

# Index-Based Agricultural Insurance for Climate Risk Management

Protect farmers' investment from weather shocks

This insurance compensates farmers when measured weather conditions—such as low or excessive rainfall—reach predefined thresholds in a given area. Payouts are triggered using weather or satellite data, which avoids farm-level assessments and lowers implementation costs. Governments can use it to reduce income losses after climate shocks, support access to credit, and strengthen national risk management systems.



**International Food Policy Research Institute**  
Berber Kramer

This technology is **pre-validated**. Scaling readiness: idea maturity 9/9; level of use 7/9

Inclusion assessment 6 6 6 Climate impact 2 2

## Problem

- Weather shocks reduce production, disrupt supply chains, and affect market stability
- Farmers lose income, increasing vulnerability and demand for public support
- High loan default risk limits agricultural lending and investment
- Agribusinesses face reduced and unstable demand
- Public resources are strained, with limited scalable risk management tools

## Solution

- Reduces farmer income losses and need for emergency support
- Supports access to credit and sector investment
- Contributes to stable production and food supply
- Enables efficient, scalable national risk management

## Key points to design your project

- Integrate into existing programs  
Use input subsidy, credit, or climate programs to deliver insurance through systems already reaching farmers.
- Define clear roles  
Government sets targets and subsidies; insurers design and pay; technical partners define the index; local actors register and inform farmers.
- Use existing delivery channels  
Rely on extension services, cooperatives, input suppliers, and mobile/bank systems for enrollment and payouts.
- Design based on real risks  
Set clear triggers using weather or satellite data, aligned with crop cycles; crop-stage design improves accuracy.
- Address key risks  
Reduce basis risk through better design, ensure affordability, and build trust through clear communication and inclusive delivery.
- Link with credit and inputs  
Combine insurance with loans or input distribution to support investment and adoption.
- Plan resources and timing  
Define target farmers, costs, data sources, and rollout aligned with the cropping season.

Commodities

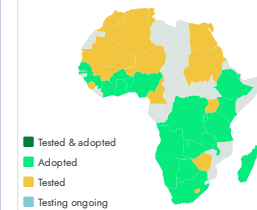
Sustainable Development Goals



Categories

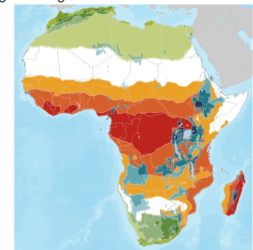
Production, Pre-production, Policies

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Development institutions, Farmers, Governments, Seed companies, Cooperatives and Agribusinesses, Banks and lenders



No formal IP rights



# Index-Based Agricultural Insurance for Climate Risk Management

Enquiries [e-catalogs@taat.africa](mailto:e-catalogs@taat.africa)

<https://taat.africa/sxh>

Last updated on Jun 29, 2026 printed on Jul 9, 2026