage unit

CoolCrop's customizable, solar powered, on-farm micro cold storage saves 20% energy over conventional cooling modules. A mobile app estimating the price of the produce for a given geography and time period, enables farmers to decide the optimum time within which to sell their produce, as well as determine the optimum conditions needed to store it in the cold storage unit.

The Impact

1,080

smallholder farmers impacted

Waste reduction achieved:
15MT per month

CO_2 emissions saved because of waste reduction:
30MT

Farmer income increased:
30%

Electricity saved compared to competitor product(s):
20%

Energy usage serviced by clean (solar) energy:
15%

Incubation Journey

June 2019

Incubation Journey with Villgro begins

Received seed funding of

₹1.5 million

Inconsistent sales (5 installations)

July 2019

Initiated market study in West Bengal, Karnataka and Gujarat

Support from: Villgro Portfolio Management

October 2019

Received additional seed funding of

₹2 million from Villgro

January 2020

Identified relevant sector experts from IIHR to help set-up standard procedures on pre-cooling steps of fruits and vegetables

Support from: Villgro Portfolio Management

Inconsistent sales (9 installations)

"Villgro's portfolio management team encouraged us to conduct thorough market studies in various states. As an outcome, our customer base increased by more than 100% in merely 6 months."

Niraj Marathe,
Co-Founder, CoolCrop

Impact

2	Zero Hunger
2.3	By 2030, double the agricultural productivity and incomes of small-scale food producers
7	Affordable and Clean Energy
7.1	By 2030, ensure universal access to affordable, reliable and modern energy services,
12	Ensure sustainable consumption and production patterns
12.3	By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

Impact on Stakeholders

Farmers: 88% surveyed farmers found CC helpful in preventing their produce from getting damaged.

94% saw an immediate effect on their produce's quality after storing it in a CC storage unitstorage.

FPOs: All of the FPOs found that their **sustainability increased** after using CC storage.