Market-led Interventions for Seed Security Response in Emergencies

SUPPORTING SEED SYSTEMS FOR DEVELOPMENT

July 1, 2020
Julie March, Division Chief for Production Systems, USAID Bureau for Resilience and Food Security

Julie is the Division Chief for Production Systems, in the Center for Agriculture-Led Growth at the USAID Bureau for Resilience and Food Security. For the last 18 years, Julie has used her focus on ecology and agriculture to support humanitarian work with the Office of U.S. Foreign Disaster Assistance (OFDA) and the Office of Food For Peace. As a technical advisor, Team leader and Division director with OFDA, Julie has covered a global portfolio of food security, agriculture and livelihood programs. Her greatest technical contributions to humanitarian practice have revolved around seed system work. An ecologist by training, her specific technical interests are on smallholder farming systems. Julie received her PhD in Ecology from the University of Georgia, Institute of Ecology, where she spent several years researching environmental impacts of the landless farmers movement in Brazil. Prior to joining USAID, Julie worked with USAID through the Sustainable Agriculture Natural Resource Management (SANREM) CRSP.
Jean Claude Rubyogo, Director, Pan Africa Bean Research Alliance (PABRA)

Jean Claude Rubyogo is the Leader of the Bean Programme and Director of PABRA at the Alliance of Bioversity International and the International Center for Tropical Agriculture (ABC). For more than 30 years, he has focused on impactful seed systems research and development, technology delivery systems, and commercialization of bean research products. For the last 20 years, he has been the PABRA seed systems specialist and has led multi-country public-private partnership initiatives and multi-disciplinary teams developing and deploying sustainable and impact-oriented bean seed systems and complementary management in several member countries of the Pan Africa Bean Research Alliance (see http://www.pabra-africa.org).
Stephen Walsh, Agricultural Advisor, USAID Bureau for Humanitarian Affairs

Stephen Walsh is an agriculture advisor with USAID Bureau for Humanitarian Affairs, formerly Office of Foreign Disaster Assistance (OFDA). He has been privileged to work collaboratively with research and development colleagues at national and local levels to develop and implement, research, and advise on impact-oriented seed systems—for both true seed and vegetative propagated crops—for smallholder farmers in more than a dozen countries in sub-Saharan Africa. His seed system interest areas include how to build more responsive demand-driven seed systems, promoting private sector engagement with an emphasis on small and informal sector actors, and strengthening the analytic tools and capacity of practitioners to better understand and design seed systems interventions.
Jules Keane, Independent Consultant

Jules Keane is an independent consultant with over 20 years’ experience in international development in both Africa and Asia. Having fulfilled operational, management, and technical roles, she brings a systems-thinking approach to all her endeavors. She has led, managed and advised food security projects, including both cash transfer and seed security projects. She is particularly interested in applying market-based approaches in humanitarian contexts and resilience-focused programming initiatives. She earned a Master’s in Science in International Agricultural Development from University of California-Davis and a Bachelor of Arts in Anthropology from Stanford University.
Kate Longley, Senior Technical Advisor, Feed the Future Supporting Seed Systems for Development (S34D) Activity

Kate Longley currently leads the Humanitarian Aid and Resilience portfolio within the Supporting Seed Systems for Development (S34D) Activity. S34D is a five-year Leader with Associates Award, funded by the Feed the Future initiative through the Bureau for Resilience and Food Security and by USAID through the Office of Foreign Disaster Assistance (OFDA). S34D seeks to improve the capacity, collaboration and coordination of formal, informal and emergency seed sectors for improved functioning of national seed systems in focal countries. Kate Longley is a rural livelihoods and food security expert with over 25 years’ experience of research and development in both humanitarian and development contexts.
Feed the Future Global Supporting Seed Systems for Development (S34D)

July 2020
SUPPORTING SEED SYSTEMS FOR DEVELOPMENT (S34D)

- **Life of Activity**: 2018 – 2023
- **LWA**: options for Missions’ buy-ins
- **Sponsors**: Feed the Future through RFS and USAID through BHA/OFDA
- **Consortium**: Catholic Relief Services, ABC/PABRA, IFDC, Opportunity International, Purdue University, Agri-Experience
- **Service Providers**: Dimagi, Kuza, New Markets Lab
- **Geography**: Global—responding to any USAID Mission’s request
S34D Consortium Partners
The Alliance of Bioversity International and CIAT (ABC) is a member of the CGIAR Consortium and has a focus on six research areas:

- Food Environments and Consumer Behavior
- Multifunctional Landscapes
- Climate Action
- Biodiversity for Food and Agriculture
- Digital Inclusion and;
- Crops for Nutrition and Health - Host of the Bean Programme

PABRA is a consortium of three regional bean networks consisting of NARS and value bean chain actors from 31 countries and number of donors. PABRA focuses on improving bean productivity, utilization and commercialization for the benefits of the urban and rural poor.
PABRA’s FOCUS ON SEED SYSTEMS

Developing seed systems

Partnerships for scaling up

Research for ‘best bets’ in seed production and delivery

Development of resource materials

Shaping seed policy for wider impact and lower farmer risk

Seed systems under stress
Background on Seed Aid

- Seed is a key input in agricultural development and recovery.
- 100s of millions of USD spent on seed emergency per year.
- Emergency seed interventions are widespread and more often repetitive.
- Poor seed aid can do real harm to smallholder farmer.
- Repetitive seed aid → dependency; at the expense of developing sustainable local markets.

How do we minimize disappointment?
Two studies provide insights into market-led seed aid programming

SUPPLY SIDE:
Review of Practice and Possibilities for Market-led Interventions in Emergency Seed Security Response - Stephen Walsh and Louise Sperling

DEMAND SIDE:
Study on cash transfers for seed security in humanitarian settings - Jules Keane, Dina Brick and Louise Sperling
Review of Practice and Possibilities for Market-led Interventions in Emergency Seed Security Response

Purpose:
1. Review and categorize past experience.
2. Identify and move best practices forward.

Methodology:
a) Develop conceptual framework
b) Identification and review of case studies
c) Characterize the cases and market strategies.
Seed Aid has increased exponentially

### FAO ‘SEED’ Funds: Emergency and Early Rehabilitation Programs

- **1996-7**  
  US$ 51 million

- **2002-3**  
  US$ 349 million

- **2003-5**  
  400 projects

- **2008-2010**  
  Seed aid plans for 48 countries

- **2011**  
  Special relief funds 744.5 million

*Sperling, Osborn and Cooper, 2004, Sperling and McGuire, 2010*
Where do farmers get their seed?

McGuire & Sperling (2016)
Seed Markets

Open Markets

Types of seed sold: Cereals, legumes…

Agro-dealers/seed companies

Types of seed sold: Maize, vegetables…
Key features of Conceptual Framework

1. Demand-side (client based) and Supply-side (market based)

2. Formal Sector and Informal Sector

3. Two-Way Information Systems

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### Characterizing market-based seed interventions tied to specific seed security problems

<table>
<thead>
<tr>
<th>Seed Security parameter</th>
<th>Client-based (farmer) intervention</th>
<th>Market-based intervention (supply)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Availability</strong></td>
<td>Link farmers to sources of stress tolerant crops and varieties (may give cash?)</td>
<td>Transport vouchers/cash to traders (to move supplies to remote areas—both availability and access)</td>
</tr>
<tr>
<td></td>
<td>Cross-cuts with variety quality and information systems)</td>
<td>Advocacy for relaxed quality restrictions—allowing for more supplies</td>
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<tr>
<td><strong>Access</strong></td>
<td>Conditional cash</td>
<td>Institutional purchases from companies</td>
</tr>
<tr>
<td></td>
<td>Unconditional cash</td>
<td>Capital advances to traders/loans;</td>
</tr>
<tr>
<td></td>
<td>Cash plus Vouchers</td>
<td>Debt relief for traders?</td>
</tr>
<tr>
<td></td>
<td>Conditional seed (seed for work?)</td>
<td>Digital payment to traders (access and availability)</td>
</tr>
<tr>
<td></td>
<td>Client transport subsidies</td>
<td>Capital advances/loans</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td>Cash for storage purchases/improvements</td>
<td>Work with traders to improve seed (and grain) storage facilities e.g., training on quality parameters for seed and grain storage; encourage use of seed/ grain moisture meters and hermetic storage containers (PICS).</td>
</tr>
<tr>
<td><strong>Seed Health</strong></td>
<td>Cash tied to agro-dealers (for crops/varieties farmers know)</td>
<td>Work with traders to move new varieties (linked to information systems) (skill enhancement)</td>
</tr>
<tr>
<td><strong>Crop, Variety, Quality</strong></td>
<td>Cash tied to agro-dealers (for crops/varieties new/introduced).</td>
<td>Work with traders to distinguish among varieties—and to keep stocks separate (skill enhancement)</td>
</tr>
<tr>
<td></td>
<td>Cash tied to improvements such as seed dressing.</td>
<td></td>
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<tr>
<td></td>
<td>Reduce barriers to new variety access, multiplication, certification, marketing, finance, etc</td>
<td></td>
</tr>
<tr>
<td><strong>Information o-way information systems</strong></td>
<td>Cash plus in kind info. Scratch cards/ digital vouchers to facilitate tracing purchase data. More use of product (crop and variety) profiles for farmers, researchers, and seed companies.</td>
<td>Information systems to help farmers learn about stress-tolerant varieties/crops (cash for radio announcements/SMS)</td>
</tr>
<tr>
<td><strong>Information to farmers</strong></td>
<td></td>
<td>Information systems to train traders.</td>
</tr>
<tr>
<td><strong>Feedback from farmers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country &amp; Crop</td>
<td>Context</td>
<td>Key Intervention Features</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Rwanda – sweet potato</td>
<td>Emergency distribution due to recurrent drought</td>
<td>Centralized GOR led tender process.</td>
</tr>
<tr>
<td>Zambia – legumes.</td>
<td>Chronic seed insecurity.</td>
<td>Single buyer conditions and sells to GOZ, no local sales.</td>
</tr>
<tr>
<td>Ethiopia – sweet potato, potato</td>
<td>Drought since 2015, diversification out of cereals.</td>
<td>QDS seed procured through a project managed centralized and transparent bidding process.</td>
</tr>
<tr>
<td>DRC – common beans, maize</td>
<td>Emergency response due to conflict.</td>
<td>Seed fairs with pre-qualified vendors / project supported seed producers; limited crop and varietal diversity.</td>
</tr>
<tr>
<td>Afghanistan - wheat</td>
<td>Re-establish wheat seed system infrastructure after war.</td>
<td>Screening for UG-99 / wheat rust resistance; seed enterprise grants, main seed buyers were projects.</td>
</tr>
<tr>
<td>Uganda – sweet potato</td>
<td>Chronic seed insecurity due to long dry season., periodic insecurity.</td>
<td>Mapping existing seed sector and analysis of producers, traders, transporters, and buyers.</td>
</tr>
<tr>
<td>Niger - millet</td>
<td>Chronic stress, dating to 2012/2013 Sahel crisis and 2017</td>
<td>Community based seed production – seed producers within a cooperative with linkages to national breeders.</td>
</tr>
<tr>
<td>Uganda – legumes, cereal</td>
<td>Chronic stress, drought / conflict / displacement.</td>
<td>Credit provision to seed producers and agro-dealers; voucher / scratch cards with 50% subsidy.</td>
</tr>
<tr>
<td>Kenya - legumes</td>
<td>Chronic stress, climate smart agriculture</td>
<td>Small packs; sales through agro-dealers who carry out demonstrations and field days to market seed.</td>
</tr>
<tr>
<td>Uganda - legumes</td>
<td>Chronic stress, bio-fortified legumes</td>
<td>Small packs; decentralized seed producer groups.</td>
</tr>
</tbody>
</table>
### Mapping the Case Studies

1. Near exclusive use of modern varieties for all crops
2. No case involved active engagement with informal seed sector
3. Most cases promoted subsidized multiplication with free or deeply discounted seed
4. Two cases emphasized packaging as key design feature
5. No case had two way information sharing as pivotal design point

#### Market-based Seed Interventions in the Ten Supply-Side Cases Reviewed

<table>
<thead>
<tr>
<th>Seed Security parameter</th>
<th>Market-based intervention (supply)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Formal seed sector</td>
</tr>
<tr>
<td>Availability</td>
<td>#1 Rwanda- govt purchase for free distribution</td>
</tr>
<tr>
<td></td>
<td>#2 Zambia- govt purchase for input programs</td>
</tr>
<tr>
<td></td>
<td>#3 Ethiopia-govt purchase for free distribution</td>
</tr>
<tr>
<td></td>
<td>#4 DRC Gathering of certified seed traders-for fairs</td>
</tr>
<tr>
<td></td>
<td>#5 Afghan-Focus on establishing private sector supply—companies- and multiplication/testing</td>
</tr>
<tr>
<td></td>
<td>#8 Uganda- credit to agro-dealers (to increase stocks of certified seed)</td>
</tr>
<tr>
<td></td>
<td>#7 Niger- Cooperatives (example of an integrated sector) focus on multiplication and sale to union members</td>
</tr>
<tr>
<td>Access</td>
<td>#9 Uganda focus on promoting small packs – legumes (drought areas)</td>
</tr>
<tr>
<td></td>
<td>#10 Kenya- focus on promoting small packs (last mile)</td>
</tr>
<tr>
<td>Quality</td>
<td>(most had some government inspections.)</td>
</tr>
<tr>
<td></td>
<td>#1 Rwanda-govt focus Orange Fleshed Sweet Potato</td>
</tr>
<tr>
<td></td>
<td>#2 Zambia- govt focus legumes (expand from maize)</td>
</tr>
<tr>
<td></td>
<td>#5 Afghan- focus on modern variety promotion</td>
</tr>
<tr>
<td></td>
<td>#7 Niger- focus on modern varieties (with technical package)</td>
</tr>
<tr>
<td></td>
<td>#10 Uganda- focus on biofortified varieties</td>
</tr>
</tbody>
</table>

#### Note:
- Case #6 on Northern Uganda was a study only that later influenced intervention design in Uganda and Tanzania.
Key Findings

1. Most cases involved restricting market access to project supported or approved suppliers & seed.

2. No explicit and documented ex-ante seed system analysis.

3. All interventions in the formal seed sector, despite being a minor seed source for farmers.

4. Weak feedback mechanisms from farmers / buyers to seed producers / vendors.

5. Practical documentation of what worked / what did not work, not easy to decipher in project reports and evaluations.
Enabling Features for Market Led Interventions in Emergency and Chronic Stress Environments:

1. Understand local market functioning in both formal and informal markets

2. Focus on seed market demand and developing a conscious market strategy to sell seed based on male and female farmer demand

3. Promote clear and simple gender-sensitive feedback loops from the seed buyer to the seed producer and the seed trader

4. Encourage market pluralism – more not less participants (trader, seed vendors, seed producers) and expanded crop and varietal diversity—adapted to stresses faced by farmers

5. Devise clear strategies that link relief to development and build on existing seed sector actors
Thank you!

https://pdf.usaid.gov/pdf_docs/PA00WPBN.pdf
Study on Cash Transfers for Seed Security in Humanitarian Settings
Summary: Cash Transfers for Seed Security

- Explored barriers/opportunities for cash transfers for seed security
- Guided by multi-agency ‘Thinking group’
- Reviewed examples from Iraq, Ethiopia, Nigeria, Uganda, Zambia, Zimbabwe, Malawi, Madagascar, and Guatemala
- Dynamic and evolving evidence base
- Advocate for multi-stakeholder perspective on seed quality
- Expand range of options for farmers based on context (i.e. not always cash, not always direct distribution)
Key Findings: Cash Transfers for Seed Security

1. **Seed System Security Assessment (SSSA)** — and include both informal and formal seed markets

2. **Response analysis + effective program design** = farmers spending cash as expected

3. **Program participants’ preferences on modalities** not consistently analyzed, can be complex

4. **Mixed modalities** (e.g. cash and vouchers, or cash and DSD) can broaden crop choices.
Key Findings: Cash Transfers for Seed Security

5. Seed quality important to all

6. Cash for seed security interventions limited, but increasing

7. Cash plus complementary support

*Information to farmers on varieties, how to manage them, etc.*

*Training/ technical support on essential skills (agricultural/business)*
Key Findings: Cash Transfers for Seed Security

8. **Nexus between relief and development:**
   Cash → true market engagement post-relief → spur business development in subsequent seasons; financial inclusion?

9. Support **supply side** to bring quality seed markets “closer” to project participants

10. Investment in **preparedness** for effective cash for seed security response.
Perspectives on Quality

Who decides what quality is acceptable?

- varietal quality: e.g. yield potential
- health quality: e.g. disease free

Multi-stakeholder perspective on the quality of seed, flexibility and choice for farmers
Insights from Other Sectors


• Sector-specific cash transfer projects issues:
  – limited evidence base
  – concerns about quality,
  – concerns about participants prioritizing other needs besides sectoral-specific outcomes

• Need to build the evidence base for sectoral outcomes
Market-led Interventions for Seed Security Response in Emergencies:

KEY MESSAGES
Key Messages

• Better understand informal and formal seed markets
• Conduct response analysis
• Learn from market-based seed security interventions
Understand informal and formal seed markets

• Use existing tools, e.g.
  – Seed System Security Assessment (SSSA)
  – Emergency Market Mapping and Analysis (EMMA) Toolkit

• Pay particular attention to informal seed markets and informal traders
  – 50% of seed planted by smallholders comes from informal markets*
  – Less than 3% comes from formal seed markets*

Response Analysis

• Consider the full range of response options, including informal market engagement
• Consider mixed modalities in combination
• Analyze the likely impacts of various intervention choices
• Ensure that proposed interventions do not have negative impacts
Document and learn from market-based seed security interventions in emergencies

- Design, pilot and learn from new interventions
- Seek out and document innovative approaches
- Share lessons

We’d like to hear about your experiences!
Email: S34D@crs.org