

Index-Based Agricultural Insurance for Climate Risk Management

Protect farmers' investment from weather shocks

This insurance compensates farmers and agribusiness actors when defined weather conditions—such as drought or excess rainfall—affect production in a given area. Payouts are based on weather or satellite data, which removes the need for farm-level inspections and reduces operational costs for insurers. This helps businesses reduce loan default risk, secure supply, and stabilize transactions across the value chain.



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This technology is **pre-validated**.

Scaling readiness: idea maturity 9/9; level of use 7/9



No formal IP rights

Problem

- Weather shocks (drought, excess rainfall, floods) reduce crop yields and overall cash flow
- Farmers lose income, invest less in inputs, and struggle to finance the next season
- Lenders face high loan default risk and reduce agricultural lending
- Agrodealers face lower and unstable demand, with delayed or unpaid purchases

Solution

- Compensates farmers after weather shocks, helping maintain income and input purchases
- Reduces loan default risk, supporting agricultural lending
- Stabilizes demand for inputs and services
- Enables scalable delivery using weather or satellite data

Key points to design your business plan

Index-based insurance generates revenue by selling coverage to farmers and value chain actors, either directly or bundled with credit, inputs, or agribusiness services.

Revenue comes mainly from premiums (paid by farmers, partners, or through subsidies), with additional income from service fees or bundled services.

Main costs include data (weather/satellite), product design, distribution, farmer training, payouts, and reinsurance.

Demand comes from farmers, lenders, and agribusinesses, mainly before the planting season, and depends on affordability and trust.

Key risks include mismatch between payouts and losses, low uptake, weak data, and high payout exposure; these are reduced through better design, clear communication, strong partnerships, and reinsurance.

Commodities

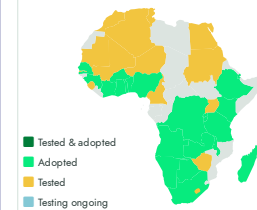
Sustainable Development Goals



Categories

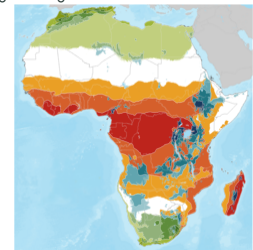
Production, Pre-production, Policies

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

Inclusion assessment



Climate impact



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<https://taat.africa/jiy>

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