Taking agricultural technologies to scale: Experience of a research-development partnership in Tanzania

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Background

• Over 70% of the population in SSA dependent on agriculture; 27% food insecure
• Low yields of vital staple crops - cereals, root tubers and legumes
• Post harvest losses – about 30% for cereals
• Sustainable intensification a promising approach
  – Increasing agricultural productivity while meeting standards for sustainability - environmental, economic and social terms

• Better crops (diverse) and related technologies
• Natural resource management and GAPs
• Food safety
• Creating opportunities for youth & women

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Africa RISING Objectives

• Identify and evaluate demand-driven options for sustainable intensification

• Create opportunities for smallholder farm households to move out of poverty and improve their nutritional status

• Facilitate partner-led dissemination of integrated innovations beyond Africa RISING action research sites = scaling up

https://africa-rising.net/
Rationale for research-development scaling & partnership

Systematic approach to scaling up

Drivers (champions, incentives, market or community demand, etc.)

Spaces (enabling factors)
- Fiscal and Financial
- Institutional capacity
- Policies
- Political
- Environment
- Partnerships
- Etc

Vision of Scaled Up Impact

Monitoring, Evaluation and Learning

Source: Linn, 2014
1. Deepen work with local/district-level extension system and national agric. research institutions (262 staff)

2. Mobilize expertise of non-government development organizations (MVIWATA, RUDI, FIPS-Africa, EAGC, banks, insurance, hub agrodealers)

3. Strengthen community-based services (e.g. QDS, local artisans, rural agrodealer network) – [146 VBAAs, 45 artisans, 110 POs]

4. GIS for better targeting of technologies

5. Communication and coordination (beneficiaries, partners, donor)
Focus of partnership project (2014-2020)

1. Introducing and promoting improved and resilient varieties of food crops *(maize, legumes, rice)*;

2. Disseminating best-bet agronomic management packages (GAPs);

3. Protecting land and water resources *(incl. soil and water management, SAS/acidity/salinity)*;

4. Promoting postharvest management technologies (bring quality up to market standards); *incl. aflasafe*

5. Enhancing capacities of local communities.
Locations
All about aflatoxin:
What it is, its effects and how to control it

Following the death of five people (2 adults and three children) in Masaakilo district from aflatoxin poisoning, a team of experts are going from village to village educating the public about the poison. Today the team has arrived at the village of Wambol Mena village. Dr. Joseph Mblingu from the Ministry of Agriculture, Livestock and Fisheries explains what is aflatoxin and how it’s spread.

What is aflatoxin?
Aflatoxin is a poison produced by a fungus called Aspergillus flavus. The fungus replaces in cow and decaying matter in the feed. Therefore many crops can be contaminated by aflatoxin while in the feed.
Data reporting and achievements (so far)

Reporting

• Data collection forms
• End-of-season joint reviews (RD team with communities)
• Quarterly and annual review/co-learning meetings (RD team, policy makers, private sector)

<table>
<thead>
<tr>
<th>Metric Tons (Mt) of Quality Declared Seed (QDS) produced</th>
<th>192MT (162- rice) (30 legumes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT of Improved seed sold by POs &amp; VBAAs</td>
<td>649MT</td>
</tr>
<tr>
<td>MT of fertilizer sold by VBAAs &amp; POs</td>
<td>7,130 MT</td>
</tr>
<tr>
<td>MT of maize sold by POs</td>
<td>10,383</td>
</tr>
<tr>
<td>MT of rice sold by POs</td>
<td>50,860</td>
</tr>
<tr>
<td>Individual farmers trained by VAEOs and VBAAs</td>
<td>54,890</td>
</tr>
</tbody>
</table>
Future actions/recommendations

- **Capacity building** activities need to be more rigorous and better planned; consider other actors beyond extension staff

- **Scalability assessment/scaling potential** mindset (esp. spaces and drivers) to help address challenges on time (e.g. policy and political dimensions; credit, insurance, and market)

- Deeper integration of ICTs beyond GIS

- Deliberate focus on youth and women

- **Collaboration, Learning and Adaptation** mindset
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