AGRA

Growing Africa's Agriculture

A CROPIN CLOUD CASE STUDY

Alliance for a Green Revolution in Africa

AGRA is a proudly African-led institution focused on scaling agricultural innovations that help smallholder farmers towards increased incomes, better livelihoods, and improved food security. We understand that African farmers need uniquely African solutions to the environmental and agricultural challenges they face, enabling them to sustainably boost production and gain access to rapidly growing agricultural markets. In short, AGRA's mission is to transform the lives of smallholder farmers from that of a solitary struggle for survival to a business that thrives.

Learn more

SOLUTION TYPE
Farmer Engagement

CLIENT SECTOR
Development Agency

Reimagining Farmer Enablement with Digital:

How AGRA and Cropin Are Empowering African Farmers at scale

When you think of Africa, images of tropical forests and vast, fertile lands teeming with potential immediately come to mind. Yet the harsh reality is that millions of smallholder farmers are battling for survival against unpredictable elements. Droughts, floods, erratic weather, and geopolitical turmoil are just a few of the blows these farmers face.

The **Alliance for a Green Revolution in Africa (AGRA)**, an organization deeply rooted in agriculture, understands this struggle all too well. It works across 11 focus countries.

Their goal? To empower smallholder farmers - the backbone of Africa's agricultural sector and transform African agriculture from a fight for survival into a thriving ecosystem.

AGRA isn't alone. It collaborates with African governments, the private sector, civil society institutions, and development partners to build a sustainable agri-ecosystem that fosters innovation and knowledge sharing for farmer enablement and empowerment.

However, achieving this ambitious goal requires innovative, simple-to-use, and scalable solutions to engage with smallholder farmers spread across vast, largely inaccessible landscapes. Cropin emerged as a partner of choice for a groundbreaking project designed to build a climate-resilient and adaptable agricultural ecosystem in Africa.

Empowering Farmers through Technology

Digitally enabling this program enabled granular and transparent reporting on critical progress and impact metrics, enabling easy, effective and timely program management.

Increased Productivity

Better practices led to higher yields and income for farmers.

Climate-smart Practices:

Farmers learned to adapt to changing weather patterns

2.197 Million farmers

Reached and equipped with the knowledge to thrive

8016 Village Based Advisors

Trained and transformed into local agripreneurs.

Africa	# Farmers	# VBAs
Mozambique	184K	780
Mali	68.6K	1526
Burkina Faso	744K	715
Nigeria	859K	2177
Ghana	337K	2033
Tanzania	4.9K	785

ACREAGE
4.7Mn

PLOT COUNT
950K

FARMERS
2.2 Mn

CROPS
9 Across 30 Varieties

CROPS UNDER MANAGEMENT

Maize	Rice	Beans
Soybean	Sorghum	Cowpea
Potato	Tomato	Millets

TOP CROPS BY ACREAGE

Maize	**26.8K** Acres
Rice	**3.34K** Acres
Beans	**1.96K** Acres
Soybean	**437.77** Acres
Sorghum	**349.48** Acres

The Roadblocks

Challenges Faced by African Smallholder Farmers

Africa boasts tremendous agricultural potential. However, most farming is done by smallholder subsistence farmers who lack access to quality inputs, cutting-edge technologies, and the knowledge to optimize land, water, fertilizers, and pesticides to maximize production per acre.

Modernizing the agricultural sector and equipping farmers with the tools and knowledge to thrive in the face of climate change is the first step towards building agricultural resilience in the continent. In simpler terms, helping farmers weather the storm (literally and figuratively). But with millions of smallholders scattered across vast landscapes, traditional outreach and engagement methods just wouldn't cut it.

Large concentration of smallholder farmers

Lack of easy access to quality inputs like fertilizers, pesticides, etc.

Climate threats & unstable weather changes

Lack of digitization and access to cutting-edge technologies

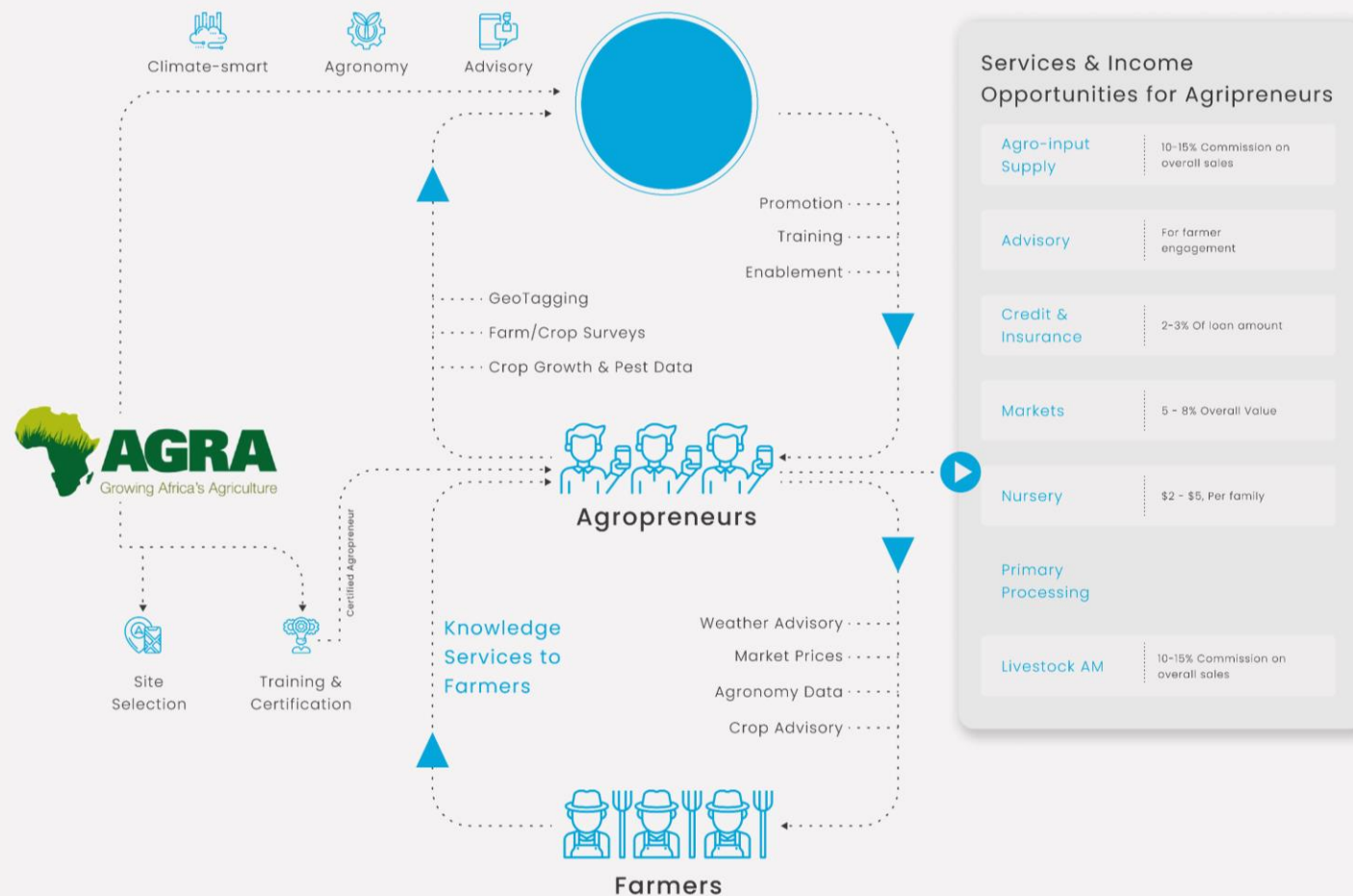Restrictive access to knowledge of sustainable practices

The Digitally Enabled Agripreneur Model:

A **Sustainable** Solution for **Farmer Engagement**

Launched in 2020 and still ongoing, the Cropin-AGRA initiative tackles the challenges faced by smallholder farmers head-on. The first step involved developing a robust farmer engagement system that could guide them towards building resilience, promoting sustainable agriculture practices, improving yields, and enabling agri-businesses to flourish despite climate threats. This system hinges on fostering trust, transparency, and communication within an open, collaborative ecosystem.

Cropin's Proposed Agripreneur Model

Climate-smart   Agronomy   Advisory

- GeoTagging
- Farm/Crop Surveys
- Crop Growth & Pest Data

Promotion
Training
Enablement

AGRA
Growing Africa's Agriculture

Certified Agropreneur

Site Selection

Training & Certification

Agropreneurs

Knowledge Services to Farmers

Weather Advisory
Market Prices
Agronomy Data
Crop Advisory

Farmers

Services & Income Opportunities for Agripreneurs

Service	Income
Agro-input Supply	10-15% Commission on overall sales
Advisory	For farmer engagement
Credit & Insurance	2-3% Of loan amount
Markets	5 – 8% Overall Value
Nursery	$2 – $5, Per family
Primary Processing	
Livestock AM	10-15% Commission on overall sales

Think of it as creating a network of local entrepreneurs who understand the land and the people. These agripreneurs were trained and enabled with the knowledge to become the boots on the ground, connecting directly with farmers. Cropin deployed its platform, Cropin Grow, in January 2021 and has positively impacted the lives of over 2 million smallholder farmers and 8000 Village Based Advisors (VBAs) with the benefits of technology.

Digitalization with Agtech

Building Resilience One Farmer at a Time

The Cropin-AGRA project for smallholder farmers covering six African nations focuses on several key areas:

- Piloting and scaling digital solutions for farmer engagement.
- Adapting these solutions to the specific local contexts of each region.
- Capacity Building Program for Village Based Advisors (VBAs) with comprehensive training and knowledge management tools.
- Automating essential climate-smart advisory services for farmers.

Cropin initiated the project with pilot programs to test and customize the Cropin Grow platform to support local practices and context. Once localized and adapted for each participating country, the solutions were deployed at scale.

Cropin's structured training programs go beyond mere add-ons. It enabled VBAs to learn science and technology-based farming techniques quickly. Cropin ensured continuous engagement by providing a dedicated Customer Success Manager for the project, besides other key teams across product, technology and support.

The digitization of agricultural operations on Cropin's platform resulted in several key advancements:

Digitization of Village Based Advisors:

VBAs were onboarded and trained to adopt the Cropin Cloud. Equipped with the platform's user-friendly mobile app, VBAs transitioned into being real-time mobile knowledge centers for farmers.

Geotagging of agricultural plots:

Farm plots were geotagged, facilitating targeted interventions and resource allocation.

Farm and farmer data digitization:

Centralized farm and farmer data on the cloud repository ensured easy access to every authorized user/stakeholder in the program.

Equipping VBAs:

Knowledge Dissemination and Capacity Building

Comprehensive training programs for VBAs on data collection and monitoring using mobile applications achieved widespread adoption of the digital solution. Knowledge management was another key focus area. VBAs received user manuals, regular feature update alerts, and ongoing support to ensure efficient data organization and management on the platform. This empowered them to access information on the package of practices specific to crops and regions, weather forecasts, pests, and disease alerts at their fingertips. They could confidently share their knowledge with the farmers.

Knowledge is Power:

Empowering Farmers with Actionable Insights

These advancements significantly reduced farmers' stress regarding crop health and yield. Improved agricultural practices and timely advisories resulted in efficient input usage, reduced production loss, better prices for their produce, and ultimately improved income for farmers.

These VBAs became walking knowledge banks and emerged as a vital resource for farmers, sharing crucial knowledge on:

Efficient utilization of agricultural inputs:
VBAs guided farmers on the usage of best-suited seed varieties. They also advised them on optimizing the use of water, fertilizers, pesticides, and other input resources for cost-effective and sustainable crop production.

Pest and disease alerts:
Cropin Cloud provided VBAs with timely pest and disease alerts and preventative measures. They shared this information with the farmers to avoid devastating outbreaks and protect yield.

Accurate harvest readiness windows:
Knowing precisely when to harvest ensured optimal crop quality and minimized post-harvest losses.

Sowing schedules:
Farmers received insights on the ideal planting times for various crops in their specific regions, maximizing yield potential.

Weather-based advisory:
Cropin's Weather-based advisories at the plot level helped promote climate-smart agricultural practices among farmers.

Modern farming skills:
Best practices training by VBAs helped farmers upgrade their farming skills, plan farm operations, and make precise data-driven decisions.

A **Sustainable Future** for African Agriculture

We still have miles to cover.

AGRA's mission? 20 million happy farmers by 2025.

With Cropin by their side, they're well on their way to a future where African agriculture is not just surviving but flourishing. A future where farmers are empowered, food security is ensured, and the continent's potential is finally unlocked.

That's the power of data-driven agriculture. That's the Cropin and AGRA difference.