





SCALE Seeds Learning Group for USAID/BHA-funded Programming

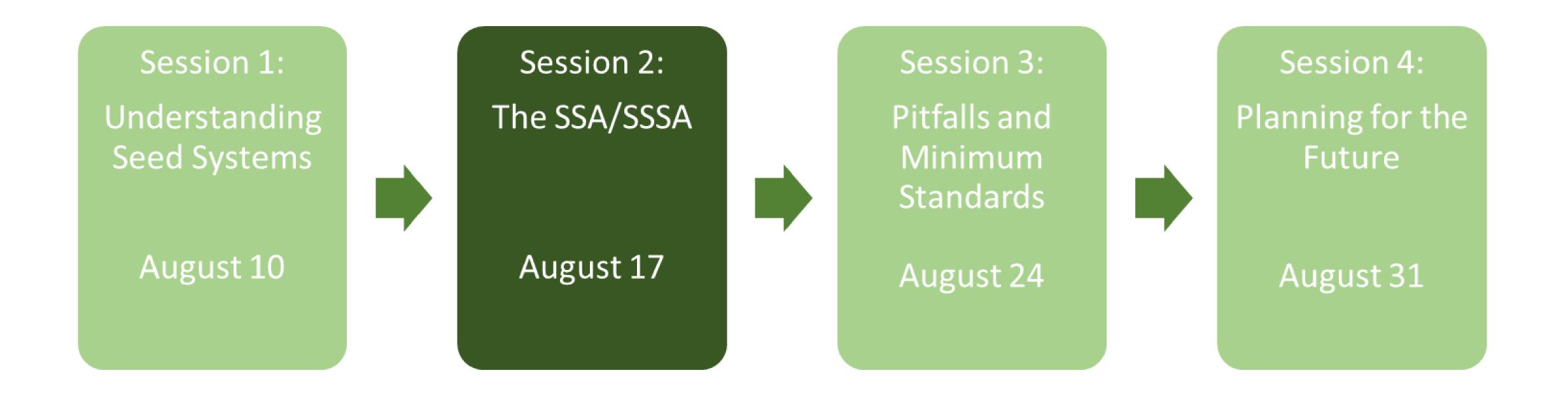
Session Two
August 17, 2022

This Seeds Learning Group is made possible by the generous support of the American people through the United States Agency for International Development (USAID).

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Today: The Seed System Assessment (SSA/SSSA)



Session Two: The Seed System Assessment (SSA)



Today's Agenda

- Introduction to SSA
- 2 Websites introduction
- 3 SSA Content
- 4 Responses
- 5 Resources, post-session task



Comments / Recommendations from Session

Questions / Concerns

Use this box to type questions/concerns throughout the section

A seed is considered a seed when the embryo, endosperm and seed coat is viable although seed health is a key physical parameter used by many rural farmers during seed selection and in the absence of certification process of seeds.

Strengthening and building crops system and technical expertise (both human resources and seeds institutions) is a key fundamental to building a sustainable seed system

Recommendations

We will use this box to collate recommendations for SCALE or USAID for additional support needs, requests, etc. related to seed system programming and SSAs.

I am very interested on further training into seed systems and the SSSA, as I find the idea of implementing one quite daunting! the session was very interesting in that it goes back to the basics of seeds systems which makes it feel like it might be doable after all!

Emergency programs should be explicit (clearly state) their goals. Then, the proposals would indicate the specific design element that will work towards meeting those goals

Seed System Assessments should be written up and shared in the public domain

Introduction to Seed System Assessment (SSA)



Rationale for SSA?



Food issues \(\neq \) Seed issues

 Households can have enough seed to sow a plot, but little to eat

 Households can have adequate food, but lack access to the seed they need to make plots productive

Food insecurity ≠ Seed insecurity



Intervening in seed systems is serious business

- Even short-term interventions can have effects over many seasons
- Repeated seed aid can have 'negative' consequences
 - o Undermines local systems
 - o Creates farmer dependencies
 - o Distorts crop profiles
 - o Destroys real seed business



History of SSA



"Routine" Seed Security Assessment c. 2005

No Assessment

Food Need Assessed =

Seed need assumed

Production (harvest) drops =

Seed need assumed

Lengthy surveys undertaken = decided

Seed need

(before data in and analyzed)



so assumptions, not facts, were shaping response



Frequent assumptions

1. Harvest failure = no seed
 (wrong!)

1. Farm families in stress eat their seed (often wrong)





Assumption 1: Harvest Failure = No Seed Sorghum Seed Basics in Ethiopia

Crop	Miesso (Lowland)	
Surface Area per Household	3/4 ha	
Sowing needs (kg – for area)	11-12	
Harvest/yield (good year)	1600 kg	
% Harvest needed for seed (good year)	0.75 (=12/1600)	
Harvest/yield (bad year)	260 kg	
% Harvest needed for seed (bad year)	4.6 (=12/260)	

Harvest shortfall NOT necessarily equal to seed shortfall



Assumption 2: Farmers' eating seed is a sign of stress (from SERT)

Farmers in Biré, Haiti, eat their entire bean stock year after year. Beans are sown only one season annually and keeping seed for the next year just doesn't make sense. Beans stored for many months often fail to germinate and chemicals for keeping insects away are often unavailable and costly. Besides, the local market can easily provide the bean varieties routinely used.

Eating seed NOT necessarily a sign of stress

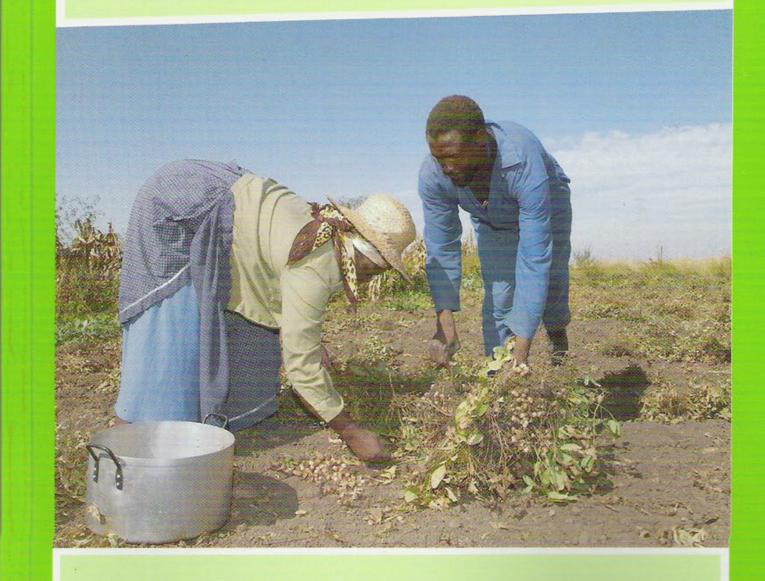


SSA Support

Towards effective and sustainable seed relief activities

FAO PLANT PRODUCTION ND PROTECTION PAPER

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Broad Policy Guidelines (International standards)

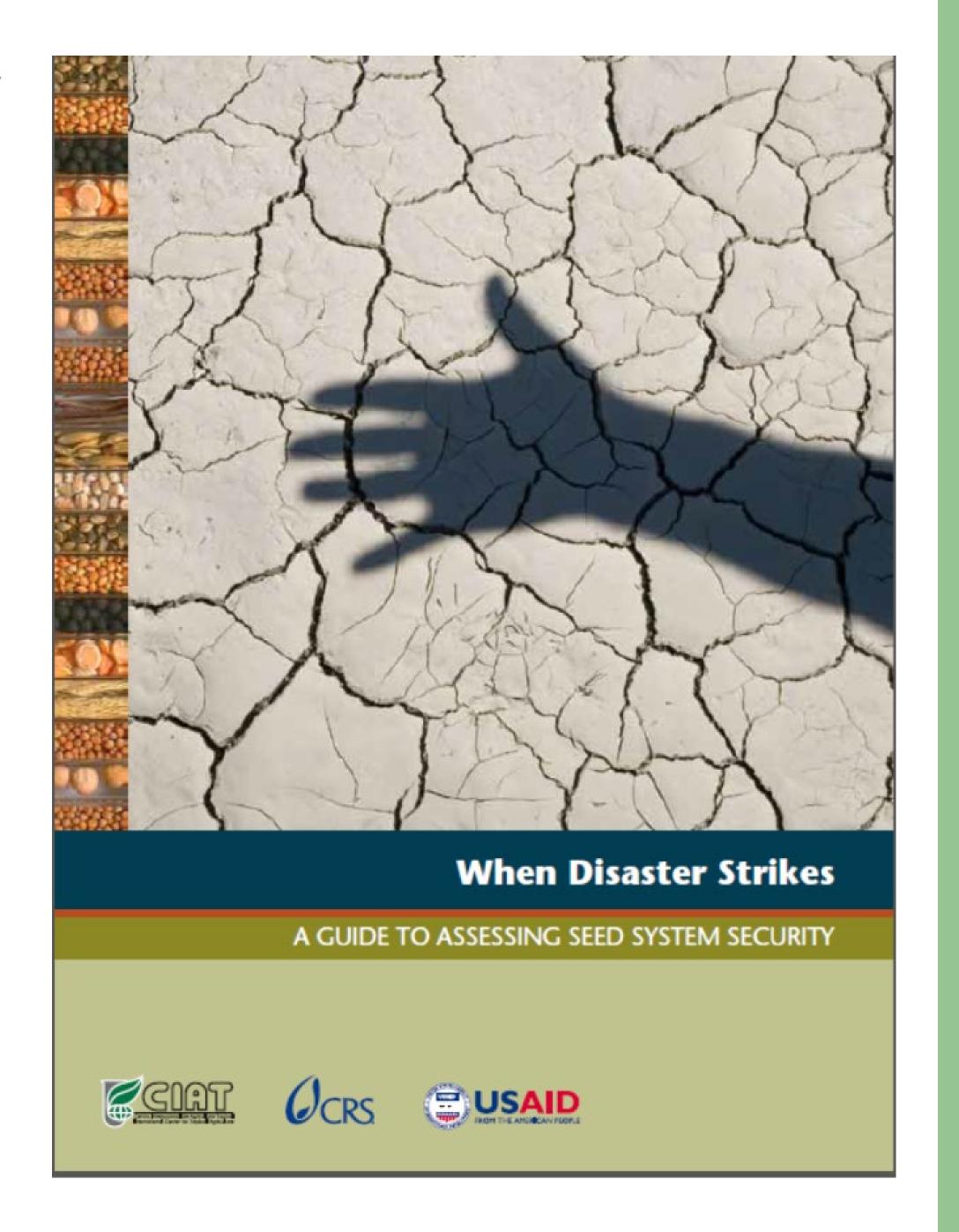
FAO/UN: Basic Principles Guiding Seed Relief (adopted June 2003)

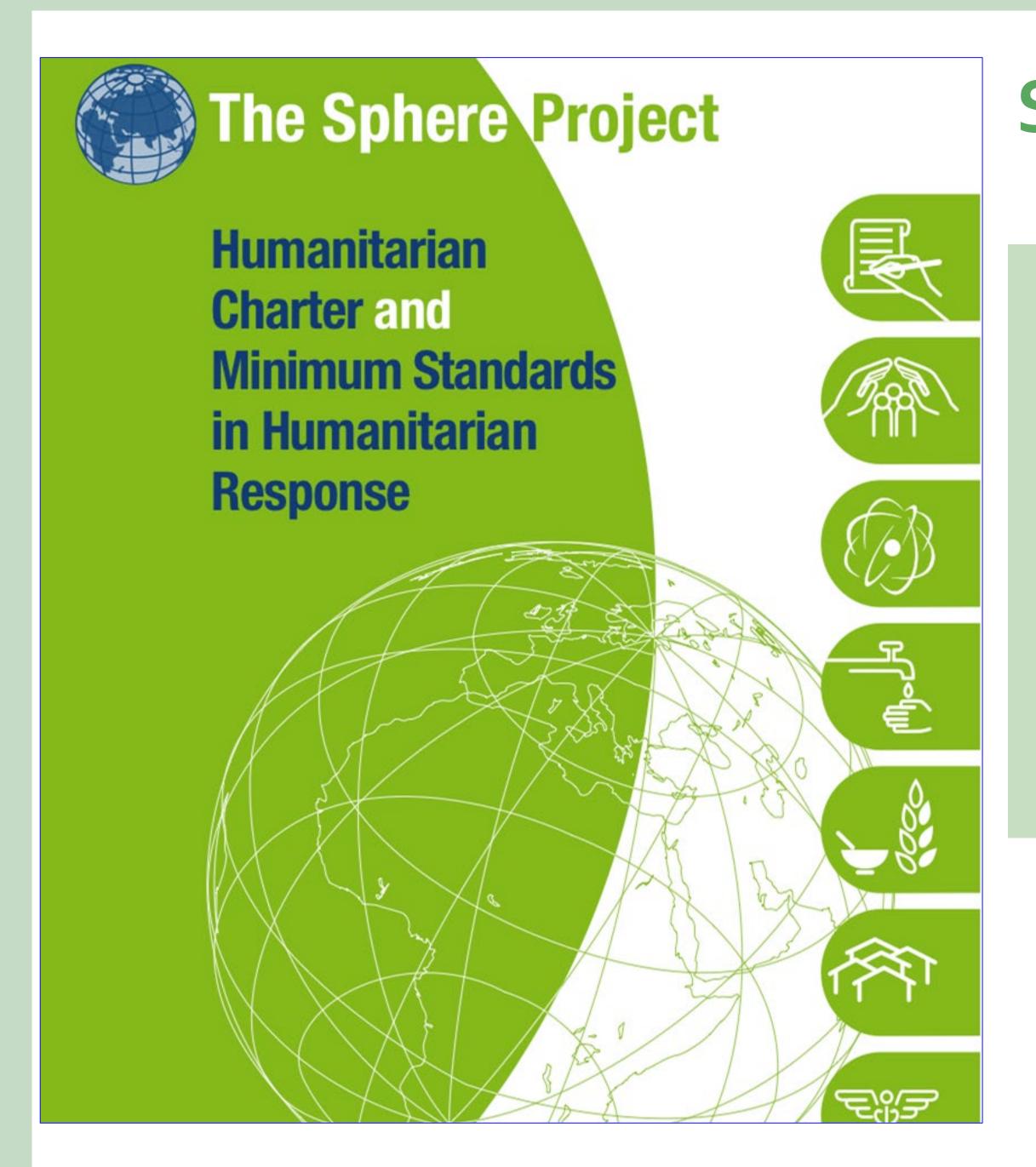
- 1. Seed relief interventions have to be clearly matched to the context e.g. war vs. drought
 O Assessment needed
- 1. Interventions need to build on understanding of local system
- 1. Interventions must facilitate choice by farmers crops, varieties strategies



Guide: Seed System Security Assessment (2008)

- 7-step guide
- Chronic + acute stress
- Development opportunities





Sphere (2011)

 Special seed security assessment checklist



Major Tool Development

SeedSystem - 2006 (ongoing)

https://seedsystem.org/

• FAO – 2016

https://www.fao.org/resilience/resources/resources-detail/en/c/282218/

• S34D - 2021 (ongoing...)

https://drive.google.com/drive/folders/1kwyfzWjsbzFUgvIR2kYckcY1XM-oSmaP?usp=sharing



Vision: Seed System Assessment (SSA)



- NOT calculating seed needs
- Looking at functioning of seed systems
- Assessing if there is problem
- Matching problem to response
 - o Acute problems
 - o Chronic problems
 - o Developmental opportunities



Terminology

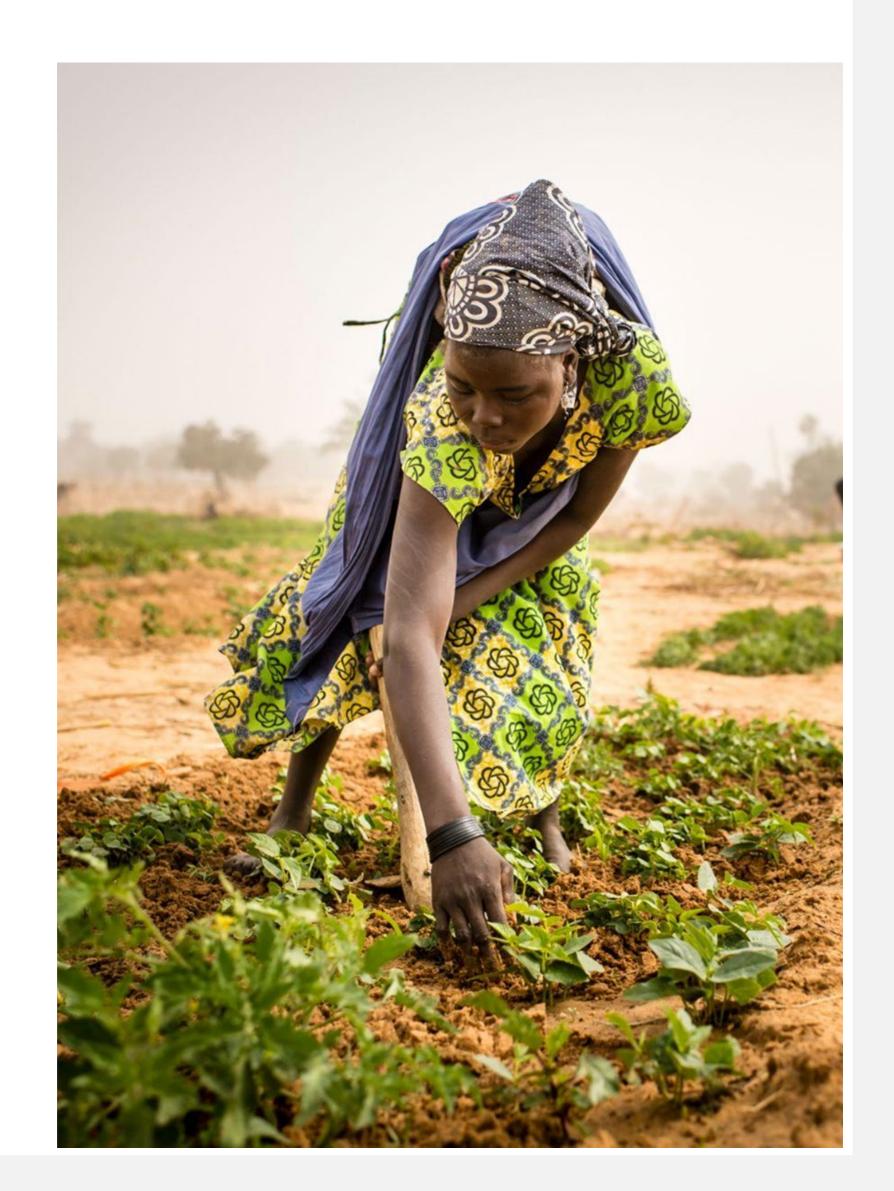
- Seed System Security Assessment (SSSA)
- Seed Security Assessment (SSA)
- Seed System Assessment (SSA)
- Rapid Seed System Security Assessment (RSSSA)

Comments from USAID



Importance of Agriculture and Seed in BHA

- FY 21: 185 agriculture applications inc. 121 with seeds and seedling components totaling \$234.7m
- BHA among the largest donors globally in emergency seed aid.
- BHA expects seed assessments when seed is provided in same location for 3 consecutive seasons.
- Seed AID in terms of total value and # of countries is increasing.
- Close to 2 decades BHA has supported initiatives to improve emergency seed assessment (SSSA) and more recently RSSSA under S34D



Poll time!

Have you yourself ever conducted a Seed System Assessment (SSA)?



Feedback on SSA/SSSA Reports

- 2-3 volunteers
- Share 1-2 key takeaways/reaction from the SSA/SSSA report you read



Websites for SSA (SSSA)



Tool Development

SeedSystem - 2006-ongoing

https://seedsystem.org/

• FAO – 2016

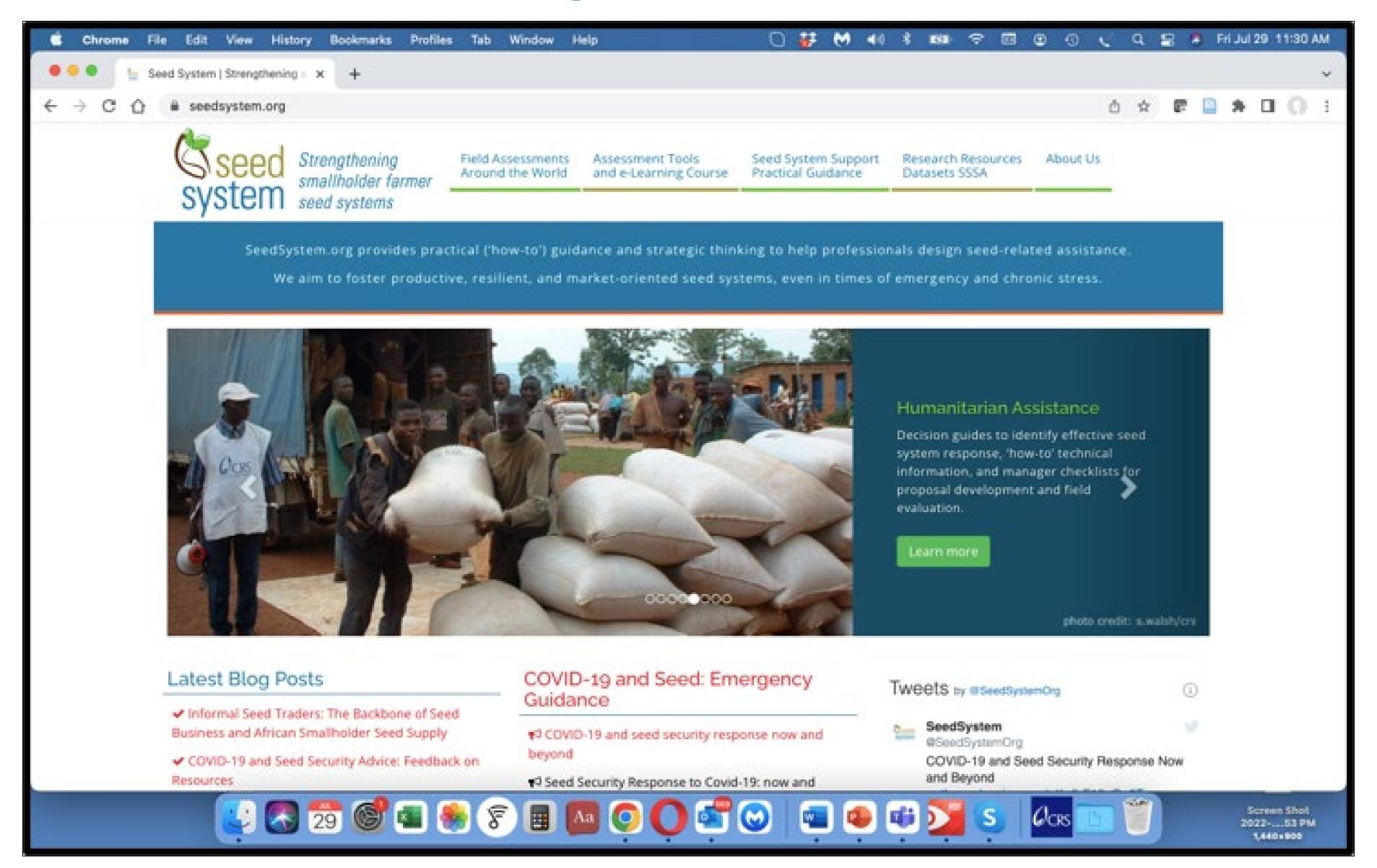
https://www.fao.org/resilience/resources/resources-detail/en/c/282218/

• S34D - 2021- ongoing

https://drive.google.com/open?id=1kwyfzWjsbzFU9vIR2kYckcY1XM-oSmaP&authuser=alove%4omercycorps.org&usp=drive_fs



SeedSystem Website





SeedSystem Tools

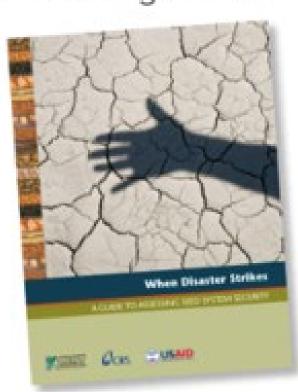
seedsystem.org/assessments-and-e-learning-course/



Field Assessments Assessment Tools Seed System Support Around the World and e-Learning Course Practical Guidance

Research Resources About Us

Assessments and e-learning course



This section shares the basic tools and practical planning aids needed to assess seed security— that is, to conduct a Seed Security Assessment (SSSA). We stress the concept of a seed 'system' since assessments of seed security go well beyond t seed needs, although that may be part of the work. Attaining seed security means finding ways to support the systems the farmers ongoing access to seed of the crops and varieties they require.

The four links below allow managers and field practitioners to plan and implement an SSSA.

The Guide gives an overview of the SSSA approach: its rationale, where and when it can be used, key questions and checklists. The Specific Tools share actual forms (downloadable!) that can be used in the field as well as an automated da program. The interactive e-Learning course introduces essential steps in both an assessment and choice of response, and participant though practical (and fun!) exercises using real field examples. Finally, tips give detailed insights into field plans implementation logistics.

When Disaster Strikes: overall assessment guide

Seed System Security Assessment: specific tools

Seed System Security Assessment & Response: an e-Learning course

Tips for Planning & Implementation

SeedSystem is a collaboration among diverse national and international organizations aiming to improve seed security in vulnerable and high-stress areas of the world. More about







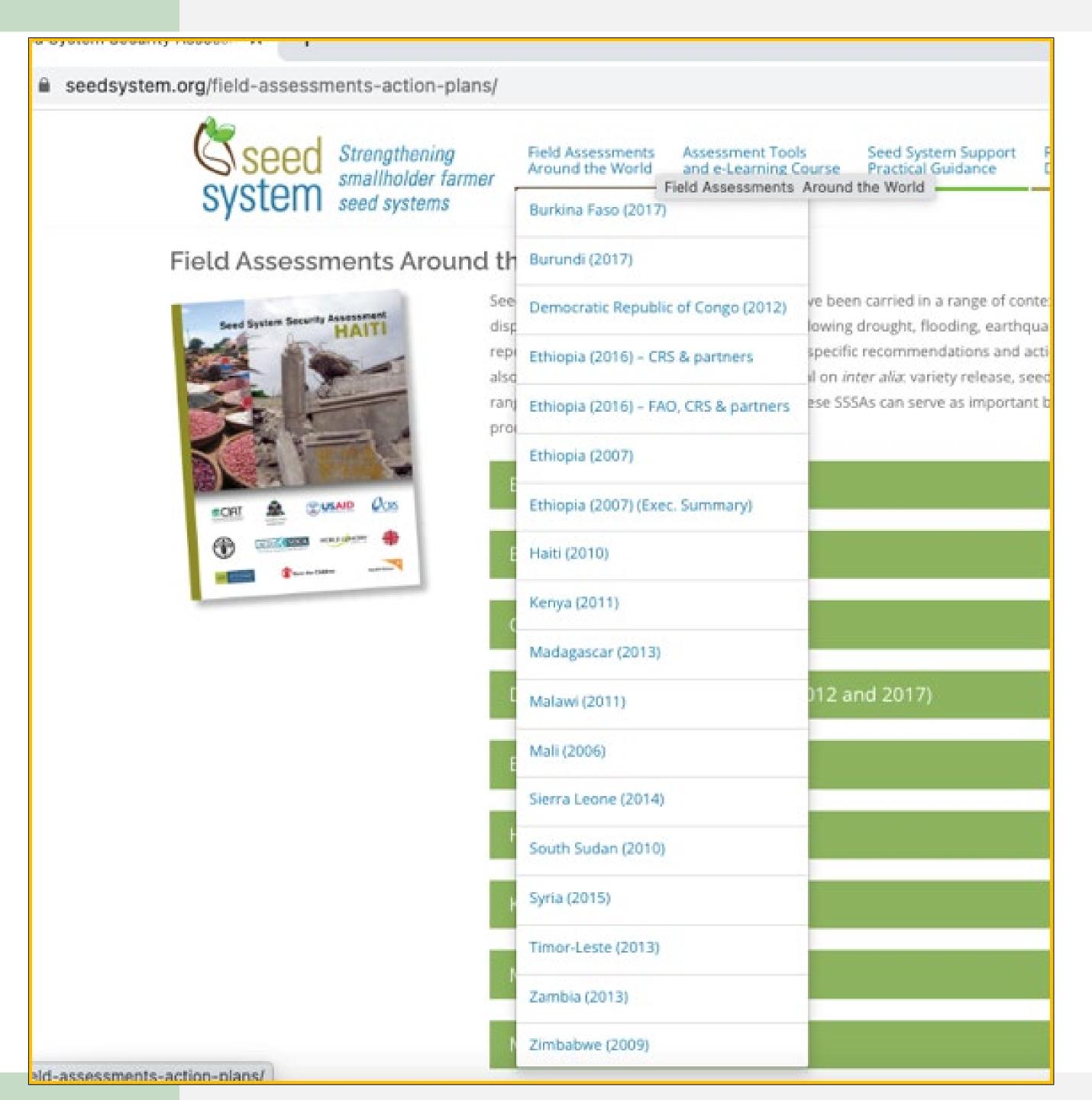






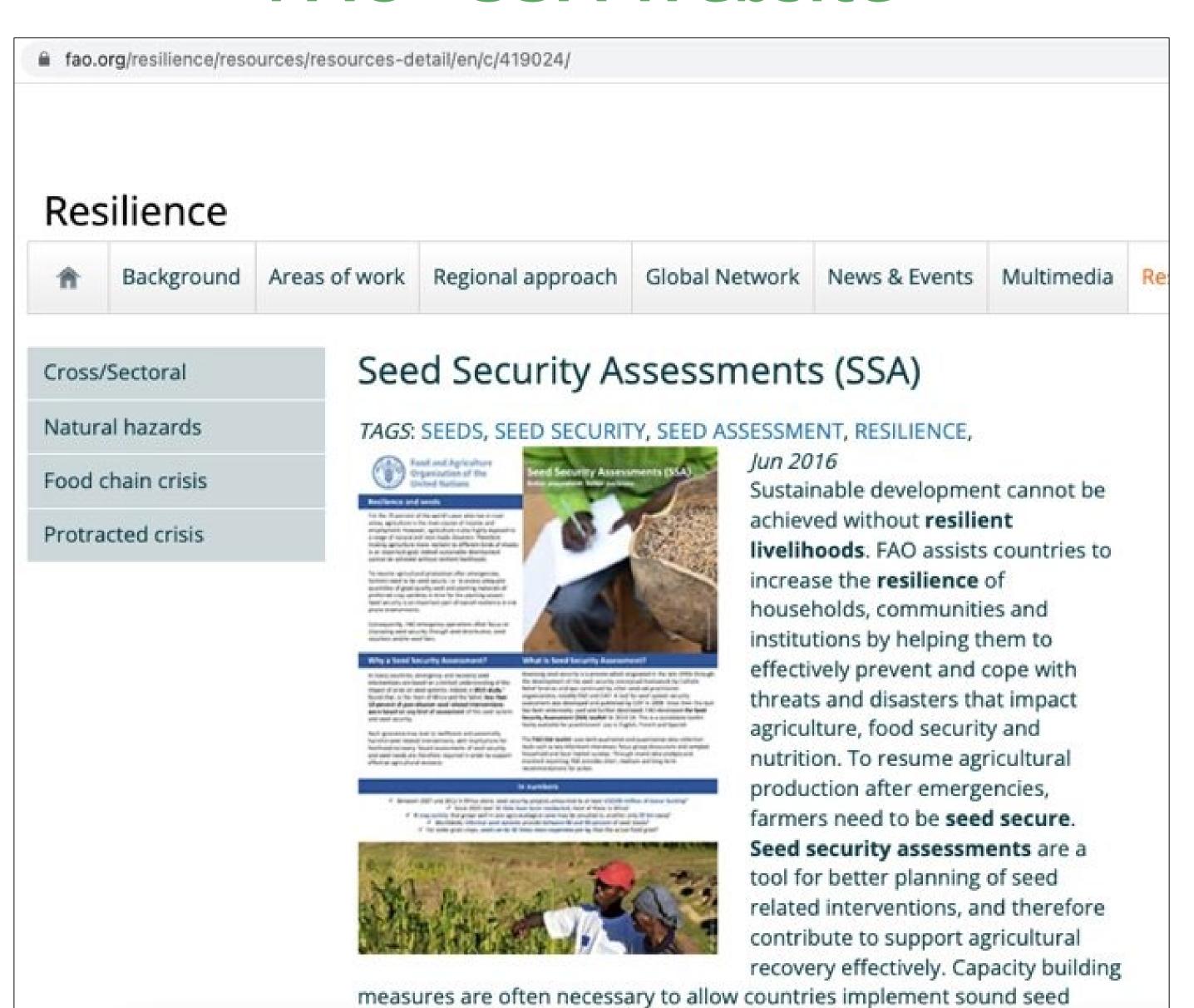


SeedSystem Field Assessments





FAO - SSA Website

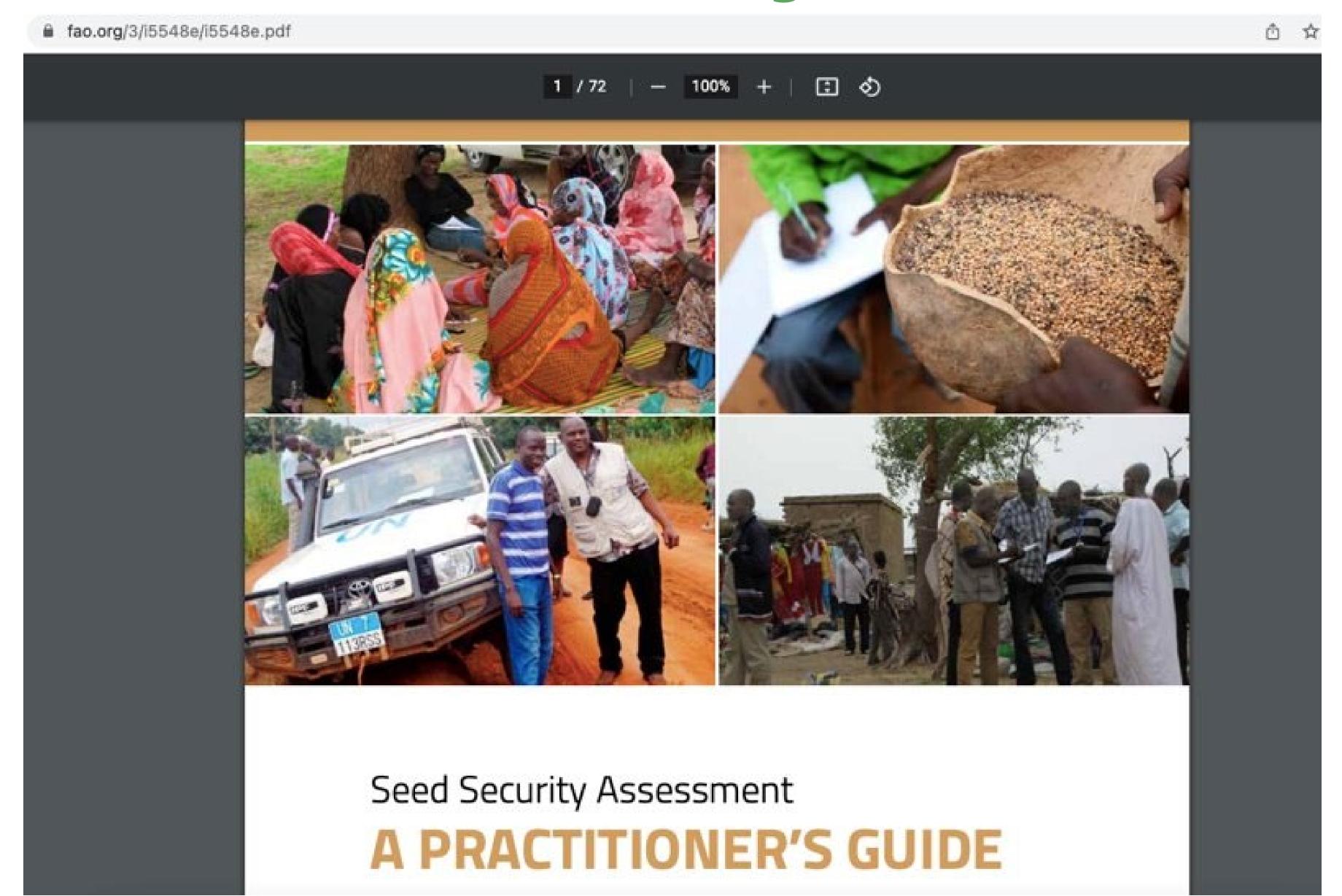


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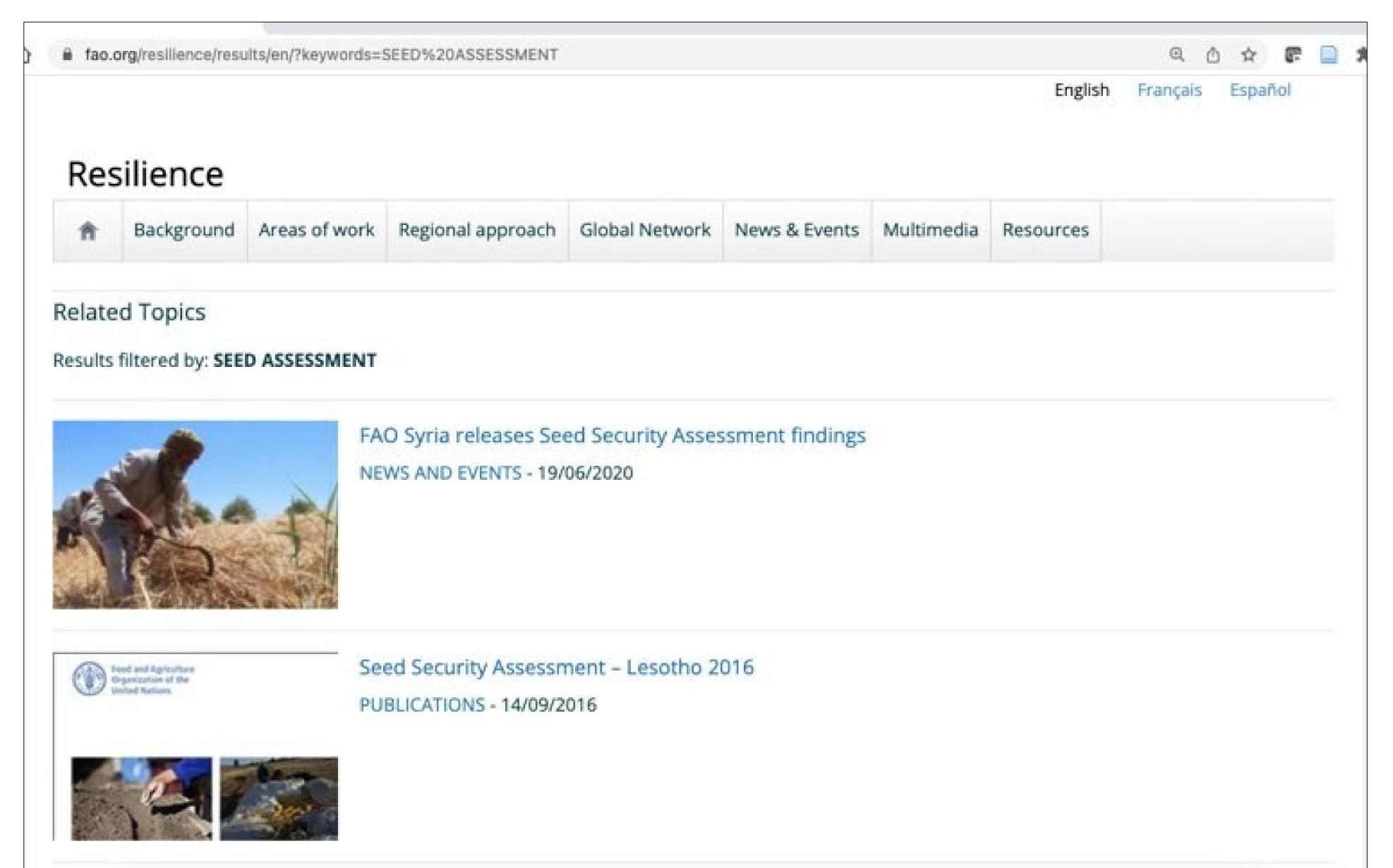


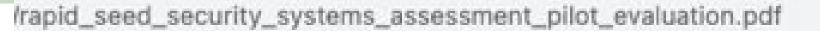
FAO - SSA Tools (guide) (2016)





FAO - SSA Field Assessments







S34D - official report on rapid tool test (2021)





S34D - Tools (Rapid SSSA)

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Your Tool Choice?





Minimum Technical Standards for Seed System Assessment (SSA) in Emergencies
USAID/OFDA, SeedSystem and UN/FAO consultations

Any tool set that meets Minimum Standards!!!

From 2020.
To be updated in Session 3!



Questions on websites

Seed System Assessment Content



SSA Content: Overview

- Assess Seed System Functioning
 - o Demand side/need (Community/Household)
 - o Supply channels
- Identify if/type of problem
 - o Problem: Short-term (Acute)
 - o Problem: Longer-term (Chronic)
 - o Opportunities?
- Recommend Response(s)



Seed Security Framework

Parameters	Definition
Availability	Sufficient quantity of seed of adapted crops is within reasonable proximity (spatial availability) and in time for critical sowing periods (temporal availability)
Access	People have adequate income or other resources to purchase or barter for appropriate seeds
Seed Health / Quality	Seed is healthy: good physical, physiological and sanitary quality
Variety Suitability / Quality	Varieties are adapted, meet farmers' preferences (men and women) and are market-acceptable



Seed system problems and appropriate responses

Parameter	Acute (short-term)	Chronic (long-term)
Unavailability of seed	Direct distribution of seed Decorative SCALE logo with four green leaves	Rarely happens: except for new varieties
Farmers do not have access to seed	Vouchers and cash (w/seed fairs)	Income generation activity;
		Agro-enterprise development- value chains



Seed system problems and appropriate responses

Parameter	Acute	Chronic
Seed of poor quality	Seed fairs with quality controls	Programs to improve seed quality
	Direct distribution of test samples of quality seed	 seed companies on-farm (CBSP) in local markets
Lack of appropriate varieties/crops	Limited introductions of new varieties	Introduce new varieties/ with technical support
		Variety selection/ breeding



Repeated Seed Aid Delivery in Many Countries

Site	Extent of Seed Aid
Burundi	36+ seasons: since 1995
Eastern Kenya	92-93; 95-97; 2000-2002, 2004, 2006, 2009, 2010, 2011
Zimbabwe	Near continuous since 1991 (food aid, seed aid or both) 2016??
Malawi	15 seasons or more, since 1992
Ethiopia	Since 1974: 42 years



USAID Rule - 3 Seasons Partially to distinguish acute from chronic

• If the same intervention is repeated in the same area 3 seasons in a row do an assessment (paraphrased)





Does this answer give you enough information to understand the need?

The Farmer/community says:	Does this give you enough information to understand the need?	
	Y	N
I have no seed/ there is no seed		
I/we ate our seed		





SSA Content: Assessing demand/need

Key technique: Ask, "Why are you planting less?" (or more/same)

Uncovers:

- If there is a concrete problem
- The extent of the problem
- The exact stress (so tailor response)

Key Technique: Reasons for 'Planting less' (subset)

→ Large range of possible reasons!!

Gets at exact stresses

CONSTRAINTS THAT ARE SEED RELATED

Seed availability

1= no seed available in market

2= no seed/cuttings available from neighbors

Seed access

no money to buy seed/poor finances or seed price too high

Seed quality

4= seed available is not good quality or the variety is not liked

NON-SEED FACTORS OF PRODUCTION (limits)

5= no/insufficient labor

6= illness/health problems

7= no/insufficient land or land not appropriate/sufficiently fertile

8= lack of tools/tractor/ other machinery to farm

9= plant pests/diseases make production not possible

OTHER PRIORITIES/STRATEGIES

14= markets for crop or crop products not well-developed

other priorities than agriculture (e.g. have shop)

16= Changing crop priorities or changing agricultural practices



Any Questions?

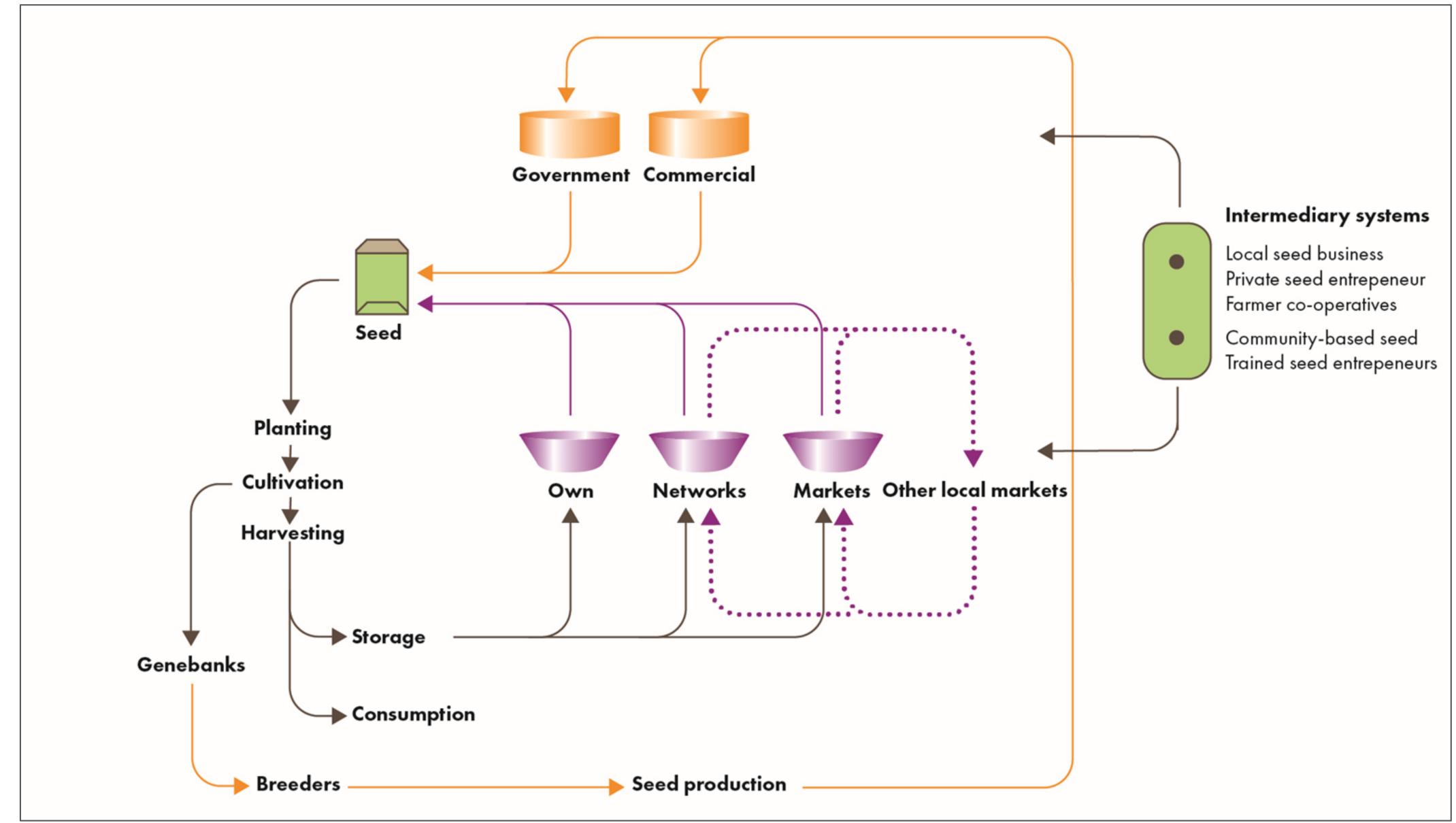


SSA Content: Supply Side

- Not counting seeds (!!)
- Figuring out if supply channels are working (i.e., if they can serve farmers needs)



Channels through which Farmers Source Seed





Activity 1: Seed System Functioning (Supply Side) drawing on your expertise

- 15 minutes in breakout groups. Assign note taker.
- Go to Google Document and find your Group's box.
- Imagine your team has been tasked with assessing how well seed channels are functioning.
- Discuss as a group how you would do this assessment. For example, consider:
 - Which seed channels would you assess?
 - Which sources/types of actors would you talk to? What info would they have?
 What kinds of questions would you ask them?
 - How are you going to do it? (i.e., elements of the process).
 -what else?
- Try to come up with 5-10 issues/suggestions.
- Choose 3 main ideas to feedback to the bigger group



Group Work Feedback

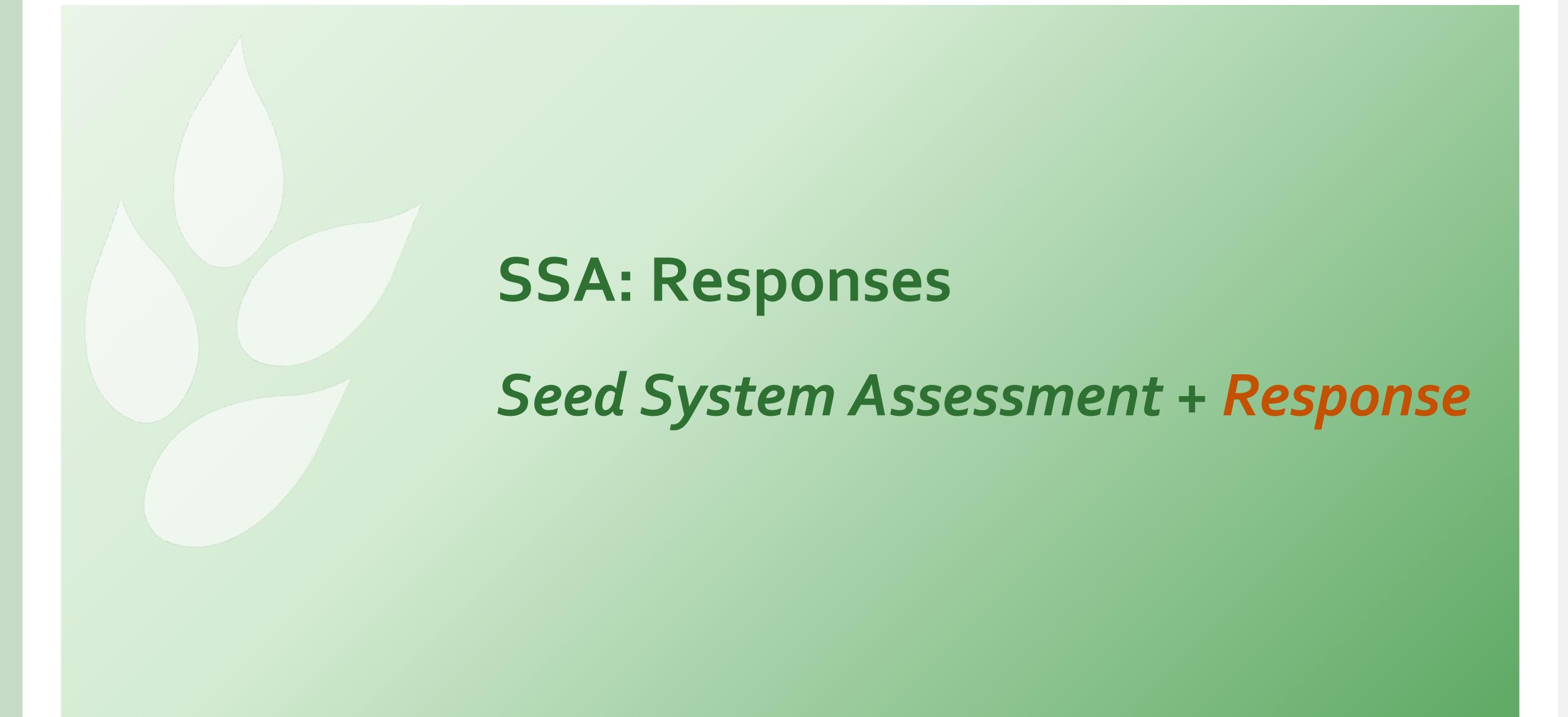
What did you discuss?



Activity 1 Responses: Seed System Functioning

- All seed channels: so not just the formal ones. Don't forget farmers' own stocks
- Key crops: Be clear about which crops are the main focus for the upcoming season-

- Talk to key suppliers: (formal, informal and intermediary)
 - Seed companies and local agro-dealers;
 - Large traders who know something about local seed (regionally as well as local)
 - Specialized community based groups (although they provide only small amounts)
- Visits to markets/stores/seed outlets: Observe the quality on offer, ask about its origins and if it can be planted
- Prices: Prices of seed (incl local seed); Prices of accompanying inputs, like fertilizer





Choice of response(s) should depend on:

The seed security problem(s)

The context- logistics

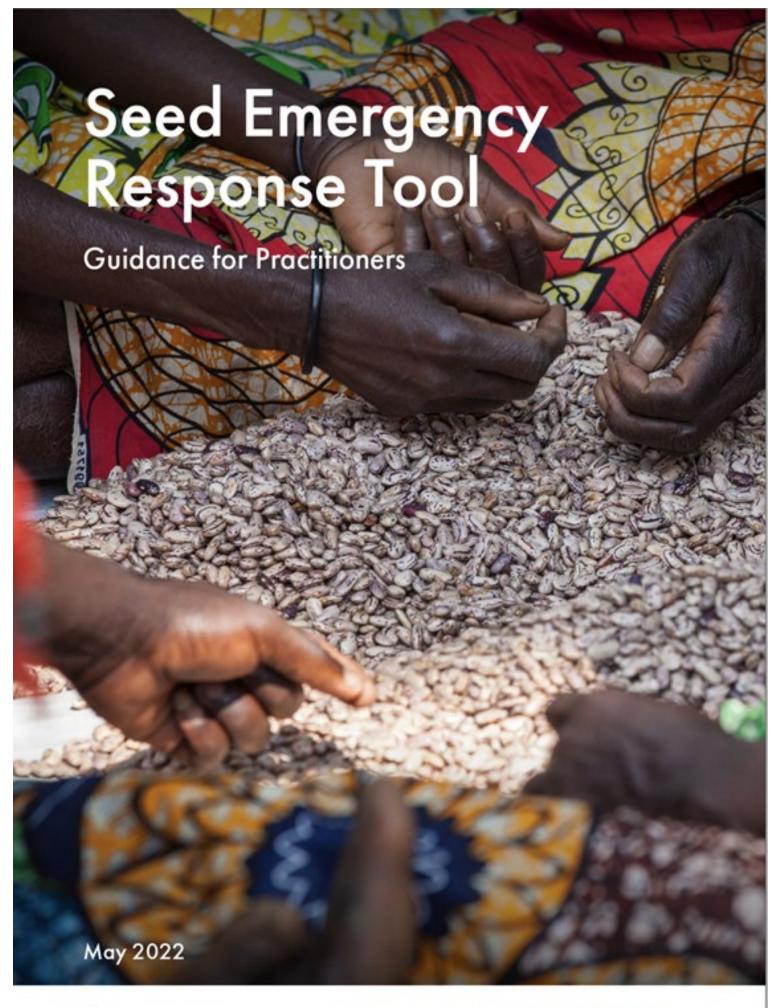
• The organization's capacity

• Institutional philosophy (Rights based?)

• ...



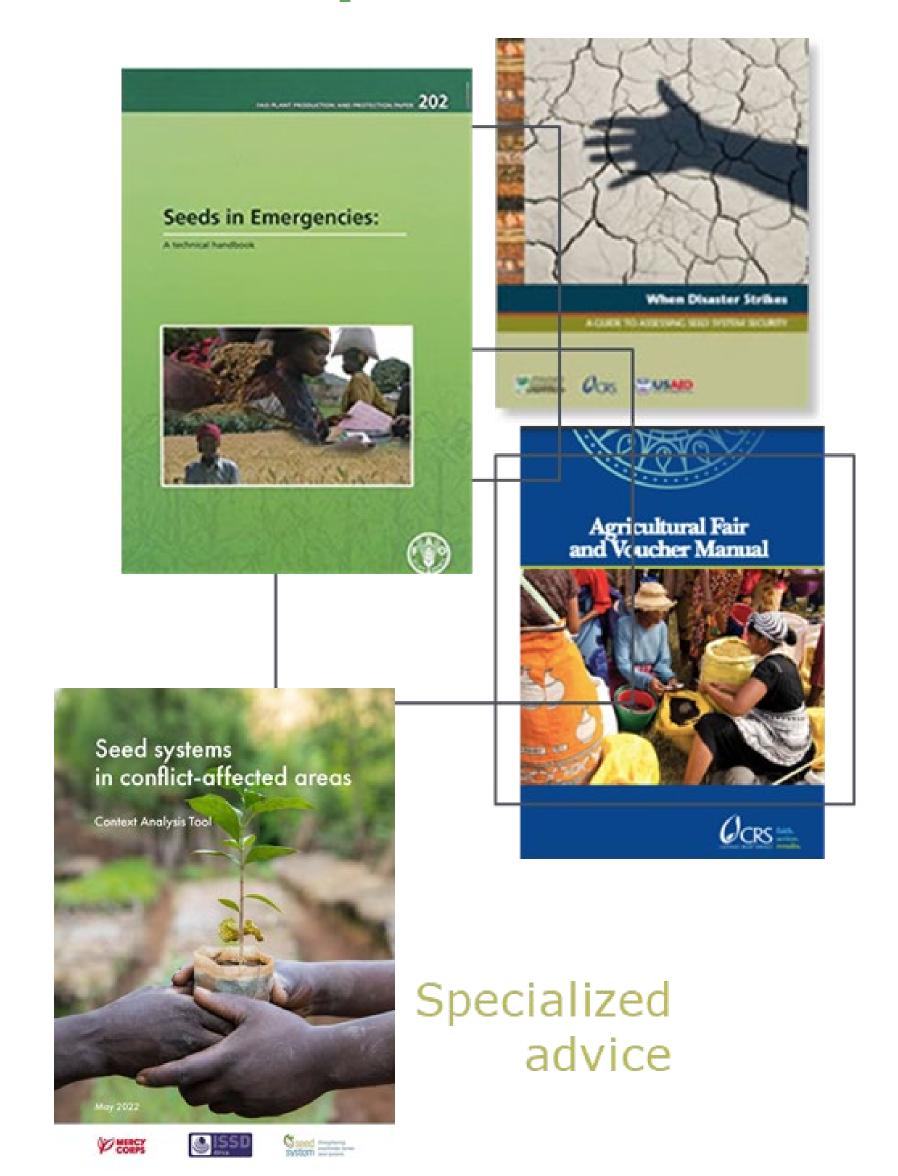
Response: Many recent developments













Range of Response Interventions from SERT

Approach	Strengths	Weaknesses
Direct distribution		
Direct Seed Distribution (DSD)		
Local procurement and distribution of seed		
Provision of modern varieties		
Food aid to serve as 'Seed protection ration'		
Market-based approaches focused on clien	nts (demand)	
Seed fairs, combined with vouchers		
Cash		
Vouchers		
Market-based approaches focused on sup	pliers	
Market-based support to supply side (agrodealers/traders)		



Guiding Principles of Good Practice (SERT)

Themes

- 1. Seed System Security Assessment (SSSA)
- 2. Response type
- 3. Goal of the intervention
- 4. Context
- 5. Timeliness
- 6. Market-based assistance
- 7. Crop and variety choice
- 8. Seed quality
- 9. Farmers' choice
- 10. Feedback at multiple key stages





Principle Example: #7 Crop and Variety Choice

The crops and varieties selected for the intervention should suit the context and user needs

Technical notes

- 1. Seed and intervention goal
- 2. Traditional versus modern varieties
- 3. Varietal preferences, including those related to gender
- 4. Crop preferences, including those related to gender
- 5. Realistic management conditions
- 6. Self- and open-pollinated varieties
- 7. Genetically modified organisms (GMOs)
- 8. No suitability, no intervention





Key: Distinguishing short-term versus longer-term seed security problems

Parameter	Acute (short-term)	Chronic (long-term)
Unavailability of seed	Direct distribution of seed	Rarely happens: except for new varieties
Farmers do not have access to seed	Vouchers and cash	Income generation activity;
	(w/seed fairs)	Agro-enterprise development: value chains



Activity 2: Response Options drawing on your expertise

- 10 minutes in breakout groups. Assign note taker!
- Go to the Google Doc and find your Group's box.
- Each group will receive one seed security problem (acute or chronic)
- Discuss as a team which of the response options listed are appropriate/possible to respond to this problem.
 - → Which could work? Under what circumstances?
 - → Which would not address the seed security problem?
- Mark YES or NO for each response.
- For the ones you mark YES, discuss the advantages and limitations (disadvantages) of that response.
- Record your ideas in the table below.
- Assign one note taker and someone to report back when we come back together



Activity 2: Three common seed security problems. How should you respond?

• Acute Problem 1: Farmers need more seed but cannot access (buy)

 Acute Problem 2: Seed/planting material (vines/cuttings) is not available

Chronic Problem 3: The seed that farmers use is of poor quality



Group Work Feedback

What did you discuss?



Correct Response Options

Acute Problem 1: Farmers need more seed but cannot access (buy)

- Vouchers tied to agro-dealers (if correct crops on offer)
- Vouchers tied to seed or input fairs (includes local seed)
- Cash grants



Correct Response Options

Acute Problem 2: Seed/planting material (vines/cuttings) is not available

 Direct Seed Distribution (DSD) - *in limited quantity and with care*

(better not to do fairs as VPC planting material needs to be carefully screened !!)



Correct Response Options

Chronic Problem 3: The seed that farmers use is of poor quality

- 1. Work with farmers on seed selection, management and storage
- 1. Work with traders (local and regional markets) on seed storage and management
- 1. Work with seed companies and agro-dealers on seed storage and management

(better not to do DSD as too small coverage for extent of problem!)

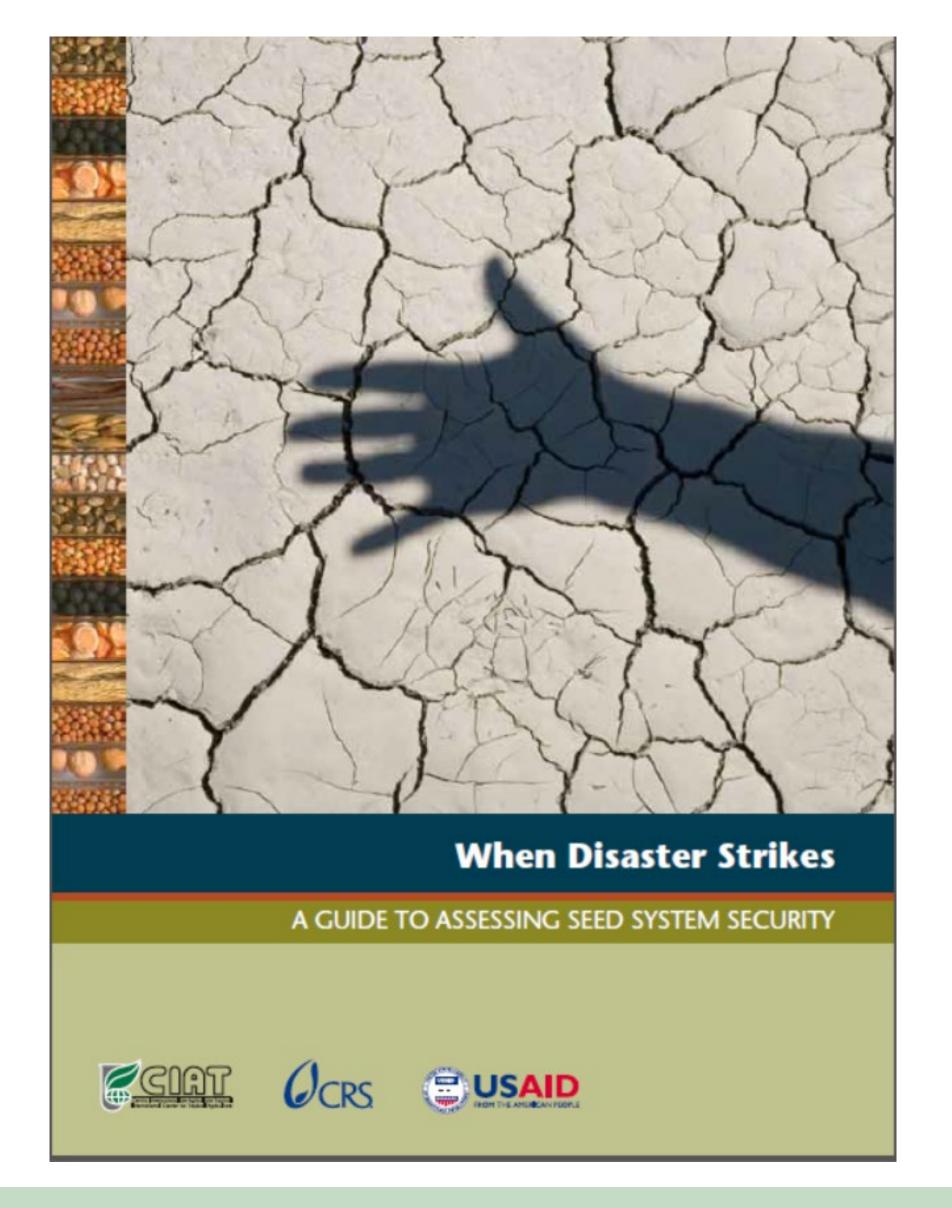


Questions?

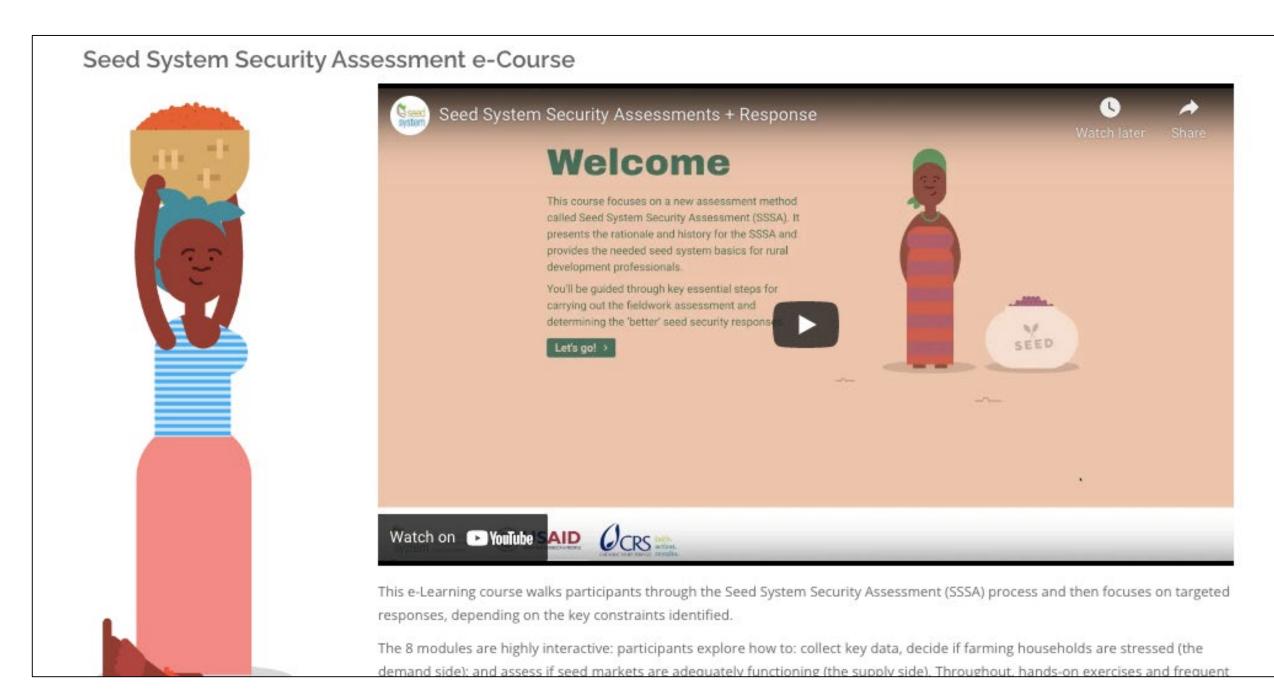




Overview guide

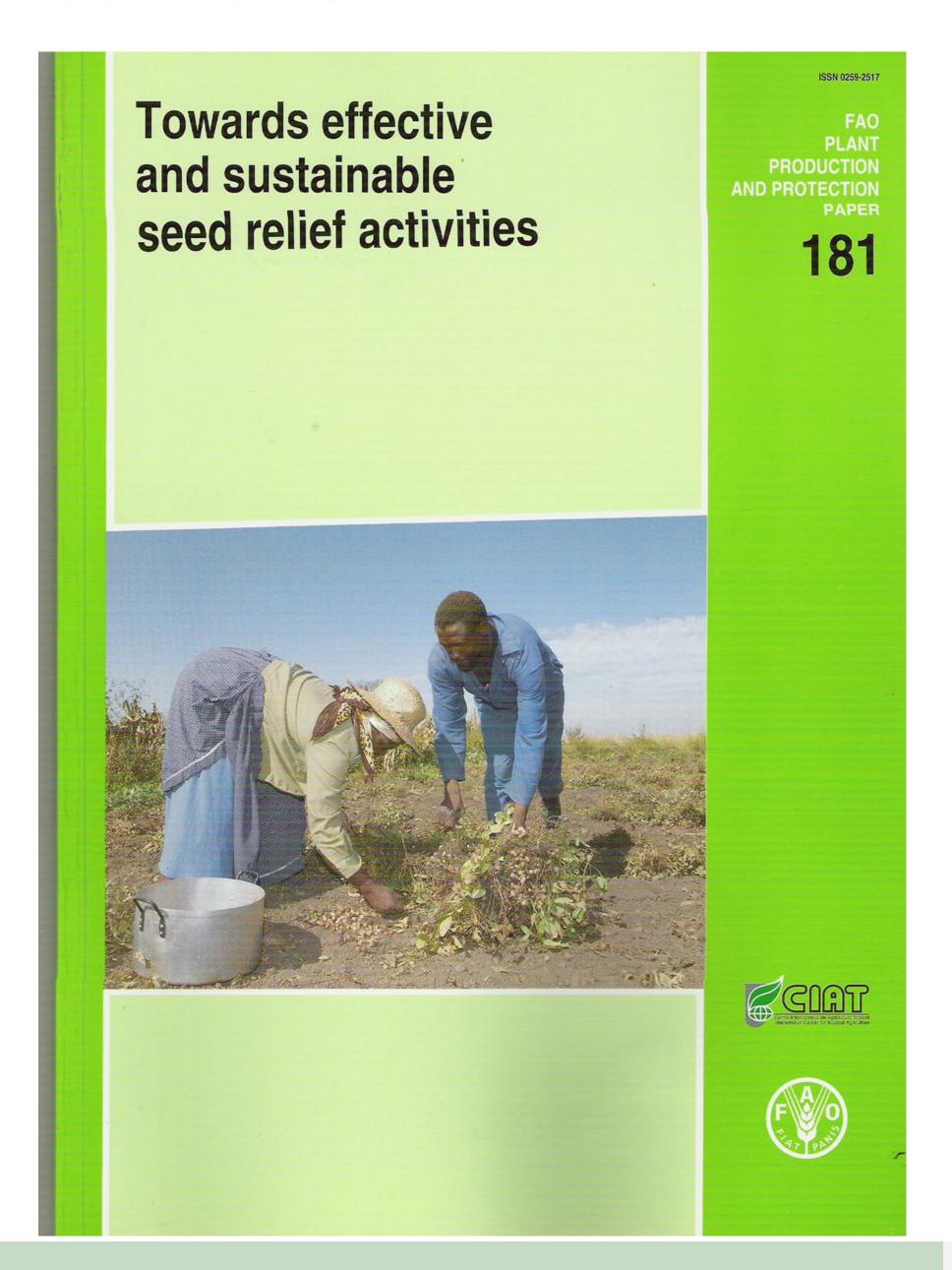


E-learning course

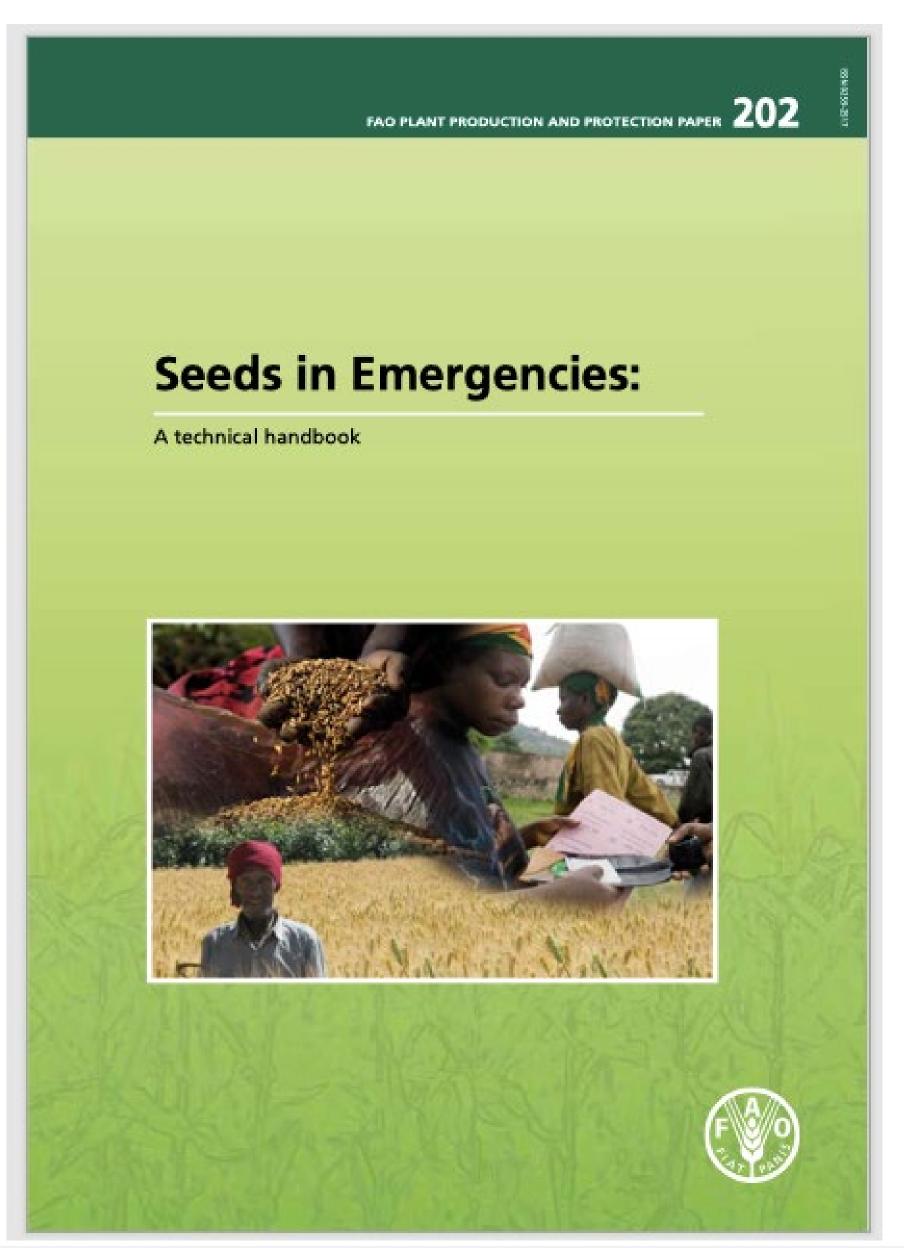




Standards

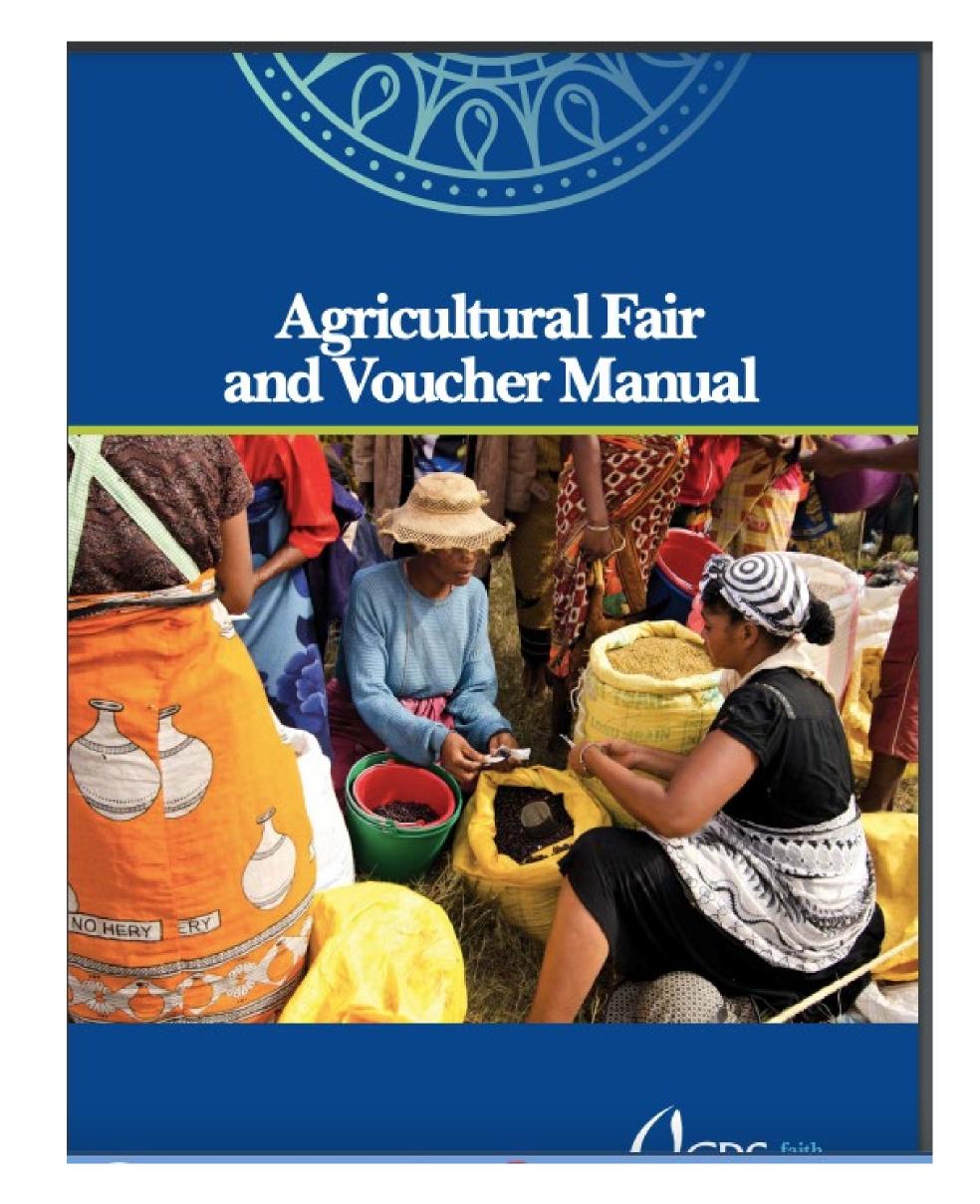


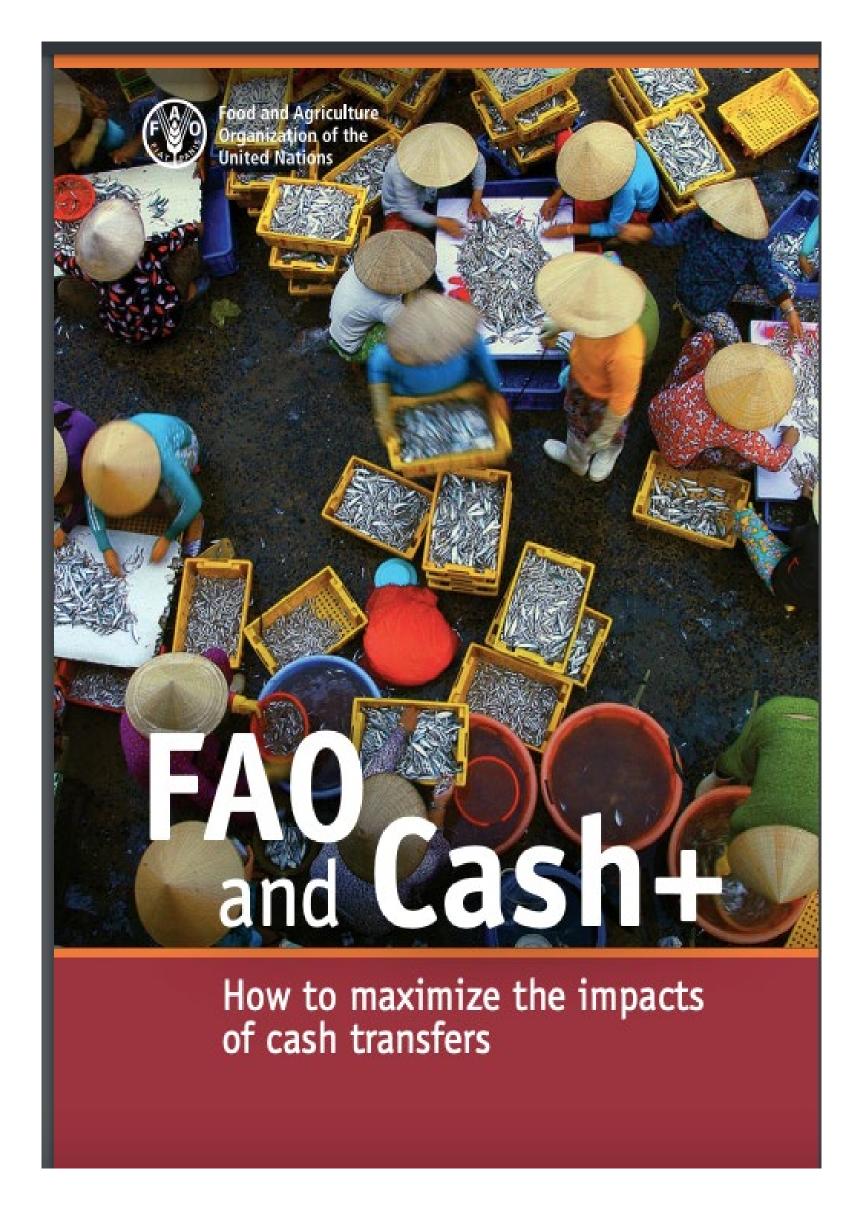
Seed quality





Resources: diverse approaches







Specific programming



5 PRACTICE BRIEF

New varieties can

of disasters, but

communities and

work with farm

other informed

minimize risk

new crops and

after crisis, also

multi-year vision and commitment.

varieties, especiall

personnel to

Introducing

requires a

security in the wake

only if practitioners

increase food

Seed Aid for Seed Security

ADVICE FOR PRACTITIONERS

Using Seed Aid to Give Farmers Access to Seed of New Varieties

armers are keen to obtain and evaluate new crop varieties. This process of experimentation and subsequent introduction of adapted and accepted varieties can potentially strengthen farmers' cropping systems by increasing yields, improving drought resilience, boosting resistance to pests and diseases and also by capturing new market opportunities.

Introducing new varieties can also play a role in restoring food security at times of crisis. Crises may alter preferences, for instance when populations relocate, or crisis may even be caused by crop and variety breakdowns (for example spurred by plant disease or sharply declining soil fertility). Both situations leave farmers in want of appropriate planting material. Crises may also be seen as an opportunity to introduce new varieties, via the extensive seed aid channels, in order to promote what are considered more 'modern' practices and thus to strengthen systems plagued by low production.

Regardless of the potential for improving smallholder productivity through the introduction of new varieties, it is important to start by questioning the legitimacy of such introductions during crises. In periods of emergency and prolonged stress, small farmers are already at levels of increased risk. They are generally poorer, having lost household assets, livestock or crops in the field, and they cannot afford to waste further often scarce land or labor resources. Further, they need to have some confidence that the next planting season will yield better than the present, stressed, one. Outside aid, minimally, should put on offer products or processes at least as good as those already in farmers' hands. While formal sector varieties are referred to as 'improved' and the quality of the seed is certified, these varieties often yield poorly in many smallholder cropping systems. Such new varieties may not be adapted to the local agro-ecological conditions and farmers may not possess the management inputs (for example fertilizers and pesticides) crucial for their growth. So an 'improved variety' does not mean that performance is guaranteed.

This brief suggests 'better practice' for introducing (or not) new varieties in situations of acute and chronic stress. It presents a series of technical guidelines that need to be considered prior to any variety introductions. The brief is also framed by a set of precautionary notes: if humanitarian assistance involves crop or variety introductions, even 'emergency' short-term interventions should be programmed within a longer-term plan of action.

Introducing Varieties in Acute Stress Periods

Seed aid that is considering the possible introduction of crops or varieties has to be programmed to embrace a well-planned set of steps. These are summarized in Box 1 and elaborated in the text that follows.



Summary of Session 2

- History of SSA
- SSA websites
- SSA Content (demand & supply side)
- Responses
- Resources





Questions?

- What future needs do you have related to what we discussed today?
- Do you have any recommendations to improve practice?
- Reminder: you can always use the shared Google document to add questions, recommendations, etc.



After Session Task 2

- Review Minimum Standards for seed system assessments. One document is the broad outline of themes. The other is the full set of minimum standards.
 - Look at the headers
 - Look at the details
- For each, write down one thing you would remove
- For each, write down one thing you would add

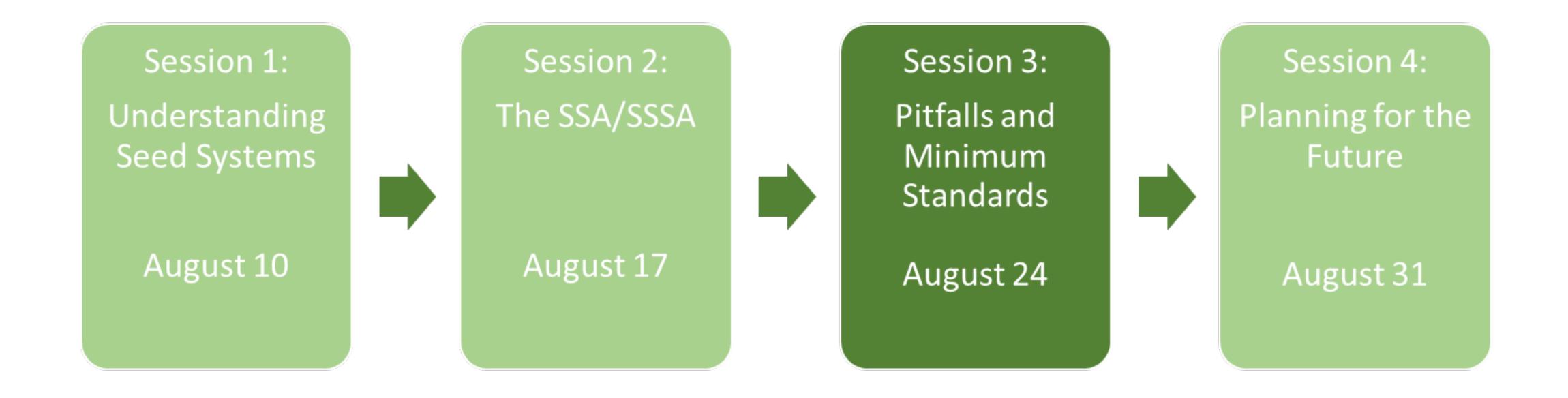




Minimum Technical Standards for Seed System Assessment (SSA) in Emergencies USAID/OFDA, SeedSystem and UN/FAO consultations



Next week: Pitfalls & Minimum Standards





Session 2 Evaluation: Jamboard!

