

ADAPTATION FUND
Climate Innovation Accelerator
SMALL GRANTS. BIG IMPACT.

SOLUTION FACTSHEET

Seed Innovations: Satellite-based weather index insurance solution

2026–2027

UN WFP World Food Programme | INNOVATION ACCELERATOR

Solution Summary

Location:
Terai region, Nepal

Solution type:
Smart weather insurance

Innovation stage:
Transition to Scale

Grantee:
Seed Innovations Pvt. Ltd.

Implementing entity:
World Food Programme

Funding received:
USD 70,000 (Adaptation Fund)

ADAPTATION FUND

The Adaptation Fund Climate Innovation Accelerator provides grants and technical assistance to innovative solutions for adapting to climate change.

Adaptation Innovation

- PlantSat is a satellite- and ground-station-based weather index insurance solution for smallholder rice and sugarcane farmers in Nepal, developed by Seed Innovations.
- Seed Innovations' platform PlantSat provides most insecure smallholder farmers with weather insurance using satellite and ground station data, which trigger payouts during extreme weather events.
- PlantSat removed the need for traditional crop insurance, which is costly to administer in scattered farms and leaves farmers exposed to climate shocks. In extreme weather events, the platform automatically triggers payouts.

Climate Impacts

The solution is helping Nepal adapt to:

Drought and water security

Erratic rainfall

High temperatures and heatwaves

Key Achievements

- Thanks to information gathered by satellites and ground stations, field-level loss assessment is no longer needed, admin costs are reduced and farmers get fast, affordable and transparent protection. PlantSat's parametric products for maize and dairy heat stress, and rice excess rainfall are validated on the ground, with claims already paid out for rice and maize.
- So far, PlantSat has a track record of protecting 15,000 vulnerable, women and marginalized smallholder farmers with a protection coverage worth over USD 2 million.
- Through partnerships the company has already provided agent licences to 40+ agriculture technicians. Building on this model, PlantSat aims to create local jobs by training youth, women and members of marginalized groups.

Replication and Scaling Potential

- There is a potential for scaling in two directions. First, horizontally – expanding into more products such as large cash crop and livestock protection market, using the same parametric architecture and digital delivery platform.
- Second, geographically – expanding into more countries, with plans for South Asia first, following with climate-vulnerable markets where the need is urgent and ground verification is costly.

To learn more, visit [WFP-AFCIA Seed Innovations]

Investment Potential

- **Business model:** A B2B2C, meso-level cooperative-led model.
- **Revenue per year:** PlantSat expects revenue to grow from approximately USD 116,000 in FY 2025/26 (pilot year) to USD 430,000 in FY 2027/28 and USD 646,000 in FY 2028/29.
- **Sustainable approach:** PlantSat's financial sustainability is built on a recurring premium-linked revenue model and deliberate product diversification, designed to scale without proportional increases in cost.

Project Location



Last updated: 30/10/2026