Digitalization of VBAs *in last mile delivery of services and information to farmers*'
December 8 2021
Alliance for a Green Revolution in Africa (AGRA)

- AGRA is an African-led nonprofit organization formed in 2006 in response to the call by former UN Secretary General Kofi Annan for a uniquely African green revolution – HQ in Nairobi, Kenya

- AGRA’s mission is to catalyze and sustain systemic agricultural transformation in Africa through innovation-driven productivity increases, access to markets, finance and policies that improve livelihoods of smallholder farmers.

- US$ 553 Million investments impacting 25.1 million SHFs, improved seed, fertilizer, extension, finance, markets systems as well as policy and state capacity.

- Extension systems: Supporting governments and other value chain players to enhance efficiency of extension systems with the objective of improving small-holder farmers’ last-mile access to inputs, and Information on good agronomic and post-harvest management practices, and markets.

- Complement governments’ efforts through Private Extension Service Providers – Village Based Advisors (VBAs). Identified and trained 32,000
Village Based Advisors (VBAs):

- VBAs are self-employed, trusted community members who offer last mile delivery of information, extension services including training, access to inputs and output markets. (VBAs differ from conventional community extension workers who mainly work as volunteers and are not linked to private sector).

- 32,000 VBAs identified and trained in 9 countries
- VBAs have directly reached and trained 5.5 million SHF leading behaviour change by farmers with significant adoption of improved seeds, and good agronomic practices including climate smart practices resulting in increased productivity, incomes, and resilience
- Significant crowding in/participation of private sector companies in extension activities—seeds and fertilizer packs for demos
- Reduced Extension Agent: Farmer ratios from 1:>5000 to 1:500 in target areas in 9 countries.
VBAs can act as input agro-dealers, output aggregators, booking agents or even salespeople.

1. **VBA as input agro-dealers**
   - Input company
   - Distribute small pack fertilizer/seed
   - Sales commission

2. **VBA as aggregator of output**
   - Off-taker
   - Aggregate agriculture produce
   - Commission

3. **VBA as booking agents**
   - Ag machinery hiring service provider
   - Inform tractor fleet info
   - Commission

4. **VBA as ICT solution provider**
   - Train for ICT adoption
   - Commission
   - ICT solution provider

**Access to finance**: provide credit to VBAs to set up their business

**National and local government**: VBAs infrastructure design and training

*GAP: good agriculture practice*
Use the #DigitalAg Framework...

To adjust and refine the #DigitalAg Strategic Plan...

To serve AGRA 2030 Enablers and Workstreams

Journey to #DigitalAg

Business - Aligned

Government

Market

Village

Sustainability, Inclusivity, Impact

Country - Integrated

Impact - Focused

Guiding Principles

- Relevant
- Aligned
- Additive
- Actionable

#DigitalAg

#DigitalAg

Government

Data For Government

Standards

Finance De-Risking

Inputs & Soil Health

Policy

Market

Scaled Ecosystems

Smart Logistics

SME Management

Market Linkages

Village

Finance Enablement

Extension Enablement

Sust. Farming

CrossBorder Trade

Output + Structured Trade

Ag Finance & Investment

Input Market Linkages

Ag R&D

National Policy + Regs

National Capacity

Digital Solutions

Ag Data & Insights

AGRA Enablers

Workstreams

- Extension & Farmer Capacity
- CrossBorder Trade
- Output + Structured Trade
- Ag Finance & Investment
- Input Market Linkages
- Ag R&D
- National Policy + Regs
- National Capacity
- Digital Solutions
- Ag Data & Insights

- Sust. Farming
- Scaling SME's
- Seed Systems
- State Capability

M&E and Communications
Digitalizing VBAs

1. VBAs access up to date localized Extension Content (e.g. weather, pests and diseases alerts, training content e.g. - Animated videos e.g. How to plant maize; SAWBO Fall Armyworm

2. VBAs enhance their linkages with diverse value chain actors – expanded service portfolio to farmers and diversifying their incomes for sustainability

3. VBAs have more interactions with farmers (especially with COVID 19 restrictions) : training, record keeping, farmer profiling, crop growth stages, demand aggregation for inputs and produce for marketing

4. Digitized records enhances ease of doing businesses – currently VBAs rely on paperwork and becomes cumbersome

5. Attract youth both female and male into Agriculture –offer opportunities at different segments of the value chain and beyond “production drudgery”
Cropin – AGRA Partnership

Goal: Enhance the capacity of VBAs in last mile delivery of inputs and services, linkages with other service providers through digitalization of 10,626 VBAs in 6 countries (Tanzania, Nigeria, Ghana, Mali, Burkina Faso, Mozambique) to reach 2,656,500 farmers with services and information.

Grant Period: March 2021 – March 2022

Grant Amount: US$ 500,000 (USAID)

Sustainability initiatives:

i) Work with existing VBAs who already have Smartphones (primary VBA screening criteria)
ii) VBAs in business (40% of current VBAs in business)
iii) Leverage on going grants, past efforts for VBA mobilization and training
iv) Private Sector support (training and engaging VBAs, sustaining platform, more business opportunities)
v) Youth and Women: target 50%
vi) Links with Government initiatives in digitalization e.g. farmer registration, e-voucher services etc.
Customized Smart Farm features:

- Language (English, French, Swahili, Portuguese)
- VBA profiles (6,282 uploaded)
- Farmer profiles including farmer assets (2.8 million farmer profiles received)
- Crop/plot level details:
  - Value chains and varieties: Maize, soybean, beans, rice, cowpeas
  - Crop performance monitoring stages
  - Fertilizer application regimes/Planting dates
  - Potential yields
  - Alerts – pests, weather
  - Soil types
  - Irrigation types
  - Harvest templates
- Questionnaires: Rapid Impact assessment Survey forms (translated and uploaded)/VBA-Agrodealer questionnaire
- Private sector players /service providers
## Total VBA User Access for Smart Farm Plus App

<table>
<thead>
<tr>
<th>Country (Region)</th>
<th>Target number of VBAs to be digitized</th>
<th>VBA onboarded to date Nov 2021</th>
<th>Balance of VBAs to be onboarded by Feb 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mozambique (AENA, UPCT, MICAIA)</td>
<td>736</td>
<td>422</td>
<td>314</td>
</tr>
<tr>
<td>Mali (EUCORD)</td>
<td>1815</td>
<td>1547</td>
<td>268</td>
</tr>
<tr>
<td>Burkina Faso (ABAC)</td>
<td>1924</td>
<td>1164</td>
<td>760</td>
</tr>
<tr>
<td>Nigeria (Niger and Kaduna)</td>
<td>1746</td>
<td>1473</td>
<td>273</td>
</tr>
<tr>
<td>Ghana (CRS, Hunger Project)</td>
<td>1128</td>
<td>800</td>
<td>328</td>
</tr>
<tr>
<td>Tanzania (NYDT, ADP Mbozi)</td>
<td>2558</td>
<td>491</td>
<td>2067</td>
</tr>
<tr>
<td>Ghana/Nigeria (YADIS)</td>
<td>720</td>
<td>385</td>
<td>335</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10626</strong></td>
<td><strong>6282</strong></td>
<td><strong>4334</strong></td>
</tr>
</tbody>
</table>
## SmartFarm Plus Value Proposition

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Value proposition</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government</strong></td>
<td>• Access to farmers with CropIn network</td>
<td>Smart farm</td>
</tr>
<tr>
<td></td>
<td>• Efficiency gains in subsidies allocation</td>
<td></td>
</tr>
<tr>
<td><strong>Farmers</strong></td>
<td>• Advisory on weather and alerts</td>
<td>Smart farm</td>
</tr>
<tr>
<td></td>
<td>• Markets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Advisory of crop management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Input acquisition</td>
<td></td>
</tr>
<tr>
<td><strong>Retailers/Offtakes</strong></td>
<td>• Assured supply</td>
<td>Smart farm</td>
</tr>
<tr>
<td></td>
<td>• Assured quality of produce</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Increased sales/demands of inputs</td>
<td></td>
</tr>
<tr>
<td><strong>Agro-dealers</strong></td>
<td>• Compliant and traceable product</td>
<td>Smart farm</td>
</tr>
<tr>
<td></td>
<td>• Produce and inventory tracking</td>
<td></td>
</tr>
<tr>
<td><strong>Consumers</strong></td>
<td>• Safe and fresh food</td>
<td>Smart farm</td>
</tr>
<tr>
<td><strong>VBA’s</strong></td>
<td>• Digitization of farmer registration record keeping, operations</td>
<td>Smart farm</td>
</tr>
<tr>
<td></td>
<td>• Real-time information on markets, weather and insurance services,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• More transparent recording of transaction</td>
<td></td>
</tr>
</tbody>
</table>
Early learnings/emerging issues:

1. Leverage on existing digitalization efforts and data sets in countries: Governments in Africa putting efforts in farmer registration linked to service provision (e.g. e-voucher systems) – AGRA case 2.8 million farmer profiles received from earlier projects – VBAs to fill in gaps.

2. Understand Country specific Data Protection Acts and legislation: many countries putting in place such acts, legislation. Had to include farmer consent in design of data collection and sharing protocols.

3. Smart phone ownership becoming a reality in Africa: more and much cheaper with financing schemes e.g. Safaricom Kenya – pay US$ 0.15 per day, Ecobank provided Smartphones to VBAs to become their agents.

4. Gender gap in digital divide persists: 30-40 % of onboarded VBAs are females owning smartphones; digital literacy skills and mentoring.

5. Effects and realities of the COVID-19 pandemic have accelerated the spread and adoption of technology especially those that work to digitalize farming systems.
Some Learning Questions:

1. Does digitalization improve VBA performance in input sales? In services?

2. Does digitalization enhance collaboration among ecosystem partners with VBAs and SHFs?

3. Does digitalization diversify the range of businesses a VBA(s) engages in and promotes more linkages with private Sector?

4. Does digitalization enable female VBAs reach and serve more farmers?

5. What it takes to scale in multiple countries, multiple value chains, 10,000 plus VBAs (data management, platform configuration –single or country based, resources etc, appropriate partners, policy environment, skills sets and capacity building etc)
Thank You for listening