



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

Market-led Interventions for Seed Security Response in Emergencies

SUPPORTING SEED SYSTEMS FOR DEVELOPMENT

July 1, 2020

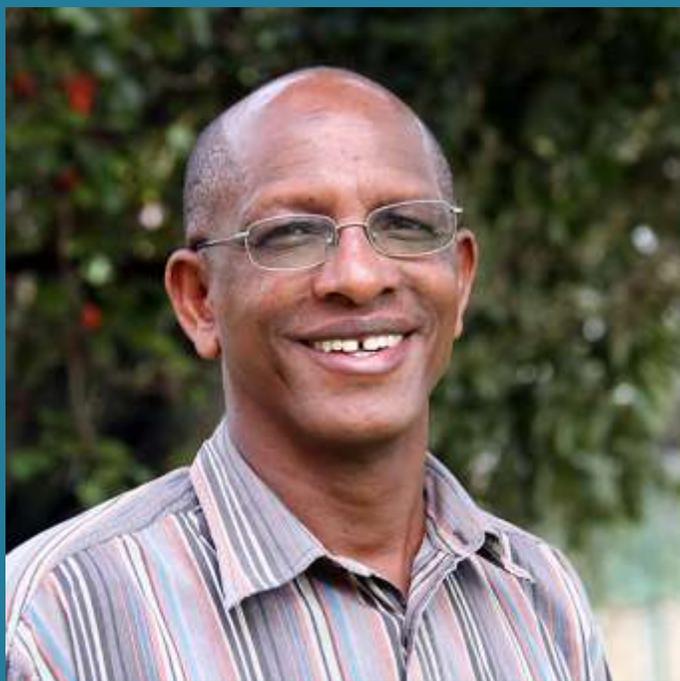


Julie March, Division Chief for Production Systems, USAID Bureau for Resilience and Food Security



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



About ABC-PABRA

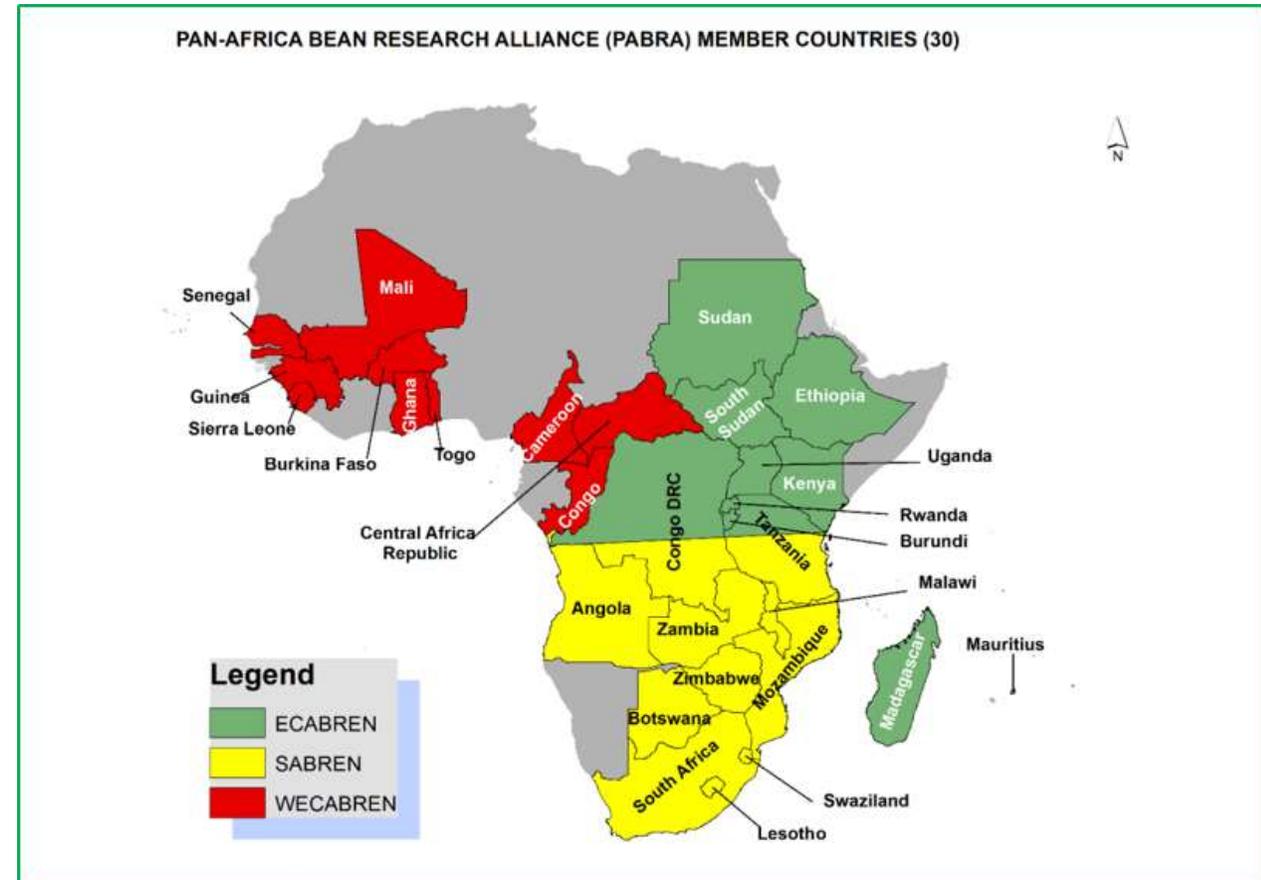
The Alliance of Bioversity International and CIAT (ABC)

– 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.

The Pan African Bean Research Alliance (PABRA)



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

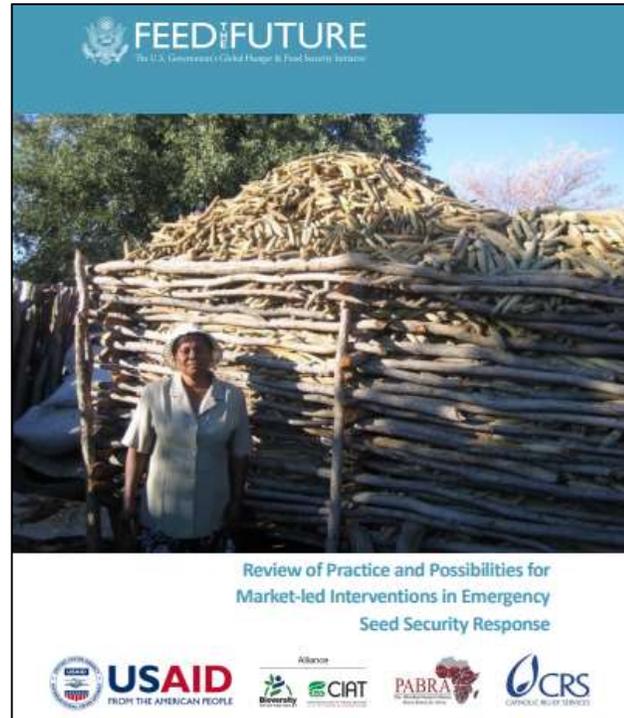
How do we minimize disappointment?



Two studies provide insights into market-led seed aid programming

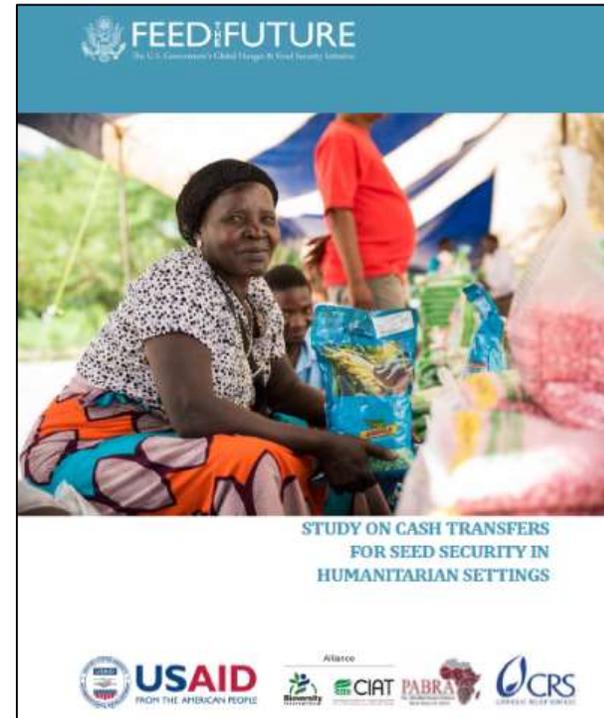
SUPPLY SIDE:

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

Walsh, Stephen and Louise Sperling. 2019. Review of practice and possibilities for market-led interventions in Emergency Seed Security Response. A Feed the Future Global Supporting Seed Systems for Development activity (S34D) report.



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.**

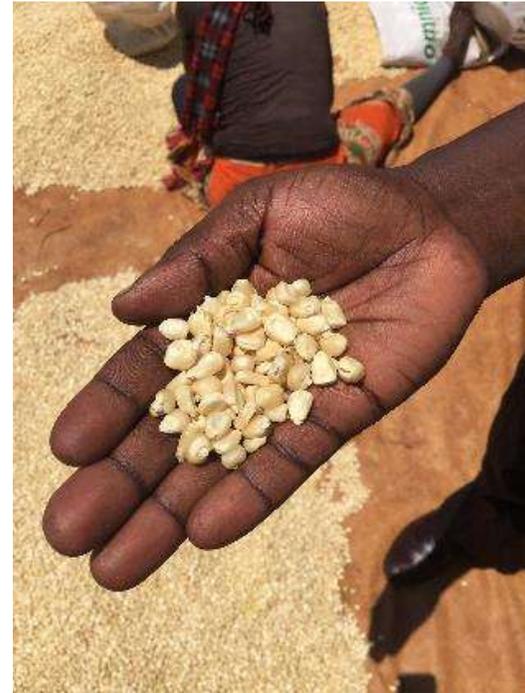
Seed Aid has increased exponentially

FAO 'SEED' Funds: Emergency and Early Rehabilitation programs

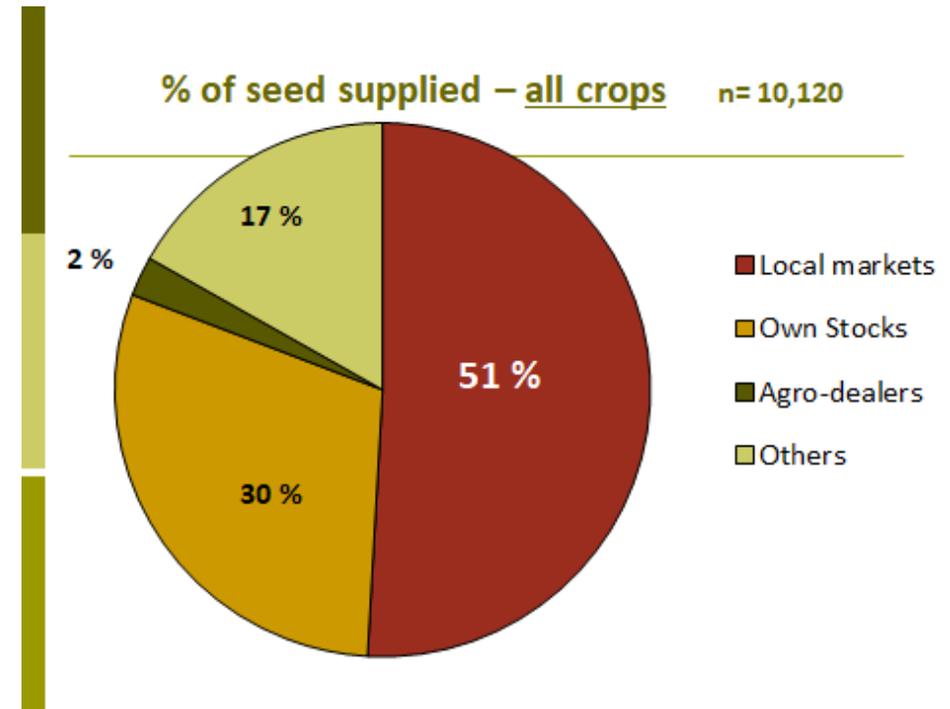
- 1996-7 US\$ 51 million
- 2002-3 US\$ 349 million
-
- 2003-5 400 projects
- 2008-2010 Seed aid plans for 48 countries

- 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)

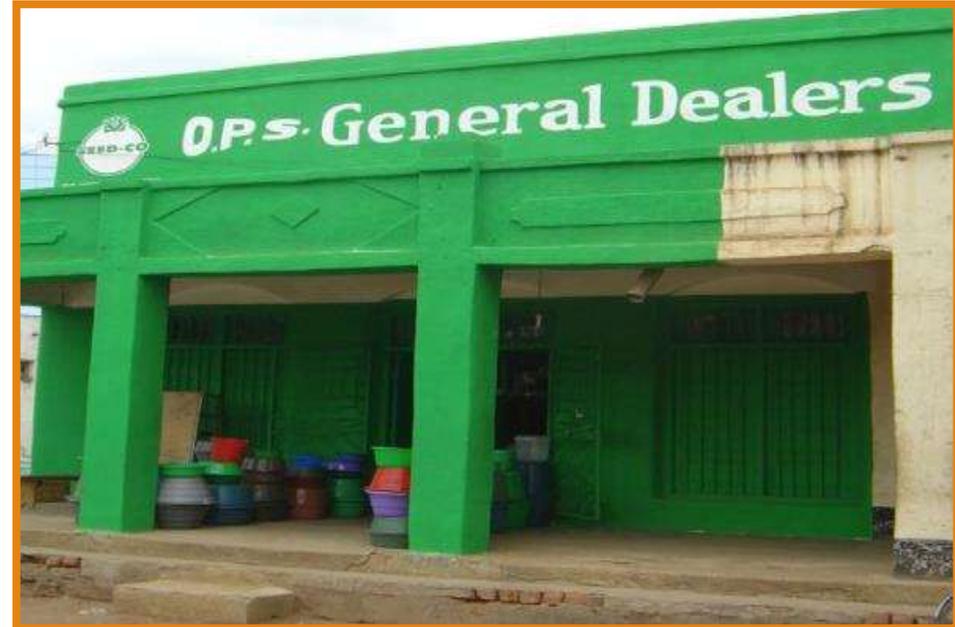
Seed Markets

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

Characterizing market-based seed interventions tied to specific seed security problems¹

Seed Security parameter	Client-based (farmer) intervention	Market-based intervention (supply)	
		Formal sector	Informal seed sector
Availability	Link farmers to sources of stress tolerant crops and varieties (may give cash?) Cross-cuts with variety quality and information systems)	Transport vouchers/cash to traders (to move supplies to remote areas-- both availability and access) Institutional purchases from companies	Transport vouchers/cash to traders (to move supplies to remote areas—both availability and access) Advocacy for relaxed quality restrictions--allowing for more supplies Capital advances to traders/loans;
Access	Conditional cash Unconditional cash Cash plus Vouchers Conditional seed (seed for work?) Client transport subsidies	Transport vouchers to formal sellers (to move supplies to remote areas-- under both availability and access) Incentives to companies to pack small (reduce price)	Transport vouchers to traders (to move supplies to remote areas-- both availability and access) Digital payment to traders (access and availability) Debt relief for traders? Capital advances/loans
Quality Seed Health	Cash for storage purchases/improvements Cash tied to agro-dealers (for crops/varieties farmers know)		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).
Crop, Variety, Quality	Cash tied to agro-dealers (for crops/varieties new/introduced). Cash tied to improvements such as seed dressing. Reduce barriers to new variety access, multiplication, certification, marketing, finance, etc		Work with traders to move new varieties (linked to information systems) (skill enhancement) Work with traders to distinguish among varieties—and to keep stocks separate (skill enhancement)
Information o-way information systems Information to farmers Feedback from farmers	Cash plus in kind info. Scratch cards/ digital vouchers to facilitate tracking purchase data. More use of product (crop and variety) profiles for farmers, researchers. and seed companies.		Information systems to help farmers learn about stress-tolerant varieties/ crops (cash for radio announcements/SMS) Information systems to train traders.

10 Case Studies

- Eight Countries
- Cereals and VPC's
- Seed Availability

Country & Crop	Context	Key Intervention Features
Rwanda – sweet potato	Emergency distribution due to recurrent drought	Centralized GOR led tender process.
Zambia – legumes.	Chronic seed insecurity.	Single buyer conditions and sells to GOZ, no local sales.
Ethiopia – sweet potato, potato	Drought since 2015, diversification out of cereals..	QDS seed procured through a project managed centralized and transparent bidding process.
DRC – common beans, maize	Emergency response due to conflict.	Seed fairs with pre-qualified vendors / project supported seed producers; limited crop and varietal diversity.
Afghanistan - wheat	Re-establish wheat seed system infrastructure after war.	Screening for UG-99 / wheat rust resistance; seed enterprise grants, main seed buyers were projects.
Uganda – sweet potato	Chronic seed insecurity due to long dry season., periodic insecurity.	Mapping existing seed sector and analysis of producers, traders, transporters, and buyers.
Niger - millet	Chronic stress, dating to 2012/201313 Sahel crisis and 2017 failed rains.	Community based seed production – seed producers within a cooperative with linkages to national breeders.
Uganda – legumes, cereal	Chronic stress, drought / conflict / displacement.	Credit provision to seed producers and agro-dealers; voucher / scratch cards with 50% subsidy.
Kenya - legumes	Chronic stress, climate smart agriculture	Small packs; sales through agro-dealers who carry out demonstrations and field days to market seed.
Uganda - legumes	Chronic stress, bio-fortified legumes	Small packs; decentralized seed producer groups.

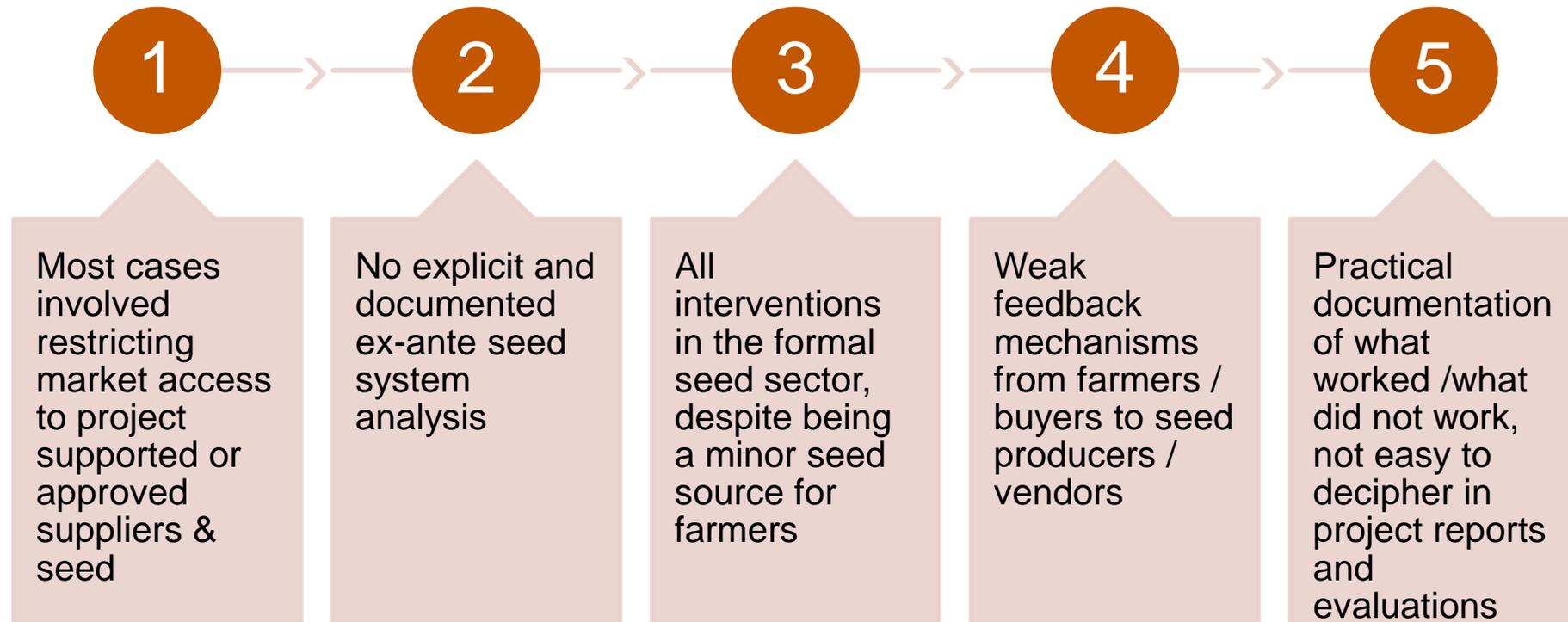
Mapping the Case Studies

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

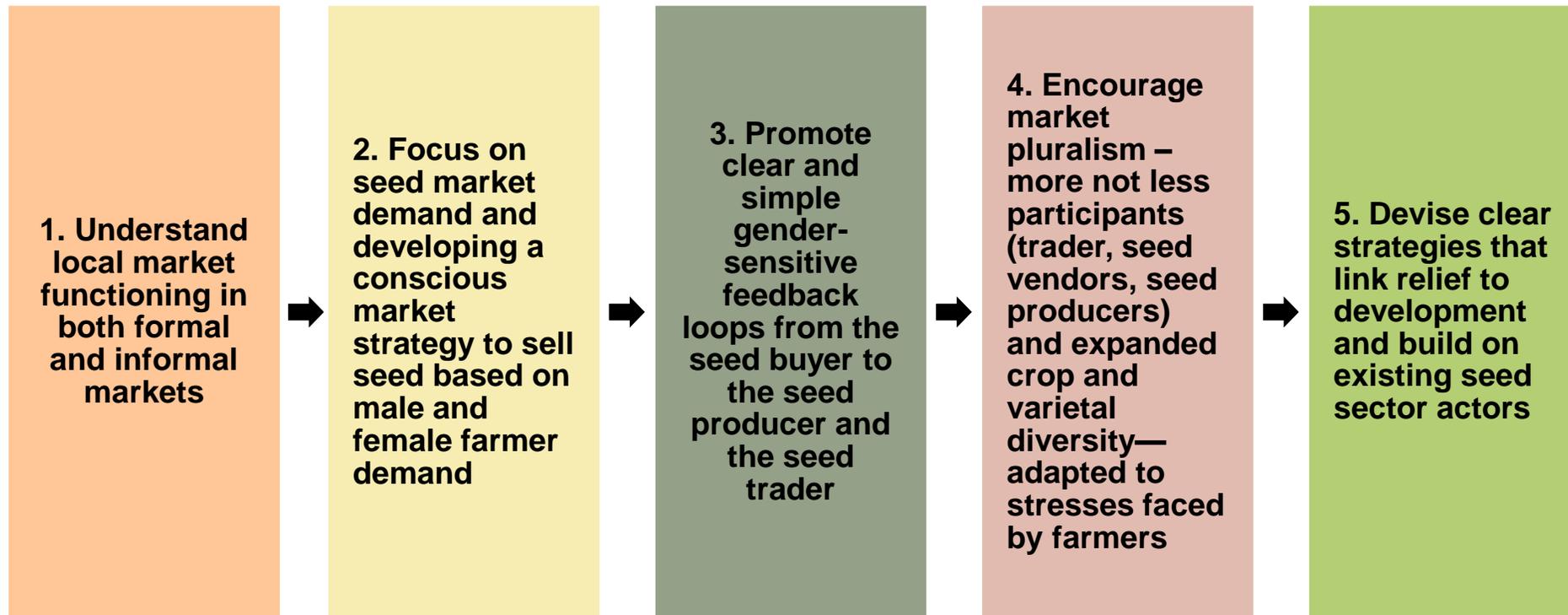
Market-based Seed Interventions in the Ten Supply-Side Cases Reviewed!

Seed Security parameter	Market-based intervention (supply)	
	<i>Formal seed sector</i>	<i>Informal seed sector</i>
Availability	#1 Rwanda- govt purchase for free distribution #2 Zambia- govt purchase for input programs #3 Ethiopia- govt purchase for free distribution #4 DRC Gathering of certified seed traders-for fairs #5 Afghan-Focus on establishing private sector supply—companies- and multiplication/ testing #8 Uganda- credit to agro-dealers (to increase stocks of certified seed)	
	#7 Niger- Cooperatives (example of an integrated sector) focus on multiplication and sale to union members	
Access	#9 Uganda focus on promoting small packs – legumes (drought areas) #10 Kenya- focus on promoting small packs (last mile)	
Quality	(most had some government inspections.)	
<ul style="list-style-type: none"> • Seed Health 		
<ul style="list-style-type: none"> • Crop, Variety, Quality 	#1 Rwanda- govt focus Orange Fleshed Sweet Potato #2 Zambia- govt focus legumes (expand from maize) #5 Afghan- focus on modern variety promotion #7 Niger- focus on modern varieties (with technical package) #10 Uganda- focus on biofortified varieties	
Information	Two-way information sharing was not a pivotal design point for any of the cases.	
Two-way information systems		
<ul style="list-style-type: none"> • Information to farmers • Feedback from farmers 	#8 Uganda – credit to agro-dealers revealed useful information regarding farmer redemption rates—i.e., the demand side.	

Key Findings



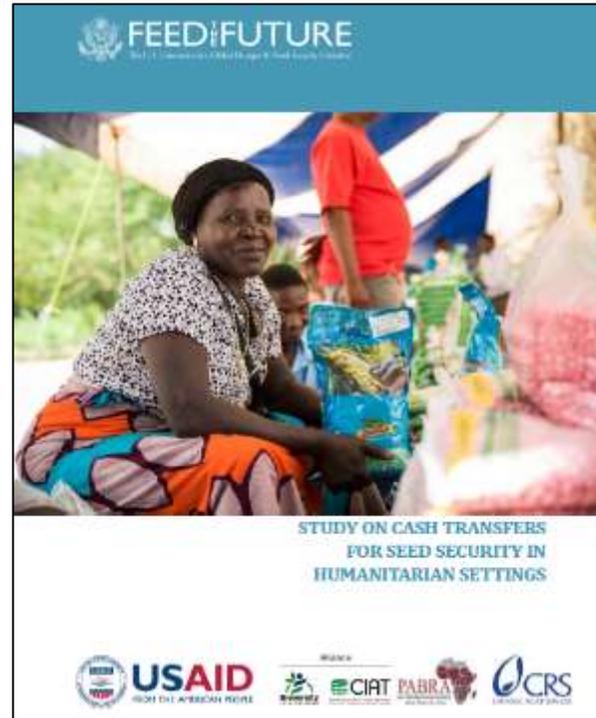
Enabling Features for Market Led Interventions in Emergency and Chronic Stress Environments:



Thank you!



Study on Cash Transfers for Seed Security in Humanitarian Settings



https://pdf.usaid.gov/pdf_docs/PA00WH2D.pdf



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

- See CaLP's 2018 "State of the World's Cash" report <https://www.calpnetwork.org/publication/state-of-the-worlds-cash-report/>
- 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



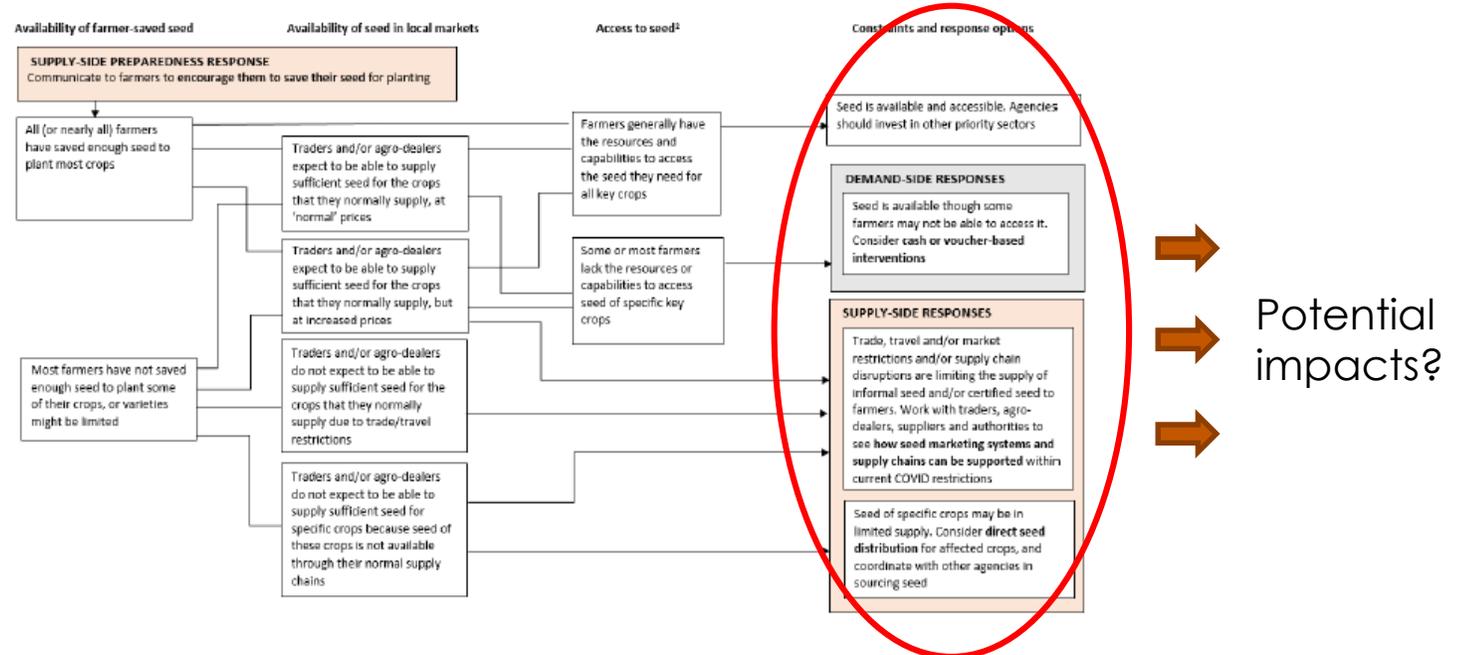
- Use existing tools, e.g.
 - Seed System Security Assessment (SSSA)
 - Emergency Market Mapping and Analysis (EMMA) Toolkit
- Pay particular attention to informal seed markets and informal traders
 - 50% of seed planted by smallholders comes from informal markets*
 - Less than 3% comes from formal seed markets*

* McGuire, S. & Sperling, L. (2016) Seed systems smallholder farmers use. *Food Security* 8, 179–195

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

2. DECISION TREE¹⁰ TO DETERMINE APPROPRIATE RESPONSE OPTIONS BASED ON LOCAL SEED AVAILABILITY AND ACCESS¹¹

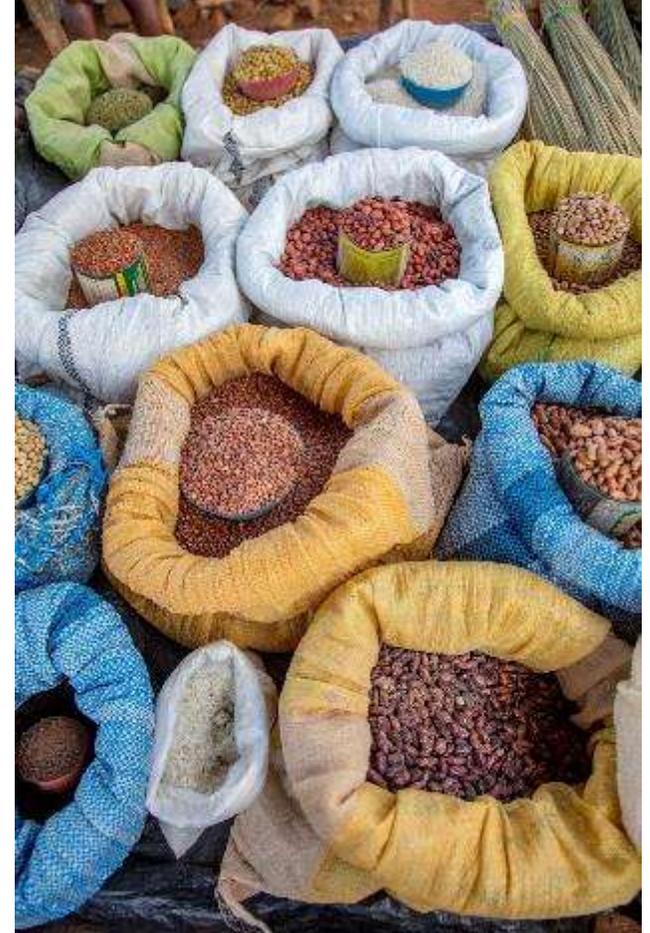


Document and learn from market-based seed security interventions in emergencies

- 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





FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

www.feedthefuture.gov



FEEDTHEFUTURE



FEEDTHEFUTURE