

Coffee co-ops in Rwanda and Uganda now plan around a weekly climate signal, and pass it on to farmers

KEY TAKEAWAY

In a Gates-funded pilot with COSA, cooperatives moved from generational intuition to a **crop-specific climate signal**. Once a forecasted dry spell arrived as predicted, the question changed from "should we trust this?" to "what does it say this week?"

BACKGROUND AND CHALLENGE

Coffee farming in Rwanda and Uganda ran on generational knowledge: rain in July and August, sun in October. Shifting rainfall and mid-season dry spells broke that pattern, and a smallholder with roughly 40 harvests in a lifetime cannot afford to bet on signals that no longer hold. Cooperatives had general weather forecasts, but a forecast that says rain is coming does not say whether it will spoil a drying batch, close a mountain road or move a harvest window with a contract already signed.

WHAT WE DID

Under a Gates Foundation-funded initiative on agile tools for smallholder farmers, COSA deployed the Helios AI climate intelligence module with coffee cooperatives in Rwanda and Uganda. Implementation partner Ethos Agriculture turned the signal into a coffee calendar mapping planting, drying, transport and export against the climate outlook week by week, reviewed in a monthly co-op session. COSA ran baseline and follow-up surveys on how co-ops value the information, whether it changes behaviour, and whether they pass it on to members.

14M

HEXAGONS THE WORLD IS MAPPED INTO, EACH WITH ITS OWN COFFEE RISK

2.3km

RESOLUTION OF THE CLIMATE RISK SIGNAL

24h

UPDATE CYCLE FOR FORWARD-LOOKING RISK

10yrs

HISTORICAL WEATHER BEHIND EACH LOCATION

Co-ops used the signal when the season demanded it, then trusted it enough to pass it on

PLATFORM USAGE · SESSIONS BY MONTH

Activity peaked at harvest prep and planting

Dec 2025

~28

Mar 2026

~6

Apr 2026

~24

For too long, data has been extracted from farmers without giving anything meaningful back. With Helios AI, we're testing tools that make climate data accessible and practical.

Jeroen Bollen
Senior Advisor and Project Lead, COSA

ADOPTION · RWANDA AND UGANDA

Trust took one accurate dry spell, not years

1

ACCURATE FORECAST WAS ENOUGH TO MOVE MANAGERS FROM DOUBT TO A WEEKLY HABIT

When the dry spell came exactly as predicted, my parents stopped relying on what they had always known and started asking every week: what does the forecast say? Farmers adopt this faster than you think, as long as the signal is accurate.

Brian Masereka
Founder, Bagheni Coffee Estate; Beyco Coordinator, Progreso Foundation

COOPERATIVE · SHOLI, RWANDA

Members now get early warnings

54

% OF PLATFORM ACTIVITY ON THE CLIMATE TAB, THE SIGNAL CO-OPS RELAY TO FARMERS

The platform helps us know the right time for agricultural practices according to weather conditions. Our members now receive early warning information to cope with unfavorable climate.

Gustave Nikomeze
Sustainability Manager, Abateraninkunga ba Sholi Coffee Cooperative

Getting one specific week wrong at the beginning of planting can affect your whole season's production. That's why this matters, it's about making the right decision at the right time.

Saurin Nanavati
Founder, Ethos Agriculture

We will be able to know when to harvest, process, and when shipments can be planned for. This helps one to avoid price and weather changes.

John Masereka
Production and Logistics Officer, Rwandaro Farmers Cooperative

Accurate data from Helios AI, the risk about certain crops, even not only coffee, helps the cooperatives and the farmers to get a stable income, but to also look at their livelihoods.

Brian Masereka
Progreso Foundation

BREADTH: WHERE THE ACTIVITY WENT, ACROSS EVERY CO-OP IN THE PILOT

PLATFORM AREA	SHARE OF ACTIVITY	EVENTS
Climate tab: crop-specific risk, planting and harvest windows	54%	74
All other activity: navigation, reports, Helios Horizon	38%	52
Pricing tab: global coffee production and price	8%	11
All platform activity, 6 Mar to 4 Jun 2026	100%	137

Rwanda cooperatives logged more sessions than Uganda in every month of the pilot. Desktop was the primary device, consistent with cooperative and implementing-partner staff as the users who relay the signal to farmers.

WHERE THIS FITS IN YOUR PROGRAM

- Works with the cooperatives you already support.** The signal ran alongside existing extension services and a monthly co-op session.
- No data team required.** Ethos turned the platform output into a four-week coffee calendar, and Helios Horizon answers questions about the forecast in plain language.
- Crop-specific, not a weather app.** Coffee risk for one location at one point in the season, from 14 million hexagons with 10 years of history, refreshed every 24 hours.

HOW TO GET IT

Platform

Climate intelligence module for co-ops, programs and sourcing teams. [Log in](#)

Helios Horizon

Ask the platform in natural language and get a readable answer. [Learn more](#)

Program partnerships

Pilot design and measurement with NGOs and funders, as with COSA. [Read the announcement](#)

Webinar replay

COSA, Ethos and Progreso fireside chat. [Watch the replay](#)

Bring this to your origins. The same crop-specific climate signal on the cooperatives and crops in your supply chain.

hello@heliosai.com