Scaling out Cowpea Production in Northern Ghana, Community Seed Production Scheme

Pan-African Grain Legume and World cowpea conference

28 February to 4 March 2016
Livingstone, Zambia

J. Yirzagla, I.D.K. Atokple, M. Haruna, F. Kusi, I. Suguri and A. Muntari
Cowpea Out-scaling Project.

Goal
To improve the lives and livelihoods of dryland farmers in West Africa and increase the sustainability of the cropland upon which they depend through greater reliance upon and performance by cowpea as a key component within their farming systems

Sponsor: USAID
Coordinating Institution: IITA
Duration: 2015-2017
Project Countries
Ghana
Mali
Nigeria
Senegal
Project target area in Ghana
Table 1. Project target regions and expected beneficiary households.

<table>
<thead>
<tr>
<th>Focus region</th>
<th>Households benefiting (no.)</th>
<th>Average field size (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern</td>
<td>32,000</td>
<td>1.5</td>
</tr>
<tr>
<td>Upper East</td>
<td>22,000</td>
<td>1.4</td>
</tr>
<tr>
<td>Upper West</td>
<td>9,000</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>63,000</strong></td>
<td></td>
</tr>
</tbody>
</table>
Technologies to be scaled out

- Quality seed of improved cowpea varieties
- IPM including use of biologicals
- Cowpea management/agronomy
- Postharvest and storage technology
Out-scaling of quality seed of improved cowpea varieties

• Cowpea (*Vigna unguiculata* (L) Walp) is an important food crop with good soil fertility enhancement ability

• In northern Ghana, it is the second most important crop after groundnut.

• Average farm-level yield on area basis is low (0.4t-0.6t/ha) compared to research fields (1.6-2.5t/ha).

• Factors for low productivity include:
  – Poor farmer access to high yielding varieties
  – Farmers’ lack of appropriate production technologies
Strategies

- Participatory approaches

Identification of partners
- MoFA, NGOs, CBOs, FBOs, local seed companies, agro-input dealers, service providers, TL III, N₂AFRICA etc.

Awareness creation

Training

Promotion and sustainability
Community Seed Production

- Community Seed Production (CSP) Scheme was identified as a major strategy for producing certified and quality declared seed on larger scale.

**Objective of the scheme:**
- To build the capacity of farmers in seed production to enhance smallholder farmers’ access to improved cowpea seed at the community level.
Project launch and regional inception workshops and Seed Fairs
Approaches Cont’d

Seed supply and technology transfer

- CBOs supplied with foundation seed for community seed production (CSP)

- Extension workers trained (ToT) to train the CBOs on production technologies
Approaches Cont’d

Technology Transfer

- CSP fields established in target communities across the 3 regions of northern Ghana (NR, UER & UWR).

- Demo fields established alongside the CSP fields, to serve as training grounds showcase technologies:
  - quality seed of improved cowpea varieties,
  - integrated pest management,
  - appropriate crop management practices

Supervision: SARI & SID of MoFA
Approaches Cont’d

Promotion and sustainability

- MSPs- to create synergies for diagnosing problems and to deploy best-bet solutions.

- Seed revolving system - CBOs returned 1.5 times the seed received to the MSP at the community level.

- The mass media (Radio) – to create awareness of the scheme and availability of improved (seed and non-seed) technologies

- Farmer exchange visits- platform for sharing ideas and knowledge
Sustaining / Popularizing the scheme:

Country Coordinator, Dr I.D.K. Atokple with the Media in Bolga, UE/R

MSP experts from IITA Benin, interacting with stakeholders

Participants in an exchange visit in Nadowli UW/R
Les méthodes de lutte demandent trop

1. Resistant host cultivars
2. Intercrop host/non-host
3. Rotation non-host
4. Organic amendments
5. Weedling
6. Fertiliser
7. Deep sowing
8. Delayed sowing
9. Herbicide-coated crop seed
10. Herbicides
11. Biological control
12. Prevention

Integrated Striga Management

Farmer
Farmer
Farmer
Farmer
Farmer
Farmer
Farmer
Farmer
Farmer
Farmer

Seed Company
Heritage Seed Company
# Results

## Table 1: Certified seed production (MT) by CBOs, 2015

<table>
<thead>
<tr>
<th>Partners</th>
<th>Area (ha)</th>
<th>Yield (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoFAs (NR, UER &amp; UWR)</td>
<td>18.2</td>
<td>20.3</td>
</tr>
<tr>
<td>SeedPAG</td>
<td>14.4</td>
<td>16.10</td>
</tr>
<tr>
<td>3. TL III</td>
<td>5</td>
<td>1.030</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37.6</strong></td>
<td><strong>37.43</strong></td>
</tr>
</tbody>
</table>
Results Cont’d

Table 2: Gender segregation of CBOs engaged in community seed production in N/G, 2015

<table>
<thead>
<tr>
<th>Partners</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoFA (NR,UER &amp; UWR)</td>
<td>1,342</td>
<td>1,513</td>
<td>2,855</td>
</tr>
<tr>
<td>SeedPAG</td>
<td>421</td>
<td>454</td>
<td>875</td>
</tr>
<tr>
<td>TL III</td>
<td>60</td>
<td>51</td>
<td>111</td>
</tr>
<tr>
<td>Total</td>
<td>1,823</td>
<td>2,018</td>
<td>3,841</td>
</tr>
</tbody>
</table>
Results Cont’d

- The scheme improved access to 37.43Mt (Table 1) of certified seed for 3,841 smallholder farmers of which 2,018 were women (Table 2).

- 3,841 CBO members benefitted from the improved cowpea seed production technologies.

- The seeds recovered (process is still on-going) will be supplied to other CBOs during the 2016 cropping season to increase the number of CBOs and area under cowpea cultivation.
Conclusions

- The CSP scheme has made remarkable progress in increasing farmers' access to quality seed of improved cowpea varieties.

- The scheme has supported the promotion of technology exchange and transfer within farm communities.

- The improved cowpea production technologies have a great potential to increase productivity and thus scale out cowpea production within northern Ghana.
Acknowledgement

• USAID – FUNDING
• IITA-Co-ordination
• All partners:
  – SARI
  – TL III
  – SeedPAG
  – MoFA
  – CBOs
Thank You