

ADAPTATION FUND
Climate Innovation Accelerator
SMALL GRANTS. BIG IMPACT.

SOLUTION FACTSHEET

Gham Power: digital agriculture solution (Super Krishak)

2026–2027

UN WFP World Food Programme | INNOVATION ACCELERATOR

Solution Summary

Location:
The Himalayas, Nepal

Solution type:
Digital agriculture platform

Innovation stage:
Proof of Concept

Grantee:
Gham Power Nepal Pvt. Ltd.

Implementing entity:
World Food Programme

Funding received:
USD 75,000 (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

- Gham Power Nepal's Super Krishak helps Himalayan farmers adapt to climate change through digital advice and field monitoring, supporting better farming decisions, efficient resource use and resilient livelihoods.
- Super Krishak combines satellite, weather and IoT data to help farmers anticipate climate risks, optimize irrigation and protect harvests.
- Its app and institutional portal enable agribusinesses and governments to scale farmer support, with subscriptions and partnerships sustaining the adaptation model.

Climate Impacts

The solution is helping Nepal adapt to:

Drought and water security

Erratic rainfall

High temperatures and heatwaves

Key Achievements

- Super Krishak has reached 45,000 farmers, demonstrating demand for accessible digital agricultural services. Its training programme has engaged 15,000 farmers, with 4,000 certified.
- Surveys report farmer income increases of 20–30 percent, depending on the crop, while selected IoT-supported sites report water savings of up to 45,000 litres daily. Sensor units operating for up to five years demonstrate field durability. Together, these results provide a foundation for expanding climate advisory and farm-monitoring services.

Replication and Scaling Potential

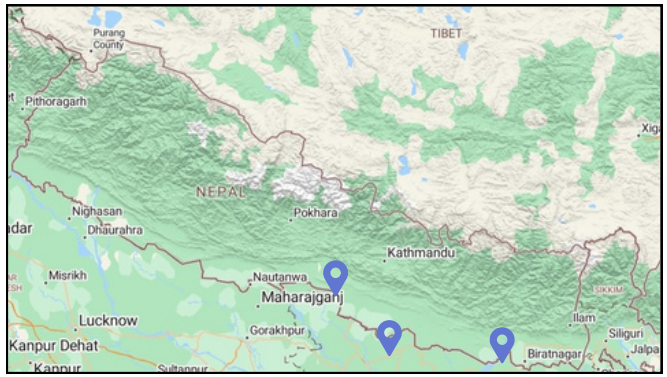
- Upon successful validation of the platform as part of the AFCIA sprint, its approach can be extended to other regions and crops in Nepal, without major changes to the core system.
- Beyond Nepal, Super Krishak can be adapted to other parts of the Hindu Kush Himalayan (HKH) region, where farming systems, climate risks and extension gaps are similar.
- As the platform integrates data from satellites, weather sources, IoT devices and farmer interactions, it also opens pathways for additional services, such as analytics for agri-businesses.

To learn more, visit WFP-AFCIA Gham Power Nepal

Investment Potential

- **Business model:** Freemium farmer services, paid app and institutional subscriptions, IoT sales and agricultural advisory services.
- **Revenue per year:** The Super Krishak App is projected to generate USD 260,100 in cumulative gross revenue over three years.
- **Sustainable approach:** Recurring subscriptions and IoT services support long-term viability. Partnerships extend distribution, while planned lending, insurance and certification services offer further growth opportunities.

Project Location



Last updated: 30/10/2026