Seed Security Assessment
A Manual for Trainees

Version 1

March 2015

**Food and Agriculture Organization
of the United Nations**

EUROPEAN COMMISSION

Humanitarian Aid

Preface

Sufficient access to healthy and preferred seed for different crops is of fundamental importance for millions of households in the developing world. If good quality seed is scarce, then rural farming families struggle to make a sustainable livelihood, and family members are forced into coping strategies in order to meet food and income needs. These strategies may deplete assets, further reducing the ability of the family to meet its needs. Achieving and maintaining seed security is therefore an important goal.

Seed security exists when men and women within the household have sufficient access to quantities of available good quality seed and planting materials of preferred crop varieties at all times in both good and bad cropping seasons. Measuring seed security is important in crisis and non-crisis situations as seed insecurity is not confined to post-disaster settings, although it may be at its most acute at these times. Another important context for measuring seed security is in protracted crisis, where the problem may be more chronic in nature. In such cases, the underlying fragile seed situation can be punctuated by acute episodes due (e.g.) to an upsurge in fighting in a particular area which cuts market access. Finally, seed insecurity may be chronic in nature in a non-crisis context, in situations of deep poverty and social exclusion such as that which exists for large numbers of households in peaceful parts of Africa.

Seed-related interventions are commonly based on the assumption that food security problems directly imply seed security problems. However, this may or may not be the case. Further, when problems do occur these are not necessarily related to the physical availability of seed. One of the most common problems is reduced access to seed, due to reduced purchasing power. This can occur even when seed is available on the market. In such cases a more appropriate response to seed insecurity might be a scheme which increases the demand for seed whilst not increasing the supply. This can be achieved quickly through a seed voucher scheme. Longer term solutions would involve actions which reduce poverty, thus increasing purchasing power.

In order to decide on the most appropriate short and longer term seed related intervention, it is necessary to understand seed security by undertaking an assessment prior to intervening. The seed system security assessment (SSSA) methodology, developed by CIAT and CRS (Sperling, 2008), and formalized in the publication "When Disaster strikes. A guide to assessing Seed System Security", attempts to do this. This tool has been used in several countries in Africa during the past 10 years including Mali, Zimbabwe, Ethiopia, Sudan (Darfur region), South Sudan, Democratic Republic of Congo, Malawi, Kenya and Côte d'Ivoire. Over the past four years, the tool has been extensively used and further refined by users. Despite this, understanding of seed security and seed security assessment is still restricted to a very small group of specialists. Worryingly, a recent study undertaken in the Horn of Africa and the Sahel found that less than 10 percent of post-disaster seed related interventions were based on Seed Security Assessments (SSAs). This is due to a number of reasons including: lack of technical capacity to undertake assessments; poorly articulated assessment recommendations and low level of awareness of assessment findings by decision makers. This is a serious situation, as undertaking seed related interventions without a proper understanding of seed security can do more harm than good.

With the benefit of funding from ECHO[1], FAO has supported a number of activities which seek to address this situation. Actions have included: development of revised and expanded Seed Security training material; conducting national level training SSA workshops in four countries in the Horn of Africa (Ethiopia, Kenya, Somalia and South Sudan) and the Sahel (Burkina Faso, Chad, Mali and Niger); initiating Communities of Practice for SSA in the Horn and Sahel; conducting regional level Training of Trainers (ToT) courses and undertaking seed security assessments. This Guide for Trainees has been developed as part of this process.

This Seed Security Assessment Level 1 Training Guide for Trainees has been developed by a team consisting of Samuel Kugbei (FAO); Neil Marsland (FAO); Thomas Osborn (formerly FAO, Consultant); Roger Shongo (FAO); Matthias Mollet (FAO Consultant); Joseph Okidi, (FAO); Lucio Olivero (FAO); David Hampson (FAO Consultant) and Philippe LeCoent (Consultant). The formatting and uploading onto the web has been done by Michela Paganini (FAO Consultant). The training guide has benefited substantially from the inputs of Tom Remington and Steve Walsh (both formerly of CRS). This is version 1 and we hope that it will be improved after a period of usage and feedback.

Introduction

Prior to taking this SSA Level 1 training course all participants should have completed the FAO – CRS Seed Security e-learning course, available online both in English (http://www.crslearns.com/seed_systems/menu.html) and French (http://www.crslearns.com/systemes_semenciers/menu.html). The e-learning course ensures an adequate foundation for the Level 1 training.

Undertaking SSA Level 1 training is an essential step in becoming a SSA practitioner and creating a SSA Community of Practice. This training guide contains all the materials necessary for trainees in a standard Level 1 course. The material is built around an adult learning approach to ensure maximum participation and engagement of the trainees. The course itself takes place over five days, with the following sequencing of content:

Day 1 (Section 1, Sessions 1-4) This section of the training is an introduction to SSA and a review of the important concepts for understanding seed security. The key sessions for Day 1 are: Session 1: Welcome and introductory remarks; Session 2: Course overview; Session 3: Seed Systems; Session 4: Seed Security Conceptual Framework.

Day 2 (Section 2, Sessions 5 and 6) This section of the training uses the concepts from Day 1 to examine and build an understanding of the revised Seed Security Conceptual Framework (SSCF) and an introduction to the SSA methodology. The SSCF is the foundation of Seed Security Assessment and a thorough grasp of it is essential for SSA practitioners. Case studies and group work are used to challenge the participants' grasp of the concepts. Using the SSCF and then the Steps in Conducting a SSA is explored through the use of short presentations and Group work. In Day 2, the sessions are: Session 5: Seed security-related interventions in the recent past; Session 6: Seed security assessment: the five steps.

Day 3 (Section 3, Sessions 7 and 8) This part of the course takes participants through the different data collection tools used in the SSA. There are five core tools: Household questionnaire; Local Market questionnaire; Agro-input questionnaire; Key informant interview guide; and Focus group discussion guide. Emphasis is on detailed explanation of the forms and how to use them through practical exercises. The sessions in Day 3 are: Session 7: Tools for effective, efficient, and rights-based field work; Session 8: Preparing for Field Work.

Day 4 (Section 4, Session 9) Presentation and discussion of the SSA tools is a first step but using them in the field is critical for fully grasping how to gather effective information. This day is for practicing the use of SSA Tools in a nearby village so that the trainees have hands-on experience with the tools and the experiencing of implementing an SSA. The session of Day 4 for is Session 9: Field Work.

Day 5 (Section 5, Sessions 10-12) Accurate data collection is important but determining what the data means is critical. During day 5 there will be practical sessions on data entry and analysis from the tools based on the information gathered in the previous day. There are also important sessions on how to develop SSA analysis using the Seed Security Conceptual Framework and how to turn SSA analysis into action. There are three sessions in Day 5: Session 10: SSA results: Analyzing data collected during the field visit; Session 11: Presenting in plenary the SSA results; Session 12: Evaluation and Closing.

Abbreviations and Acronyms

AAP	Accountability to Affected Populations
ACF	Action Contre la Faim
AGPMG	Seed and Plant Genetic Resources Group
CAD	County Agriculture Department
CIAT	Centro de Investigación de Agricultura Tropical
CRS	Catholic Relief Services
DK	Don't Know
DWR	Don't Want to Respond
ERCU	Emergency Rehabilitation Coordination Unit
FAO	Food and Agriculture Organization of the United Nations
FGI	Focus Group Interviews
FGD	Focus Group Discussion
FSS	Formal sector seed
GP	Group Presentation
GW	Group Work
Ha	Hectare
HoH	Head of Household
Kg	Kilogram
KII	Key Informant Interview
HH	Household
HHS	Household Survey
HoH	Head of household
IDP	Internally Displaced People
L	Liter
LMS	Local Market Survey

NA	Not Applicable
NR	No Response
MS	Microsoft
NGO	Non-Governmental Organization
OECD	Organisation Economical of Cooperation and Development
OSS	own saved seed
PGRFA	Plant Genetic Resources for Food and Agriculture
Q&A	Questions and answers
SACCO	Saving and Credit Cooperative
SSA	Seed Security Assessment
SSCF	Seed Security Conceptual Framework
Std. Dev.	Standard Deviation
TCEO	Emergency Operations Service of FAO
TCER	Rehabilitation and Humanitarian Policies Unit of FAO
TCES	Special Emergency Program Service of FAO
TCI	Investment Centre Division of FAO
UN	United Nations
WFP	World Food Program of the United Nations

SSA TRAINING

Venue: _____

Date: _____

DAILY PROGRAMME

Day	Sessions	Time	Activity	Responsibility
Day 1	**Session 1**	08:30 - 09:00	Registration	FAO Country representative
		09:00 - 09:05	Welcome Remark	FAO Country representative
		09:05 - 09:10	SSA Preamble	Regional SSA expert
		09:10 - 09:20	Opening Remarks	Government' Remarks
		09:20 - 09:30	Introduction to the course	Facilitator
	Session 2	09:30 - 10:15	Ice breaking	Facilitator
	Break	10:15 - 10:30	Group Photos	Photographer
		10:30 -11:00	Tea/Coffee	Hotel

Day	Sessions	Time	Activity	Responsibility
Day 1	**Session 3:** Seed Systems	11:00 - 11:10	Seed System: Basic Concepts	Facilitators
		11:10 - 11:20	Discussion: Varieties	Participants
		11:20 - 11:40	Seed System: Basic Concepts	Facilitators
		11:40 - 11:50	Discussion: Formal/Informal	Participants
		11:50 - 12:00	Q&A	Participants

Day	Sessions	Time	Activity	Responsibility
Day 1	**Session 4:** SSCF	12:00 - 13:00	SSCF: Definitions, Parameters & Indicators	Facilitators
		13:00 - 14:00	Lunch	Hotel
		14:00 - 14:45	SSCF: AAP	Facilitators
		14:45 - 16:00	SSCF: Group Work & Presentation	Participants
		16:00 - 16:20	Coffee/tea	Hotel
		16:00 - 17:00	SSCF: Strengthening SSA & AAP	Facilitator

Day	Sessions	Time	Activity	Responsibility
Day 2	**Session 5:** Seed Security Interventions	08:30 - 09:00	Recap	Facilitators
		09:00 - 09:15	Seed interventions in recent pasts	Facilitators
		09:15 - 09:25	GW: Mapping Interventions in the country	Participants
		09:25 - 10:00	GW: Analysing Interventions in the country	Participants
		10:00 - 10:30	GP: Seed Interventions	
		10:30 -11:00	Tea/Coffee	Hotel

Day	Sessions	Time	Activity	Responsibility
Day 2	**Session 6:** SSA Steps	11:00 - 11:20	The 5 SSA Steps: Preparation & Baseline	Facilitators
		11:20 - 12:10	GW: Preparation & Baseline	Participants
		12:10 - 12:40	PP: Preparation & Baseline	Participants
		12:40 - 12:50	Q&A	Participants

Day	Sessions	Time	Activity	Responsibility
Day 2	BREAK	13:00 - 14:00	Lunch	Hotel

Day	Sessions	Time	Activity	Responsibility
Day 2	**Session 6:** SSA Steps	14:00 - 14:10	The 5 SSA Steps: Understanding Disaster	Facilitators
		14:10 - 14:20	The 5 SSA Steps: Diagnosis	Facilitators
		14:20 - 14:30	The 5 SSA Steps: Action plan	Facilitators
		14:30 - 14:40	Q&A	Participants
		14:40 - 14:50	Short break	
		14:50 - 15:40	GW: Disasters, Changes & Actions Plan	Participants
		15:40 - 15:55	PP: Disasters, Changes & Actions Plan	Participants
		15:55 - 16:00	PP: Disasters, Changes & Actions Plan	Participants
	BREAK	16:00 - 16:20	Coffee/tea	Hotel
	Session 6	16:00 - 17:00	AAP	Facilitators

Day	Sessions	Time	Activity	Responsibility
Day 3	**Session 7**: 7a) SSA Site Selection and 7b) SSA Tools	08:30 - 09:00	Recap	Facilitators
		09:00 - 09:20	SSA Site Selection	Facilitator
		09:20 - 09:35	SSA Tools for field works: Basic concepts	Facilitators
		09:35 - 10:00	GW: Key informants interview	Participants/ Facilitators
		10:00 - 10:30	GW: Household Survey (HHS)	Participants/ Facilitators
		10:30 -11:00	Tea/Coffee	Hotel
		11:00 - 11:30	GW: Local Market Survey (LMS)	Participants
		11:30 - 11:45	Focus Group Discussion (FGD)	Facilitators
		11:45 - 12:00	Useful techniques for FGD	Facilitators
		12:00 - 13:00	Role play (FGD)	Participants
Day 3	BREAK	13:00 - 14:00	Lunch	Hotel
Day 3	**Session 8**: Introduction to field work	14:00 - 14:10	Introduction to field work preparation	Facilitators
		14:10 - 15:20	Preparation and practice by role	Participants
		15:20 - 16:00	Meeting by Team	Team leader
		16:00 - 16:20	Coffee/tea	Hotel
		16:20 - 17:00	Meeting by role	Participants
		17:00	Wrap up/end of the day	Participants

Day	Sessions	Time	Activity	Responsibility
Day 4	**Session 9:** Field Work			
		06:30- 07:00	Meeting at training venue	All
		07:00 - 8:00	Departure to the field	All
		08:00 - 08:30	Introduction to local leaders	Team
		08:30 - 09:00	Getting to know the local area	Team
		09:00 - 11:30	Household survey + FGD	Team
		11:30-14:00	LMS + KII	Team
		14:00 - 15:00	travel back to the training venue	All
		15:00 - 16:00	Discussion: Field Work Experience	Team/Facilitators
		16:00 - 16:30	Coffee/tea	Hotel
		16:30 - 17:30	Data entry	SSA regional expert/Participants
		17:20 -18:30	Data Cleaning/Management	SSA regional expert/Participants
Day 4	BREAK	13:00 - 14:00	Lunch (packed)	Hotel

Day	Sessions	Time	Activity	Responsibility
Day 5	**Session 10:** Generating results from the field work	08:00 – 08:30	Recap	All
		08:30 – 08:45	Generating results from the field work	Facilitator
		08:45 – 10:30	Discussion: Field work assessment results	Team
		10:30 - 11:00	Coffee/Tea	Hotel
		11:00 -12:00	Discussion: Field work assessment results	Team
	Session 11: Presenting results	12:00 – 12:10	Presenting results	Facilitator
		12:10 -13:00	Presentations: Team 1	Team
		13:00 - 14:00	Lunch	Hotel
		14:00 - 14:30	Presentations: Team 2	Team
		14:30 - 15:00	Presentations: Team 3	Team
	Session 12: Evaluation & Closure	15:00 - 15:30	Final Evaluation	all
		15:30 - 16:00	Closing session	all
		16:00 - 16:30	Coffee/tea	Hotel

Acronyms

AAP   Accountability to Affected Population
FGD   Focused Group Discussion
GP   Group Presentation
GW   Group Work
HHS   Household survey
KII   Key Informant Interview
LMS   Local Market Survey
SSA   Seed Security Assessment

**Food and Agriculture Organization
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SEED SECURITY ASSESSMENT TRAINING

Venue: _____   **Date:** _____

PARTICIPANT'S REGISTRATION FORM

a) **Name: First** _____ **Other(s):** _____

b) **Qualification(s):** _____

c) **Current Position/Designation:** _____

d) **Organization:** _____

_____ (Abbreviation) _____

e) **Physical Address (Duty Station):** _____

_____

f) **Tel:**   Office: _____

Mobile 1: _____

Mobile 2: _____

g) **E-mail:** Official: _____

Private (Optional): _____

h) **Skype:** _____

Sign: _____   **Date:** _____

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Welcome!

&

Course introduction
(S1-S2)

Course learning objectives

If we **ALL** do our job properly, **YOU** will be able to:

1. Understand the seed system security (theory & practice)

2. Understand and apply the Seed Security Conceptual framework (SSCF)

3. Understand and apply the 5 steps of a Seed Security Assessment (SSA)

Let's have a quick look at the course agenda

Course Outline

1. **Seed System**
   - Basic concepts
   - Discussion points
2. **Seed Security conceptual frameworks (SSCF)**
   - Parameters
   - Group work: SSCF
3. **Recent Seed Security interventions in country**
   - Group work: Experience sharing

5. **Seed Security Assessment**
   - Basic steps
   - Group work
6. **SSA Tools for effective field work**
   - KII, HHS, LMS, FGD
7. **Field works**
   - Use of various tools
8. **Data management, analysis and result**
   - Excel pivot table

Which "principles" will we use to work together?

Course principles / rules

Methodology

We will combine…..

Lecturing

Dialogue & debate

Q & A

Group work
& exercises

Fieldwork
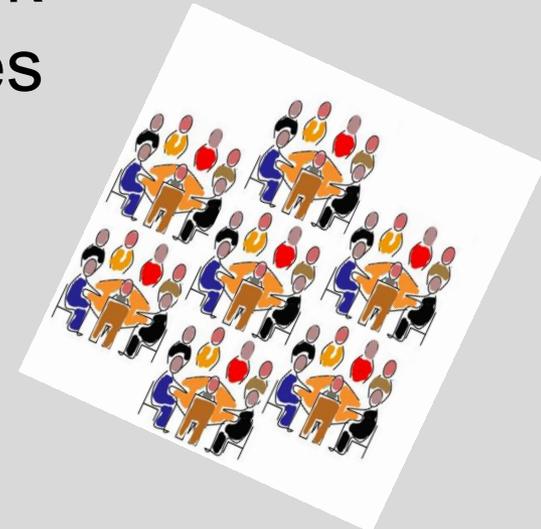
S-2
Icebreaking

Who are we?
(and not only what we do)

Please evaluate by giving a score of 1-5 on:

Facilitation = F, of the Trainers

Content = C, of the Course (what?)

Methodology = M, of the Course (how done?)

1 is very poor, 5 is excellent. So:

F 2 would mean facilitation = 2/5, not good

C 3 would mean content = 3/5, quite good

M 4 would mean methodology = 4/5 very good

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Seed Systems: Basic Concepts
(S-3)

Session Objective

- Understanding the basic concepts behind Seed Systems

- Understanding formal & informal, public & private/commercial and community based Seed Systems

Seed & variety (I)

Seed is one of the most crucial elements in the livelihoods of agricultural communities

- **Seed:** consists of an embryo, endosperm and seed coat capable of developing into a plant

- **Crop:** species level i.e. rice, maize, beans, sorghum

- **Variety or Cultivar:** a distinct group within a species that will reproduce true to type
  - **Self pollinated crops:** normally more uniform and easier to save seed e.g. rice and beans
  - **Open/Cross pollinated crops:** more heterogeneous and more difficult to maintain distinct variety
  - **Hybrids:** a product of two or more inbred lines to gain hybrid vigour. Next generation will not be true to type

Varieties

- Varieties have names assigned to them – however the name of the same variety could vary from place to place

- Have unique seed colors, shape, size and organoleptic properties

- Could have different growth habit – duration & architecture

- Note: same variety could have slightly different features/ properties in different environment (GxE interaction)
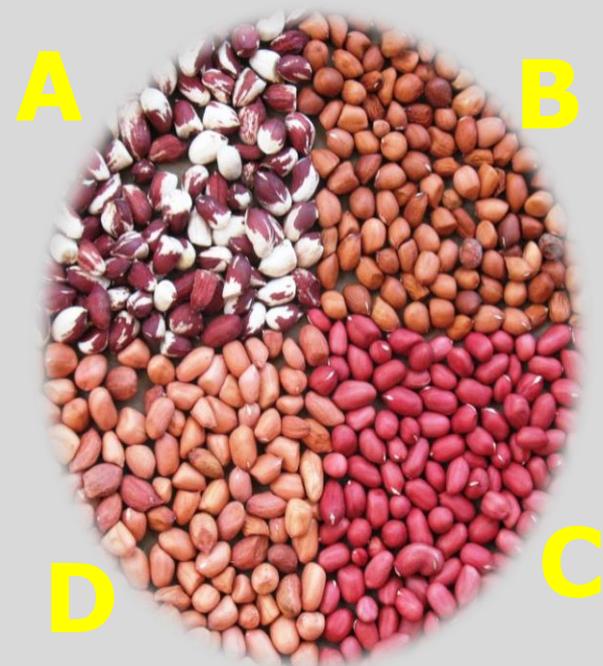
Groundnut

Cassava

Seed & variety (II)

Improved varieties

In relation to crops of the same species it is:

- Different to all others that belong to the same species
- The product of formal plant breeding
- Normally homogenous and stable over some time
- Normally produced by the formal sector but often later are produced by farmers

Local varieties

- Landraces selected by farmers or improved varieties in the hands of farmers for many years
- Not certified and sometimes not homogenous (uniform)

Advantages

of using improved varieties

(and disadvantages?)

Discussion
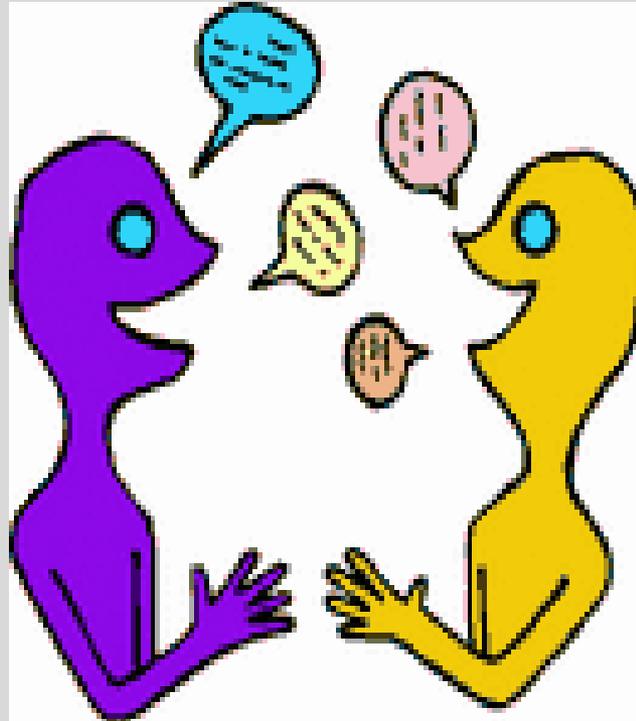
A Seed System is…

The value chain of the demand and supply of seeds inside a given agricultural system

a) Formal
- Public
- Private
- Mixed

b) Informal

Formal Seed System

- Based on new varieties developed by formal plant breeding by international or national research institutes or seed companies

- Released varieties that are multiplied and sold as certified/modern varieties

- "Objective" is to provide high quality seed of adapted varieties to farmers

Formal systems can be:
- ✓ Public
- ✓ Private
- ✓ Mixed (public/private)

Formal Seed System

Plant breeding

Variety Testing and Release

Early generation Seed Multiplication

Certified Seed production and Quality control

Storage & Conditioning

Commercialization

Value chain

Formal Seed System

Plant Breeding	←	Public or Private
Variety Testing and Release	←	Public
Early Generation Seed Production	←	Public
Quality Control	←	Public
Seed Conditioning	←	Private Sector
Commercialization	←	

Informal Seed System (I)

Farmers access to seeds via:

- Their own production

- Social networks

- Local markets

Characteristics

- ✓ Flexible system
- ✓ Local landraces
- ✓ Local (new) improved varieties (not certified)
- ✓ Inexpensive and available
- ✓ Seeds' quality is variable and depends on trust in the seed seller

Informal Seed System (II)

- Production of seeds, multiplication, distribution & storage in farmers' hands

- Activities around seeds are organized & integrated locally

- Multiplication, distribution & storage of seeds part of production system

- Sometimes there is scope for improvement

Formal & informal. Let's compare

**Advantages of a formal system
in relation to a informal one**
(and the other way around)

Discussion
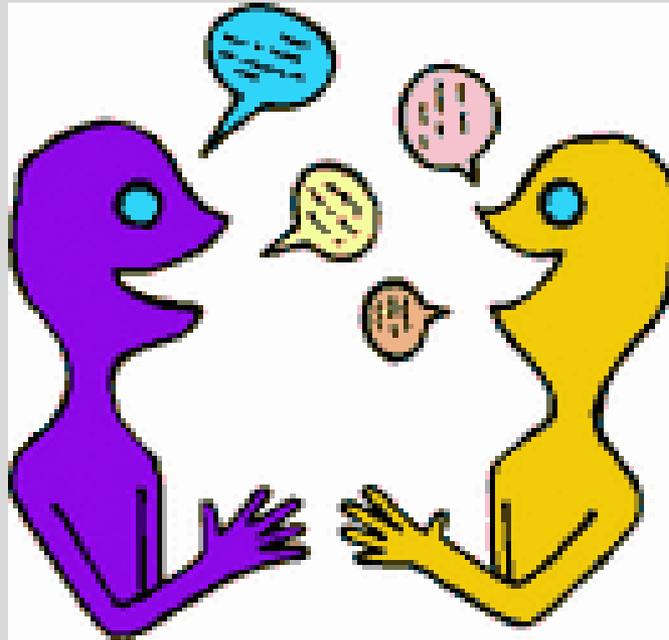
National Seed System
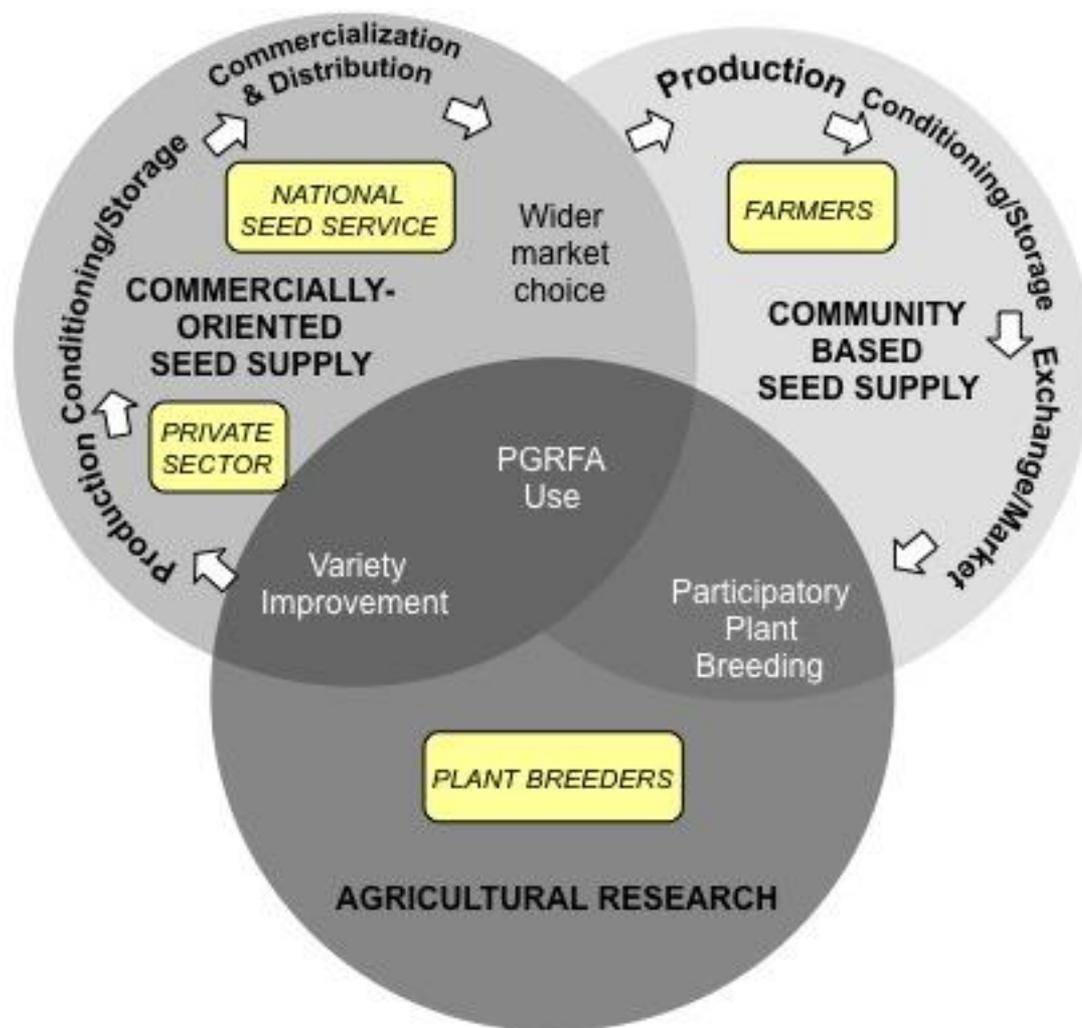
Q & A

FAO SSA Training
Handout 0 - Session 3 (Seed systems)

Seed and Variety. Definitions

SEED

Some basic definitions

- A seed is an embryo, a living organism embedded in the supporting or the food storage tissue and seed coat which when planted produces normal seedling capable of growing into a plant.

- Any part of the plant that can, when planted, produces normal seedlings capable of growing into a plant.

- Plant parts with potential to germinate and grow into a plant include sowing e.g. Grains, tubers, bulbs, rhizomes, roots, cuttings, vines

Classes of seed

- **Breeder seed** - the source for the production of seed of the other classes in a formal plant breeding/formal seed system.

- **Foundation seed** - The progeny of breeder seed, used as planting stock for registered and certified seed.

- **Certified seed** - Seed of a prescribed standard of quality, produced under a controlled multiplication scheme, either from basic seed or from a previous generation of certified seed. It is intended either for the production of a further generation of certified seed or for sowing to produce food, forage, etc.

- **Quality Declared Seed**

VARIETY (CULTIVAR)

Variety (Cultivar) - an assemblage of cultivated plants which is clearly distinguishable by a group of characters (morphological, physiological, cytological, chemical or others) and which, when reproduced (sexually or asexually), retains its distinguishing characteristics."

Four different varieties of groundnut that could be distinguished by seed color

Open-pollinated variety (OPV) - A heterogeneous variety of a cross-pollinated crop that is allowed to inter-pollinate freely during seed production; in contrast to hybrid seed production representing controlled crosspollination.

Hybrid variety - A hybrid is created by crossing two unique parents. Crossing involves taking the pollen from the male and transferring it to the female. The first generation of offspring from this cross all looks and acts the same. They also show what's known as hybrid vigor: these plants come out stronger than their parents. But you can't plant their seed in order to raise these plants the following year. The seed collected from a hybrid plant will either resemble one of the parents, or be sterile.

- Hybrid seeds don't "reproduce true-to-type" in the second generation. That means that if you save the seeds produced by F1 hybrid plants and plant them, the plant variety that will grow from those seeds (known as the second generation) may or may not share the desired traits you selected for when creating the first generation hybrid seed.

Improved (modern) varieties – varieties which have been bred for specific traits such as high yields, resistant to pest and diseases, tolerant to drought or other stresses. These can be OPVs or Hybrids. Improved OPVs can be certified or not.

Local or tradition varieties or landraces – these are varieties that have evolved over time and famers have come to recognize them with some features.

Bibliography and references documents on seeds in FAO web resources, available at:

http://www.fao.org/agriculture/crops/core-themes/theme/seeds-pgr/know_res/en/

Names of Varieties

A	B	C	D
Igola Makulu red	S2 Lakumurek Serenut 2 Tong Piny Thith Atozo	Red beauty Lokumure Lomaide Jorozo Wako	Loku 2 Lokoya Serenut 4 Egola

FAO SSA Training
Handout 1 - Session 3

Seed systems -Advantages of a formal system in relation to an informal one (and the other way around)

Issues	Formal System	Informal System
Characteristics of seeds and varieties		
Origin of seeds & varieties		
Cost		
Availability		
Quality & control		
Gender related and other social issues		

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Seed Security Conceptual Framework
(S-4)

SSCF – origin & purpose

The Seed Security Conceptual Framework (SSCF) first appeared in 1998. It was inspired by the Food Security Conceptual Framework.

SSCF is the foundation of the Seed Security Assessment.

Seed security (I)

What's seed security? Your view….

Let's brainstorm!
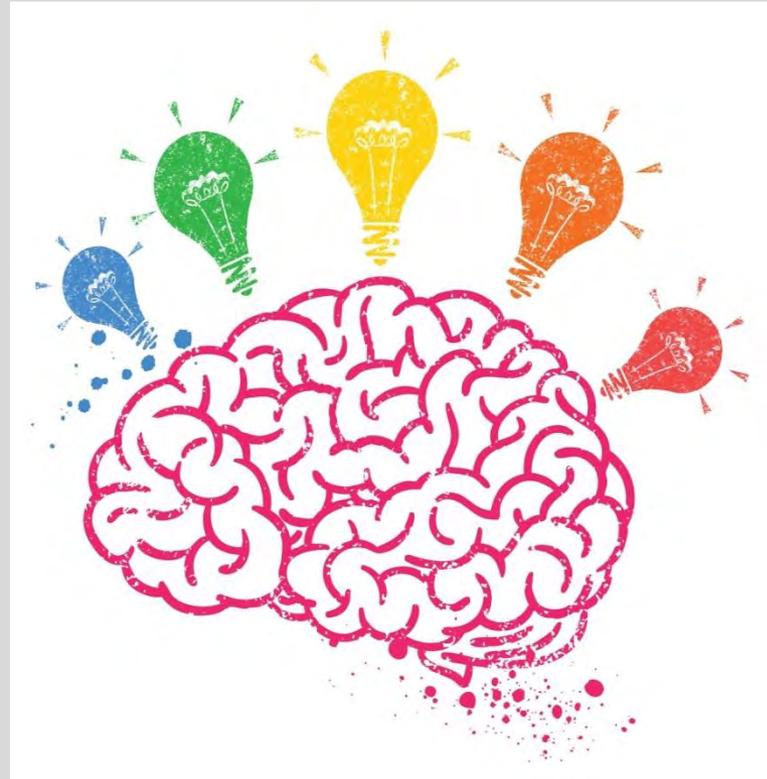
Seed security (II)

What's household seed security? your view…

… and FAO definition 2015

"household seed security can be said to exist when the household has sufficient access to adequate quantities of good quality seed and planting materials of preferred crop varieties at all times following both good and bad cropping **seasons"**

Seed Security & Food Security: differences and similarities

Food Security is "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life"

World Food Summit 1996

Discussion

Food Security and Seed Security:

what do they have in common?

what makes both concepts different?

Q & A

and

OUT TO LUNCH

SSCF Parameters (I)

- Availability of seed
- Access to seed
- Varietal suitability of seed
- Seed quality
- Resilience of the seed system

SSCF Parameters (I) - Availability

Farmers' seed supply from all sources regardless of the variety or quality of seed.

Seed sources

1. owned saved seed (OSS)
2. social network seed (SNS)
3. local market seed (LMS)
4. formal seed sector (FSS)
5. seed-aid seed (SAS)

Indicators

- **Sufficient quantity** from one or more sources
- Seed in **close proximity** (distance)
- Seed available **in time for planting**

SSCF Parameters (II) - Access

The ability to acquire seed through exchange, loan, barter or use of power in social networks

Means of acquiring seed

- Cash,
- Barter (exchange)
- Loan (cash or in-kind)
- Gift (free seed)
- Social capital

Indicators

- Social & economic capacity to acquire seed or loan
  - Sources of income
  - Economic resources
  - Social networking
- Changes in seed price or term of trade for seed
- Level of community cohesion and fairness

SSCF Parameters (III) – Varietal suitability

Are the crop varieties for which seed is available appropriate/adapted and preferred by farmers?

Some issues

- Households require seed of crop varieties that they know, have a preference for and are confident to plant
- New varieties should not be provided to vulnerable households in response to a disaster
- Information about varieties is key both on what farmers use and what new varieties may be suitable for.

4 standard varietal suitability indicators

SSCF Parameters (IV) – Seed quality

Crop seed of "reasonable" quality that enable farmer to produce a good crop under normal condition?

Quality attributes:	Seed quality indicators
 • Germination • Physical purity • Varietal purity • Seed health	1) Famers satisfaction with quality seed from all sources 2) % germination, % PP, %VP 3) Incidence of seed-borne diseases/pest

✓ Seed quality attributes are an essential parameters

✓ Potential positive or negative impact on the farmers ability to successfully establish a crop and to have a reasonably yield

SSCF Parameters (V) – Resilience of the seed system

Resilience is the degree to which the household's seed system can resist, adapt to and recover from shocks and stresses which threaten the integrity of household seed security.

Resilience indicators

Resilience is manifested in the degree of seed security in terms of seed availability, seed access, seed quality and varietal suitability after a shock. Thus it can only be **directly** measured by changes in indicators for these aspects (see earlier slides).

Indirect indicators include:

- livelihood diversity (risk spreading)
- crop diversity (risk spreading)
- different levels of asset ownership and ability to liquidate assets
- different access to information about climate, seed sources, prices

Characterization & levels of Seed Insecurity

- **Acute:** a temporary and relatively sudden increase in seed insecurity
- **Chronic**: a persistent state of seed insecurity

- **Mild, moderate, severe:** Different levels of acute or chronic seed insecurity.

	Acute	Chronic
Mild	1	2
Moderate	3	4
Severe	5	6

Seed Security Conceptual Framework

You will receive a handout with hypothetical scenarios.

In 30 minutes, your group should answer: 'Seed security or insecurity is caused by *which* (one or several) of the components of the SSCF: lack of availability, lack of access, poor varietal suitability, low seed quality.

In 15 minutes, answer:

'Is it acute or chronic?'

'Is it mild or severe?'

Group work!

Assessment, Interventions and Accountability to Affected Populations (AAP)

For FAO, Accountability to Affected Populations (AAP) means: *"an active commitment by actors and organisations to use power responsibly by taking account of, giving account to, and being held to account by, the people they seek to assist."*

http://www.fao.org/fileadmin/user_upload/emergencies/docs/Guidance%20Note_Accountability_Publi.pdf

FAO's 7 Principles of AAP

1. Strengthening leadership and governance to embed good practice within FAO's management structures and to ensure that FAO staff and implementing partners deliver on its commitments;

2. Greater and more routine transparency, two-way communication, and information provision for affected communities;

3. Offer means for communities to provide feedback and to submit complaints, and to ensure that they receive a timely response;

4. enable fair and representative participation of all sections of affected populations, including the most vulnerable and marginalised;

5. mainstream AAP into needs assessment, design, monitoring, and evaluation activities, ensuring an appropriate focus on AAP, participation in processes and continuous learning and improvement;

6. prevent sexual exploitation and abuse (SEA) by FAO personnel and implementing partners and put in place adequate response mechanisms;

7. collaborate with peers and partners to deliver on AAP commitments in a coordinated and coherent way.

Using AAP within SSA

- The SSA, using SSCF, should lead to clear findings.

- SSA should be conducted using principles of AAP, particularly transparency, participation.

- What does this mean exactly?

1. Objectives and reasons for SSA must be clearly explained to communities.

2. Participatory approaches and tools should be part of the SSA tool-kit

3. SSA practitioners have a duty to share findings with communities – how can this be done practically?

Q & A

no question off limits

Food and Agriculture Organization of the United Nations

FAO SSA Training
Handout 1 - Session 4 (SSCF)

Conceptual framework – Exercise in small groups

Task S4-A

In the following 4 scenarios try to identify if insecurity is caused by one (or several) of the different components of the conceptual framework:

- **Availability,**
- **Access,**
- **Seed quality,**
- **Varietal sustainability,**
- **Resilience.**

Discuss in your group and reach shared conclusions for each one of the 4 scenarios. Work directly in the flipcharts as you, need to share your conclusions in plenary.

- Group Discussion: You have 30 minutes to discuss all four scenarios and reach conclusions
- Presentation: Group 1 will give a clear, 4-minute, visual presentation on Scenario 1 only; others will add comments. Group 2 will present for 4 minutes on Scenario 2; Group 3 on Scenario 3, and Group 4 on Scenario 4.

At the end of the handout you have the list of indicators for each of the parameters of the SSCF. The indicators may help you in your analysis

Scenarios

1. Rains arrived late in the Equatoria region. Farmers who planted maize early in the season had to replant the crops. Because of government restrictions on seed importation and the dwindling local seed supply, the price of maize seed on the local markets rose above normal. Many farm households could not afford their 'normal' vegetable seeds. Farmers also complained about high levels of seed/grain pest infestation in the market.

2. The influx of refugees into the Ironstone plateau agro-ecological zones of the country led to increased demand for beans and green grams. For the first time, seed suppliers ran out of seed stocks just one month before the planting season. However, the government has allowed seed traders to move seed from Nile and Sobat livelihood zone to support both the refugees and host community in the affected area.

3. Civil unrest in the East over the past five years led to humanitarian distributions of assorted crop seeds to affected households. Many seed stockists fled; some lost all or part of their seed stock. Many local markets became inaccessible due to insecurity. In the up-coming season, humanitarian actors plan to buy certified seed varieties from another region and distribute them to the most vulnerable households of the crisis affected population. However, some households who received maize and beans varieties two years ago complained of poor performance of these varieties though the considered germination was good.

4. Even when identified communities have no problem of seed availability and access, many of the locally preferred crops and seed varieties have disappeared over the last three years due to recurrent drought, flood, and invasion by storage pest. Although some new short-term drought-tolerant varieties are found in small quantities with agro-input dealers (due to limited resources by the formal seed sector for large seed multiplication schemes), many farmers are reluctant to buy these unknown varieties. Hit by the collapse of the cotton price - which represented the main source of income in the region - many households have reduced their share of food crop seeds bought from input dealers or seed suppliers. They are depending now on the social network and other informal seed sources; even though they are aware that this implies a reduction of yield later on.

Format for Group Discussion

1. Identify the crisis
2. What are the seed insecurity issues in relation to the SSCF
3. Characterize the seed insecurity (acute or chronic mild or severe)

Scenario	Crisis	Seed insecurity elements based of SSCF	Characteristic of seed insecurity
1			
2			
3			
4			

INDICATORS SSCF PARAMETERS

Availability indicators

- **Sufficient seed of the desired crops and varieties available** (seed for the vulnerable household from own saved seed (OSS) or social network seed (SNS) at planting time in comparison with situation before the disaster.
- **Quantity of grain of desired crops available in households and in local markets at planting time** which farmers could use as seed
- **Quantity of seed available with seed companies and local seed stockists at planting time**
- **Changes in seed availability through the different channels after the disaster** i.e. OSS, SNS, LMS, FSS
- **Previous and current programmes by NGOs and or government to provide seed** (SAS)
- **Distance to seed sources**: Are local markets, seed stockist, seed companies etc. within a reasonable distance (measured in walking hours if this is the only option for the most vulnerable cultivating families)?
- **Is the seed available at planting time?** Delays in providing seed is a serious problem.
- **Are the desired crop varieties produced by FSS producers and available at SAS?**

Access indicators

- Capacity of farmers to acquire the quantity of seed necessary to maintain their crop mix similar to the situation before the disaster through barter from SNS, purchase from LMS, purchase from seed companies FSS, access to SAS**.**
- Level of community cohesion and fairness of power structures as a result of the disaster (e.g. debts, obligations, shame can inhibit the household be able to source SNS)
- Household has other sources of income to purchase seed such as (farm labour, small enterprise, micro credit
- Severity of impact of the disaster on economic resources of the household and their ability to purchase seed
- % change in seed and/or grain prices compared with non-emergency period in the same period of the year in Local markets

Varietal Suitability Indicators

- Farmer satisfaction with the crop and varieties they are currently growing?
- Farmer has access to true and useful information about varietal suitability
- Problems related to current varieties (duration, pest, disease, yield)
- Farmer satisfaction with varieties from other sources i.e. LMS, SAS, and FSS.
- New varieties that may suit their needs but not available?
- Will there be a reliable source of new varieties?
- Opportunities for introducing crops or varieties that could improve HH nutrition/diversification of diet
- Information available to farmers on current crop varieties and crop diversity
- Gaps in production practices used by farmers

Yield levels as compared to national averages
Low input / high input varieties or agriculture systems

Seed quality indicators

1. Farmer satisfaction with quality of OSS, SNS, LMS, SAS and if not what are the problems?
2. Mean % area planted that could have seed quality related problems (pest, disease, poor establishment or stands)
3. Mean % germination (of samples provided by farmers)
4. Mean % physical purity (of samples provided by farmers)
5. Mean % varietal purity (when a pure variety has specific advantages e.g. for commercial use)

Resilience Indicators
- Diversity

Livelihood diversity i.e. other sources of income
Suitability of current preferred varieties for HHs to changing agro-ecological conditions
Number of seed sources used by the HHs
Number of crops and varieties of those crops grown by the HH?
Dietary/Nutritional diversity indicator? I.e. animals and crops?
- Governance

Seed Policy that recognises seed security and the informal sector
Capacity of informal seed system to provide sufficient seed after emergencies
- Equity

Equitable decision-making powers (agency), partly through access to information, technologies, training and seed for the poor and for women
- Productivity & Sustainability

Low multiplication rate and trending lower
Low yields and trending lower.
Weaknesses in the informal seed systems
- Community resilience, links to markets
- Linked to vulnerability index
- Links to formal seed systems and ways to improve

Task S4-B

Comment of the clarity of the indicators above and suggest where possible

Indicators	# Clear	Not clear	Suggestions
Availability			
Access			
Quality			
Varietal suitability			
Resilience			

Session Objectives

1. Understanding the seed security-related interventions in the country during the last 3-5 years (at subnational level).

2. Sharing the lessons learnt in implementing seed security related interventions.

Seed interventions in Emergency and Rehabilitation context

Introduction

- World-wide, there are many disaster related seed responses

- Many are implemented with little understanding of the effect of the crisis on seed systems

Common interventions

- Seeds and Tools
- Direct seed distribution
- Seed Fairs and vouchers
- Seed vouchers
- PPB/On farm trials
- Community Seed Banking
- Community-based seed multiplication
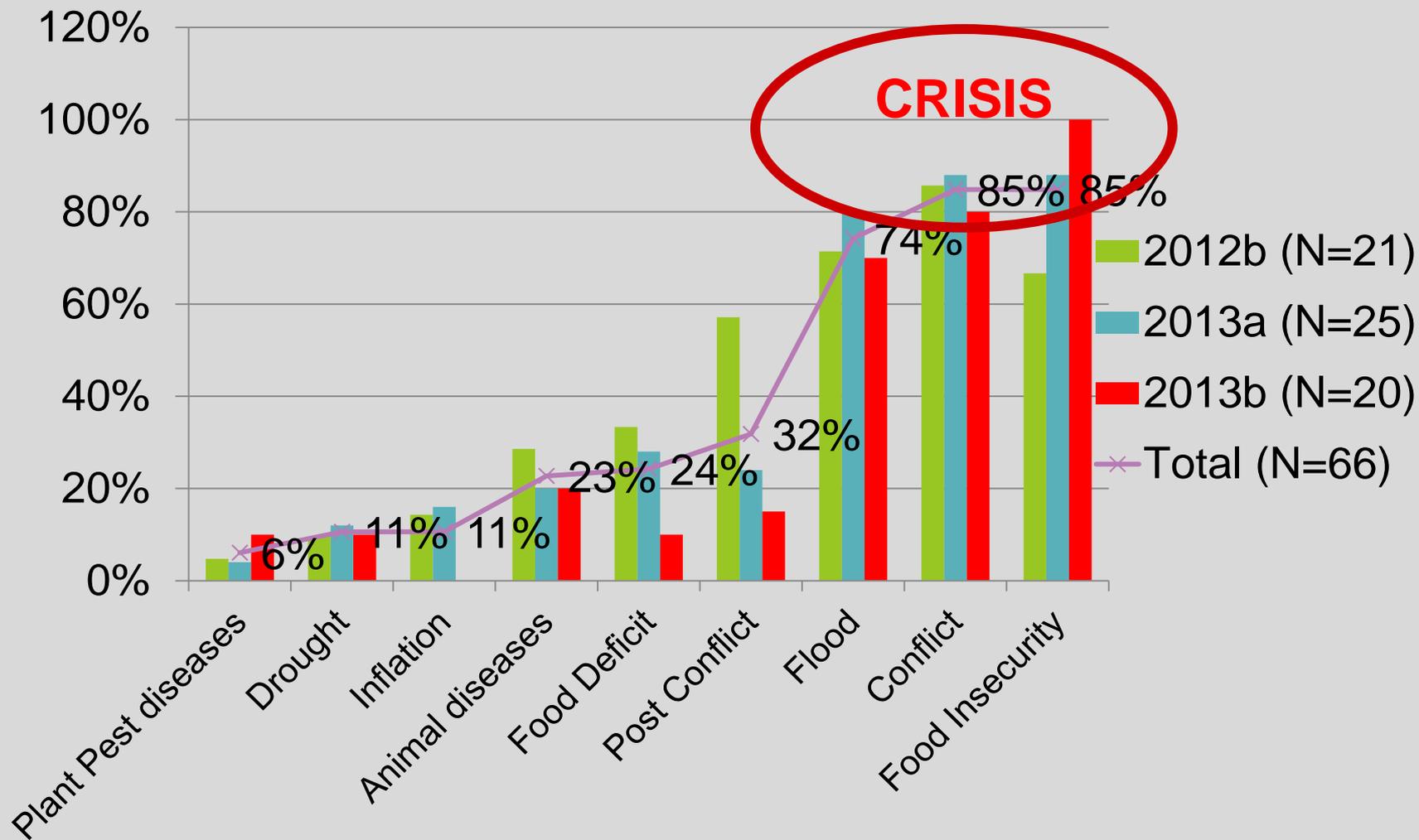
Issues highlighted by 66 humanitarian organizations
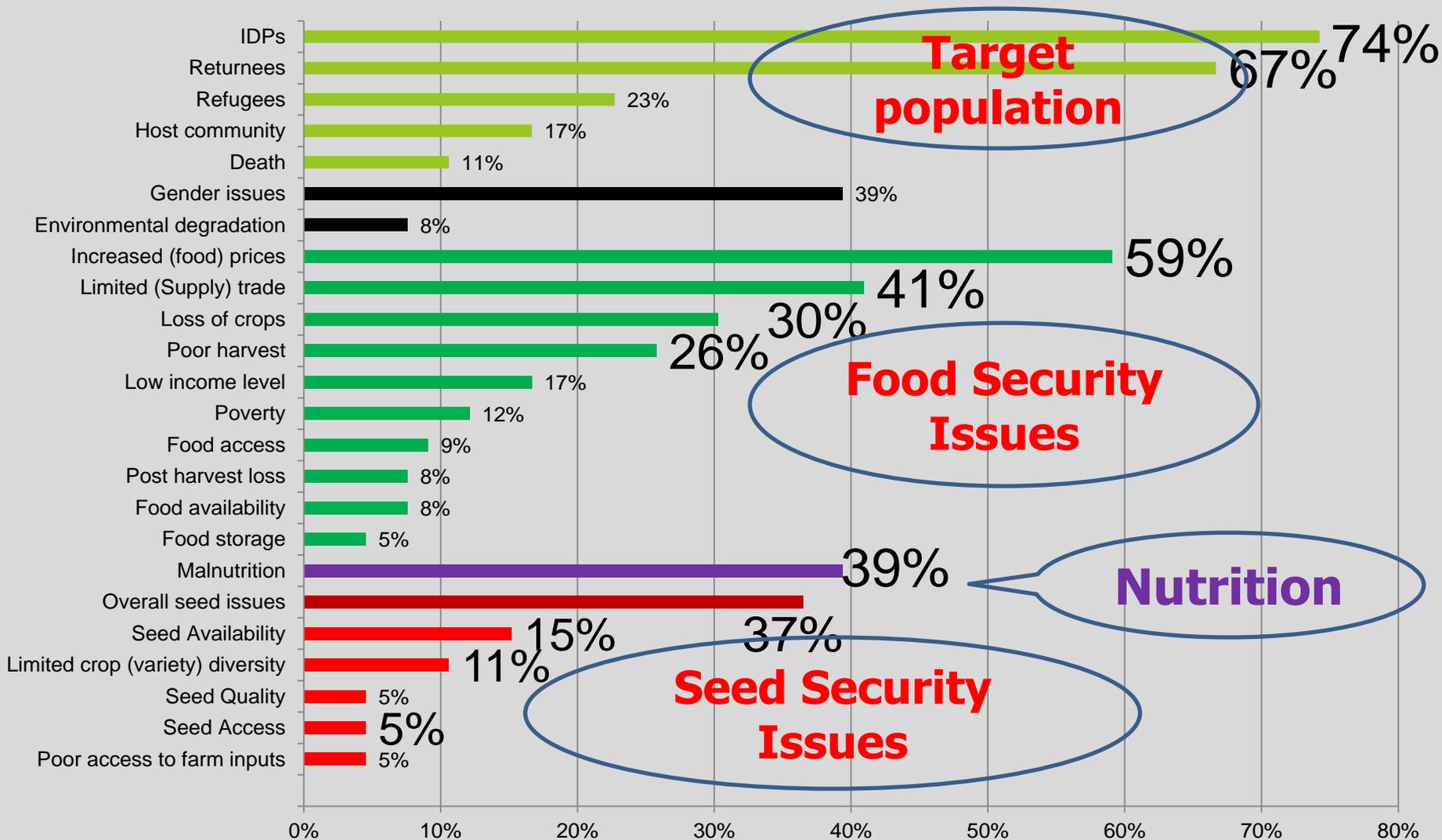
% of interventions informed by seed security analysis
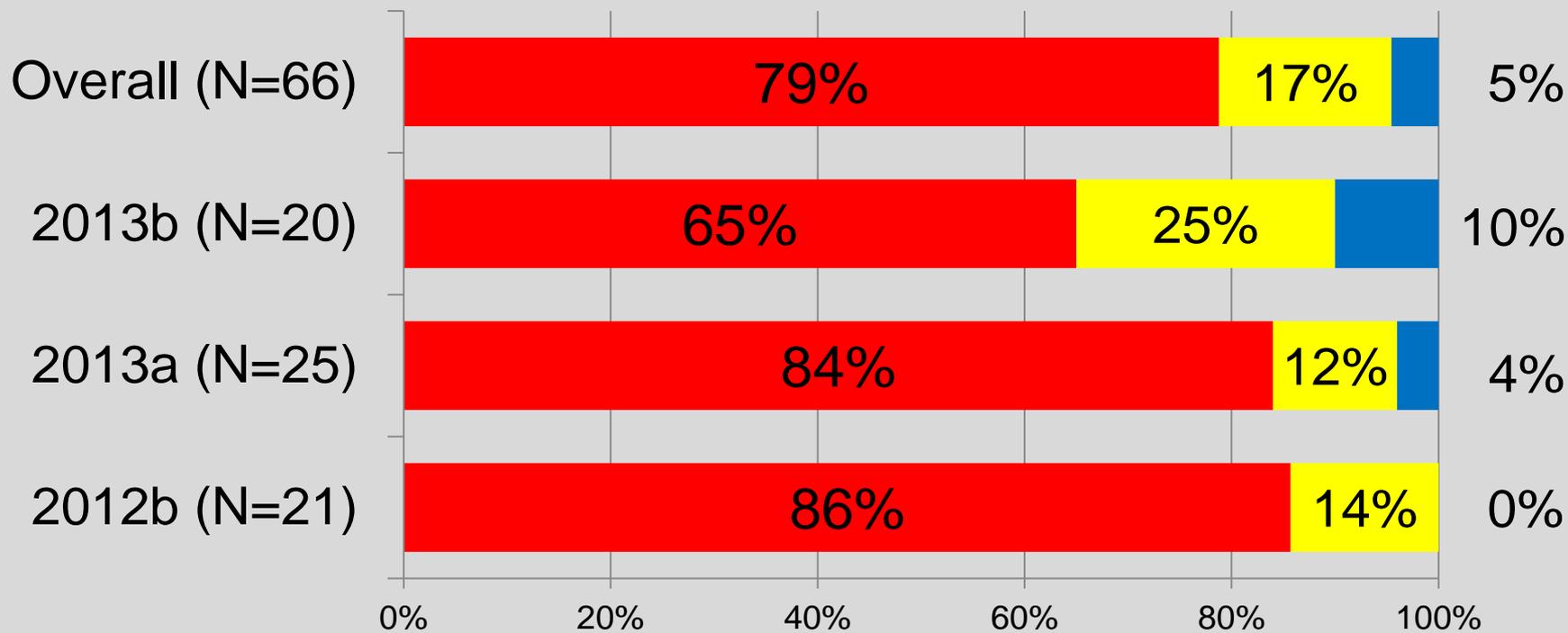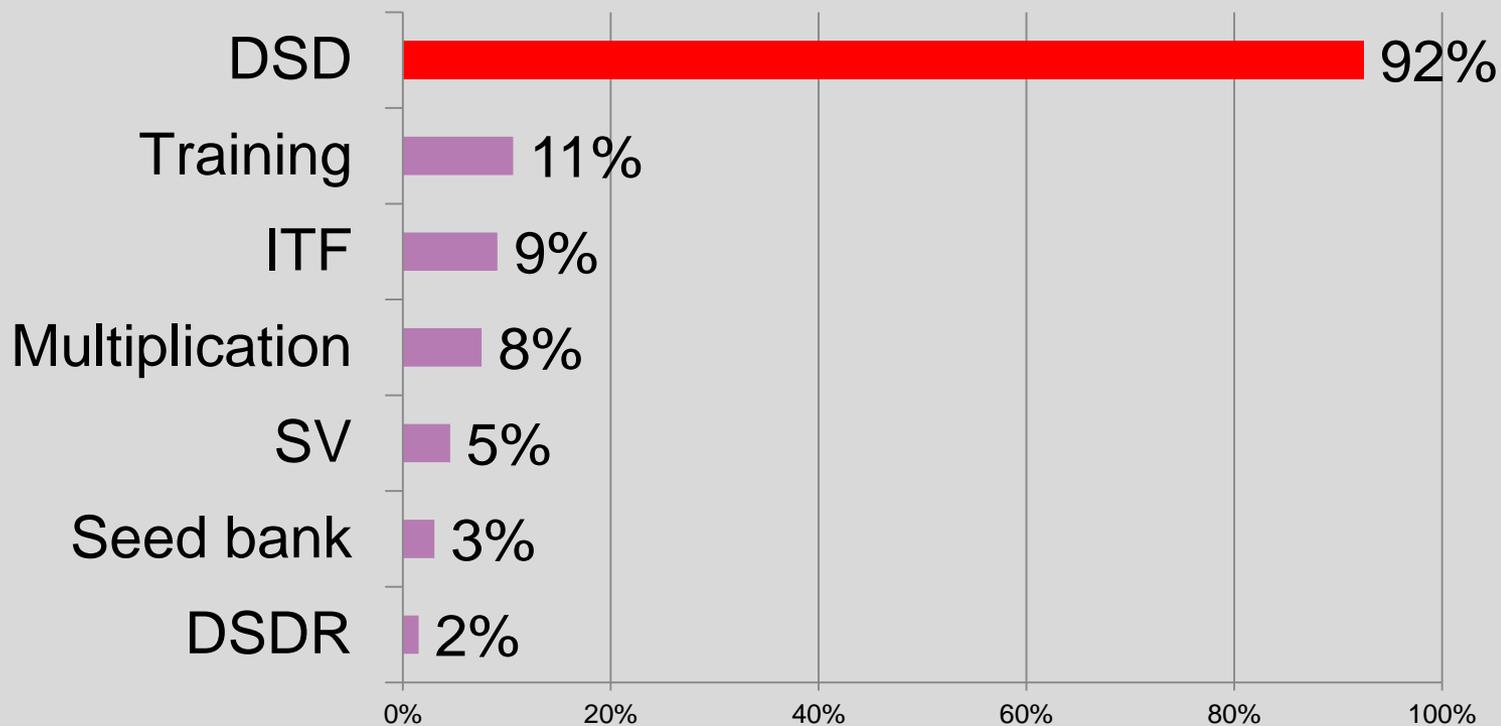
Common Crisis/Disasters

A) Flood

B) Flood

C) Flood

D) Drought

Typical Responses

Emergency

Recovery

Group work (I)

Objective of the group work

- To analyze and understand seed security-related interventions in the country since 2008 (local area, region, department/province).

- To determine and share the lessons learnt

CHOOSE TWO OR THREE INTERVENTIONS!

Group work (ii)

1. When the intervention/s happened?
2. Where?
3. Who was involved?

Choose ONE intervention & discuss

A - Mapping

1. Why it took place?
2. Describe nature & characteristics of the actions/activities as SSCF
3. SWOC analysis of intervention : Strengths, Weaknesses, Opportunities, Constraints
4. Main lessons learned

B - Analyzing

Group work (III)

- 65 minutes group work
  - ✓ 45' group discussion for analysis
  - ✓ 10' for mapping
  - ✓ 10' preparing plenary presentation
- 30 minutes (3 x 10') presentations in plenary
- 15 minutes Q & A + feedback by facilitators

Time

Self-organize the group work

- Participatory & efficient
- Distribute time effectively to answer each of the 7 questions.
- Use flipcharts or PP from the very start
- Make 10' presentations very clear and visual
- Facilitators can help but the analysis is yours!

Method

Food and Agriculture Organization
of the United Nations

FAO SSA Training
Session 6 - Handout 1

5 Steps

You are preparing the SSA that will start on day 4 of this course with a field visit to an area or village(s) close to where the course is taking place (the facilitators will inform you before you start this group work).

In **40 minutes** your group needs to implement all of the following tasks; however Group 1 will lead the presentation on Task 1; Group 2 on Task 2, Group 3 on Task 3 and Group 4 on Task 4… so please spend most of the time on your task and think how to present it. Spend less time on the other tasks; but enough to be able to add to the work of other groups with additional ideas (not to repeat existing ideas on the flipchart!)

Group 1 / Task 1 - Work on the first step, preparation of the Assessment.

- Define the objectives of the Assessment

- Define a possible sample for data and information collection

Group 2 / Task 2 – Methodologies and Information Sources.

- Outline the methodologies/approach/tools you wish to use

- Select relevant sources of information

Group 3 / Task 3 –Training and Logistics

- Pre-assessment training: quick outline of the basic training needed

- Prepare a check list of the basic logistics you will need for the assignment

Group 4 / Task 4 –Check-list of issues and Themes

Prepare a check list of issues and themes that will allow your team to have a better knowledge and understanding of how the agricultural and seeds system works in normal conditions (before the disaster).

You can use slides 5, 6 & 7 of this session to find inspiration.

Please remember that you have 40 minutes for discussion and for any internet searches (into tools, for example). You will have 10 additional minutes for a presentation in plenary. Therefore, work efficiently using the flipcharts and/or cards from the very beginning. If you write clearly, you can first let people quietly read what you have written (instead of repeating it out loud, which can be slow and uninteresting). In that way, you can use your oral presentation to develop and go in depth on some selected items on your list.

Please make your plenary presentations short, clear and visual.

The 5 Steps

1. Preparation of the Assessment

2. Baseline information. Collecting data from before and after the disaster

3. Understanding nature, dimension & impact of the disaster

4. Diagnosis of seed security, post-disaster

5. Action plan & improved programming, post-disaster

Step 1 – Preparation of the assessment

- Defining the scope and objectives
- Defining the sample
- Choosing methodology
- Selecting sources of information
- Developing/adapting the tools
- Pre-assessment training
- Preparing the logistics

Step 2 – Baseline information. Collecting data from before and after the crisis / disaster (1)

1. Description of the seed system before the disaster

2. Socio-economic aspects. Main sources of income

3. Important crops within the cropping systems

4. Production and productivity: crop area, quantity of seeds used, harvest, yields and MR

5. Information on the normal way of supplying seeds

6. Understanding gender roles and responsibilities

Step 2 – Baseline information. Collecting data from before and after the crisis / disaster (2)

The farming system before the disaster (Status Quo Ante)

Crops & livestock Ranking

- For self consumption
- For sale & income

Crop Production and Productivity

- Area x crop
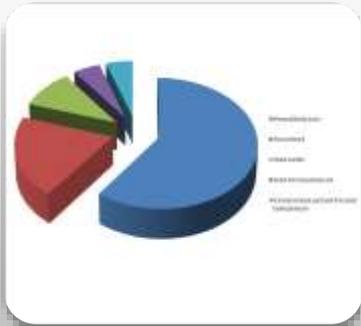- Production x crop
- Yield x crop

Seeds Characteristics

- Seed rate
- Multiplication rate

Step 2 – Baseline information. Collecting data from before and after the crisis / disaster (2) – Yield/feddan
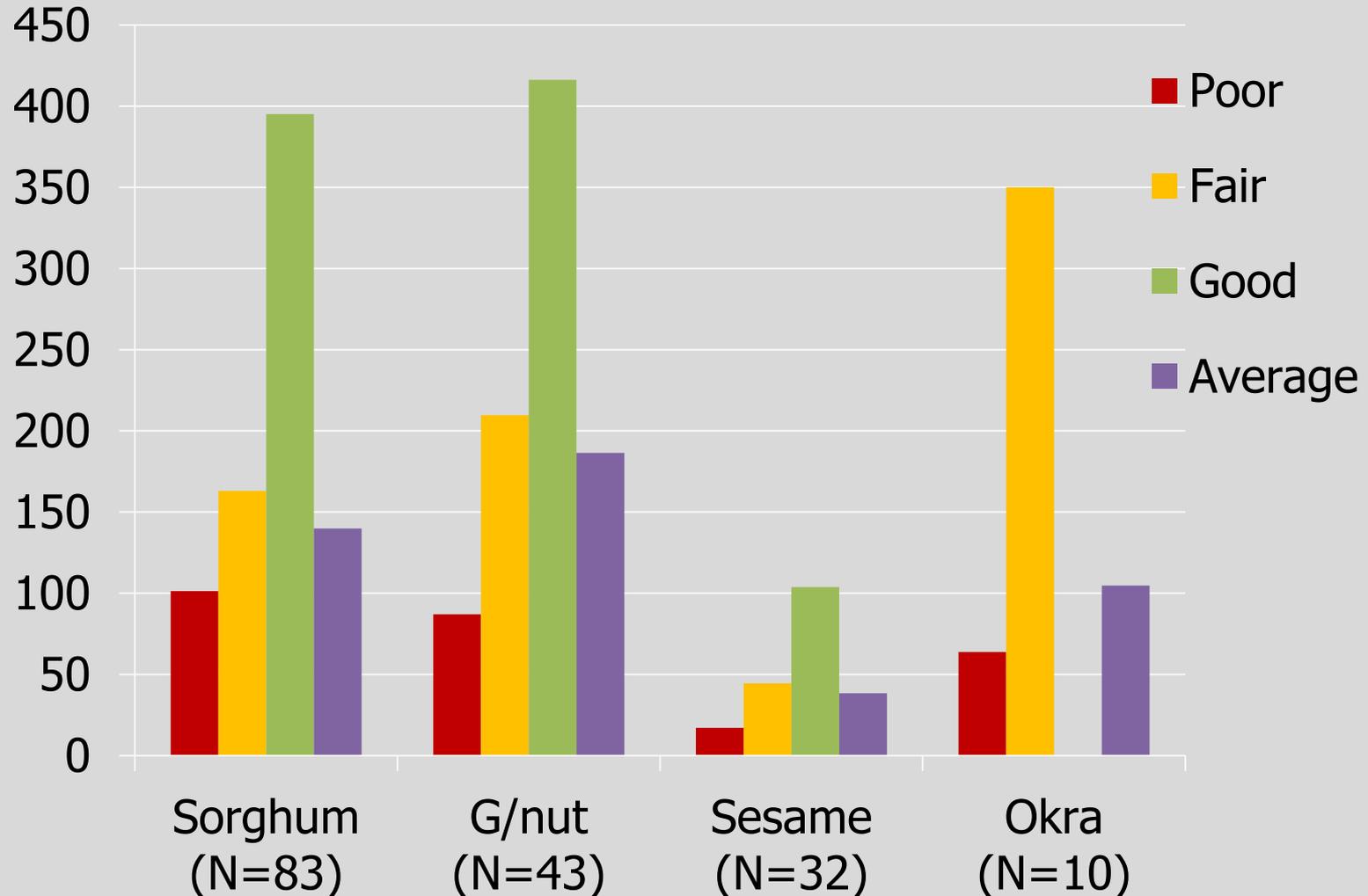
Step 2 – Baseline information. Collecting data from before and after the crisis / disaster (3)

The seed channels in normal times (before the disaster)

Sources x Crops (coming from)

- Own saved
- Social network – friends, relatives, in-laws etc.
- Local markets
- Relief Seeds – NGOs/CBO, UN, Governments
- Commercial seeds from agro dealers and seed producers
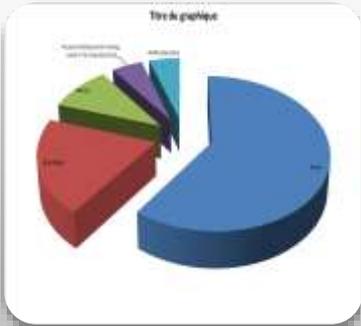
Transaction method x Crop x Source

- Cash
- Gifts
- Barter and Exchange
- Work
- Loan with cash or in kind repayment

Group work: Preparation and Baseline information

Preparation for assessment and baseline information

a. Divide yourself into 4 groups

b. You have 40 minutes for discussion

c. Short presentations in plenary (max. 10)

d. Use the handout S6-H1

Step 3 - Understanding <u>nature</u>, <u>dimension</u> & impact of crisis / disaster (I)
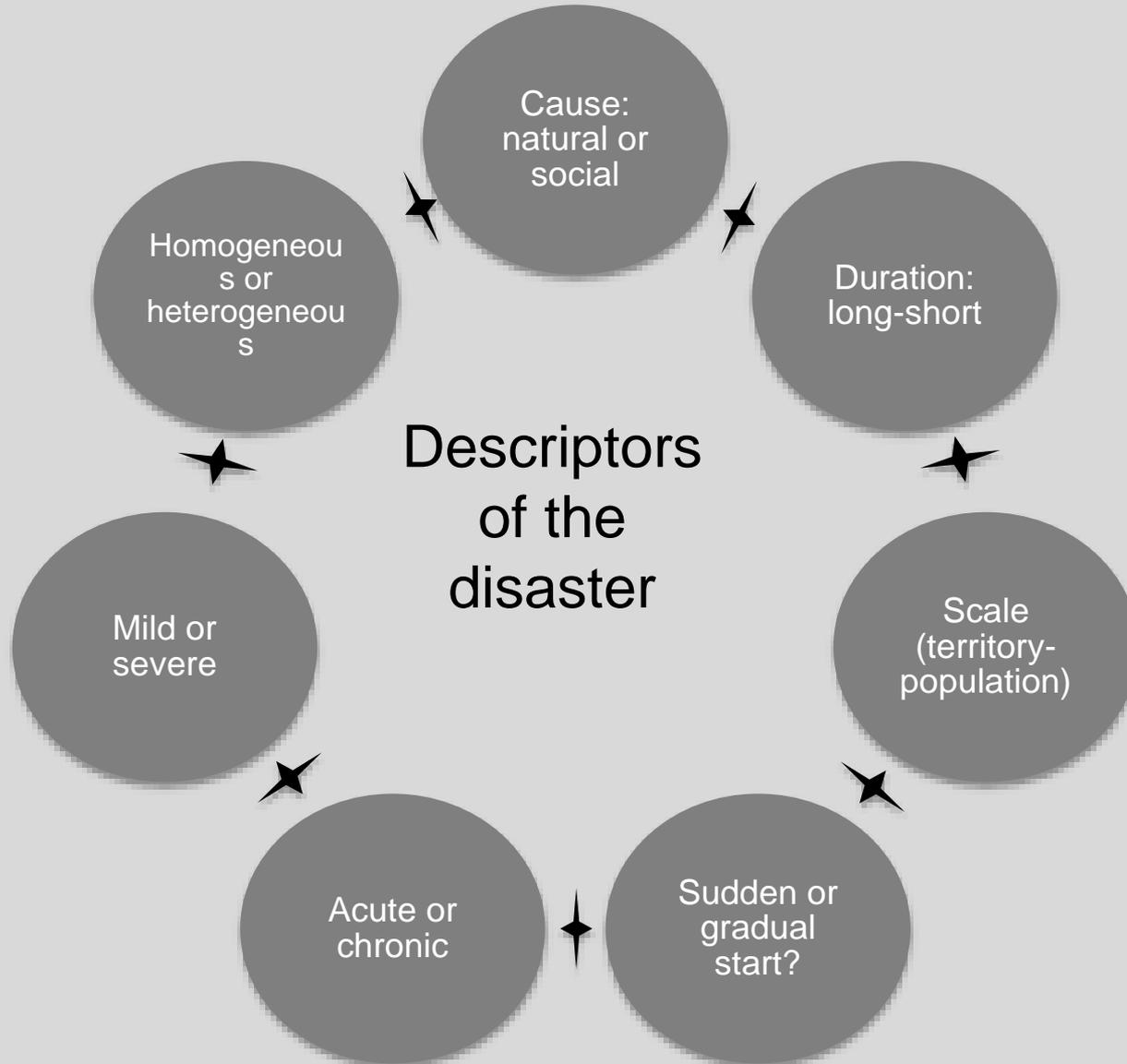
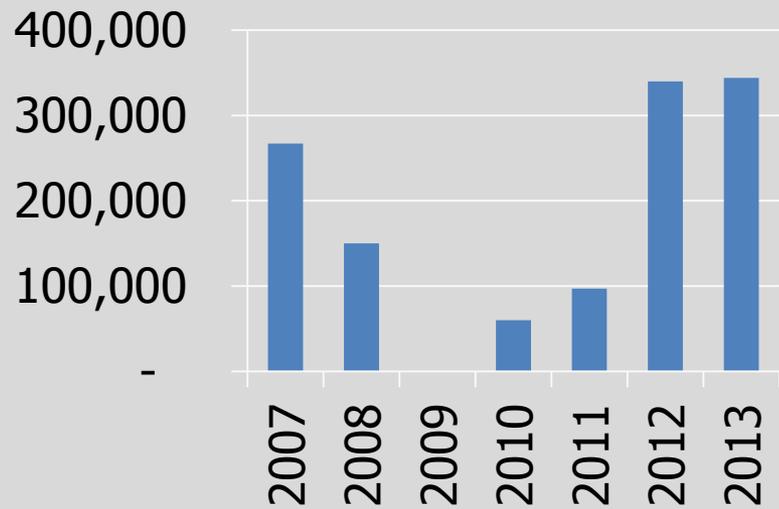- What is 'disaster'?

Types of Disaster

- Natural – Flood, drought, pest and disease

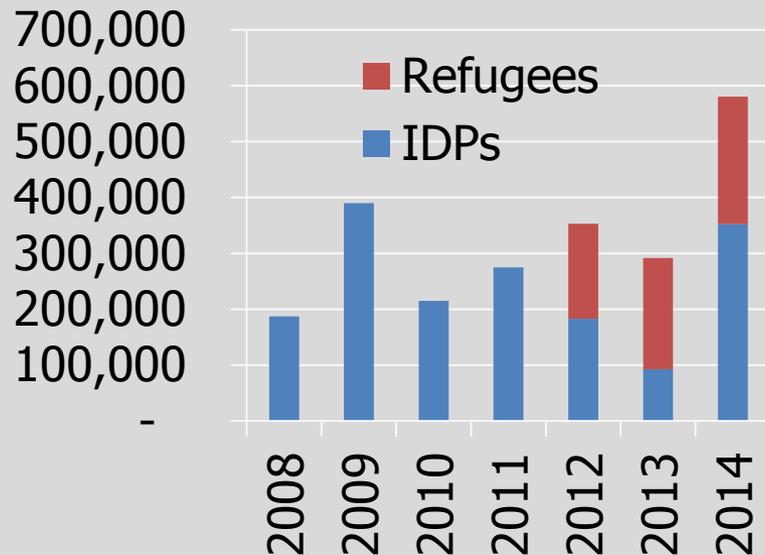- Man-made: conflicts (civil, tribal, border and neighboring)

Step 3 - Understanding <u>nature</u>, <u>dimension</u> & impact of crisis / disaster (I)
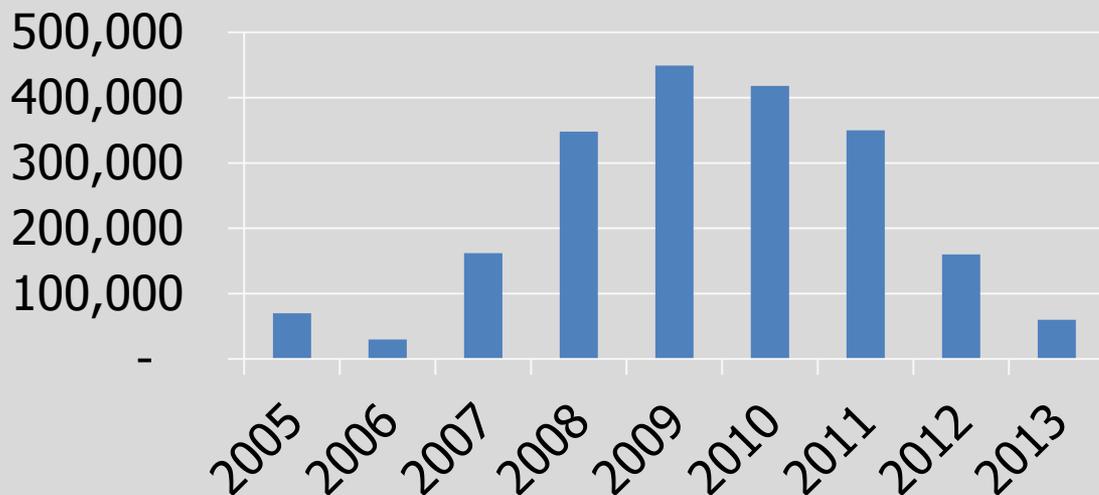
Cause: natural or social

Homogeneous or heterogeneous

Duration: long-short

Descriptors of the disaster

Mild or severe

Scale (territory-population)

Acute or chronic

Sudden or gradual start?

Impact of Flood, Conflict in population in South Sudan

2012 Floods: 30 reported; 16 assessed; 3400,000 displaced (OCHA, Aug 2012)

Reported floods by County in 2012 (30 August) — OCHA
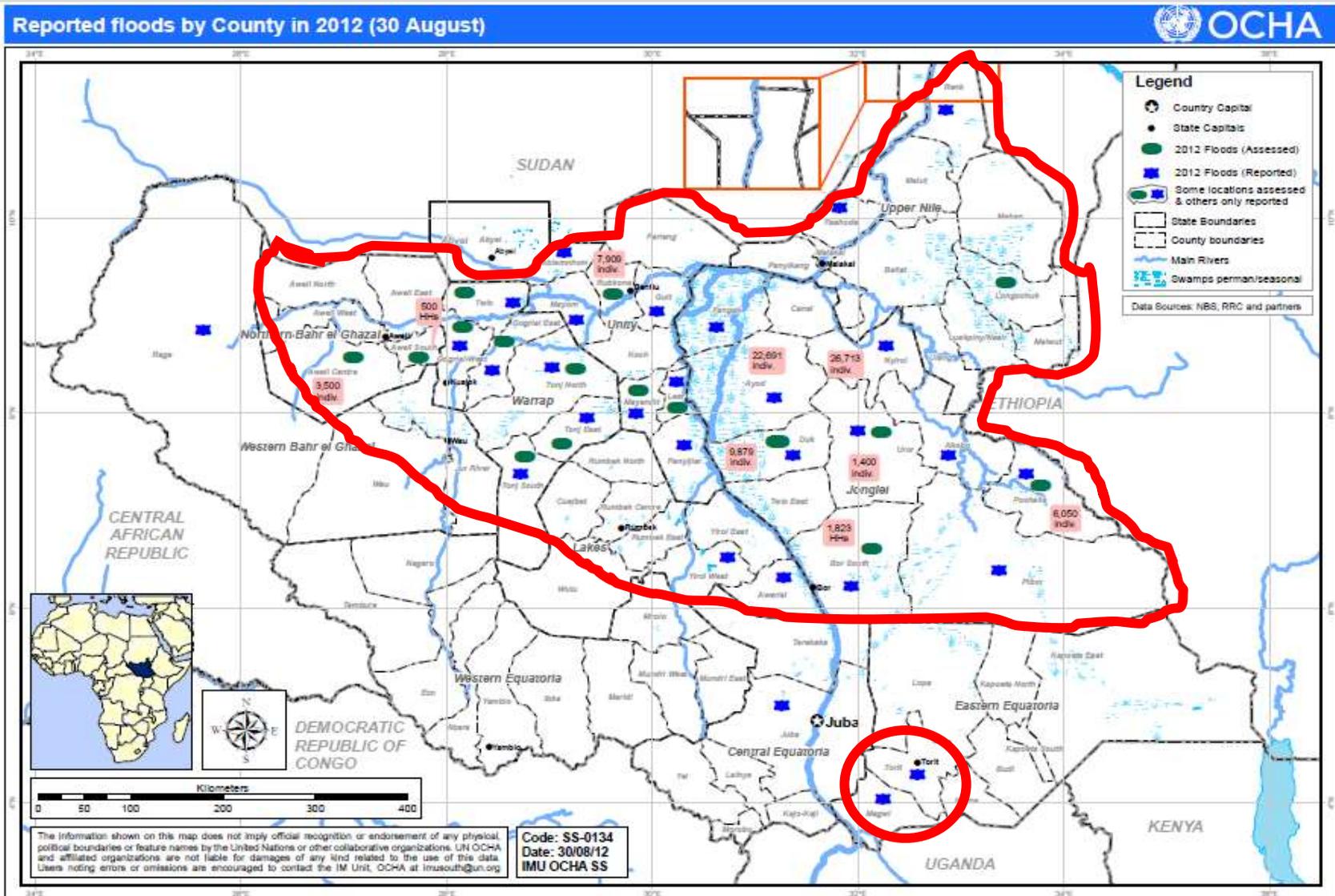
2013 floods
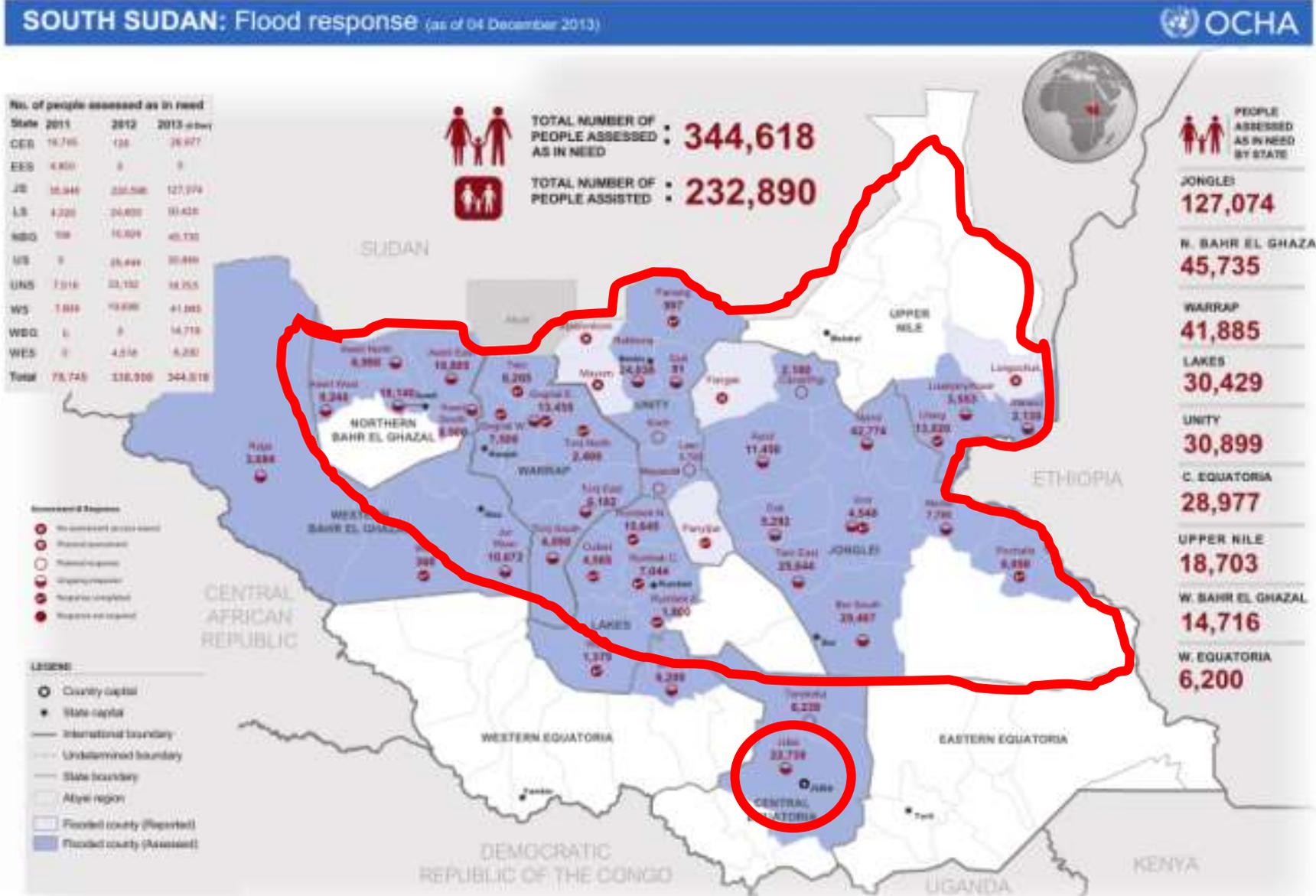
Conflict - Inter-tribal conflict

Since the beginning of the year, over 12,400 people in South Sudan were uprooted from their homes because of inter-communal violence and armed hostilities.

SUDAN

Malakal

114,000 refugees

71,000 refugees

Bentiu

Aweil

Wau

CENTRAL AFRICAN REPUBLIC

Rumbek

Bor

ETHIOPIA

Yambio

Torit

KENYA

DEMOCRATIC REPUBLIC OF THE CONGO

UGANDA

Cross-border attack

Inter-communal fighting

Other armed incident

Refugee camp

100 km

We accept defeat by flood

Smart HH. Just need protection

Real emergency need- protect the seed

Step 3 – Understanding nature, dimension & <u>impact</u> of crisis / disaster (II)

On impact
Never discuss the impact of the disaster before having first a clear and documented view of the situation before the crisis.

Two disasters never have the same impact on a Seed System

The system can stay intact after the shock but the distribution channel will change

Seed Systems are durable & resilient but experience tensions & evolve

Understanding the Seed System will help to define & implement efficient actions

Step 3 – Understanding nature, dimension & <u>impact</u> of disaster (III)

Different disasters, different impacts

1

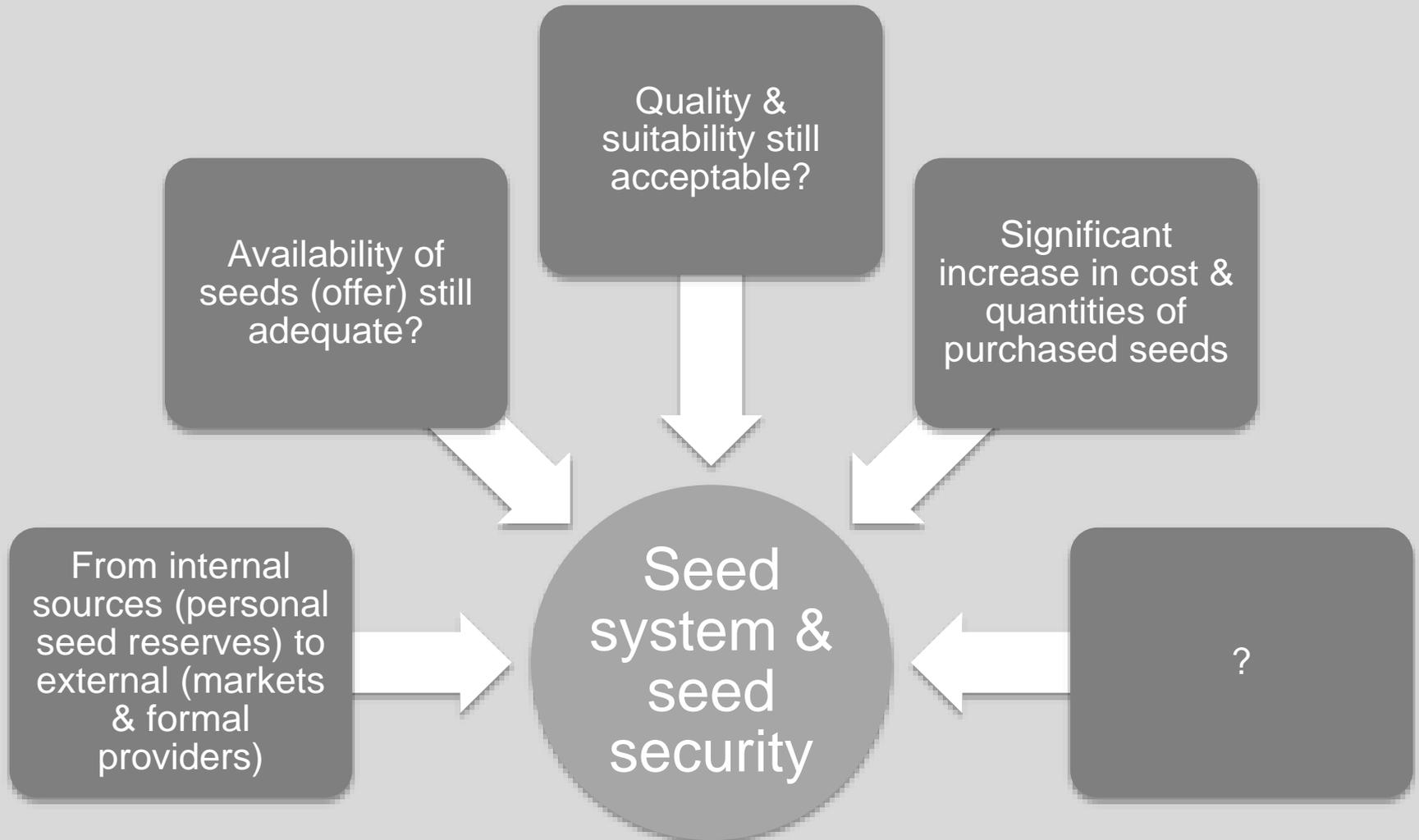Social & human capital impact and markets function

2

Direct & devastating impact on own saved seeds (personal & social networks)

3

Direct & devastating impact on agricultural production (for self-consumption & trade)

Step 4 - Diagnosing seed security problem
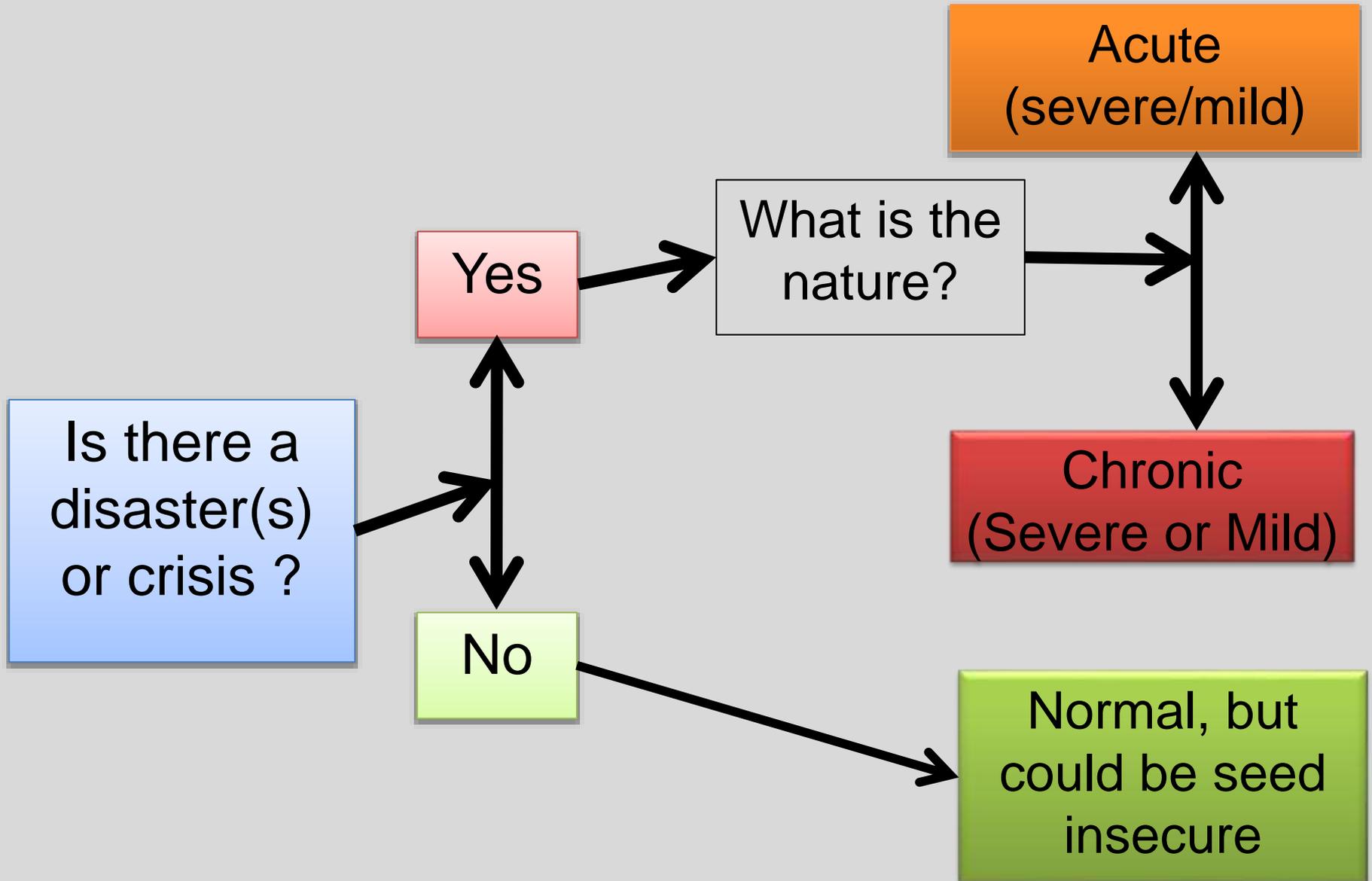
Step 4 – Diagnosing seed security problem in Chronic disaster- Examining Diversity in Crops - <u>Resilience</u>

Legend:
- Ironstone (N=31)
- Flood Plain-L (N=30)
- Flood Plain H (N=22)
- Overall (N=83)

Chart data labels: 60%, 45%, 34%, 27%, 20%, 13%, 0%, 1%

X-axis: One/Two, Three/Four, Five/Six, >Seven
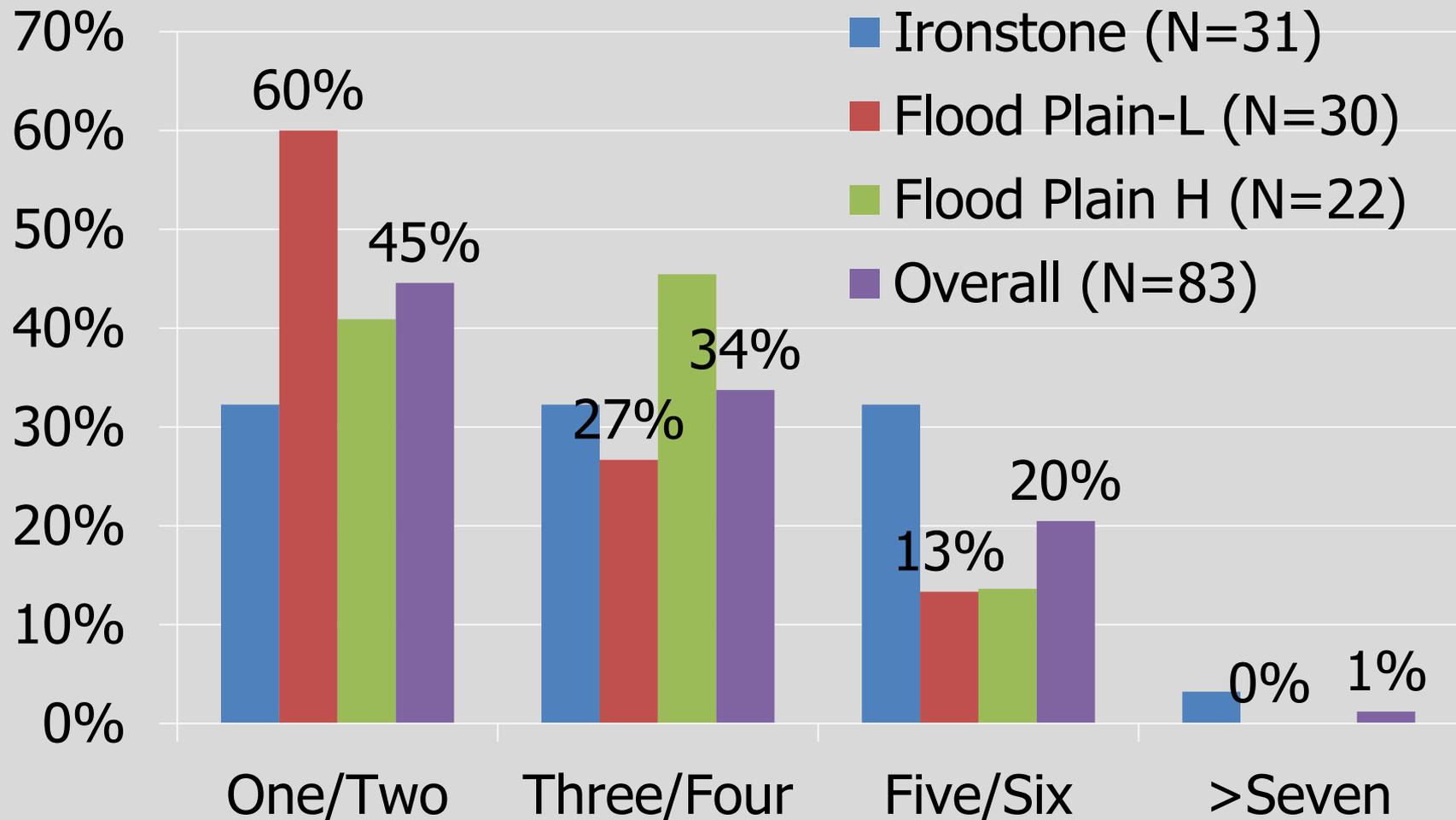
Crop Diversity: NBELG 2013 (FAO SSA 2014)

Step 4 – Diagnosing seed security problem in protracted crisis - Diversity in Seed sources (Resilience)
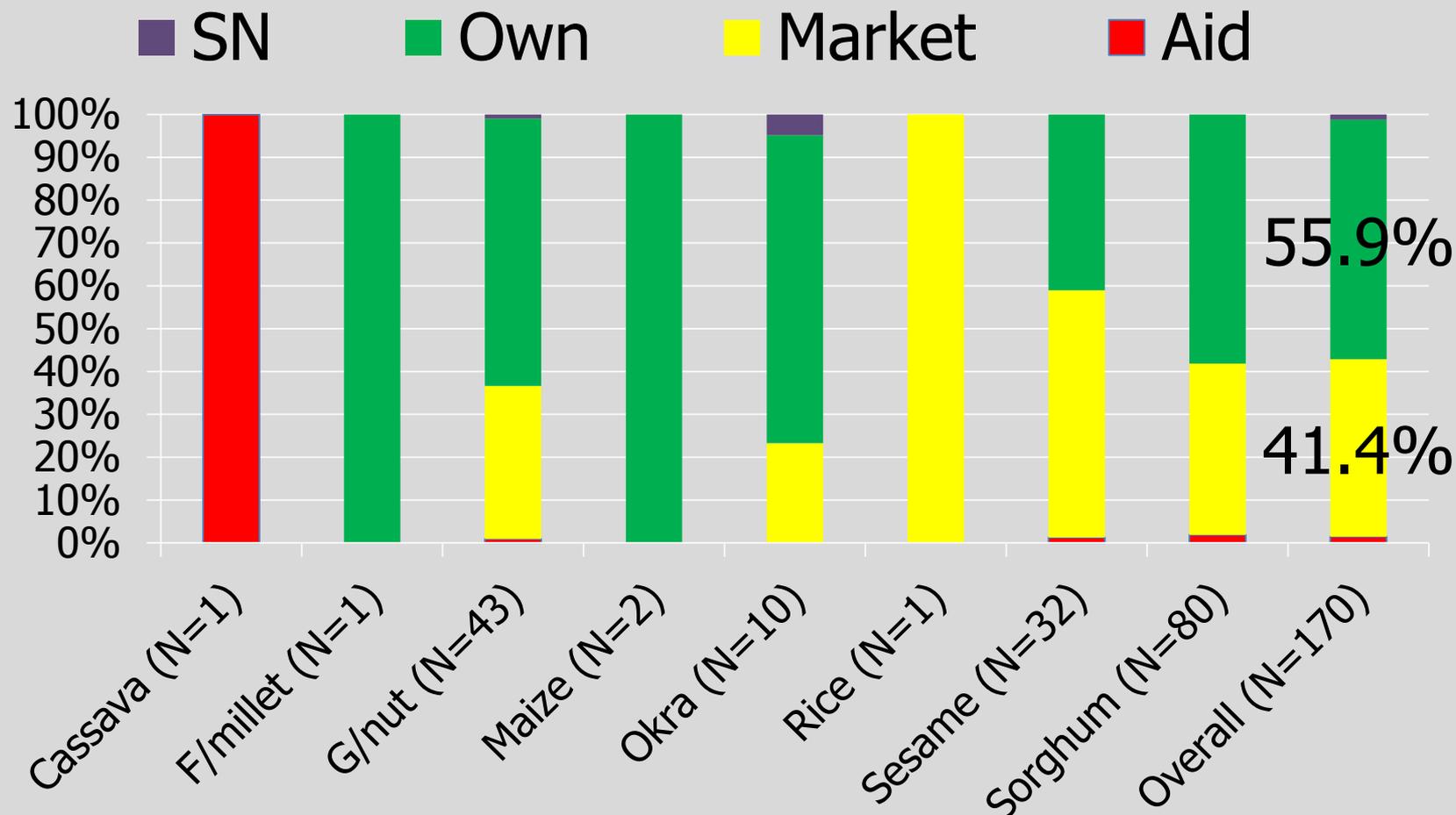
Seed source diversity: NBELG 2013 (FAO SSA, 2014)

Step 4 – Diagnosing seed security problem in Acute Crisis

"*When I came back from Khartoum in 2007, there were few people around that I knew. I had to go and buy all the four varieties of sorghum from the market. Since that time, even if I am hungry, I will keep seed for next planting season*"

Said, Regina Adut – Aweil East County

Analyze the statement using the SSCF

Step 4 – Diagnosis seed security problem in protracted crisis- Availability

■ Adequate   ■ Not adequate

2014
- Overall (N=148): 45% | 55%
- SN (N=3): 0% | 100%
- Own (N=84): 44% | 56%
- Market (N=64): 45% | 55%

2013
- Overall (N=167): 41% | 59%
- SN (N=3): 33% | 67%
- Own (N=91): 38% | 62%
- Market (N=68): 47% | 53%
- Aid (N=5): 0% | 100%
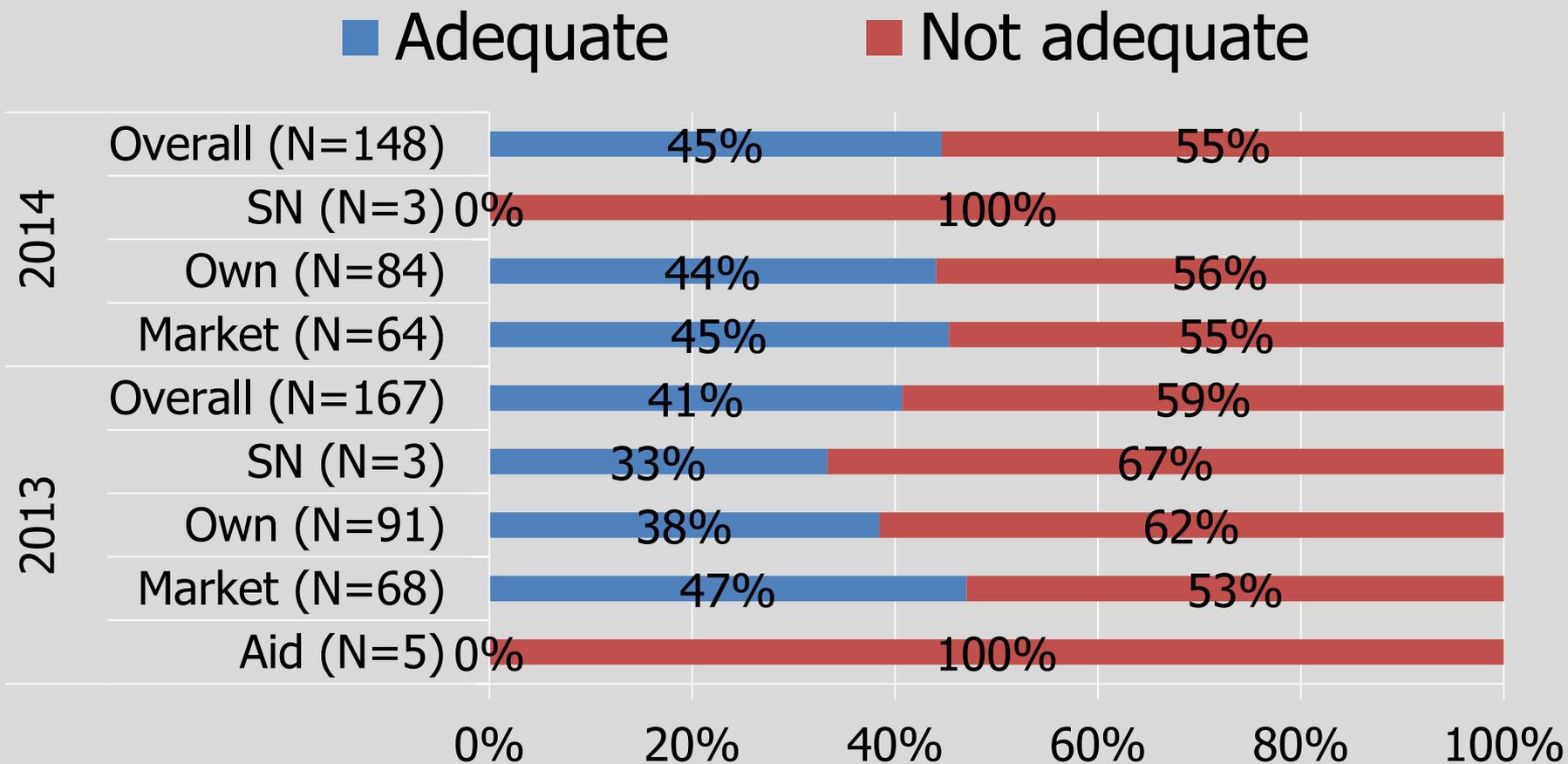
Availability (supply) : NBELG 2013

Step 4 – Diagnosing seed security problem in Chronic disaster (flood)- <u>Access (price)</u>

■ Affodable

■ High

		Affordable	High
2014	Overall (N=61)	15%	85%
	Market (N=61)	15%	85%
2013	Overall (N=77)	21%	79%
	Market (N=73)	16%	84%
	Aid (N=2)	100%	0%
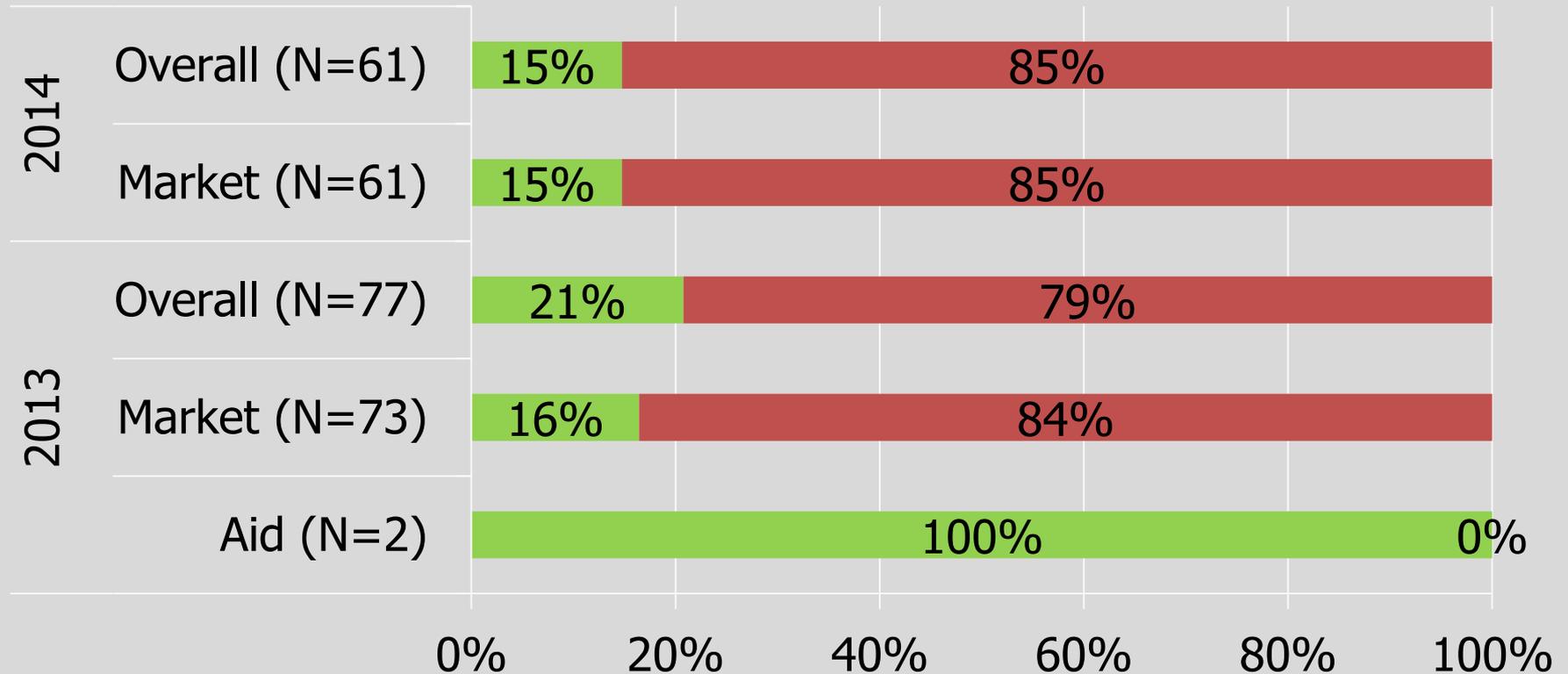
Step 4 – Diagnosing seed security problem in protracted crisis - <u>Quality (germination)</u>

■ Good   ■ Fair

	Good	Fair
Overall (N=168)	87%	13%
SN (N=2)	100%	0%
Own (N=92)	84%	16%
Market (N=70)	91%	9%
Aid (N=4)	75%	25%
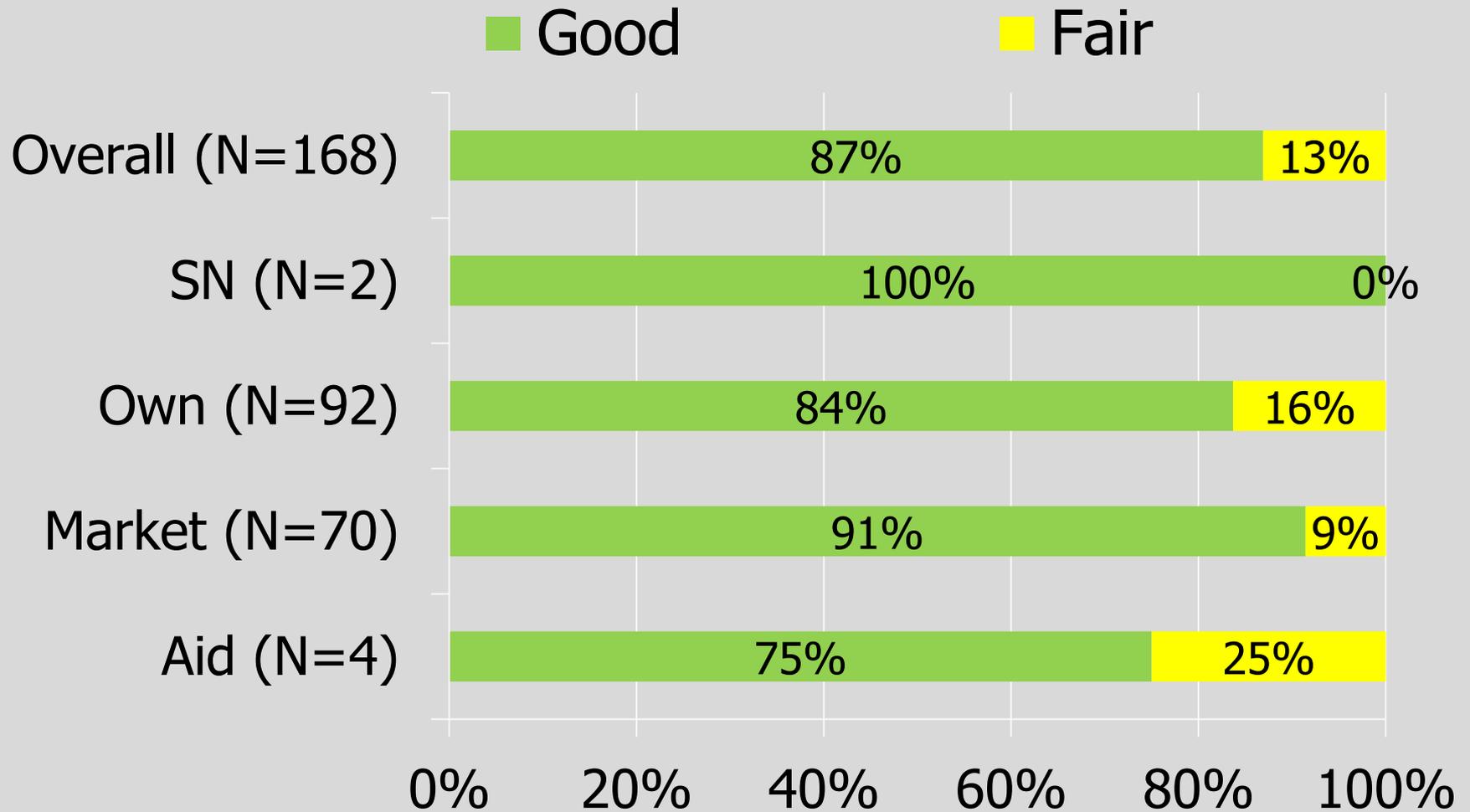
Step 4 – Diagnosing seed security problem in protracted crisis - <u>Varietal Suitability & Resilience</u>

Major Sorghum varieties in NBELG (N=78)
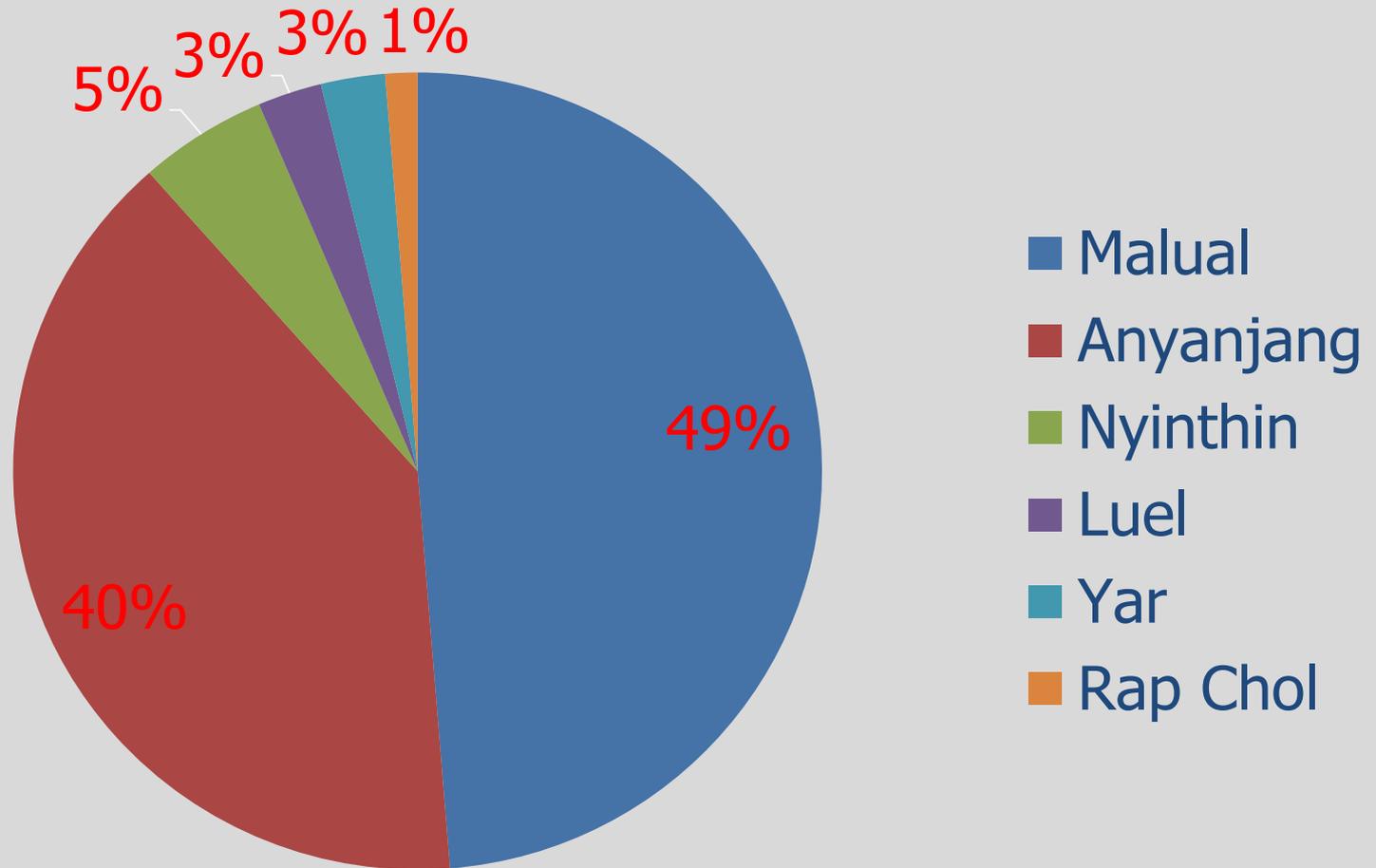
Step 4 – Diagnosis of seed security problem

Analysis & forecast	Put the target farmers at the centre of the recovery process
	Predict the changes in the demand of seeds where necessary
	Identify & rely on the strengths of the farmers seed system
	Choose staff who have a deep knowledge of the local system
Measure changes **(+ or -)**	Crop production e.g. area, yield, loss of harvest
	Assets - livestock
	Seeds' multiplication rate
	Own saved, social network & seed supply
Increase in	Demand for seeds from cash channel
	Prices of seed of grain market and certified seeds

Step 5 – Action plan & improved programming

System should be restored to pre-crisis situation (or better) as soon as possible

Support farmers in purchasing seeds which are: preferred by them; adapted to agro-climatic conditions; good value-for-money

Carefully facilitate farmer access to formal seed production/distribution sector. Goal: to introduce new, better seeds & varieties and to improve (from pre-crisis) the seed system

FAO SSA Training
Session 6 - Handout 2

5 Steps: steps 3, 4 & 5

In **45 minutes** your group needs to implement the following tasks.

Task 1 – Outline the main characteristics of the disaster or crisis that occurred last year in the affected region(s) of the country.

- Brief description of the event

- Describe how the event has affected households in the area (displaced? Insecurity? Lack of mobility? Change in agricultural patterns? Drastic lose of incomes?

- Describe how the agricultural production has been affected

- What can of changes have you observed after the crisis in:

    - Agricultural system as a whole and

    - Seeds System

Task 2 – Discuss and analyze the changes

- Compare the pre-crisis and the after crisis situation
- Try to identify the reasons behind the changes
- The changes are: temporary? Seasonal? Structural? Connected to the crisis or not only?
- What's your forecast in relation to the possible evolution of the situation?

Task 3 – Action plan

- Outline 3 to 5 interventions at short, mid and long term that you think can:
    - Support on going local initiatives
    - Contribute to a quick recovery of the seed system
    - Improve the participation of men and women in the recovery process
    - Contribute to introduce higher quality seeds and new varieties

Please remember that you have only 45 minutes for group discussion and that you will have 10 additional minutes for a presentation in plenary. Therefore, work efficiently using the flipcharts and/or cards from the very beginning.

Do not forget that your presentations in plenary must be short, clear and visual.

FAO
Seed Security Assessment Training
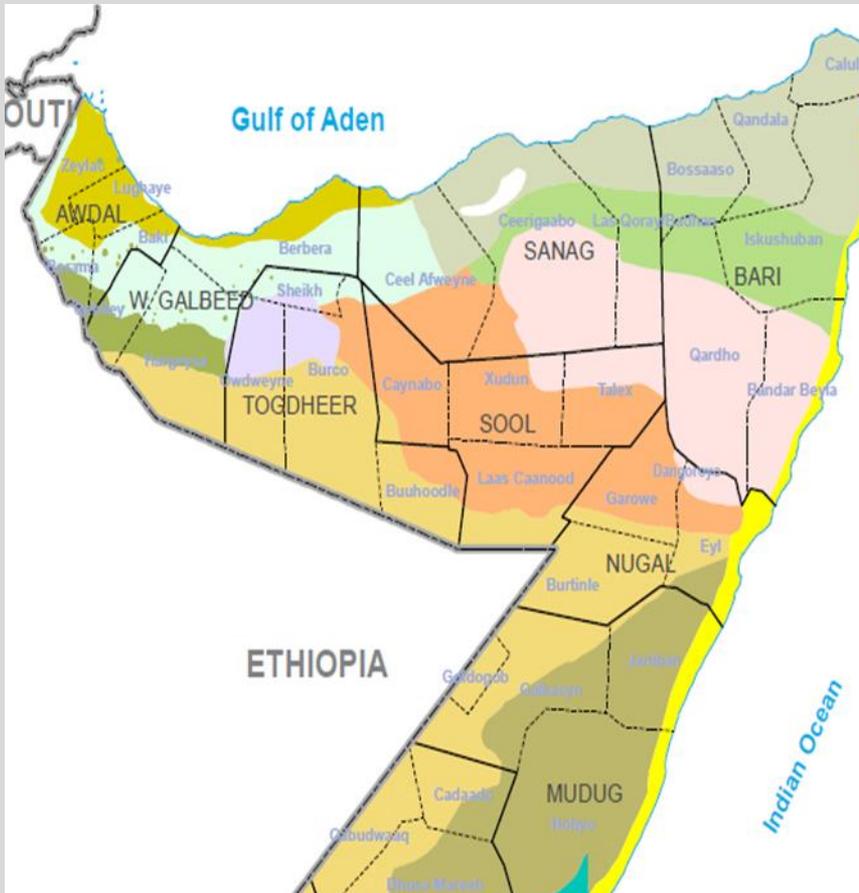
Site identification and

Sampling Frame
(S7a)

Objectives

1. Be able to identify possible sites for conducting SSA with a given geographic scope

2. Determine the appropriate sample size for data collection

Identification of SSA Sites

Considerations

1. Agro-ecology/Livelihoods zones representation

- Cropping systems (crops types and practices)

2. Disaster affected area

- Natural: drought, flood, conflict affected areas vs. unaffected
- Man made: IDPs and refugees with access to land for production

3. Boarder trade

- This could influence the dynamic of seed security in a given boarder area
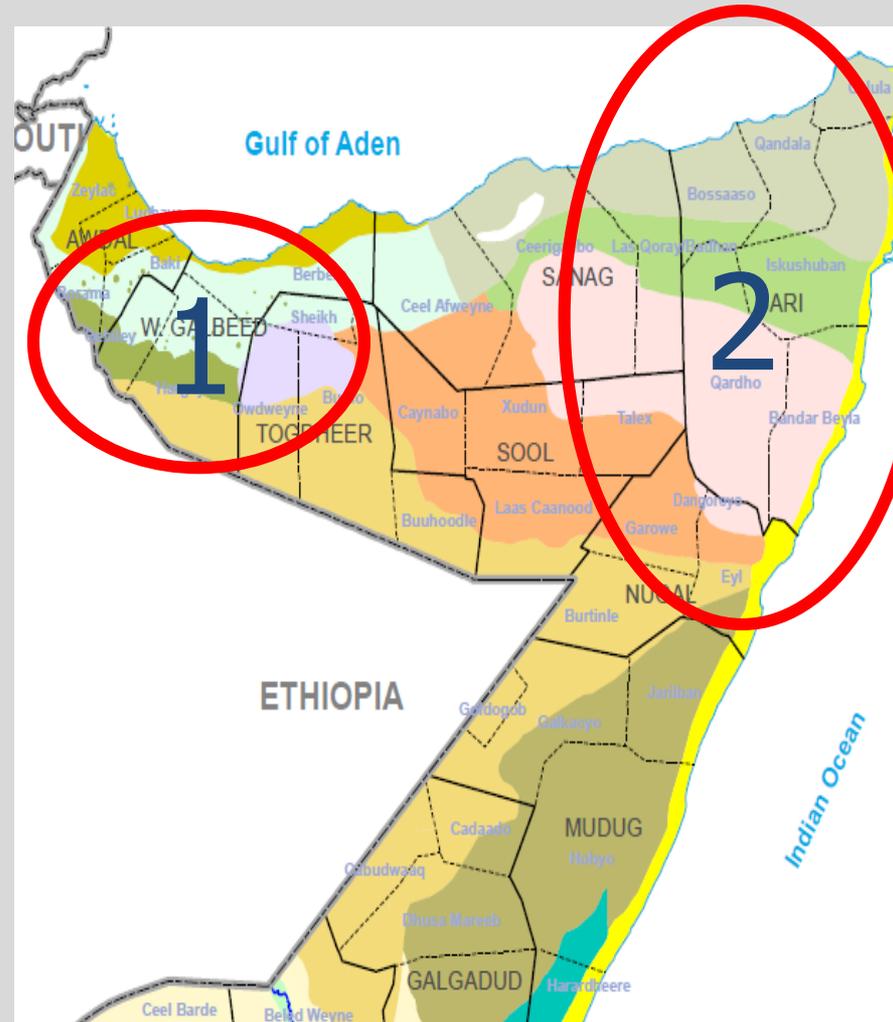
Agro-ecologies of Somali SSA Sites

Identifying sites at Regional, State or County levels (at planning level)

Key considerations

1. Security threat to the assessment team
2. Accessibility of the district with a region
3. Agro-ecologies of interest (ensure all are represented)

Procedure

a) Obtain the lists of all the districts/counties/payams
b) Sort out those that pose real security risk or are inaccessible
c) Ensure that districts/counties/payams selected represent the various agro-ecologies

Sampling

- **Sampling:** is the selection of a representative part of a population (total) in order to determine parameters or characteristics of the whole population

- **Sample:** proportion of the population selected for the study or investigation

- **Sampling unit:** an individual, household, whole community and key informants to mention some
  - In HHS sample unit is the **household.**
  - In LMS the sample unit is **a person** (grain/seed trader)

Sampling: sample size

- It is important to know the heterogeneity and homogeneity of population or community in which you are going to do an assessment

- In homogenous population, only a single sample size has to be calculated

- In heterogeneous populations (e.g. residents, refugees, IDPs, farmers)
  - Specific sample size has to be calculated as for each of group at the same level of reliability, in order to be able to compare the results later on

Sampling: sample size

- Dependent on the level of reliability and assuming that the selected communities are subject to a normal sampling distribution, the following formula is used:

$$SS = \frac{Z^2 * (p) * (1-p)}{C^2}$$

Where:

  Z = Z value (e.g. 1.96 for 95% confidence level)

  p = percentage picking a choice, expressed as decimal (0.5 used for sample size needed)

  C = confidence interval, expressed as decimal (e.g., .05 = ±5)

  Ss = sample size

- Using the above mentioned formula, the following results shown in **Next Table** are obtained for different levels of reliability

Sampling: adapted sample size

Population at sampling level	Level of reliability in %				
	75	80	85	90	95
500	105	124	148	176	217
1000	117	142	174	213	278
2000	125	152	190	238	322
4000	129	159	200	253	350
6000	130	161	203	258	361
8000	131	162	205	261	366
10000	131	162	206	263	370
20000	132	164	208	266	377
50000	133	164	209	269	381
100000	133	165	210	269	383
200000	133	165	210	270	383
500000	133	165	210	270	384

Sampling process

a) Know the sample size at provincial level = 270
b) Select three district, each sample size 90
c) A team of five are able to survey 20 households per day (village) + other tools.
   - Number of days (village) district = 90/20 = 5 villages

d) Obtain the lists of all the villages within a given district/payam

e) Sort out those that pose real security threat or are completely inaccessible (consider means of transport to the field)

f) Randomly select 6 (example above) villages from the list

FAO Standard Seed Security Assessment
SAMPLING AND SAMPLE SIZE

Sampling is the selection of a representative part of a population in order to determine parameters or characteristics of the whole population. A **sample** therefore is the proportion of the population selected for the study or investigation. A **Sampling unit** is that unit about which information is collected and that provides the basis of analysis. In survey research, elements are people or certain types of people. **Sampling methodology** or design refers to a set of rules or procedures that specify how a sample is to be selected. This can either be probability or non-probability. In probability sampling it is possible to assign levels of confidence about the reliability of the sample from a statistical point of view. In non probability sampling it is not. In SSA, households are selected using probability sampling, whereas all other sampling units (individuals for community FGD, traders, officials, NGO representatives, seed producers) are not. In the case of units, representativeness relies upon purposive sampling.

In probability sampling, sampling is often done so as to ensure a 95% level of confidence in the estimates derived from the sample. The number of units required to achieve this will increase as the heterogeneity within the overall population increases. Thus the sample required for 95% confidence in a population with consists of residents, IDPs and refugees will probably be higher than a population consisting of just residents. In situations where there is heterogeneity, separate samples would need to be calculated for each population group, increasing the size of the overall sample.

As a rule of thumb, in relatively homogenous population groups of 10,000 units or more which are normally distributed, the sample sizes necessary to achieve different kinds of accuracy are given in table 4.1.

Table 4.1 Level of reliability and Sample size for a population above 10,000 households

Level of reliability	75%	80%	85%	90%	95%
Sample size	133	165	210	270	384

When the population size is smaller than 10,000, there will be some reduction in the sample size, as shown in Table 4.2.

Table 4.2. Reliability level and population adjusted sample size

	Reliability level				
Population size	**75%**	**80%**	**85%**	**90%**	**95%**
500	105	124	148	176	217
1,000	117	142	174	213	278
2,000	125	152	190	238	322
4,000	129	159	200	253	350
6,000	130	161	203	258	361
8,000	131	162	205	261	366
10,000	131	162	206	263	370
20,000	132	164	208	266	377
50,000	133	164	209	269	381
100,000	133	165	210	270	383
200,000	133	165	210	270	383
500,000	133	165	210	270	384

At the end the final sample size will be a trade-off between the theoretical best practices, applying the above mentioned formulas and the available resources – human, financial, logistics and time. This trade off will influence the final level of reliability at the selected site level. The final decision on the sample size during surveys preparatory phase often requires the responsible person to make a decision as he/she has to make a tradeoff between those two components (statistically optimal sample size and available resources).

Once the overall sample size has been determined at one administrative level (eg regional/provincial level), this sample size can be divided proportionally to the populations of entities at the next administrative level down (e.g. Counties or district). If geographical entities at the lower administrative level have similar population sizes, then the overall sample size can be divided equally among the selected entities. The different sizes of sample will have implications for the time required to cover each district, as illustrated in Box 4.1:

Box 4.1 Example on determining sample size at county or district level

a) The overall sample size at regional level is 384, and within the region, three counties have been selected to represent the various agro-ecologies. The size of each sub-sample is determined by the relative size of the population in each of the districts. If the populations of the districts are roughly equal then a sample of 128 households needs to be interviewed from each of the three counties.

b) On average, a team of five is able to interview 20 households, 3-5 LM traders and 1-3 agro vet. Therefore, each team will need a minimum of (126/20) 7 working days to cover each district

c) If the three counties on the other hand have proportionally very different population size, Say X=9000; Y= 7000 and Z= 4000 (Total 20000), then the sample size for each district would be:

- X = 9/20x384 = 173
- Y= 7/20x384 = 134
- Z = 4/20x384 = 77

Therefore, a team of five going to X will require 9 days (173/20), Y will require 7 days (134/20) and Z will require 4 days (77/20).

2.5.5   Sampling methods at community level for Household Questionnaire

Sampling of households within a village after determination of sample size is done by use of probability sampling. Simple **random sampling** would be the most appropriate process, as each of the potential sampling unit (households) within the population has the same opportunity to be selected under this approach. This however is time consuming, especially where the population is dispersed over a wide geographic area**. In most cases** s**ystematic random sampling** may be preferred for practical reasons.

The pattern of settlements and the heterogeneity of the village will determine the type of systematic sampling. The pattern of settlements can be noticed as the team drives into the village and or through some quick questioning of local residents. Generally speaking, there are basically three common types of settlements:

a) *Clustered households* – this consists of groups of 4-10 households clustered within a very close proximity (radius of 20-10m) to each other and separated with a reasonable distance (200-800m) from another cluster (Fig. 4.1). This is very common in agro-pastoral communities. Here, the most appropriate method is to randomly sample 4-8 clusters and within each cluster, randomly sample 3-5 households.
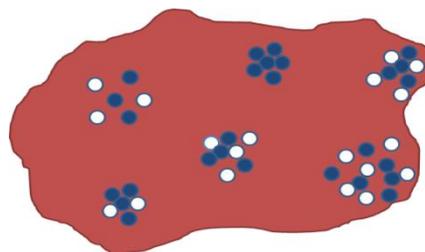
b) *Linear settlement* – Here the households normally settle along natural or man-made futures such as at the foot of the mountains, along the river beds, along the trunk roads. However, crop (cultivation) fields might be scattered within a village. Here systematic sampling (Box 4.2) is normally deployed along the linear pattern of settlement. As the team drives into the village, they need to take note of how far the households are from one another as this will also influence the number of households that could be interviewed in that village/location. The wider the distance between neighboring households, the more time needed by the enumerators to move from one household to another.

- Systematic sampling along linear transects

○ Sampled household   ● Non-sampled household
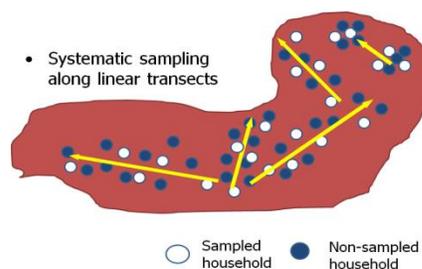
c) *Scattered households* – Here there is no well recognized pattern of settlements. The households are considered randomly scattered with the village. Here, like in linear settlement, the team needs to take note of how far the households are from one another as also. The most appropriate sampling method is the systematic sampling along 3-6 radian transects depending on the number of enumerators. Each of the enumerators could move long one transect, sampling households at regular intervals.

- Systematic sampling along radian transect.

○ Sampled household

● Non-sampled household
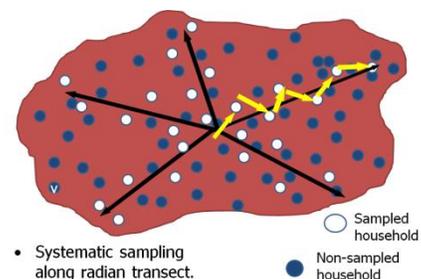
NOTE: These sampling schemes assume homogeneity. If the village is split into different groups (e.g. IDPs, returnees and residents) then this would ideally require sub-sampling.

FAO
Seed Security Assessment Training

Tools for effective, efficient, and rights-based field work

(S-7b)

Session Objectives

- Understand the core seed security assessment (SSA) tools

- Be able to adapt the tools to the local situation in order to have them ready for the field work

- Be able to apply AAP principles when using the SSA tools

Rights' based is linked to AAP; we consider:

- Our own power sources: e.g. academic, and?
- Power use in community: e.g. hierarchy, and?
- Our role as development agents for whom?
- Our attitudes and behaviour?
- Practical use of research?

Some basic concepts

- Household

Resident, IDP, Returnee, Refugee

They may include:

Sources of household's income in the specific SSA location?
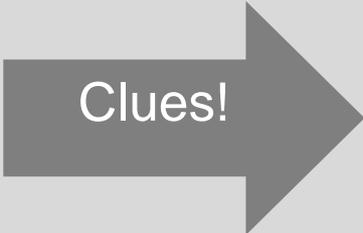
Clues! →

Crops (type?)
Livestock (secondary?)

What else?

Assessment tools currently used in FAO SSA

Household **surveys**

Focus Group **discussions**

Key informant **interviews**

Core Assessment tools

Local Market **surveys**

Key Informant Interviews (KII)

We have **guide** question handouts:

H4.1: Seed grower farmer /group

H4.2: Agro-Input dealer

H4.3: Seed structures (Government & NGOs), for background on farming/seed system

H4.4: Seed aid actors - to follow up with NGOs who distributed seed (any AAP concerns?)

Key Informant Interview (KII)

'Guide' questions means:

Revise and adapt to local needs!

You may do KII on field work Day 4 of the course.

Key Informant Interview (KII)

A KII is normally done with a subject matter specialist

- e.g. Gov't, NGO, agro-input dealer, seed grower

OR with someone with wider knowledge of the community

- e.g. church and community leaders

- The commonly used tool is a semi-structured questionnaire to collect more qualitative information

- It uses more open-ended questions of Why? How? etc.

HH and LM Surveys - questionnaires

- **Surveys** use structured questionnaires to gather large amount of data from individuals.

- **Database:** an appropriate database and data analysis method/skills are necessary.

- **Development:** when developing a questionnaire, the analysis method needs to be considered.

HH and LM Surveys – Considerations

- **Sampling:** the researcher must ensure the sample is representative of the target population.

- **Indicator:** it should be able to measure SSA parameters and/or indicators.

- Should be combined with other **Methods** such as observation, scoring, ranking, timelines, mapping, Focus Group Discussions.

HHS questionnaire structure

1. Geographic information

2. Households and livelihood characteristics

   • HH types and size

   • Entomic status

   • Food and nutrition

3. Crop/seed system profile

   • Crops, areas, seed use, rate, multiplication rates

4. Important crops and HH seed sources with respect to SSCF

   • Availability, Access, Quality & V. Suitability

Household Sampling

Objectives

- Understand sampling methods and techniques and be able to apply them to collect representative household samples in the field
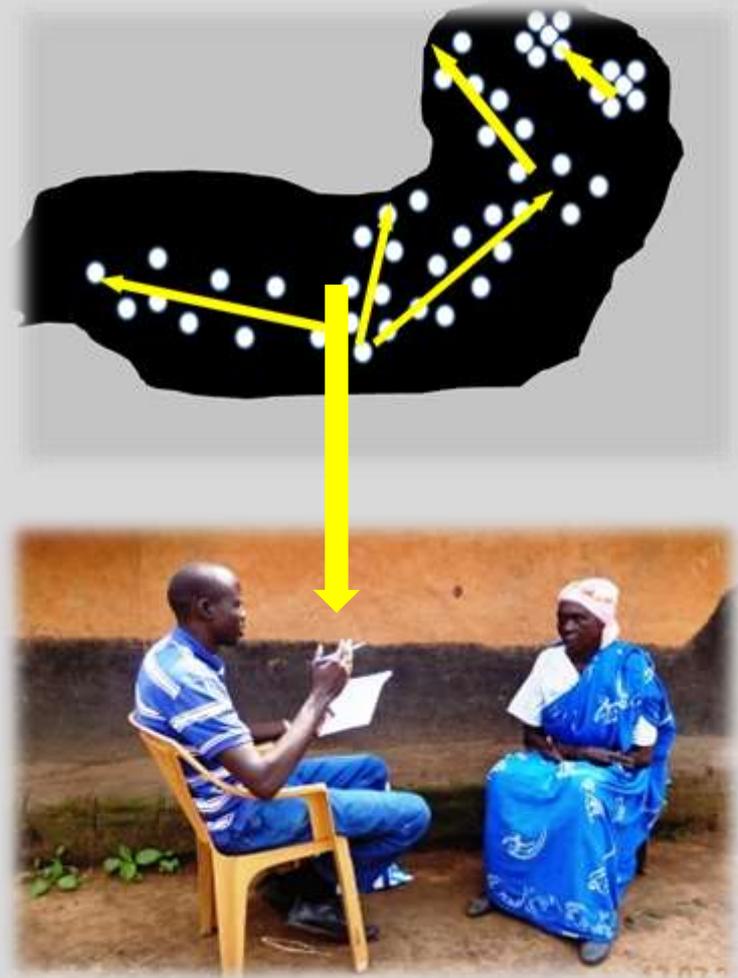
Sampling Households within a village

Considerations

- **Types of settlement**

  - Clustered households

  - Scattered households (systematic sampling along 4-6 radian transect)

  - Linear settlement (systematic sampling along the linear patterns)

- **Categories of households e.g.**

  - Women headed, IDPs, refugees etc.

- **Sample size per village**

  - 15 – 25 household proportionally in heterogeneous population (e.g. Resident, Returnees, IDP etc. or Women headed)

Village 1: clustered households (10-20/cluster)
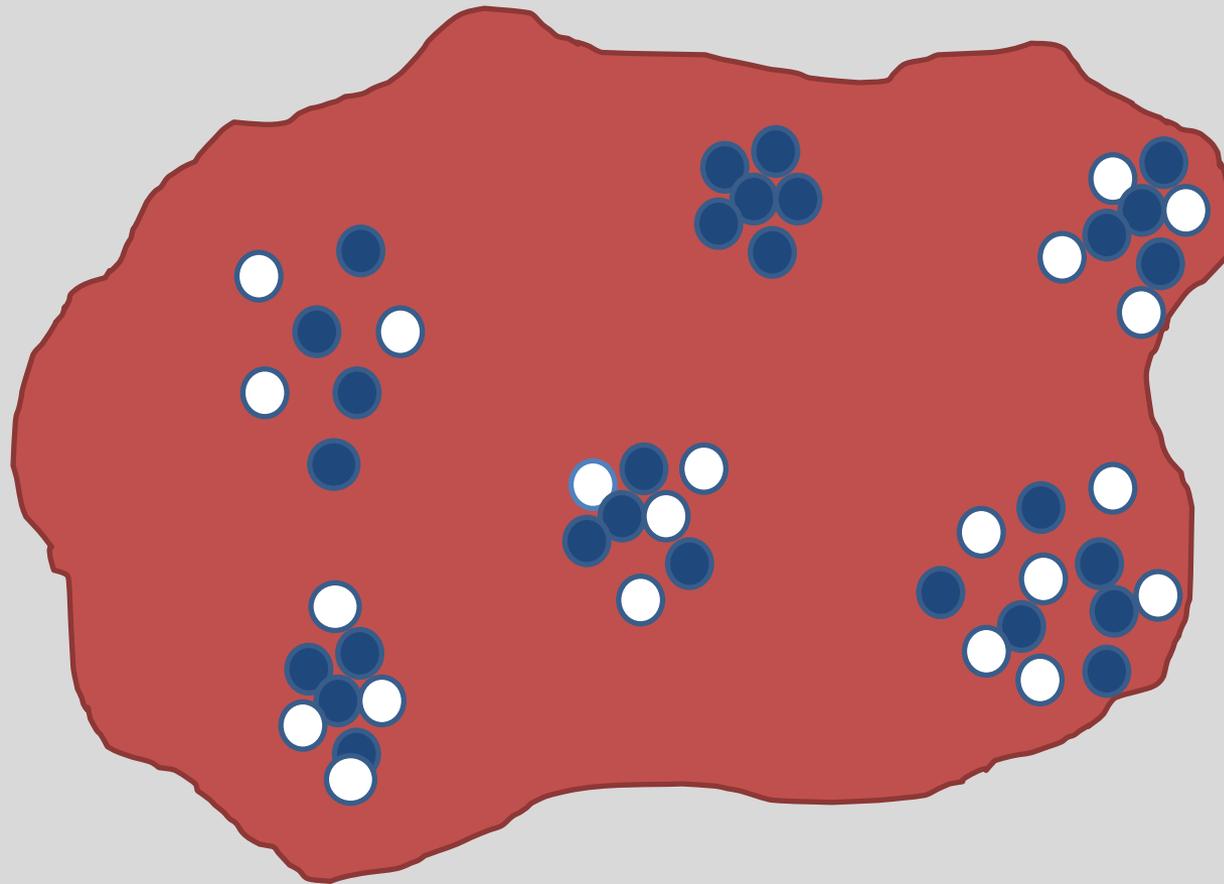
- Randomly sampled 4-6 household/cluster

- Each member of the team can handle one cluster

- FGD: 6-10 hh (sampled and non sampled) be invited for FGD

Sampled household

Non-sampled household

Village 2: scattered households

Sampled household

Non-sampled household

Systematic sampling along radian transect
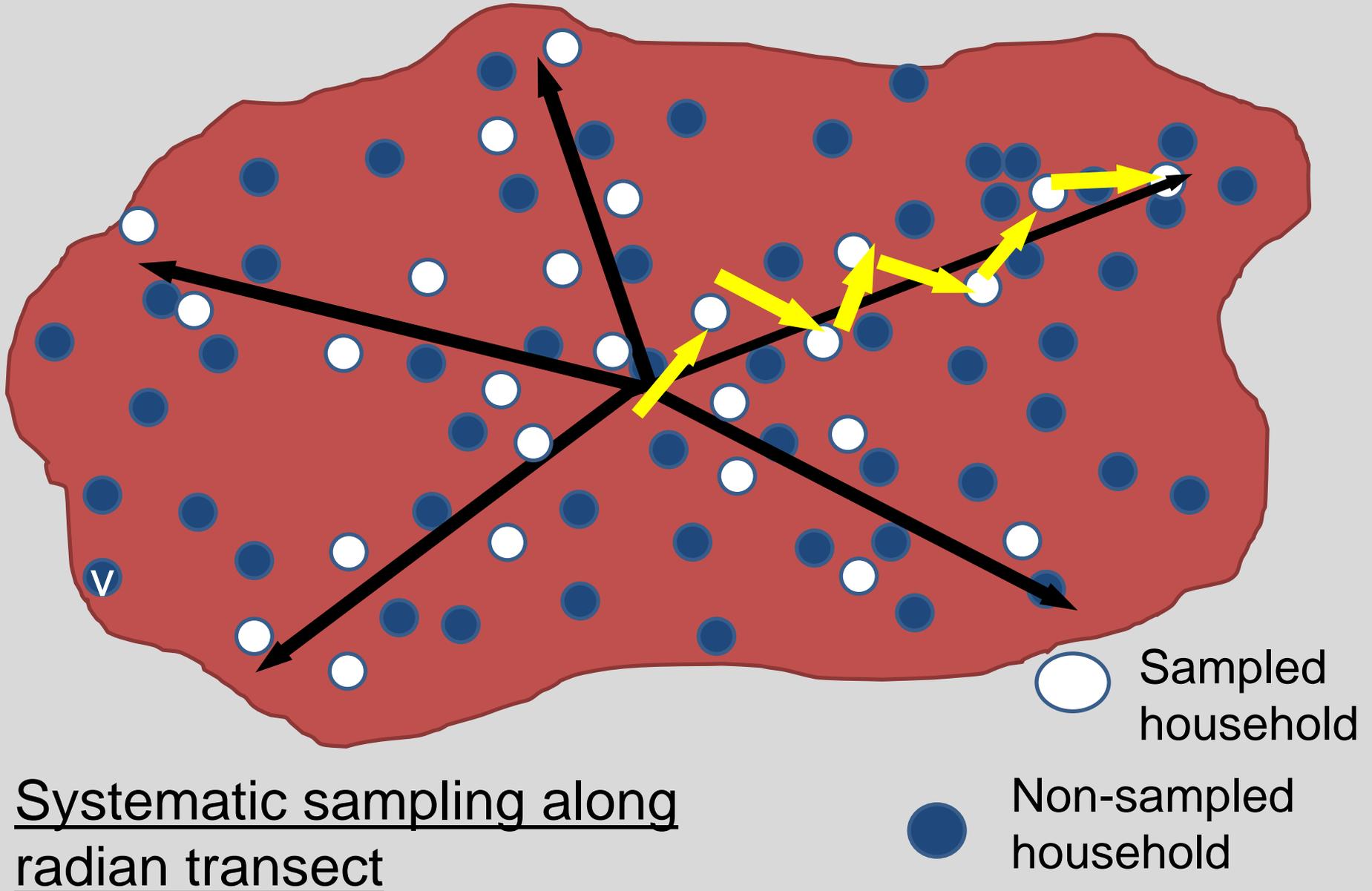
Village 3: linear settlement e.g. along river bank

Systematic sampling along linear transects

Sampled household

Non-sampled household
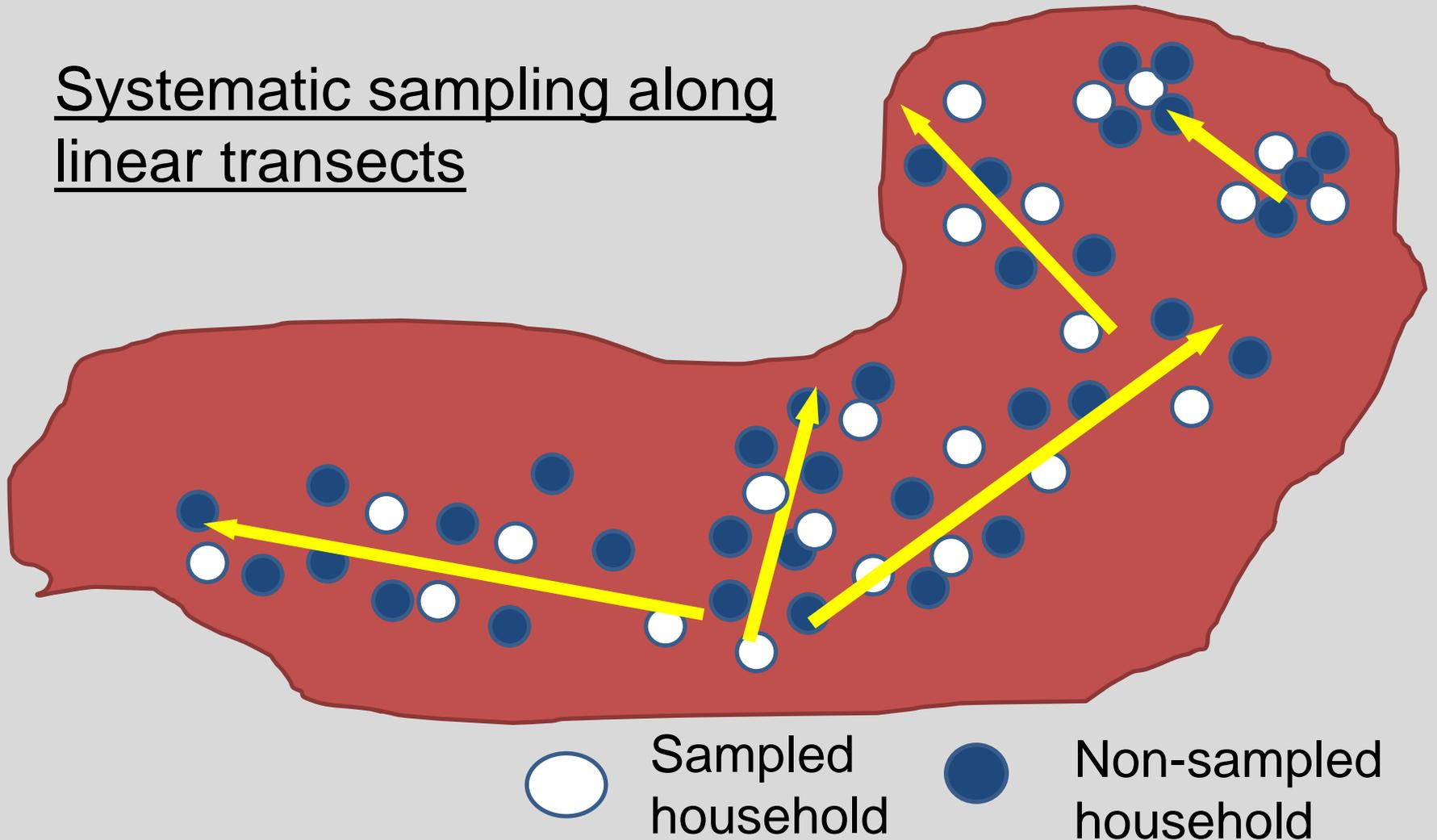
Local Market Survey (LMS)

Objective

- Be able to identify and interview with traders sell grains as seed to farmers

- To identify varieties of crops being sold as seed

- To determine availability, access and quality of grains being used as seed.

- To understand the demand and supply of grains that are used as seed by farmers.

LMS questionnaire - structure

1. Market location
   - Access
   - Availability

2. Seed seller information
   - Availability

3. Seed storage
   - Availability
   - Quality

4. Seed supply & Demand
   - Availability, Access,
   - Quality,
   - Varietal preference

5. Grain/seed conditioning
   - Quality

Local market survey

- This is also self-explanatory! As always:

- Be human! (good introductions/farewell, keep eye contact, smile, breathe!)

- Show respect! (Actively listen, make encouraging noises, replay)

- Revise & adapt to context!

Focus Group Discussion – FGD

- Qualitative, Participatory research.

- Participants jointly discuss, perceive, understand & solve questions, deepen understanding on issues or themes.

- 6-12 participants per group (not usually leaders).

- (Often) separate FDGs for males and females.

- (Often) participants are taken from all socio-economic groups OR a particular group (e.g. poorest, indigenous).

- **RESPECT** is essential – sit at the same level!

Focus Group Discussion – FGD

 * Seating?

* Body language

* Participation?

* Gender?

Household Survey (HHS)

a. This tool is an important pillar of FAO and Partners' research strategy

b. It is best used with (and often before) other tools, to inform them

c. It can invite the self-interest of families and traders, but are free from peer pressure (unlike FGD)

d. It produces a huge quantity of data; only ask for what you will analyse!

e. It has an in-built gender bias – because the vast majority of Household Heads and traders are men – how does one balance this?

Household survey – Simulation and Group Work

a. Facilitators begin

b. Take their places

c. Continue in pairs

Small group for Language/Cultures

Quantities of weight, land

Names of crops

Local Language for Guide Forms

Small group for FGD

We have 175 minutes!
We want to:

- Understand roles

- Practice FGD

- Learn and Practice 3 tools

- Amend FGD questions

We have already discussed:

- What is FGD?

- And Respectful Behaviours re:

- Seating, Body language,

- Participation, Gender

Focus Group Discussion – FGD

Facilitator's role

- Introduction! (I am, we are, we do, we want, we will)

- Encourage relaxed discussion and involvement
- Build rapport, empathize; do not 'act the expert'
- Control rhythm & timing in a smooth & not invasive way
- Listen actively & observe non-verbal communication

- Summarise, check for agreement, 'Thanks' and 'Bye!'
  For 'do's & don'ts for FGD, see Handout S7-H4

FGD Recorder's role: Please Record:

- Logistics: date, time, place, venue, participants' profile

- Content of the discussion, opinions

- Emotional reactions

- Group participation, interaction & dynamics

- Spontaneous relevant discussions during breaks or after the meeting

And

- Help the facilitator with seating, and with missing questions, issues or topics
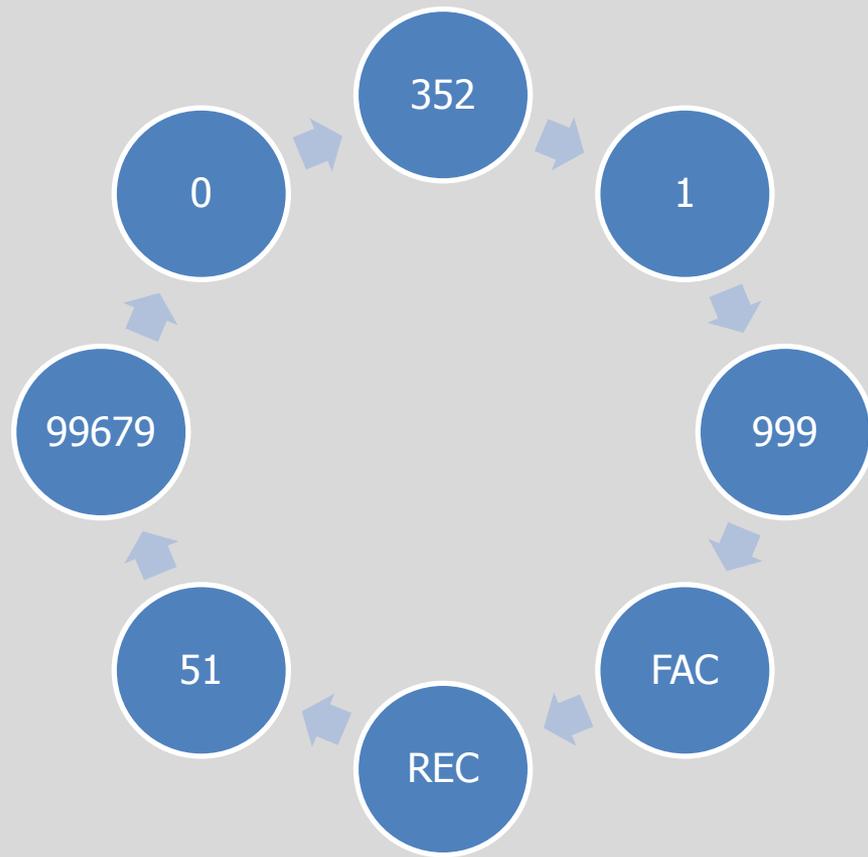
After FGD: Processing & data analysis

- Facilitator and recorder **review** and **complete the notes**.
- **Evaluate** how the FDG went & which changes are necessary
- Write a **full report of the discussion**
- **List the key statements**, **ideas**, and **attitudes** expressed during the FDG.
- **Record / Code participants' statements**
- **Write comments** (your first interpretation of the data).

- When you have all the data, **summarize** in a **compilation sheet** organizing the findings against each topic.
- Do **systematic analysis and comparison** between groups on all topics, using any objectives & problem analysis as a framework.
- **Put the major findings for different study populations on one sheet** and/or **use diagrams** .
- Now **report the major findings of the FGDs in a narrative**.

Easy practice of FGD

Groups of 4. Each person is a restaurant owner for 4 minutes – then rotate! - with the task of encouraging PARTICIPATION and of LISTENING to 3 clients (one is also a Recorder)!

Theme of Practice

- Owner will introduce music to his/her restaurant and asks for clients' music tastes

- Should owner change the music type? rhythm? volume? for breakfast, lunch, dinner, night?

Focus Group Discussion – FGD

Tools that can be used in a FGD:

- Ranking
- Scoring ('proportional piling')
- Mapping
- Timelines

FGD Practice on Guiding Questions

a. Groups of 5 (facilitator follows each)

b. 60 minutes group work
(supported by one facilitator; 60 minutes FGD role-play; 30 minutes analysis of outcomes and feedback to the group)

c. Keep handout S7- H4 handy (it gives you tips)

d. Tasks

- Using handout S7 – H5 practice the FGD

- All group members will play the 3 roles: facilitator, recorder and group discussion participant

- Comments, feedback and suggestions (last 30 mins.)

… but we need language/cultures group to ensure they have captured the latest thinking of the other groups!

Food and Agriculture Organization of the United Nations

FAO Standard Seed Security Assessment
GUIDE QUESTIONS TO SEED GROWER FARMERS / GROUPS

Note:

Target: Seed grower farmer or seed grower groups: which grow seed on a more business oriented approach, either as contract growers or as their own business at county, district or lower levels

Please include this questions only if a group is addressed.

Introduction: We are XX and YY. We work for the United Nations' FAO/Other. We want to understand how seed system works in this area. A number of farmers / local seed traders have indicated to us that they buy their seed from you as a seed grower or from the seed growers group. I would therefore like to request for you time if possible.

Objective: These guide questions will help the SSA team get an overview of the crop/seed system in the state/county. It is important to have such general information in order to situate the specific data collected from the FGD, HHS and LMS as well as find out who else could be interviewed on seed security.

I.   GROUP BACKGROUND AND STRUCTURE
1.   When and why was the group formed? How is the group managed? and is management staff volunteer or salaried?

2.   How many members were there at the time of forming the group? How many members do you have now*? (categories the number by gender, and consider looking at the youth composition within the group)*

3.   What are other group's activities or enterprises if any in addition to seed

II.   SEED PRODUCTION ACTIVITIES
4.   Which are the crops and varieties you are multiplying? Why did you choose these crops and varieties? What kind of starter seed did you use and where did you get the 'starter' seed to multiply from? What was the cost of the starter seed? For each crop, what area did you plant last year (2013)? How much did you harvest from the area planted last year?

Crop	Variety		Area planted (acres)	Starter seed		Harvest (kg)
	Name	type		kind	source	
Type: 1=Local; 2=improved *Kind:* 1= certified seed; 2=foundation seed; 3=none of the two *Source:* 1=our previous harvest; 2= agro-input dealer; 3=local markets; 4=Seed Aid; 5=Research; 6=seed company						

5. Briefly described how production is organized and managed? Individuals with their own field? Individuals producing on a block farm? Group field? Contracted by Seed Company as out grower?

6. What are your costs of production for the different seeds that you produce?

7. Are your production fields normally inspected? If Yes, by who? How many times is the seed field inspected and when are inspections normally done? Do you get feedback on the quality of your seed from the inspectors and/or customers?

8. How do you handle your seed after harvesting? Do you have a threshing/drying floor? Seed Store?

9. Could you please describe the facilities/equipment you have for handling your seed? *Type of structure, size and management etc.*

10. Of all the seed you produced last year, what proportion have you sold? To whom did you sell the seed – to farmers, retail or to agro-dealers or to next user intermediaries (FAO, NGOs, MoA)? What is your price for each of the crop seed?

Crop	Harvest (kg)	Quantity (kg) sold	Average price per kg	Quantity (kg) in store	Buyers
Buyer: who buys? 1= famers; 2=other traders who sell to other famers; 3=government/FAO/NGOs; 4=Others (specify)					

11. Could you please describe how you organize marketing of your seed?

12. What in kind or financial / material (in kind) support for this activities have you received or are you getting from your seed business partner (for contract farmers only)?

IV.   CAPACITY BUILDING AND TRAINING

13. Have your group members been trained in seed production, conditioning and marketing? If yes, when and by who? How was the training conducted? *Workshop with demonstration*? *Farmer Field School*? *How many of your members have been trained*?

14. What other capacity building programme has your group received?

V.   CONSTRAINTS

15. What are the major challenges that you are currently facing in your seed activities

16. Of the assistance that you receive, which do you feel you could continue without and which do you feel is indispensable to your continuing sustainability?

17. Compared to the price of seed in the local market, what premium do you feel farmers will be willing to pay for your seed?

18. What crop or variety is there the greatest farmer demand? Which of your products do you think the most profitable?

VI.   INVESTMENT PLAN

19. How would you compare the seed that you produce and sell to the seed that farmers produce and save themselves or purchased in the local market:
   - i.   Cleaner seed
   - ii. Higher germination and seedling vigor
   - iii. Better varieties
   - iv. Better value – better return on investment
   - v.   Other?

20. What are your plans for the upcoming season?

FAO Standard Seed Security Assessment
Agro-Input Dealers (AID) Questionnaire

Note

a. Text highlighted in YELLOW to be modified or replaced after adapting the questionnaire to local context. Amend Excel Spreadsheet for data entry as well
b. Text in BLUE are notes to the enumerators
c. Figures in brackets () are codes for data entry

Introduction: *We are XX and YY. We work for the United Nations' FAO/Other. We want to understand how seed system works in this area. A number of farmers have indicated to us that they buy their seed from agro-input dealers like you. I would therefore like to request for you time if possible.*

Permission granted: *Thanks for agreeing to this interview. Feel free to serve your customers as we move along with the interview. The responses will be shared with organizations working on seed for any improvement required of their action.*

Questionnaire number→			*Data entry number→*	

Objectives:
- To identify varieties of crops being sold by the agro input dealers.
- To determine availability, access and quality related issues from agro-input business.
- To understand the demand and supply of (certified) seed.

Section 1. Details location

1.1 Name of Enumerator: _____

1.2 Organization _____

1.3 Date: _____

Location (to be modified based on the country's administrative units -biggest to lowest e.g. Ethiopia below)

1.4 Region: _____

1.5 Zone: _____

1.6 Woreda: _____

1.7 Kabele: _____

1.8 Name of the market: _____

Section 2: Agro-Input Business Information

2.1 Name of the Business: _____

2.2 Name of sales agent (respondent): _____

2.3 Age: _____

2.4 Gender (Sex): ☐ Male (1)   ☐ Female (0)

2.5 Education: ☐ No formal (1)   ☐ Primary school (2)   ☐ Secondary (3)   ☐ Tertiary (4)

2.6 Mobile #: _____

2.7 For how many years have you been in the agro-input business? _____

2.8 Do you have another branch elsewhere?   ☐ Yes (1)   ☐ No (0)

2.9 Which agro inputs do you deal in? (Multiple responses)

☐ Crop Seed (1)   ☐ Vegetable Seed (2)   ☐ Pasture seed (3)
☐ Agro-chemicals (4)   ☐ Fertilizers (5)   ☐ Hand tools (6)
☐ Animal ploughs (7)   ☐ Jab planters (8)   ☐ Sprayers (9)
☐ Other Equipment (10)   ☐ Animal drugs (11)   ☐ Animal feeds (12)
☐ Others (specify)_____

2.10   What type of seed do you sell? Add or remove crop(s) based on most likely one to be found in local market. Adjust the codes as well)

Cereals	☐ Sorghum =1	☐ Maize=2	☐ Rice=3
	☐ Finger millet =4	☐ bulrush (pearl) millet =5	☐ Wheat=6 ☐ Teff = 7
Oilseed	☐ Groundnut=8	☐ Sesame=9	☐ Sunflower =10
Pulses	☐ Beans=11	☐ Cowpea=12	☐ Green grams =13
	☐ French beans = 14	☐ Pigeon peas = 15	☐ Soya = 16 ☐ Dolicos = 17
	☐ Tomato =18	☐ Eggplant =19	☐ Onion =20 ……………………………
Vegetables	☐ Green paper =21	☐ Red paper =22	☐ Radish =23 ……………………………
	☐ Cabbage =24	☐ Kales =25	☐ Cauliflower =26 ……………………………
Pasture	☐ Lab-lab=27	☐ Elephant grass=28	☐ Alfalfa=29 ……………………………

Section 3: Crop Seed Demand and Supply

3.1 Which are the five top most selling crop seed? (The dealer can sell just 1, 2 or 3 crops only)

	Crop A	Crop B	Crop C	Crop D	Crop E
Crop Name					
Rank (1, 2….5) If two or more crops, then rank them 1=most important, 5=least important					

3.2. Of the above crops, which are three varieties that you sell most? (For each of the varieties mentioned, ask the questions in the table)

Crop A (Name…………………………………………………..)

	Variety (i)	Variety (ii)	Variety (iii)
a) Variety (name)			
b) Common packaging unit (kg)			
c) Packaging materials (make observation)			

d) Current Price (Shilling)			
e) Price (Shilling) at planting			
f) Price (Shilling) one month before planting			
g) Quantity (kg) in stock now			
h) Quantity (kg) commonly bought by famers			
i) Quantity (kg) sold during planting season			
j) Months of highest sales			
k) Ranking of varieties as per demand (1-3)			
l) Main Supplier			
m) Location of the supplier			
n) Other varieties (names)			

Crop B (Name…………………………………………………..)

	Variety (i)	Variety (ii)	Variety (iii)
a) Variety (name)			
b) Common packaging unit (kg)			
c) Packaging materials (make observation)			
d) Current Price (Shilling)			
e) Price (Shilling)at planting			
f) Price (Shilling) one month before planting			
g) Quantity (Kg) in stock now			
h) Quantity (kg) commonly bought by famers			
i) Quantity (kg) sold during planting season			
j) Month of highest sales			
k) Ranking of varieties as per demand (1-3). Two varieties can have the same rank			
l) Main Supplier			
m) Location of the supplier			
n) Other varieties (names)			

Crop C (Name...)

	Variety (i)	Variety (ii)	Variety (iii)
a) Variety (name)			
b) Common packaging unit (kg)			
c) Packaging materials (make observation)			
d) Current Price (Shilling)			
e) Price (Shilling)at planting			
f) Price (Shilling) one month before planting			
g) Quantity (Kg) in stock now			
h) Quantity (kg) commonly bought by famers			
i) Quantity (kg) sold during planting season			
j) Month of highest sales			
k) Ranking of varieties as per demand (1-3)			
l) Main Supplier			
m) Location of the supplier			
n) Other varieties (Name)			

Crop D (Name...)

	Variety (i)	Variety (ii)	Variety (iii)
a) Variety (name)			
b) Common packaging unit (kg)			
c) Packaging materials (make observation)			
d) Current Price (Shilling)			
e) Price (Shilling)at planting			
f) Price (Shilling) one month before planting			
g) Quantity (Kg) in stock now			
h) Quantity (kg) commonly bought by famers			
i) Quantity (kg) sold during planting season			

j) Month of highest sales			
k) Ranking of varieties as per demand (1-3)			
l) Main Supplier			
m) Location of the supplier			
n) Other varieties (Name)			

Crop E (Name…………………………………………………..)

	Variety (i)	Variety (ii)	Variety (iii)
a) Variety (name)			
b) Common packaging unit (kg)			
c) Packaging materials (make observation)			
d) Current Price (Shilling)			
e) Price (Shilling) at planting			
f) Price (Shilling) one month before planting			
g) Quantity (Kg) in stock now			
h) Quantity (kg) commonly bought by famers			
i) Quantity (kg) sold during planting season			
j) Month of highest sales			
k) Ranking of varieties as per demand (1-3)			
l) Main Supplier			
m) Location of the supplier			
n) Other varieties (Name)			

3.3 Who is your MAIN customer (Note to the enumerators: Please select only one)

☐ Individual farmers (1) ☐ Farmer groups (2) ☐ NGOs/UN (3)
☐ Government (4) ☐ Other Agro-Input dealers (5) ☐ Traders (6)
☐ Others (specify) _____

3.4 If Yes, to which location(s) and how far is this location from here?

Name of the Location	How far? (code below)	Name of the Location	How far? (code below)
1…………………………	………………………………..	1……………………………	…………………………
2. ………………….…	………………………………..	2. ………………….………	…………………………

Distance: 1= Within the Woreda; Another Woreda within the Zone ; 3= Neighboring Zone; far away Zone; 5= outside the county
(These have to revised based on the country's administrative zoning)

3.7   Do you sometimes provide seed on credit to farmers who want seed during planting season?

☐Yes (1)   ☐No (0)

3.8   Of the farmers who buy seed, what proportion (%) getting it on credit? (you may ask <mark>out of 20</mark> of those who buy seed, how many get credit?) _____

	Seed
Proportion (out of 20) get credit	

3.9   Do you sometimes exchange seed with other good from the farmers during planting time?

☐Yes (1)   ☐No (0)

3.10   How do you handle unexpected over demand of seed?

_____

_____

_____

Section 4: Seed Storage

4.1   Where do you store your seed?

Storage place	Comment on what you have seen only

☐Within the market stall (1)
☐Store (2)
☐Silos (3)
Others (specify) ……………………………………..

4.2   In what type of bag or container do you keep bulk your seeds?

Containers	Containers	

☐Jute bags (1)   ☐Sisal bags (2)   ☐Polythene bags (3)
☐Plastic containers (4)   ☐Metal containers (5)   ☐ Boxes (6)
Others (specify)………………………..   ☐…………………………..   ☐…………………………..

4.3   Where are the seed bags or containers placed during storage?
☐On mud floor (1)   ☐On cemented floor (2)   ☐On pellets (3)
☐On wooden shelves (4)   ☐On concrete shelves (5)   ☐…………………………………….
☐………………………   ☐…………………………   ☐……………………………

Section 5: Fertilizer Demand and Supply

5.1   Do you also sell fertilizers?

☐ Yes (1)   ☐ No (0)

5.2   Of the farmers who buy crop and vegetable seed, what proportion (%) also buy fertilizers at the same time? (you may ask out of 20 of those who buy seed, how many buy fertilizers?)

	Crop seed	Vegetable seed
Proportion (out of 20) who buy fertilizers		

5.3   If yes, which types of fertilizers

		Urea	NPK	DAP
a)	Fertilize (name)	Urea	NPK	DAP
b)	Current price ==(Shilling) per 50kg bag==			
c)	Current price ==(Shilling) per kg==			
d)	Quantity (Kg) in stock now			
e)	Average quantity (kg) commonly bought by famers			
f)	Quantity (kg) sold during planting season			
g)	Month of highest sales			
h)	Ranking of fertilize type as per demand			
i)	Main Supplier			
j)	Location of the supplier			

Section 6: After sale services and feedback

6.1 What kind of after sales services do you normally offer your customers in relation to seed and fertilizer

a) ……
………..

b) ……
………..

c) ……
………..

6.2 Do you normally get positive and negative feedback from your regular customers? ☐ Yes (1)   ☐ No (0)

6.3 If yes, what are some of the common feedback you receive?

Positive	Year/Season	Negative	Year/Season
a)		a)	
b)		b)	
c)		c)	

Section 7: Challenges and Way forwards

7.1   What are the three top challenges in your seed business?
   a) ....
   ....
   b) ....
   ....
   c) ....
   ....

7.2 Do you have any suggestions to improve farmers' access – particularly poorer farmers - to seed and fertilizers?
   a) ....
   ....
   b) ....
   ....
   c) ....
   ....

Thanks for giving me your time.

FAO Standard Seed Security Assessment
Key Informant Interview (KII)

Note

a.   Text highlighted in YELLOW to be modified or replaced after adapting the questionnaire to local context.

b.   Tex in BLUE are note to the enumerators

The responses from the KII have to be recorded in a note book

Target: Key Government, FAO and NGOs Officials e.g. Government agriculture officers at Zonal, County, District or lower levels; FAO Field officer; NGO Programme Officers/Coordinators – at regional/zonal, county, district or lower levels

Objective: These guide questions will help the SSA team get an overview of the crop/seed system in the state/county. It is important to have such general information in order to situate the specific data collected from the FGD, HHS and LMS as well as find out who else could be interviewed on seed security.

Part I: Crop Production/Seed System Overview

1.   Which are the main crops grown in this state/county? Which are most important for food and which for income? Is there an evolution in the importance of these crops? If so, which are increasing in area, which are decreasing? Why?

2.   Are there any 'value chain' projects and/or any projects supporting farmers in this area? If yes, who runs the project, where?

3.   Please share any documents that you have on the agriculture in your state and county.

Part II: Seed Formal Seed Sector Operation

4.   Are there agro-input dealers in the state/county? If yes, how many and what crop seed do they sell? Are they registered with the relevant ministry?

5.   Are there seed-producing groups in this state/county? If yes, where are they? What are they producing? Who ensures the quality of the seed they are producing? Are there projects that support seed multiplication in the state/county? Who runs these projects?

6.   Do you have access to seed policy documents OR any seed assessment document/reports? If yes, what would you consider as the strengths and weaknesses of these policy document/reports? Can you provide us with copies? Could you also provide us with any seed intervention/evaluation report?

Part III: Seed security in generals

7.   In this state/region/county, do farmers have access to adequate seed of the right varieties they need in time for planting?

8.   Are there concerns around the quality of the seed planted or being planted in this area?

9.   Are there some varieties considered unsuitable but being promoted in the areas and why? Which varieties are these?

Part IV: Disaster/Crisis

10. What do you consider as major disasters/crisis normally affect seed security of the community this state/county?

11. In which year would you consider this disaster having affected seed security significantly? And why?

12. How do you describe these disasters – chronic, acute, mild or severe?

13. What are the mitigation measures in place?

Part V: Most Vulnerable
    14. Who do you regard as most vulnerable farmers in communities? And why?
    15. Do women farmers have specific needs? If, yes, what are their three major needs

Part VI: Food security and nutrition
    16. In your view, what is the food security situation of the community in this ==state, location==?
    17. Can you briefly describe/explain to us about malnutrition in this ==state/county?== *(ask a nutrition expert this question)*
    18. *Where the discussion is about malnutrition.* What are the major contributing factors to malnutrition? (ask nutrition experts)

Part VII: Important documents and contact
    19. Are there any other important **agricultural and nutrition information documents** you might be able to share with us? (This could be overviews, or yearly reports or evaluations. etc.   Even seasonal data could be useful).
    20. Are there key contacts to which the SSA team should speak/consult?
        • Key people?
        • Key organizations?

FAO Standard
Seed Security Assessment : Seed Aid Actors

Note

a. Text highlighted in YELLOW to be modified or replaced after adapting the questionnaire to local context.

Target: Key Government, FAO and NGOs Officials e.g. Government agriculture officers ; FAO Field officer; NGO Programme Officers/Coordinators – at regional/zonal, county, district or lower levels

Introduction: *We are XX and YY. We work for the United Nations' FAO/Other. We want to understand how seed system works in this area and therefore are interested to know the interventions your organization has done related to any kind of seed aid / assistance in the past or coming seasons. I would therefore like to request for you time if possible.*

1.0 BACKGROUND

1.1 For how long have you been providing seed to the community in this state/County?.....................years

1.2 Who were your seed beneficiaries in 2013 ?

Vulnerable host [   ]   IDPs [   ]   Returnees [   ]   Refugees [   ]

1.3 How many households did you distribute seed to in the past five years? Where did you source your seed from?

Year	# Beneficiaries HH	Quantity (kg)	Seed source	Donor	Project value
2014 (Target)					
2013					
2012					
2011					
2010					
Seed Source: Local famers; 2= seed growers from within; 3= local traders; 4=registered seed traders; 5=seed company from within; 6= seed company from outside the county; 7=Another NGO/FAO/Government;					

1.4 Which crop/varieties did you distribute to the beneficiaries last year (2013) and what is your plan for this year (2014)

Year	Crop	Variety	Quantity (kg)
2013			
2014			

1.5. Where/when did you distribute to the beneficiaries last year (2013), and what is your plan for this year (2014)

	County	When (month)	Distribution approach
2013			
2014			
Mode of distribution: 1= DirectSeedDistribution; 2=Fairs and Voucher; 3=Vouchers only;			

1.6 What do you normally do to ensure that **quality seed** and **right varieties** are provided **on time** to the famers?
Quality:

Right Varieties:

On time:

2.0 REFLECTING ON FAMERS RESPONSE (HH) ON SEED AID FROM THE SSCF POINT OF VIEW

Introduce the parameter by stating that 'farmers responded in our individual interviews that there was a problem with 'x'. We would like to follow up with those problems with you at this time.

Timing (seed arrived late)

- Why did farmers receive the seed late?
- What can be done to ensure farmers have timely access to seed?

Proximity (farmers had to travel long distances)

- How can seed be made accessible closer to farmers in the future?

Quantity (farmers received a fraction of the seed requirement)

- How did you decide on the quantity of seed per crop per farmer?

Transaction and Price (the seed was too expensive)

- If farmers were required to pay for seed, why was this decided?
- How was the price established?
- How did farmers pay back - in cash or in kind?
- What was the rate of repayment?

Physical Seed Quality (the seed was not clean)

- What was the cause of poor physical quality?
- What procedures were in place to ensure clean seed?

Seed Viability (the seed did not germinate well)

- do you test the seed before distributing it to the famers? What tests do you normally do?
- What do you think could have been the cause of the poor viability?
- What procedures were in place to ensure high germination is maintained?

Preferred Varieties (the varieties were not known to farmers)

- Were you aware that you were providing varieties that we not farmer preferred?
- If so, why did you make this decision?

Adapted Varieties (the varieties did not perform well)

- Why did you believe that the varieties distributed were adapted and would do well under farmer management?

Strengths in your seed aid activity

What went particularly well in your activity and why was this?

Closing Questions

1. Were you satisfied with the seed aid activity you implemented?
2. What did you learn from this experience?
3. What will you do differently next time?

Food and Agriculture Organization of the United Nations

FAO Standard Seed Security Assessment
Household Survey (HHS)

==Note==
a. ==Text highlighted in YELLOW to be modified or replaced after adapting the questionnaire to local context. Amend Excel Spreadsheet.==
b. Text in blue are note to the enumerators
c. Figures in bracket () or = are codes for data entry

Example introduction: Thanks for agreeing to this interview. We are ==XX== and ==YY==. We work for the ==United Nations' FAO / Other==. We want to understand how your seed system works. The answers we get will be shared with organizations working on seed for any improvement required for their action.

Questionnaire number→		*Data entry number→*	

Section 1: Details

1.1 Name of Enumerator: _____

1.2 Organization: _____

1.3 Date of assessment: _____

Location ==(to be modified based on the country's administrative units -biggest to lowest e.g. Kenya below)==

1.4 Province: _____

1.5 County: _____

1.6 Sub-county: _____

1.7 Village: _____

1.8 Agro-ecological zone: _____

Codes: (==to be added, as country specific==)

Province:

County:

Sub-county:

Agro-ecological zone:

Section 2: Respondent Information

2.1 Name of respondent: _____ (==not to be entered into database==)

2.2 Age:

2.3 Gender (Sex): ☐ Male (1)   ☐ Female (0)

2.4 Relationship: ☐ Household head (1) ☐ Spouse (2) ☐ Son/daughter (3) ☐ Other living in HH (4)
☐ Other living in HH (4)

2.5 Education ☐ No formal (1)   ☐ Primary school (2)   ☐ Secondary (3)   ☐ Tertiary (4)

2.6 Mobile #: _____ (==not to be entered into database==)

Section 3: Household Demographic and Livelihood Characteristics

3.1 Gender Head of household (HoH).

☐ Male (1) ☐ Female (0)

3.2 Residential status of the household (HH). <mark>To be revised or omitted if there is no distinct category</mark>

☐ Resident (1) ☐ Returnee (2)* ☐ Refugee (3)* ☐ IDP (4)*

3.3 For how long have you continually lived in this area? _____ Years <mark>(Only for those with a * above)</mark>

3.5 Household size: How many people live in this household?............. Note to enumerator; *Give the number under each age groups bellow?*

Age group→	< 5 years	5-17 years	18-35 years	36-60 years	>60 years

3.6 How many household members are involved in Agricultural activities?...

3.7a. Do you rear livestock?

☐ Yes (1) ☐ No (0)

3.7b. If yes which type of livestock do you keep? And how many do you have? <mark>(Add or remove animals where applicable)</mark>

Type	**Number**	**Type**	**Number**
☐ Cattle	……………………………..	☐ Sheep	……………………………..
☐ Donkey	……………………………..	☐ Poultry	……………………………..
☐ Goat	……………………………..	☐ Camel	……………………………..
☐ Pigs	……………………………..		

Others – please specify the type and numbers bellow

☐ **1)**……………………. …………………………….. ☐ **2)**…………………………. ……………………………..

3.8 What were your **Main** sources of income last season? <mark>(Add or omit options below and revise corresponding codes)</mark>

Income source	Income source	Income source
☐ Crop produce (1)	☐ Livestock sale (2)	☐ Fishing (3)
☐ On-farm daily labor (4)	☐ Livestock products (5)	☐ Hunting & gathering (6)
☐ Non on-farm daily labor (7)	☐ Remittances (8)	☐ Petty trade (9)
☐ Sale of charcoal/fuel wood (10)	☐ Salary (11)	☐ Pension (12)
☐ Others (specify)……………………		

3.9a. Are you able to save some cash from the income you earned?

☐ Yes   (1) ☐ No (0)

3.9b. Are you able to access credit from any source credit?

☐ Yes   (1) ☐ No (0)

Section 4: Food Availability and Access at Household Level

4.1 For how many days (0-7) of the last 7 days have you eaten the following food groups?

Food group	Days (0-7)	Food group	Days (0-7)
1. Cereals	……………………………..	6. Milk/ milk products	……………………………
2. Roots and tuber	……………………………..	7. Fruits	……………………………
3. Pulses / legumes	……………………………..	8. Sugar / sweet	……………………………
4. Vegetables	……………………………..	9. Oil / ghee / fat	……………………………
5. Meat / fish / eggs	……………………………..		

Section 5: Crop Production/ Seed System Profile

5.1 What crops did you plant last season? (Retain/add/remove crop(s) based on most likely one to be found in the target areas.)

Cereals	☐ Sorghum =1	☐ Maize=2	☐ Rice=3
	☐ Finger millet =4	☐ bulrush (pearl) millet =5	☐ Wheat=6 ☐ Teff = 7
Oilseed	☐ Groundnut=8	☐ Sesame=9	☐ Sunflower =10
Pulses	☐ Beans=11	☐ Cowpea=12	☐ Green grams =13
	☐ French beans = 14	☐ Pigeon peas = 15	☐ Soya = 16 ☐ Dolicos = 17
RTB	☐ Cassava=18	☐ Sweet potato=19	☐ Potato=20
	☐ Cocoyam = 21	☐ Yams = 22	☐ Banana =23
Vegetables	☐ Local	☐ exotic	

5.2. Should be asked only if the household indicated that they planted vegetable:

5.2a for what Main purpose do you cultivate vegetables?

☐ Domestic (1)   ☐ Commercial (0)

5.2b. If commercial, who decides on how the money is used?

☐ Men (1)   ☐ Women (2)   ☐ Both (3)

5.3 Of the above crops, which were the three most important you cultivated last season? (Last season to be customized by months and year)?

Crop production parameters (investigate crop by crop – A, B & C)	Crop A	Crop B	Crop C
a) Name (or code) of the three most important crops (see codes in 5.1)			
b) What is the **Main use** of the crop? 1= food; 2= income; 3=fodder			
c) What area (acre) did you plant during the last season?			
d) Land preparation method: *1= Slash and burn; 2= Zero tillage; 3=use of hand tools; 4=Animal traction; 5= Tractor*			
e) Quantity of seed used (kg) *(convert the local unit used by the farmer into kg) (except for cassava, sweet potato, potato, yams, cocoyam and banana)*			
f) Was the crop in the field *1=rain-fed or 0= irrigated?*			
g) What was the cropping practice? *1=intercrop; 0=sole crop*			
h) Did you apply inorganic fertilizer? *1=Yes, 0=No*			
i) Did you use organic fertilizer? *1=Yes, 0=No*			
j) If yes, what type of manure? *1=compost; 2= animal; 3=others (specify)*………..			
k) Quantity harvested (kg) *(convert the local unit used by the farmer into kg) (except for cassava, sweet potato, potato, yams, cocoyam and banana)*			
l) How do you rate the harvest? *1=Excellent; 2=Good; 3=Fair; 4=Poor*			
Crop code: Crop codes in 5.1 could be added here.			

5.4 Of the above (mentioned) crops, which ones will you plant during this upcoming season? (Upcoming season to be customized by months and year)?

Crop production parameters (investigate crop by crop – A, B & C)	Crop A	Crop B	Crop C
a) Name (or code) of the three most important crops (see codes in 5.1)→			
b) What is the area (acre) planted or expected to be planted?			
c) Quantity of seed expected to be planted (kg)? *(convert the local unit into kg)*			
d) Change in Main crop (s): *1=Yes 0=No (observe this from the responses)*			
e) Main reason for change in main crops if any (see codes below)			
f) Change in area to be planted: *1= Yes; 0=No (observe this from the responses)*			
g) Main reason for change of area if yes (see codes below)			
h) Change seed quantity be used: *1= Yes; 0=No (observe this from the responses)*			

i) Main reason for change in quantity of seed (see codes below)			

Codes for Main reason for change (*Note to the enumerators*: only one to be identified)		
1 = Lack of land; 2 = Access to more land; 3 = Lack of labor force; 4 = Access to more labor force; 5=Lack of seed; 6=Better access to seeds;	7=Free seed; 8=Increase in seed prices; 9=Decrease in seed prices; 10=Decrease of produce price; 11=Guaranteed selling price of produce; 12=Secure market;	13=Increased need at household level 14 = Lack of tools and equipment 15= Replanting of seed 16=Others (specify)………………………………………

6.0 Important Crops and their Seed Sources

Transfer important crops (A, B & C) from 5.3 to 6.1, 6.2 and 6.3 of this section

6.1   What was/were your source(s) of seed for the important **CROP A?** In the lasts season (Last season to be customized by months and year) (**Code or name**) ……………………………

☐Own seed   ☐Local Market   ☐Soc. Network   ☐Agro-input-Dealer   ☐Seed aid

Note to enumerator: Multiple responses possible

6.1.1   Assess varietal suitability, availability, accessibility and quality of crop **A** seed from the source(s) indicated above.

Crop A (……………………………………………) Last Season	Source(s) of seed LAST SEASON				
	Own	Local market	Social Network	Agro-vet	Seed aid[1]
a) Name of the Major variety					
b) Variety type: 1= local; 0=improved					
c) Was there enough seed from this source? 1=Yes; 0=No					
d) What quantity of seed (kg) did you plant from this source?					
e) At what time was the seed available? 1=Before the planting season; 2= at start of the season; 3=mid-season; 4= towards the end of season					
f) Where did you collect the seed from? 1= in this village; 2=neighboring district; 3= far away district.					
g) How did you acquire the seed? 1= Cash; 2= On credit; 3= bartered; 4=free (gift)					
h) How was the price or term of trade? 1= affordable; 2= expensive ; 3=very expensive (ask only those who acquired by cash, on credit or bartered only)					
i) Was the seed clean? 1= clean (no impurities, no damage); 2= fairly clean (some impurities, no damage); 3=not clean (Some impurities & damage) Note to enumerator: Damage refers to physical, pest infestation or both					
j) How was the germination of the seed? 1= Good, 2=Fair; 3=Poor					
(1) *Seed Aid:* Please indicate name of organization who provided seed aid e.g. FAO, Action Aid, Concern etc.					

6.1.2   Overall, if you consider all possible seed sources, was there enough seed available for **crop A** during last season? (Last season to be customized by months and year) ☐Yes (1)   ☐No (0)

6.1.3. In the **UPCOMING (NEXT) OR THIS SEASON,** where will (have) you source seed of **CROP A** (………………………) from? (Upcoming or this season to be customized by months and year)

☐Own seed   ☐Local Market   ☐Soc. Network ☐Agro-input-Dealer   ☐Seed aid

Note to enumerator: Multiple responses possible

6.1.4 Assess availability and accessibility of crop **A** seed from this/these source(s). Assess variety type, growth, liking by the farmer only if the variety was not planted last season

Crop A (……………………………………………………..) NEXT SEASON	Source(s) of seed LAST SEASON				
	Own	Local market	Social Network	Agro-vet	Seed aid[1]
a) Name of the Major variety					
b) Variety same as last season? 1= Yes; 0=No					
c) If No, Main reason for change of variety (see codes below)					
d) Variety type: 1= local; 0=improved					
e) Is there enough seed from this source? 1=Yes; 0=No					
f) What quantity of seed (kg) did/will you plant from this source?					
g) Change in the quantity of seed from this source? 1=Yes; 0=No					
h) Reason for change in the quantity of seed (see code below)					
i) At what time did/will the seed be available? 1=Before the planting season; 2= at start of the season; 3=mid-season; 4= towards the end of season	■				
j) Where did/will you collect the seed from? 1= in this village; 2= neighboring district; 3= far away district.					
k) How did/will you acquire the seed? 1= Cash; 2= On credit; 3= bartered; 4=free (gift)					
l) How is the current price or term of trade for seed? 1= affordable; 2= high; 3=very high (ask only those who did/will acquire seed by cash, on credit or bartered only)					
(2) Seed Aid: Please indicate name of organization who provided seed aid e.g. FAO, Action Aid, Concern etc.					

Codes for Main reason for change of seed quantity if any		
1 = Lack of seed from same source;	7=Received free seed;	13= Others, (specify)………………………………………
2 = More seeds available from this source;	8=Increase in seed prices;	
3 = Lack of resistance to pest;	9=Decrease in seed prices;	
4 = Good resistance to pests;	10= Lack of resistance to diseases;	
5= Good performance of seeds;	11=Good resistance to diseases;	
6= Bad performance of seeds;	12= Lost seeds during storage	

6.1.5 Overall, if you consider all possible seed sources, will there be enough seed available for **crop A** during in the upcoming or this season? (Upcoming/this season to be customized by months and year) ☐ Yes (1)   ☐ No (0)

6.1.6 From which market did/will you buy your seed from? Note to the enumerators: (*To be asked to those who indicated 'market'*)
Market 1:_____   Market 2:_____

6.2 What was/were your source(s) of seed for the important **CROP B?** In the lasts season (Last season to be customized by months and year) (**Code or name**) ………………………………
☐ Own seed   ☐ Local Market   ☐ Soc. Network   ☐ Agro-input-Dealer   ☐ Seed aid
Note to enumerator: Multiple responses possible

6.2.1   Assess varietal suitability, availability, accessibility and quality of crop **B** seed from the source(s) indicated above.

Crop B (……………………………………………) Last Season	Source(s) of seed LAST SEASON				
	Own	Local market	Social Network	Agro-vet	Seed aid[1]
k) Name of the Major variety					
l) Variety type: 1= local; 0=improved					
m) Was there enough seed from this source? 1=Yes; 0=No					
n) What quantity of seed (kg) did you plant from this source?					
o) At what time was the seed available? 1=Before the planting season; 2= at start of the season; 3=mid-season; 4= towards the end of season	■				
p) Where did you collect the seed from? 1= in this village; 2=neighboring district; 3= far away district.	■				
q) How did you acquire the seed? 1= Cash; 2= On credit; 3= bartered; 4=free (gift)	■				
r) How was the price or term of trade? 1= affordable; 2= expensive ; 3=very expensive (ask only those who acquired by cash, on credit or bartered only)	■				
s) Was the seed clean? 1= clean (no impurities, no damage); 2= fairly clean (some impurities, no damage); 3=not clean (Some impurities & damage) Note to enumerator: Damage refers to physical, pest infestation or both					
t) How was the germination of the seed? 1= Good, 2=Fair; 3=Poor					
(3) *Seed Aid:* Please indicate name of organization who provided seed aid e.g. FAO, Action Aid, Concern etc.					

6.2.2   Overall, if you consider all possible seed sources, was there enough seed available for **crop B** during last season? (Last season to be customized by months and year) ☐Yes (1)   ☐No (0)

6.2.3. In the **UPCOMING (NEXT) OR THIS SEASON,** where will (have) you source seed of **CROP B** (………………………) from? (Upcoming or this season to be customized by months and year)
☐Own seed   ☐Local Market   ☐Soc. Network ☐Agro-input-Dealer   ☐Seed aid
         Note to enumerator: Multiple responses possible

6.2.4 Assess availability and accessibility of crop **B** seed from this/these source(s). Assess variety type, growth, liking by the farmer only if the variety was not planted last season

Crop B (……………………………………………………..) NEXT SEASON	Source(s) of seed LAST SEASON				
	Own	Local market	Social Network	Agro-vet	Seed aid[1]
m) Name of the Major variety					
n) Variety same as last season? 1= Yes; 0=No					
o) If No, Main reason for change of variety (see codes below)					
p) Variety type: 1= local; 0=improved					
q) Is there enough seed from this source? 1=Yes; 0=No					
r) What quantity of seed (kg) did/will you plant from this source?					
s) Change in the quantity of seed from this source? 1=Yes; 0=No	■				
t) Reason for change in the quantity of seed (see code below)	■				
u) At what time did/will the seed be available? 1=Before the planting season; 2= at start of the season; 3=mid-season; 4= towards the end of season	■				
v) Where did/will you collect the seed from? 1= in this village; 2= neighboring district; 3= far away district.	■				
w) How did/will you acquire the seed? 1= Cash; 2= On credit; 3= bartered; 4=free (gift)	■				
x) How is the current price or term of trade for seed? 1= affordable; 2= high; 3=very high (ask only those who did/will acquire seed by cash, on credit or bartered only)	■				
(4) *Seed Aid:* Please indicate name of organization who provided seed aid e.g. FAO, Action Aid, Concern etc.					
Codes for Main reason for change of seed quantity if any					

Codes for Main reason for change of seed quantity if any		
1 = Lack of seed from same source; 2 = More seeds available from this source; 3 = Lack of resistance to pest; 4 = Good resistance to pests; 5= Good performance of seeds; 6= Bad performance of seeds;	7=Received free seed; 8=Increase in seed prices; 9=Decrease in seed prices; 10= Lack of resistance to diseases; 11=Good resistance to diseases; 12= Lost seeds during storage	13= 0thers, (specify)………………………………………

6.2.5   Overall, if you consider all possible seed sources, will there be enough seed available for **crop B** during in the upcoming or this season? (Upcoming/this season to be customized by months and year) ☐Yes (1)   ☐No (0)

6.2.6   From which market did/will you buy your seed from? Note to the enumerators: (*To be asked to those who indicated 'market'*)

Market 1:_____   Market 2:_____

6.3   What was/were your source(s) of seed for the important **CROP C?** In the lasts season (Last season to be customized by months and year) (**Code or name**) ………………………………

☐Own seed   ☐Local Market   ☐Soc. Network   ☐Agro-input-Dealer   ☐Seed aid
Note to enumerator: Multiple responses possible

6.3.1   Assess varietal suitability, availability, accessibility and quality of crop **C** seed from the source(s) indicated above.

Crop C (…………………………………………….) Last Season	Source(s) of seed LAST SEASON				
	Own	Local market	Social Network	Agro-vet	Seed aid[(1)]
u) Name of the Major variety					
v) Variety type: 1= local; 0=improved					
w) Was there enough seed from this source? 1=Yes; 0=No					
x) What quantity of seed (kg) did you plant from this source?					
y) At what time was the seed available? 1=Before the planting season; 2= at start of the season; 3=mid-season; 4= towards the end of season	■				
z) Where did you collect the seed from? 1= in this village; 2=neighboring district; 3= far away district.	■				
aa) How did you acquire the seed? 1= Cash; 2= On credit; 3= bartered; 4=free (gift)	■				
bb) How was the price or term of trade? 1= affordable; 2= expensive ; 3=very expensive (ask only those who acquired by cash, on credit or bartered only)	■				
cc) Was the seed clean? 1= clean (no impurities, no damage); 2= fairly clean (some impurities, no damage); 3=not clean (Some impurities & damage) Note to enumerator: Damage refers to physical, pest infestation or both					
dd) How was the germination of the seed? 1= Good, 2=Fair; 3=Poor					
(5) *Seed Aid:* Please indicate name of organization who provided seed aid e.g. FAO, Action Aid, Concern etc.					

6.3.2   Overall, if you consider all possible seed sources, was there enough seed available for **crop C** during last season? (Last season to be customized by months and year) ☐Yes (1)   ☐No (0)

6.3.3. In the **UPCOMING (NEXT) OR THIS SEASON,** where will (have) you source seed of **CROP C** (……………………) from? (Upcoming or this season to be customized by months and year)
☐Own seed   ☐Local Market   ☐Soc. Network ☐Agro-input-Dealer   ☐Seed aid
         Note to enumerator: Multiple responses possible

6.3.4 Assess availability and accessibility of crop **B** seed from this/these source(s). Assess variety type, growth, liking by the farmer only if the variety was not planted last season

Crop C (……………………………………………………..) NEXT SEASON	Source(s) of seed LAST SEASON				
	Own	Local market	Social Network	Agro-vet	Seed aid[1]
y) Name of the Major variety					
z) Variety same as last season? 1= Yes; 0=No					
aa) If No, Main reason for change of variety (see codes below)					
bb) Variety type: 1= local; 0=improved					
cc) Is there enough seed from this source? 1=Yes; 0=No					
dd) What quantity of seed (kg) did/will you plant from this source?					
ee) Change in the quantity of seed from this source? 1=Yes; 0=No					
ff) Reason for change in the quantity of seed (see code below)					
gg) At what time did/will the seed be available? 1=Before the planting season; 2= at start of the season; 3=mid-season; 4= towards the end of season					
hh) Where did/will you collect the seed from? 1= in this village; 2= neighboring district; 3= far away district.					
ii) How did/will you acquire the seed? 1= Cash; 2= On credit; 3= bartered; 4=free (gift)					
jj) How is the current price or term of trade for seed? 1= affordable; 2= high; 3=very high (ask only those who did/will acquire seed by cash, on credit or bartered only)					
(6) Seed Aid: Please indicate name of organization who provided seed aid e.g. FAO, Action Aid, Concern etc.					

Codes for Main reason for change of seed quantity if any		
1 = Lack of seed from same source;	7=Received free seed;	13= 0thers, (specify)………………………………………
2 = More seeds available from this source;	8=Increase in seed prices;	
3 = Lack of resistance to pest;	9=Decrease in seed prices;	
4 = Good resistance to pests;	10= Lack of resistance to diseases;	
5= Good performance of seeds;	11=Good resistance to diseases;	
6= Bad performance of seeds;	12= Lost seeds during storage	

6.3.5   Overall, if you consider all possible seed sources, will there be enough seed available for **crop C** during in the upcoming or this season? (Upcoming/this season to be customized by months and year) ☐ Yes (1)   ☐ No (0)

6.3.6   From which market did/will you buy your seed from? Note to the enumerators: (*To be asked to those who indicated 'market'*)

Market 1:_____   Market 2:_____

7.0 Seed Aid (AAP)

Note to the enumerators: All those who indicated seed aid as their source of seed (Section 6) already have information for last and current season- Just transfer the information from section 6. Others who have not indicated seed aid as source of seed in section 6 could still provide information on seed aid in the previous years (below the current year).

7.1 Have you ever received seed aid in the last five years? ☐Yes (1) ☐No (0)

7.2a If yes, how many times have you receives seed aid in the last five years?_____

7.2b How did you access the seeds? (Multiple choice possible; code: Yes = (1) / No = (0)
☐ Direct distribution ☐ Seed fairs and voucher; ☐ Voucher

7.2c. On which terms have you been given the seed aid? (Multiple choice possible; code: Yes =(1) / No = (0))
☐ Free ☐ Cost sharing ☐ Seed Recovery ☐ Others (specify) _____

7.2d. Which organization provided the seed (mention the organizations / institutions names)?
1:_____ 2:_____ 3:_____ 4:_____ 5:_____

7.3 Did you ever participate in identifying the crop and variety given to you?

☐ No, I never participated (1); ☐ Yes, but did not get what we asked for (2); ☐ Yes, and given my choice (3)

7.4 Did you ever receive a variety totally new to you? ☐ Yes (1) ☐No (0)

7.6 Were you provided information you needed on the variety? ☐ Yes (1) ☐No (0)

7.7. Overall, what is your level of satisfaction with the seeds you were provided?
☐Very satisfied =1; ☐Satisfied (2); ☐Not satisfied (3); ☐Very unsatisfied (4)

Thanks for all the information you have provided

FAO Standard Seed Security Assessment
Local Market Survey (LMS)

Note

We are XX and YY. We work for the United Nations' FAO/Other. We want to understand how seed system works in this area. A number of farmers have indicated to us that they buy their seed from traders such as you.

PRELIMINARY QUESTION: Do famers buy some of your grains for planting?

☐ Yes   ☐ No

If NO, this trader should NOT be interviewed
If yes, request if you could proceed interviewing him/her on only those seed/grain that farmers buy for planting.

Thanks for agreeing to this interview. The responses will be shared with organizations working on seed for any improvement requires of their action.

Questionnaire number→			*Data entry number→*	

Objectives:
- To identify varieties of crops being sold as seed.
- To determine availability, access and quality of grains being used as seed.
- To understand the demand of grains that can be used as seed by farmers.

Section 1. Details location

1.2 Name of Enumerator: _____

1.3 Organization _____

1.4 Date: _____

Location (to be modified based on the country's administrative units -biggest to lowest e.g. Ethiopia below)

1.5 Region: _____

1.6 Zone _____

1.7 Woreda _____

1.8 Kabele _____

1.9 Name of the market _____

Section 2: Seed Trader Information

2.1 Name of farmer: _____

2.2 Age: _____

2.3 Gender (Sex): ☐ Male (1)   ☐ Female (2)

2.4 Education   ☐ No formal (1)   ☐ Primary school (2)   ☐ Secondary (3)   ☐ Tertiary (4)

2.5 Mobile #: _____

2.6 For how many years have you been in the seed business? _____

2.7 Are you full time in your business?

☐ Yes (1)   ☐ No (0)

1.0   Seed Business Information

1.1   What type of crop seed do you sell? Tick (codes: Yes = 1, No = 0)

Add or remove crop(s) based on most likely one to be found in local market. Adjust the codes as well)

Cereals	☐ Sorghum =1	☐ Maize=2	☐ Rice=3	
	☐ Finger millet =4	☐ bulrush (pearl) millet =5	☐ Wheat=6	☐ Teff = 7
Oilseed	☐ Groundnut=8	☐ Sesame=9	☐ Sunflower =10	
Pulses	☐ Beans=11	☐ Cowpea=12	☐ Green grams =13	
	☐ French beans = 14	☐ Pigeon peas = 15	☐ Soya = 16	☐ Dolicos = 17
RTB	☐ Cassava=18	☐ Sweet potato=19	☐ Potato=20	
	☐ Cocoyam = 21	☐ Yams = 22	☐ Banana =23	
Vegetables	☐ Local	☐ exotic		

1.2   Do you sometimes sell your seeds outside this market?   ☐ Yes (1)   ☐ No (0)

1.3   If Yes, to which location(s) and how far is this location from here?

Name of the Location	How far? (code below)	Name of the Location	How far? (code below)
1.…………………………	…………………………………..	1.…………………………………	…………………………
2. …………………………	…………………………………..	2. …………………………………	…………………………

Distance: 1= Within the Woreda; 2=Another Woreda within the Zone ; 3= Neighboring Zone; 4=far away Zone; 5= outside the county (These have to revised based on the country's administrative zoning)
(Note to the enumerators: Multiple responses possible)

2.0 Seed Transportation and Storage

2.1   Which mean(s) of transport do you use for transporting your seed to the markets? (add or remove transport means, and adjust the codes)

Tick	Tick
☐ Motor vehicle (1)	☐ Donkey (5)
☐ Motorcycle (2)	☐ Manpower (on head) (6)
☐ Bicycle (3)	☐ Motor boat (7)
☐ Animal drawn cart (4)	☐ Train (8)
☐ Brought by the trader (9)	☐ Brought by the farmers (10)

Note to the enumerators: Multiple responses possible)

2.2   Where do you store your seed?

Storage place	Comment on what you have seen only

☐ Within the market (1)
☐ Granary (2)
☐ Store (3)
☐ Silos (4)
☐ Wooden cribs (5)
Others (specify) ……………………………………..

2.3   In what type of bag or container do you keep your seeds?

Containers	Containers	

☐ Jute bags (1)   ☐ Sisal bags (2)   ☐ Polythene bags (3)
☐ Plastic containers (4)   ☐ Metal containers (5)   ☐ …………………………….
Others (specify)…………………………..   ☐ …………………………..   ☐ …………………………..

2.4   Where are the seed bags or containers placed during storage?

☐ On mud floor (1)   ☐ On cemented floor (2)   ☐ On pellets (3)
☐ On wooden shelves (4)   ☐ On concrete shelves (5)   ☐ ………………………………….
☐ ……………………….   ☐ ……………………….   ☐ …………………………………

3.0   Seed Supply and Demand

3.1 Which crops and varieties do farmers buy for planting and in what average quantity?

Crop	Variety 1	Variety 2	Variety 3	Average crop quantity sold (in kg)
A………………………	……………………………	……………………………	………………………………	……………………….
B…………………….	……………………………	……………………………	………………………………	……………………….
C………………………	……………………………	……………………………	………………………………	……………………….
D………………………	……………………………	……………………………	………………………………	……………………….
E………………………	……………………………	……………………………	………………………………	……………………….
F………………………	……………………………	……………………………	………………………………	……………………….

3.2   Do you sometimes provide credit to farmers who want seed during planting season?

☐ Yes (1)   ☐ No (0)

3.2a   If yes, which proportion of your costumers are buying on credit: ……………………………..%

3.3   Do you sometimes exchange seed with other goods from the farmers during planting time?

☐ Yes (1)   ☐ No (0)

3.4 Crop (name)_____ Variety (name)_____

a) Is this a local or improved variety? (no need to ask if the enumerator knows the variety)

☐ Local (1)   ☐ Improved (2)   ☐ I don't know (3)

b) Does the variety grow well in this area?

☐ Yes (1)   ☐ No (0)   ☐ I don't know (2)

c) Who supplied you with this variety? (multiple response possible)

☐ Individual farmers (1)   ☐ Farmers group (2)   ☐ Seed growers group (3)
☐ Trader (4)   ☐ Seed Company (5)   ☐ Agro-I-dealers (6)
☐ got as relief (7)   Others (specify)_____

d) Where did you source the current seed from? (These have to revised based on the country's administrative zoning)

☐ Within the Woreda (1)   ☐ another Woreda within the this Zone (2)
☐ Another Zone within this Region (3) ☐ another Region (4)
☐ Another Country (5)

e) What is the current price of this variety?   _____(Shillings) **per Kg**
f) What was the price of this variety at planting time?   _____(Shillings) **per Kg**
g) What was the price one month before planting time ?   _____(Shillings) **per Kg**

h) What quantity of this variety do you have NOW in stock?

_____Kg   OR   _____Bags of ....kg each (can change accordingly)

i) What quantity did you sell LAST MONTH as seed?

_____Kg   OR   _____Bags of ....kg each (can change accordingly)

j) What quantity do you normally sell during the planting season as seed?

_____Kg   OR   _____Bags of ....kg each (can change accordingly)

k) Which month(s) do you sell more of this variety as seed?

Sales	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec
High	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Code for data entry: Yes = 1, No = 0

l) Physical cleanliness of the current stock?

☐ Clean (1)   ☐ Fairly clean (2)   ☐ Not clean (3)   ☐ Can't tell as there is no stock (4)

Physical cleanliness: =1=Clean (no impurities, no damage); 2= fairly clean (some impurities but no damage); 3=not clean (with some impurities and some damage) – damage refers to physical damage, pest damage or both.

3.4 Crop (name)_____ Variety (name)_____

a) Is this a local or improved variety? (no need to ask if the enumerator knows the variety)

☐ Local (1)   ☐ Improved (2)   ☐ I don't know (3)

b) Does the variety grow well in this area?

☐ Yes (1)   ☐ No (0)   ☐ I don't know (2)

c) Who supplied you with this variety? (multiple response possible)

☐ Individual farmers (1)   ☐ Farmers group (2)   ☐ Seed growers group (3)
☐ Trader (4)   ☐ Seed Company (5)   ☐ Agro-I-dealers (6)
☐ got as relief (7)   Others (specify)_____

d) Where did you source the current seed from? (These have to revised based on the country's administrative zoning)

☐ within the Woreda (1)   ☐ another Woreda within the this Zone (2)
☐ another Zone within this Region (3)   ☐ another Region (4)
☐ another Country (5)

e) What is the current price of this variety?   _____(Shillings) **per Kg**
f) What was the price of this variety at planting time?   _____(Shillings) **per Kg**
g) What was the price one month before planting time ?   _____(Shillings) **per Kg**
h) What quantity of this variety do you have NOW in stock?

_____Kg   OR   _____Bags of ……..kg each (can change accordingly)

i) What quantity did you sell LAST MONTH as seed?

_____Kg   OR   _____Bags of ………kg each (can change accordingly)

j) What quantity do you normally sell during the planting season as seed?

_____Kg   OR   _____Bags of ………kg each (can change accordingly)

k) Which month(s) do you sell more of this variety as seed?

Sales	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec
High	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Code for data entry: Yes = 1, No = 0

l) Physical cleanliness of the current stock?

☐ Clean (1)   ☐ Fairly clean (2)   ☐ Not clean (3)   ☐ Can't tell as there is no stock (4)

Physical cleanliness: =1=Clean (no impurities, no damage); 2= fairly clean (some impurities but no damage); 3=not clean (with some impurities and some damage) – damage refers to physical damage, pest damage or both.

3.4 Crop (name)_____Variety (name)_____

a) Is this a local or improved variety? <mark>(no need to ask if the enumerator knows the variety)</mark>

☐ Local (1)　　　　　☐ Improved (2)　　　　　☐ I don't know (3)

b) Does the variety grow well in this area?

☐ Yes (1)　　　　　☐ No (0)　　　　　☐ I don't know (2)

c) Who supplied you with this variety? <mark>(multiple response possible)</mark>

☐ Individual farmers (1)　☐ Farmers group (2)　☐ Seed growers group (3)
☐ Trader (4)　　　　　　☐ Seed Company (5)　☐ Agro-I-dealers (6)
☐ got as relief (7)　　　Others (specify)_____

d) Where did you source the current seed from? <mark>(These have to revised based on the country's administrative zoning)</mark>

☐ Within the Woreda (1)　　　　☐ another Woreda within the this Zone (2)
☐ Another Zone within this Region (3)　☐ another Region (4)
☐ Another Country (5)

e) What is the current price of this variety?　　　　_____<mark>(Shillings)</mark> **per Kg**
f) What was the price of this variety at planting time?　_____<mark>(Shillings)</mark> **per Kg**
g) What was the price one month before planting time ?　_____<mark>(Shillings)</mark> **per Kg**
h) What quantity of this variety do you have NOW in stock?

_____Kg　　OR　　_____Bags of <mark>……..kg</mark> each <mark>(can change accordingly)</mark>

i) What quantity did you sell LAST MONTH as seed?

_____Kg　　OR　　_____Bags of <mark>………kg</mark> each <mark>(can change accordingly)</mark>

j) What quantity do you normally sell during the planting season as seed?

_____Kg　　OR　　_____Bags of <mark>………kg</mark> each <mark>(can change accordingly)</mark>

k) Which month(s) do you sell more of this variety as seed?

Sales	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec
High	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Code for data entry: Yes = 1, No = 0

l) Physical cleanliness of the current stock?

☐ Clean (1)　　☐ Fairly clean (2)　　☐ Not clean (3)　　☐ Can't tell as there is no stock (4)

<mark>**Physical cleanliness:** =1=Clean (no impurities, no damage); 2= fairly clean (some impurities but no damage); 3=not clean (with some impurities and some damage) – damage refers to physical damage, pest damage or both.</mark>

4.0   Grain/seed conditioning

4.1   What are the most important activities you undertake to improve the commercial value of your seed of crop?

Crop A (Name) _____

Activities	Observation	General Comment
☐ Clean out impurities – dust, debris and stones	…………	
☐ Sort out broken, shriveled and discolored grains/seed	…………	
☐ Sort according to varieties	…………	
☐ Grade according to grain/seed size	…………	
☐ Package according to popular demand	…………	
☐ Display fresh and old product separately	…………	
☐ Sell grain and seed separately	…………	
Others (specify)………………………………	…………	
*Observation code:*1=true; 2= false; 3= can't confirm (*Note to the enumerators*: *the observation is to be made by the interviewer on what s/he sees on display*; *multiple responses possible*		

Crop B (Name) _____

Activities	Observation	General Comment
☐ Clean out impurities – dust, debris and stones	…………	
☐ Sort out broken, shriveled and discolored grains/seed	…………	
☐ Sort according to varieties	…………	
☐ Grade according to grain/seed size	…………	
☐ Package according to popular demand	…………	
☐ Display fresh and old product separately	…………	
☐ Sell grain and seed separately	…………	
Others (specify)………………………………	…………	
*Observation code:*1=true; 2= false; 3= can't confirm *Note to the enumerators*: *the observation is to be made by the interviewer on what s/he sees on display*; *multiple responses possible*		

Crop C (Name) _____

Activities	Observation	General Comment
☐ Clean out impurities – dust, debris and stones	…………	
☐ Sort out broken, shriveled and discolored grains/seed	…………	
☐ Sort according to varieties	…………	
☐ Grade according to grain/seed size	…………	
☐ Package according to popular demand	…………	
☐ Display fresh and old product separately	…………	
☐ Sell grain and seed separately	…………	
Others (specify)………………………………	…………	
*Observation code:*1=true; 2= false; 3= can't confirm (*Note to the enumerators*: *this observation is to be made by the interviewer on what s/he sees on display*; *multiple responses possible*		

Thanks for giving me your time.

Food and Agriculture Organization of the United Nations

| **FAO Standard Seed Security Assessment** |
| **Focus Group Discussion (FGD)** |

Note: The questions below are only guides; they should be amended during training before you go to the village depending on (i) what you already know (ii) main themes of interest. If you are uncertain, or run out of ideas, they may help you to run the FGD. Most important is to allow free expression, to guide discussions and to adequately record content, opinions, quotes, dynamics and emotional reactions, which you will interpret and analyse for your discussion report.

Introduction: You are all welcome to be part of this focus group discussion on seed system. We are XX and YY. We work for the United Nations' FAO/Other. We want to understand how seed system works in this community. It a free discussion and no one will be judge right or wrong. It is all about sharing our experiences, opinions and points for consideration. The responses will be shared with organizations working on seed for any improvement requires of their action.

Date: _____

Name of the facilitator: _____

Name of the Recorder: _____

Location: Amend location accordingly
1.   Region: _____
2.   Zone: _____
3.   Woreda: _____
4.   Kabele: _____
5.   Village: _____

Number of participants: Men: _____ / Women: _____

PART 1. OPEN QUESTIONS TO ALLOW THE GROUP TO EXPRESS ITSELF FREELY ON HOW THEY RELATE TO SEED

1. How has the community changed its practices in the way it grows crops, in your lifetimes? Which challenges remain as far as crop production is concerned? (Recorder: please ensure you capture at least keywords, and quickly develop codes e.g. 'gr hat' for a person with a green hat, so you can record what they say throughout)

2. Specifically, how has the community changed the way it uses crops?

PART 2. MAIN CROPS AND ACCESS TO SEEDS

2.1   Which are 'number 1 most important and 2 & 3 important, the crops you grow for food, and which are 1-2-3 important to sell?

Importance	Food	Crops for income
1		
2		
3		

2.3   For your whole community, which crops you grow on more land, and which you grow on less land, in the last 5 years? (If you used symbol/paper 'Move the symbol / paper 'up' if more land, and 'down' if less' (NB: Facilitator has to be very clear which is 'up' e.g. away from participants, and which is 'down', probably going closer to them)… 'Why do you grow more or less?'

2.3.1   Crops which have increased land area cultivate

Crops	Reasons why

2.3.2 Crops which have decreased in land area cultivated

Crops	Reasons why?

2.3.3   Varieties which have disappeared over the last years

Crops	Why?

2.3.2 New varieties which are adopted

Crops	Why?

2.4.1   For your most important crop (A, B, C), could you show me where you get seeds from? And rank them or use proportional piling to obtain their order of importance. See example of seed source mapping below – NEVER do it yourself. Let the participants do the mapping and discuss. If there has been an obvious crisis, amend this to 'how you got before the crisis?' and stage two 'after the crisis?) [Note: If you are confident to facilitate community maps, encourage farmers to make one for their most important crop pre-crisis, using drawings in sand or on paper.

- Larger circles or papers are used for important sources, and smaller circles or papers for less important. Proportional pilling (use bean seed or small stones) can be used to quantify the proportion of seed coming from different sources.
- Easy-to-get source (nearer and cheaper) are placed closer to the crop while difficult-to-get (far and expensive) are placed futher away from the crop in the centre.

Allow them to create a separate map for the main crop post-crisis; and then repeat for the second most important crop. NB: external facilitators must never draw or make the maps themselves.

Example of seed source mapping (pre and Post crisis)

a)   Pre-Crisis Maize seed sources map

Note, seed becomes the most important seed source and is brought closer to the community. There are no seed producers while the functional markets (LM and Agro-I-dealers becomes further and expensive for the famers.
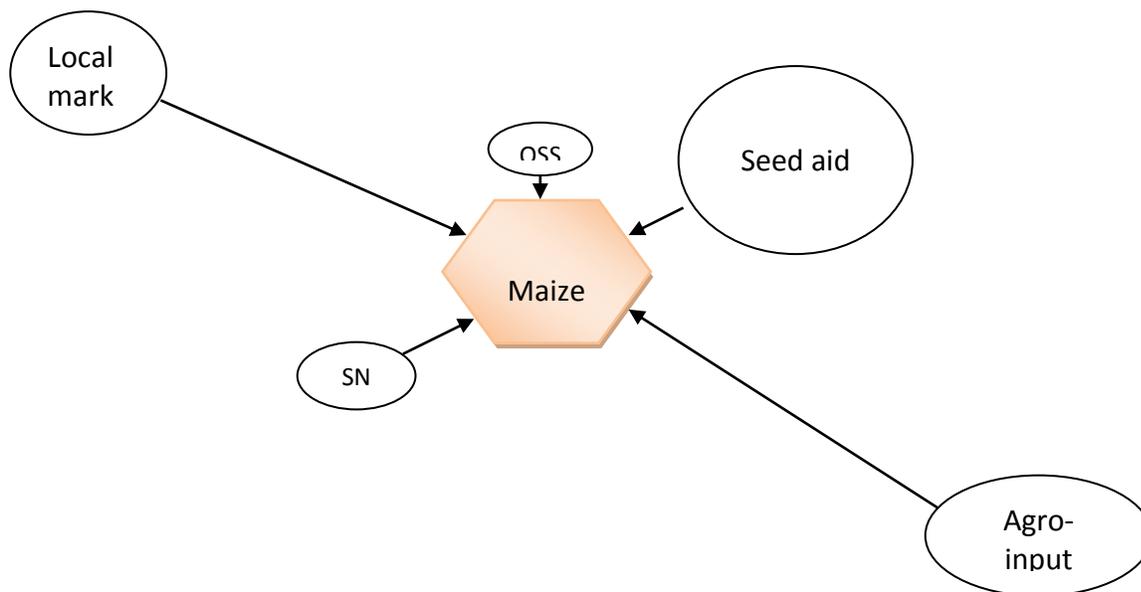
2.4.2   For your second most important crop, please show me how you get seeds? Let them repeat this for the second and third important crops.

2.4.3   From the sources mapped above, investigate about the quality (germination and purity) price of the seed?

	OSS	LMS	SNS	Agro-Input dealers	SAS
a) Quality					
b) Price					

Quality: 1= BAD; 2= AVERAGE; 3=GOOD; Price: 1= AFORDABLE; 2=EXPENSIVE; 3=VERY EPENSIVE.

2.4.4   What are the advantages (pro) and disadvantages (cons) of the different seed sources you are using for this crop?

Seed source	Pro	Cons
OSS		
LMS		
SSN		
Agro-I-Dealers		
SAS		

2..5   Which are the three main varieties of maize grown by the famers in this area? Could you rank these varieties in order of their importance and explain why they are more or less important?

Three major varieties	Rank?	Why? Pro	Why? Cons
A)			
B)			

C)			

List other varieties: …….

Note: Repeat 2.4.1 to 2.4.5 for all the important crops (A, B & C)

2.5 Seed Insecurity Perception and Options for improvement

2.5.1 Do you think there is seed problem in this community? ☐ Yes (1)   ☐ No (0)

2.5.2 If Yes/No, why?_____

_____

_____

_____

2.5.3 What could be the main solution for seed problem in this community?

_____

_____

_____

_____

PART 3.   RECENT HISTORY

3.1 During the last few years, how many agricultural seasons have been good, average or bad? Why?

Note: To facilitate a timeline, assist the farmers to create one using available apace (e.g. on a table, wall or in the sand) and materials (bean or maize grains or stones). Ask them to visually represent good, average and bad seasons by placing markers (e.g. stones or beans or maize grains) above the timeline (year and season) to show good, average or production. Ask questions – How? Why? Who? What? Etc.) As they do this, one of the participants could choose to put their answers in the grid below.

Example on production timeline

Good	Δ Δ Δ Δ Δ Δ Δ Δ Δ Δ				Δ Δ Δ Δ Δ Δ Δ Δ				Δ Δ Δ Δ Δ Δ	Δ Δ Δ Δ Δ Δ Δ
Average		Δ Δ Δ Δ Δ				Δ Δ Δ Δ Δ				
Bad			Δ Δ Δ	Δ			Δ Δ Δ	Δ Δ Δ Δ		
Season	a	b	a	b	a	b	a	b	a	b
Year	2011		2012		2013		2014		2015	

Amend years and seasons accordingly

Key: POOR=0-4 stones or beans (Δ); AVERAGE= 5 Stones or beans (Δ), and; GOOD=6-10 stones or beans (Δ)

3.2 Where you have had crises, what has the impact been? Which groups suffered most? Did any groups not have enough seed? Was the quality of seed affected in any way? How did you respond to the crisis?

Note Keep asking questions based on the interests of participants, keeping most of them 'open' e.g. 'How?' 'Why?' Keep checking the body language and participation of participants to see if they have had enough; keep any promises you made on timing)

Many thanks again for your time. We will pass on all of the information you have given us, to inform future seed work in your region.

Thanks for giving me your time

FAO
Seed Security Assessment Training

Preparing field work day 4
(S-8)

Introduction to the session

Purpose:

- To get organized for the field work
- To practice & practice & practice
- To improve communication skills

Approach:

- To alternate working by team with working by role

- **Work by role: 4 groups**
  a. Team leaders,
  b. FDG facilitators,
  c. enumerators/recorders/interviewers
  d. encoders/data manager/data analysts
- **Work by team: 3 teams** (each team has a, b, c & d)

- 1st meeting by role (4 roles, 4 groups) – preparation and practice by role (60')
- 2nd meeting by team (30') - team leaders brief the team on field visit work next day
- 3rd meeting by role (4 roles, 4 groups) – continuation of preparation & practice (50')
- 5' for wrapping up

FAO Standard Seed Security Assessment
FIELD TEAM LEADER GUIDE

Introduction

A well-prepared and well-designed survey will ease the whole implementation of the various activities and will make efficient use of all needed resources. The implementation of a survey will be only successful with a careful preparation, throughout a good and transparent management and needs therefore an effective leadership.

In order to develop the concept note, initially the whole survey has to be discussed within the assessment team but also involving other humanitarian actors or stakeholders (cluster members). Those last ones may have good local knowledge of the pre- or / and post crisis situation of the affected region / locations. They are also able to provide valuable information on logistics (road, accommodation, travel times, etc), details of contact persons / key informants and other practical aspects useful for the survey implementation. An inclusive approach leads also to a more founded survey as all the existing capacities are contributing in each of their domains in improving the survey steps. However, as all participating stakeholders are also interested in the outcome and use of the gathered information, a higher level of commitment and resources (staff, cars, office space, etc.) contribution will most likely be needed.

The following steps have to be taken into account during the planning phase, and can be used as a checklist during the preparation of the survey:

1 DEFINE THE OBJECTIVES OF A SURVEY AND TERMS OF REFERENCES

During the process of defining the objectives of the phase specific assessments, it is compulsory to take into consideration the final aim of the survey or the final uses of the gathered information (base for flash appeal or the revision of the appeal). At the same time it is also important to find out and take into account the requirements / interests / expectations of the end-readers of the report.

Make sure that the management is fully supportive of the assessment, as funds are required to form and train an assessment team and provide all the necessary support for that team to work, such as logistics, transport, communications and accommodation.

The terms of reference (ToR) indicate how the survey will be implemented and specify who will do what work of the various tasks of the survey: design or adaptation of the questionnaire, data collection, data entry, data analysis and reporting. Each member should know their roles and responsibilities in order to be able to make decisions based on his own knowledge and judgment in his domain.

2 ARE TRIGGERS MET?

Triggers are needed as they indicate whether a survey is required and feasible. For each phase, a pre-defined set of triggers were developed and have to be taken into account in order to know

that the conditions are met for conducting the phase specific assessment. Even so those triggers can vary dependent of the type of crisis developing:

(i) In sudden-onset crises resulting from a large scale disaster (earthquake, floods or outbreak of a conflict) the effects of the crisis are immediately visible or are expected to have an effect over a mid or longer term period.

(ii) Slow-onset or protracted crises like droughts, economic or environmental deterioration, effects of long term conflicts or pandemics. For the slow onset crises it is more difficult to identify the moment when the triggers should be activated as the deterioration is continually or gradually. Therefore a monitoring system of a few indicators should be put in place and define the thresholds to identify the moment when the situation changes from tolerable to a crisis level. If preemptive actions or interventions are envisaged to be implemented, also at an earlier stage the assessment is justified and suitable.

3 IDENTIFY THE NEEDED / AVAILABLE RESOURCES

The whole survey design and the methodology to be selected (including selection of tools) depend on the available resources. Those resources are grouped into four categories: human, financial, time and logistics (vehicles, communication equipment, office space, etc). At the same time it is also important to identify capacities and skills of the available human resources (in house) in order to identify either their training needs or relay on external resources for the implementation of a specific task.

4 DEFINE THE ANALYZE PLAN AND INFORMATION REQUIREMENTS

The survey's objectives are defining the analysis plan and therefore also the information requirements. In order to work out the analysis plan it is necessary to define the information needed to meet the objectives (what), the approaches and tools to be used (how) and the sources of information (from who). As each of those parameters are phase specific they were provided in the corresponding descriptions of the phase.

Concerning the data collection it is also important to find out which information is already available and has to be collated and reviewed. On the other hand the missing information has to be identified as it will be gathered during the respective survey. This last points leads to the development or refinement and adoption of questionnaires.

Initially the analyze-plan should be developed with the aim of obtaining the best possible information in the given time frame and envisaging the highest levels of reliability. Even when knowing that later on, based on the available resources and the costs estimations, a trade off between those two aspects has to be reached. An ideal assessment collects exactly the information which is required later on for the decision-making process, fundraising and advocacy.

5   DEFINE THE SAMPLING

I.   SAMPLE FRAME

One of the sampling aspects which have to be identified firstly is the sampling frame, which represents the region and population which were affected by the crises and the specific assessments are intended to cover. In most cases the focus will be given to directly affected areas but even so also indirectly affected areas should be also assessed, as the impact can be just as sever (for example: reception areas of IDPs or refugees, host communities or households, areas which depends from the crop production of the affected region, etc.). Each of those communities should be taken into consideration during the definition of the sampling frames, as each of them are affected by the crises differently, and have also different needs and therefore are eligible for specific interventions.

II.   SAMPLE UNIT

As it is impossible to interview all the households it is necessary to work with a sample representing the entire group of targeted population. Therefore, a sample is defined as a selection of either a particular group (e.g. marginalized, women) or a representative part of a population (total) in order to determine parameters or characteristics of the whole population or of specific targeted groups (IDP, women headed households, etc.). Before determining the sample size, it is necessary to define the sample unit. The most common units of measurement used in humanitarian surveys are:

* Communities / village

* Households – for households survey

* Individuals – for local market survey

The sample size also depends on the homogeneity or heterogeneity of the affected communities to be surveyed. In a homogenous community a small sample size is enough to include all household characteristics.

In a heterogeneous community, a larger sample size is needed or a deliberate sampling is done to ensure that all the households with significantly different characteristics are included in the sample. In extreme cases the whole community can be divided into subgroups and treated independently over the whole survey.

A sample from an affected community should include, if possible, all the different characteristics of the community's groups including the minorities. Only under those circumstances it be considered representative and valid for a proper survey and be therefore extrapolated to the whole are when throughout a random sampling method was implemented. In other cases, particular biases (e.g. towards disabled farmers) may be used; in this case they must be explicit at all stages of research)

III.   SAMPLING

The most suitable tool for sampling in a population would be the Simple Random Sampling. The Simple Random Sampling requires a complete list of each of the members of the population, complete homogeneity of the population and where each member has the equal probability to be selected into the sample. In many cases in the situation where the humanitarian actors have

to intervene those requirements are not existent (total homogenous community) or are not available (complete lists of names).

IV. APPLICATION OF A MULTIPLE STAGE SAMPLING METHODOLOGY

The actual sampling has to be done in different steps, starting form the highest administrative / agro-ecological boundaries and going down to smaller units up to the household level. Defining at which level the reliability should be applied, provides also the level where the first step has to be initiated, in this example district has been retained:

- o First stage: selection of the target districts out of the total number of the affected districts through random sampling but needs to take into consideration the security situation on the ground as well as the accessibility to the different district;

Once the overall sample size is defined, there we have again two options to choose from: either using PPS (Proportional to Population Size) or a systematic approach (where the same number of villages are selected in each of the targeted districts). This targeting again follows specific criteria. This step allows us to obtain the sample at each smaller geographical or administrative level.

- o Second stage: selection of the villages out of the total number of affected villages through a (PPS) random probability proportional to size, where the size of the population is taken into consideration;

For the selection of the households to be interviewed at village level again systematic sampling will be also applied. Thus can be done selecting first three to five different transects through the villages and thereafter selecting for interview each third house on the left and alternate right side of the given transect thereafter until the given number of household have been reached by each of the enumerators. In case that different quarters or village sub-settlements exists, they have to be taken into consideration as quite often they are divided based on religious, ethnical or other socio – economical aspects.

- o Third stage: through systematic sampling, following specific rules, the required number of household are selected at village level, as follows:
    - ➢ Once you selected the villages for the assessment, please gather following information for each of the villages:
        1. Get the approximate total number of households in a village
        2. Get the approximate number of female headed households (if special share will be provided to female headed households out of the village sample, in this case 3 households out of the 15 per village).
    - ➢ If female headed households are more than 3, select 3 among them randomly. If these are 3 or less, cover all.
    - ➢ For selection of male headed household, find sampling interval (k)
        - ▪ Sampling interval = k = total number of male headed households /12[1]
    - ➢ Find out first with the village chief or elders, if there are different sections or quarters of the village (as sometimes minorities are quite often living separated from the main village).

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[1] [Replace 12 with higher number if female headed households are less than 3]

Make sure therefore that also those households are taken into account during the household selection.

➢ The following step is from the middle of the village, draw four to five transects into different directions, where along the households will be selected. Divide the 12 households into the numbers of transects made and then you obtain the number of households to be selected along each of transects.

➢ Start with the second house on the right side and then apply the frequency (k) calculated beforehand and choose this time the house on the left side, next house will be again on the right side and so on.

Figure 1 Household selection at village level
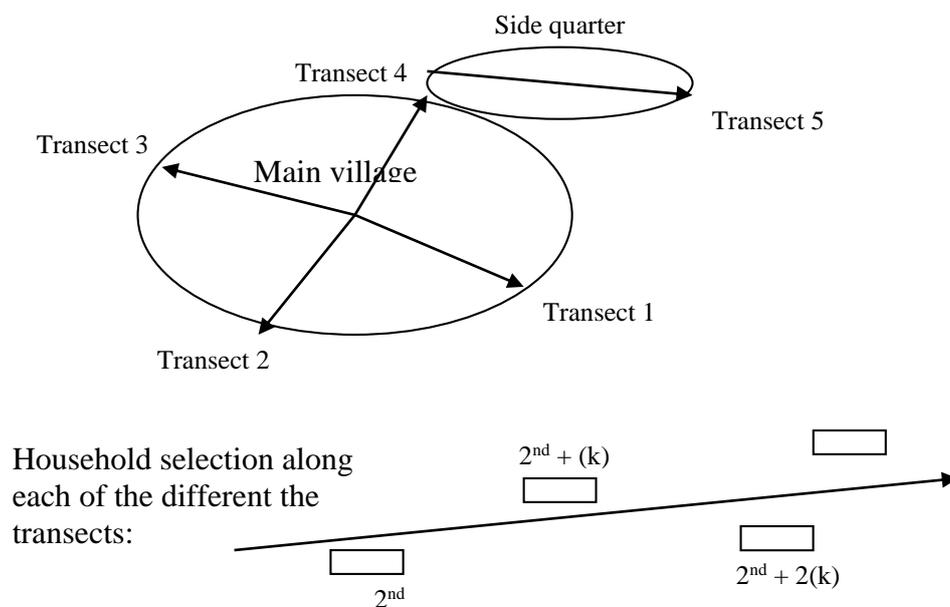
Important is to report exactly the sampling methodology and the criteria used for the systematic sampling applied in order to inform the reader on the possible shortfalls of the implemented methodology. But also emphasizing the advantages or reasons why the given methodology / criteria were applied.

6 HUMAN RESOURCES AND TRAINING NEEDS

The following human resources are needed in order to conduct a SSA: (i) team leader of survey, (ii) field team leader or supervisors, (iii) data analyst and data manager, (iv) enumerators, (v) translators, (vi) administrative and logistical support staff and (vii) drivers.

The teams should be as far as possible gender balanced, at least in each survey team of two to three enumerators one should be a women.

Number of the specific staff depends on the scale of the survey, the geographical conditions and skills of the available human resources.

7 SELECT TEAM MEMBERS AND CLARIFY THEIR RESPONSIBILITIES

Responsibility for conducting the field work should be decided at the outset. Dependent of the scale of the area to be surveyed as well as the distances to be traveled, most likely more than one team will undertake the field work. The most experienced enumerators should be selected as field team supervisor, even when all of them will be conducting interviews. Each team of three surveyors should include male and female enumerators and women and if possible also from different ages.

The team members should have a basic knowledge of the surveyed area (almost compulsory if a local language will be used) and a particular interest for such kind of work are distinct advantages. It is very important for the interviewer to gain the confidence of the interviewed persons and the respect of the target population. It is also indispensable for interviewers to empathize with the affected population. It is recommended to select enumerators with different professional backgrounds or field experiences in order to enrich the overall knowledge, view and perception of the situation encountered by the team, especially during the observation processes.

8 TRAIN TEAM MEMBERS

All staff assisting in the implementation of the surveys, and specifically those in charge of filling in the questionnaires, should receive proper training prior to conducting the survey. Training should detail how the surveys will be conducted, what kind of information is required for each question or how to use the other data gathering tools. It is preferable that the surveyors are familiar with codification modalities so that questions correspond to the way in which they will be entered as data later on.

In order to make sure that all interviews or the field work is conducted in a same way and the same understanding of the questionnaire exists, a joint training sessions should be conducted where all the involved field staff has to be present.

9 DIVISION OF DAILY FIELD WORK

A specific day-by-day work plan should be established to define the tasks of each team member. Travel time to the location where the survey will be conducted should also be considered, as should travel from the locations where the team will stay overnight to the villages/camps/places where the field work will be done. In addition, it is important to define the team members who should be in charge of conducting the semi-structured interviews addressed to the various key informants or community groups. This could be done on a rotational basis between the various members or taking into account their interest, skills or professional background.

After the training session, the field team leader should be in a position at the end of each field day to verify the work done by the enumerators and to correct the errors or explain the improvements or changes needed to obtain the expected information. This is quite important as it will reduce the amount of missing or erroneous data, therefore improving the quality of the information gathered, and it will reduce the time needed for verification after the field work has been completed.

10 BUDGET

In order to establish a proper and accurate budget, the whole survey assessment plan and staffing ahs to be defined, as well as the needed travel and field work time. The following points will help you to calculate a survey budget of a middle scale questionnaire based survey (sample of 1000 HH) with experienced staff:

> Honorarium of the staff involved in the survey preparatory work (three days); development, testing and finalization of the questionnaires, translation (six days); preparation and training of field staff (three days); travel days to the area where the survey is conducted (depends of distance: x days); data base design and data analysis (five days); additional detailed analysis and data interpretation (five days); reporting (six days) and follow-up steps (up to ten days dependent of the envisaged results); overall some lean days has to be included for unforeseen delays (3 days).

> The field work as well as the data entry process depends from the sample size, therefore the following experiences based estimations can be used. On average a two hours travel from place of accommodation to the villages where survey is conducted has to be accounted for each day morning and evening. This leaves around five to six hours for actual field work giving time to conduct around seven interviews per enumerator (45 minutes per household not including walking time between households and resting time); one person is able to do the conversion / codification, and entering of around 70 five-page questionnaire per day. These estimates allow calculating the required days for the staff involved in the field work and data entry process. In more and more cases the field work and data entry process is outsources to a NGO, specialized enterprise or institution, where a tender and selection process has to be followed. In this case the actual cost of the selected service provider has to be taken into account during the budgeting.

> Calculation of daily labor cost: In case the enumerators, translators and guides are not from the own staff pool or staff of a contribution stakeholder their corresponding daily wages including their per diems for the field work has to be calculated.

Calculation of travel cost: calculate the travel costs (flights if required) for each field team member and the supervisor staff; estimate total distances to be covered in km; based on average fuel consumption per 100 km and fuel prices calculate the fuel charges as well as the needed lubricants. In case no own means of transport are available (even when also with own cars the use of the vehicle has also be budgeted for) the costs of hiring car with drivers cost (honorarium / per diem) has to be also included.

FAO Standard Seed Security Assessment
INSTRUCTIONS FOR ENUMERATORS

- Write clearly with a ball pen;
- Don't use signs which are not common known or foreseen;
- Don't read out the different options / possibilities given and codified in the questionnaire, leave the respondent to give his options, unless asked specifically for a specific question;
- Cycle around the number of the code in the response list of the questionnaire, this facilitates the data entry staff in seeing the selected number (code);
- If the respondents wants to change his response or modify; then bar the encircled code with a double cross and encircle the correct code; or if numeric information bar the firstly written number and write the correct number aside;
- The enumerator has to make sure that all the questions are addressed to the respondent. There are different options in case he doesn't want to respond as follows: don't know (DK), no response (NR), don't want to answer (DWR) or not applicable (NA).
- All the sections of the questionnaires are important and have to be addressed;
- The questions should be made along the sequence given in the questionnaire and not jumping from one sector to another and going back to an earlier section;
- The responses are directly written into the paper format of the questionnaire. It is not permitted to write them first into a notebook and thereafter transfer the information into the questionnaire. Observations, remarks, inconsistencies can be recorded in a notebook or on the backsides of the questionnaires:
- Don't use abbreviations, except the common used standard measurements units (kg, ha, grams, liters, etc.)
- All the given cells in a table have to be filled in order to have the complete information gathered, except the question is on a specific respondent not applicable, then please mention this fact;
- The enumerator and the supervisor should have the commitment to bring the data gathering to a successful end and that the results and the conclusions drawn afterwards depend mainly on the quality of the data gathered. Nothing which is asked is not needed or less important and the interview has to be conducted as instructed in the training sessions.
- The indications received have to be followed closely. If not applicable request the supervisor to give you an alternative solution / method, this applies also to the selection of the households of be interviewed. The coordinator or lead person of the survey or the study has to be consulted in case modifications are needed to be made and only with his green light implemented.
- The enumerator has to crosscheck the questionnaire before leaving the homestead of the respondent, in order to make sure he obtained all the required information;
- Thereafter the questionnaires, at the end of the day, have to be presented and again verified together with the team leader or supervisor; He decided if the questionnaire is useful and is retained or if it has been replaced by another interview. There is also the possibility to correct or rite clearly the responses if not readable at that moment;
- All the gathered data is treated strictly confidential. They can't be disseminated neither by the enumerator, team leader or supervisor. The information / results are only disseminated once the whole report has been finalized or preliminary information can be shown through a presentation to the interested stakeholder.

FAO Standard Seed Security Assessment (SSA)
ENUMERATOR GUIDELINES FOR SSA (example)

1. Introduction

These guidelines are for Seed Security Assessment (SSA) data collectors (enumerators) at household levels. The main purpose of the SSA is to understand the seed security situation of the community at household levels in the target locations. This will allow effective programming for appropriate measures needed to mitigate any seed insecurity problem identified during the assessment. .

These guidelines will help you in conducting successful SSA interview with selected households. The Seed Security assessment (SSA) is designed by FAO and the field work (interviews) conducted by the different implementing partners of the project. The implementing partners, who hired you to do the field work, are responsibility for all contractual arrangements of the data collectors (enumerators).

2. Preparation for Interview

Before you head to the field you should understand clearly the purpose of the SSA and know exactly the required information of the questionnaire. You should make all necessary preparation as far as possible before hand work plan, etc. to make your work in the field easier and enable you to concentrate to get the correct information. It will be beneficial to you to take care of following points:

- You should try to know as much as possible about and type of settlement in the target location prior interview. For this you should contact a knowledgeable person in the area (eg. ward leader, lead farmers, focal point, etc.)
- Prepare a daily plan to conduct interview and have all needed material for it (enough questionnaires and some spare as well as pens and pencils, raincoat, umbrella, hat, drinking water, sweater, etc.) and how to carry it.
- Think about appropriate time for conducting the interview in a given socio-cultural set up. Where there is no socio-cultural barrier, interview can be conducted between 08:30 and 16:00 hours. Ideally, interview with a single household should take not more than 60 minutes on average.
- Understand and practice administering the questionnaire. A clear understanding questionnaire terminology helps you in conducting successful interview. Use the language best understood by the interviewee, and use easy-to-understand terminologies.

3. Some characteristics which you have to keep in mind over the whole survey

1. You should be open minded, interested into the livelihoods and farming/seed system of the target population as well as having some background knowledge on the area where you will work.
2. To make your work more easy in the field, you have to remain polite, respectful, patience, devoted to the work (conditions are sometimes not easy) and be friendly to the surrounding population.
3. With the received training and briefing, and the support of the supervisor you should be technically capable. At the same time you should be practical and result oriented and capable to make some decisions if needed.
4. It is your responsibility to find a way to open the door towards successful interview with the respondents. This needs some Socio-cultural sensitivity, modesty and openness. As mentioned earlier, patience pays, especially where the respondent is not cooperating easily or not behaving properly. To facilitate this you should clearly explain the purpose of study and

assure them that information collected will be only used by the organization (FAO, NGO etc) for the programming purpose.

5. In case the respondent is not willing to be interviewed, don't put unnecessary pressure on him. Give him the thanks and leave the place. Thereafter you have to look for the replacement but also inform your supervisor as soon as possible.

6. At the same time you have to speak a language which is at the level of the beneficiaries. Please try to conduct interview in their mother tongue or convenient language which they understand easily

4. Conduction of interview

- Your visit to a household should start with a short introduction and explain about the purpose of the visit. See the example of a introduction:

  "Good morning! My name is …………………… (If necessary show your identity card).

  I am a data collector (enumerator) for ……….. (Name the organization e.g. FAO) and we are conducting this survey in collaboration with ………… (Name of implementing partner). You have been identified as a respondent from this location (village). I will ask some questions and we shall discuss issues relating to your households, faming and seed security, and any seed related assistance you got in the past few years. We would only make the best use of the information when it is accurate and precise. All the information we are asking is only related to your households, and will be only used by …………… (Name the organization e.g. FAO, NRC, VSF) and relevant organisations and institutions. The information can be kept anonymous if requested.

- Be polite and behave simply and modest to respondents
- If you think that response is not clear, repeat the question and try to clarify the answer
- Whilst taking interview, you might have to discuss on unrelated matters but you should always remember about your purpose and task.
- Ask question serially
- While noting down the answer, if it is not correct and needs to be corrected the already highlighted option should be crossed and the correct option cycled or written.
- Clearly write numbers such as 1 and 7, 4 and 9. This is where most of the confusions are made during the data entry process. Keep in mind that different persons (supervisor, data entry staff, controller, etc.) will further use your questionnaire. Therefore, make it as clearly as possible, and remember it is also a feedback on the professionalism of your work.
- If the respondent does not understand the question, then try to clarify the question by asking the same question with different words or asking additional questions.
- Do not ask leading questions. Don't ask questions which leads only to a No or Yes answer, unless requested so in the questionnaire. For examples: "Is it true that you don't have enough seed in this area?" In this case it would be better to ask; "which the possible sources are of seed in this area it". In the first case he/she will answer with yes in the second case he will make a list of the different seed sources.
- Even if you know some answer, you should not ask questions being pre judicious. It is only the farmers to say the answer and you only probe where the answer is not clear or not convincing. You job is to ask, probe and record.
- In some cases observations (looking around the homestead) allow you corroborate (cross check) the information received. For example if the respondent says the household has no livestock and you see some chickens and goats tied around, it would be a good ground to probe further.
- Even when you notice the respondent has given wrong information, don't let him know but find the way that he can still correct it. He has to feel like there was an involuntary mistake.

In case he feels threaten or seen as a liar he will most probably terminate the interview sooner or later.

- You should behave neutral and with a neutral expression in your face. You should not show your agreement or disagreement to some of his answers.
- Listen carefully and pay attention to the answer, as the respondent may give a lot of information at the same time and you have to find the proper answer. Repeat the question if you didn't get the point clearly.
- The respondent may not answer some questions. In such case you have to put assistance questions to clear the respondent or skip the question if he doesn't want to give the answer. Never write an answer in this case; what you think would be the correct one, better a empty space than a wrong information.
- If quantitative information is requested, please write down exactly the NUMBER and UNITS which the respondent has given to you, the conversions into standard units will be done during the data entry process or the enumerators at the end of the day.
- Write all information provided during interview including name of enumerators, location, district, etc. Before concluding the interview, check whether all the questions are filled and whether you have clarified some issues.

5.   Review of filled questionnaire at the end interview

After accomplishment of the interview, spare some 5-10 minutes to quickly go through the entire questionnaire. Consider checking the following points:

- Whether all the questions are filled, and answers are readable and clear
- Are there questions left behind for filling or need clarification? – sought clarification immediately before you leave the household.
- Is there any mistake whilst having quick view? If you found inconsistencies, correct it immediately, as far as possible. Do this only if you can still remember the answers.

6.   Submission of the day's questionnaire to the Supervisor for quality control

After the day's work, all questionnaires filled the enumerator is submitted to the supervisor for quality control. Review of the questionnaire by the questionnaire by the supervisor in the presence of the enumerator.

- The supervisors should check the questionnaire thoroughly.
- The supervisor should cross check the questionnaire by being present during some of the interviews conducted by each of the enumerators he supervises.
- The cross-check will be done by supervisor by comparing filled questionnaire and the answers given by the respondent.
- Enumerator should check the questionnaire and make corrections, before submitting to the implementing partner or FAO as agreed beforehand.
- While noting down the answer, if it is not correct and needs to be cancelled the selected option then the enumerator should cross four times the wrong option - which is to be cancelled, and clearly circle the new correct one.
- Clearly write numbers such as 1 and 7 , 4 and 9
- Everybody should think that the data will be further used and there are further means to verify the data's' correctness during the further processing
- The supervisor should make sure that conversions of all local units to standard units are known.

Field work!

(S-9)

Possible structure of the day; outputs

Place:

Time:

- 07.00 departure by bus or cars
- 08.15 field work starts:
    - ✓ communication of plans to village authorities
    - ✓ quick overview of the area (by car or walking, depending on size and conditions)
    - ✓ team members may start with HHS and LMS (max. 3 hrs) but with FGD if opportunity arises
    - ✓ Advisable (if logistics allow) to have a short meeting with all team members (or on the bus)
    - ✓ Conduct KII by selected participants, others continue with HH and LMS
    - ✓ Conduct FGD by trained participants, others continue with HH and LMS, or observe / conduct participation mapping
- 15.00 departure
- 16.00 – 18.30 start data entry & data analysis by teams under the guidance of specific selected participants and facilitators

Approach:

- 3 teams working simultaneously & led by team leaders

Outputs:

1. At least 2 HHS and 1 LMS per team member
2. 2 FGD per team (one of them with women)
3. 3 KII, one x team leader

FAO Standard Seed Security Assessment
INSTRUCTIONS FOR THE USE OF THE SSA HOUSEHOLD SURVEY QUESTIONNAIRE DATABASE

1. Adjust database accordingly with the changes (adjustments) done in the standard SSA household questionnaire adapting them to the local conditions.
2. Once the whole codification and the conversion of local units process is finished, enter the data of each questionnaire into the four different worksheets:
   a. General data
   b. Crop A
   c. Crop B
   d. Crop C
   The first four columns, dataentrynbr, province, county and Subcounty in the Crop (A, B, C) databases are linked with the general database and therefore automatically generated.
3. Once entered the data into the general data database, you can refresh the already existing analysis tables in worksheets: general, nutrition, crop last season, crop next season, see Window 1.
4. The refresh works only if the sample size of the survey entered has not more than 200 household's entries as the database (and the corresponding analysis) is designed for a sample size of maximum 200 questionnaires. In case a larger sample size has been entered and needs to be analyzed, the following additional step has to be done: before you refresh the analysis tables you need to change the data source: the range of the database has to be adjusted for each of the analysis tables in these four worksheets). See window 1: Only thereafter you can also refresh the data analysis tables accordingly.

Window 1

5. Decide also which of the differentiating parameters has to be used (included in to the column heading section of the analysis tables) could be: province, county, or gender HH head, etc. See Window 1.

6. Once the correct differentiating parameters were included and refreshed the analysis tables.

7. Now the results of the general database are ready to be extracted and included into the corresponding tables or graphs previously developed in the corresponding file.

8. For the crop databases different steps has to be done before the analysis as at the moment in the same database different crops are mixed. Please implement the following steps;

    a. Refresh the analysis tables in worksheets: CropAanalysis, CropBanalysis and CropCanalysis, results in a tables shown in Window 2.

    b. Decide which of the crops you will further analyze in detail (recommended to focus on five main crops), the Double click in the frequency of each of the selected crops (code), as shown in Window 2.

Window 2

Count of Dataentrynbr	
Acode ⌄↑	Total
1	3
2	2
3	2
4	2
5	1
(blank)	190
Grand Total	200

Double click here for crop 1 (ex. Shorgum)

    c. This generates a new database which includes only the crop code 1 (obtaining the sorghum sub database) of Crop A database. Now do the same in the two other worksheets (CropBanalysis and CropCanalysis,) and you will get the sorghum sub databases of crop B and sorghum sub databases of Crop C.

    d. Copy these three sub-databases into the 1st crop total. database (without the headings of the sub databases), as the 1st crop total database has already its own headings.

    e. Then proceed again with refreshing the analysis tables in the worksheet: 1st crop analysis.

9. Do this for the four other selected crops exactly the same way as mentioned in the previous steps (a-e). For better understanding of the process, see graphical representation in Window 3.

10. Once done step 9, you can refresh the already existing analysis tables in worksheets: 1st Crop Analysis, 2nd Crop Analysis, 3rd Crop Analysis, etc.

11. The refresh works again only if the number of entries in the 1st Crop Total databases doesn't has more than 200 entries; as the database (and the corresponding analysis) is designed for a maximum of 200 entries. In case you have a larger entry number and needs to be analyzed, the following additional step has to be done as already described for the general database: before you refresh the analysis tables you need to change the data source (the range of the database has to be adjusted for each of the analysis tables in each of the worksheets). Only thereafter you can again refresh the data analysis tables accordingly.

12. Now the results of the crop specific databases are ready to be extracted and included into the corresponding tables or graphs previously developed in the corresponding file.

Window 3

Sub databases crop specific

Crop A database

Crop A Rice
Crop A Millet
Crop A Sorghum

Rice

Millet

Sorghum

Maize

Gnuts

Crop specific databases (combined crop specific sub databases) in existing worksheets 1st crop Total, etc.
Which are linked to the corresponding 1st Crop analysis worksheet.

| Database 2nd Crop Total (Rice) | 2nd Crop Analysis (Rice) |

Database Crop B

Crop B Gnuts
Crop B Millet
Crop B Rice

Rice

Millet

Sorghum

Maize

Gnuts

| Database 3rd Crop Total (Millet) | 3rd Crop Analysis (Millet) |

| Database 1st Crop Total (Sorghum) | 1st Crop Analysis (Sorghum) |

Database Crop C

Crop C Rice
Crop C Sorghum
Crop C Maize

Rice

Millet

Sorghum

Maize

| Database 4th Crop Total (Maize) | 4th Crop Analysis (Maize) |

| Database 5th Crop Total (Maize | 5th Crop Analysis (Gnuts) |

Gnuts

Food and Agriculture Organization of the United Nations

FAO Standard Seed Security Assessment
INSTRUCTIONS FOR THE USE OF THE SSA LOCAL MARKET SURVEY QUESTIONNAIRE DATABASE

1. Adjust database accordingly with the changes (adjustments) done in the standard SSA Local Market questionnaire adapting them to the local conditions.
2. Once the whole codification and the conversion of local units process is finished, enter the data of each questionnaire into the following different worksheets:
   a. General database
   For the Commodity databases, the data have to be entered crop specific: ex. In Commodity 1 ONLY Maize crop data, all varieties together. Commodity 2 only Sorghum Crop data, etc.
   b. Commodity 1
   c. Commodity 2
   d. Commodity 3
   e. Commodity 4
   f. Commodity 5
   g. Seed Conditioning
   The first four columns, dataentrynbr, zone, woreda in the Crop seed conditioning databases is linked with the general database and therefore automatically generated.
3. Once entered the data into the different databases, you can refresh each of the already existing analysis tables in the following worksheets: general analysis, generalCropA to generalCropF, commod1 Analysis to Commod 5 Analysis and concitionCropa to ConditionCrop C.
4. The refresh works only if the sample size or commodities specific data entered are not more than 100 entries (rows) as the database (and the corresponding analysis) is designed for a sample size of maximum 100 questionnaires. In case a larger sample size or commodity data entries have been entered and needs to be analyzed, the following additional step has to be done: before you refresh the analysis tables you need to change the data source: the range of the database has to be adjusted for each of the analysis tables in these four worksheets. Only thereafter you can also refresh the data analysis tables accordingly.
5. Decide also which of the differentiating parameters has to be used (included in to the column heading section of the analysis tables; could be : zone, gender of trader, etc.
6. Once the correct differentiating parameters were included and refreshed all the analysis tables again.

7. Now the results of the analysis tables of the different databases are ready to be extracted and included into the corresponding tables or graphs previously developed in the corresponding file.

Database Crop B	
Crop B Gnuts	
Crop B Millet	
Crop B Rice	

Database Crop C	
Crop C Rice	
Crop C Sorghum	
Crop C Maize	

Rice

Millet

Sorghum

Maize

Gnuts

Rice

Millet

Sorghum

Maize

Database 2nd Crop Total (Rice)	2nd Crop Analysis (Rice)
Database 3rd Crop Total (Millet)	3rd Crop Analysis (Millet)
Database 1st Crop Total (Sorghum)	1st Crop Analysis (Sorghum)
Database 4th Crop Total (Maize)	4th Crop Analysis (Maize)
Database 5th Crop Total (Maize	5th Crop Analysis (Gnuts)
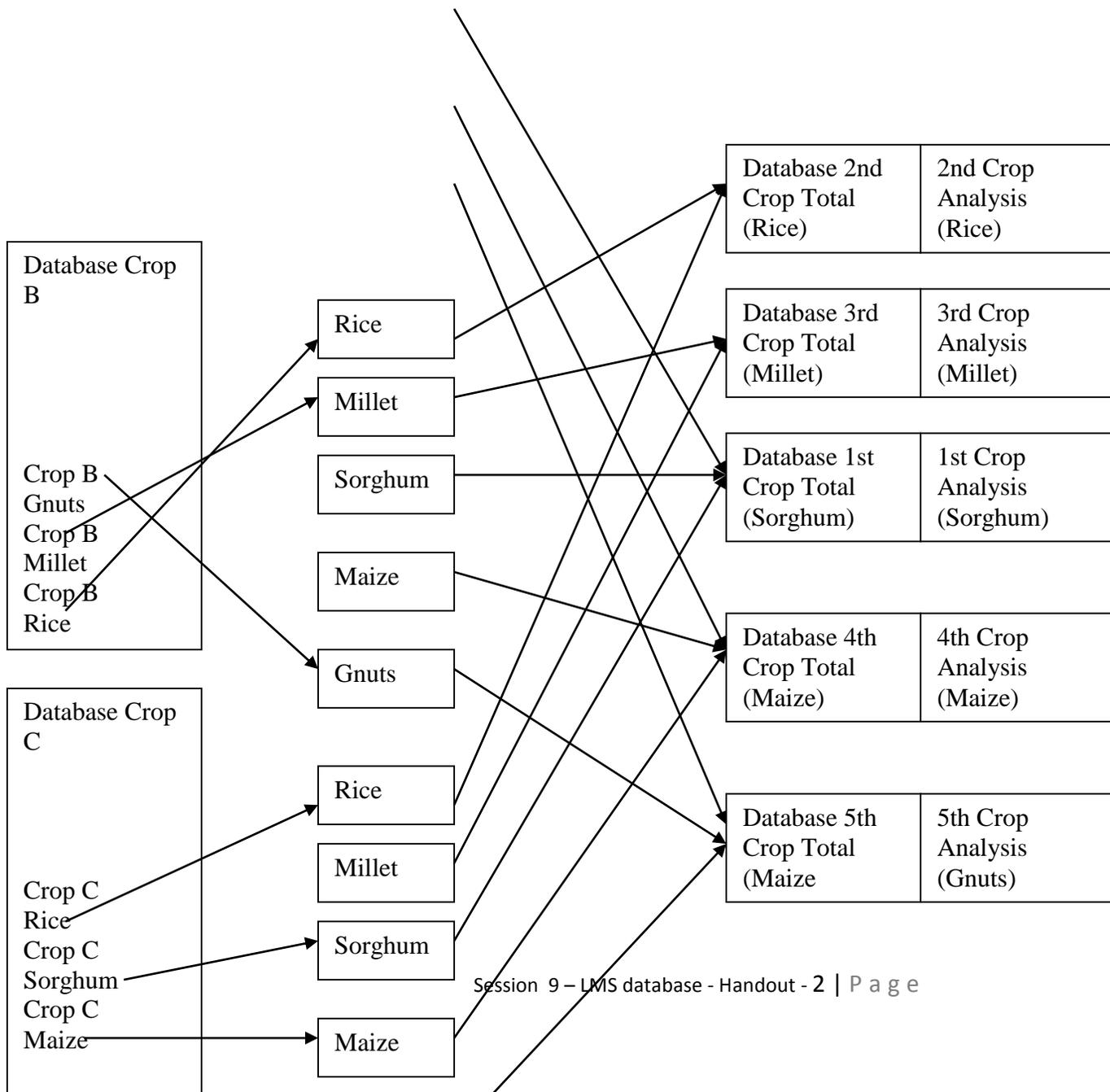
FAO Standard Seed Security Assessment
CREATING MS EXCEL DATABASE

When you open a Microsoft Excel programme, a new file (book1) appears on your screen. This file normally consist of three work sheets (new work sheet can always be added). Every work sheet consists of **Columns** and **Rows**, and the intersections between the columns and rows are the **Cells** (Fig 4.1). Cells are points within a sheet where data (variables) are entered. Questionnaires normally contain a number of variables with volumes of data which are entered in to cells under each variable column.

Fig. 4.1 . MS Excel sheet

In designing a database one row is normally dedicated for defining the variable headings, where each variable is defined in only one column and the cells are bellow this are used for entering data corresponding to the variable headings. On the other hand, one column (normally the beginning on) is used to define data entry number. As a general rule of thumb;

a) **Column -** Variables are normally coded as headings of columns in variable heading row. A column is normally used for only one variable eg. Sex, Age, Income etc.

b) **Row (s) –** All rows below the variable headings row could be used for entering data. The information from a single questionnaire is entered into row(s) **corresponding** to the questionnaire **data entry number (DEN)**. A single questionnaire should never be assigned more than one data entry number, also no two or more questionnaires should have same data entry number assigned to them. One or two rows above the variable heading row could be used to enter the question numbers corresponding to the variables (see Fig. 4.2).

c) **Cells -** One cell, one response

DEN	Qn.1.1 County	Qn.1.2 Sub-coun	Qn.2.1 Age.grou	Qn.2.2 Res.Gend	Qn.2.3 Educatio	3.1 HH_Gend	3.2 HH_Size
1	Kitui	Kitui Central	2	m	3	m	3
2	Kitui	Kitui Central	3	f	2	m	7
3	Kitui	Kitui Central	3	f	2	f	6
4	Kitui	Katulani	3	f	2	f	5
5	Kitui	Katulani	1	f	3	m	8
6	Kitui	Katulani	4	f	1	f	3
7	Makueni	Mbooni	4	m	1	m	13
8	Makueni	Mbooni	2	f	3	m	7
9	Makueni	Mbooni	3	m	3	m	4
10	Makueni	Mbooni	3	m	4	m	5
11	Makueni	Kibwezi	3	f	2	m	5
12	Makueni	Kibwezi	4	f	1	f	5

Fig. 4.2

4.6.1   Defining variables and coding responses

As mentioned earlier, variables from a questionnaire are defined in the **variable heading rows**. When defining variable headings, only continuous characters are used i.e. no space between characters. For a single response such as sex of head of households (HH) the variable could be defined as **Sex.HH** or **Sex_HH** and not Sex HH.

For multiple response questions such as – What crops did you plant last season? Here, each possible response **(**e.g. sorghum, maize, beans**)** is a variable – and thus occupies a column - within which a value is typed, in this case yes (1) or No (0).

Responses in a questionnaires are sometimes given code for example reason for planting less area of land – 1=lack of access to land; 2=lack of seed; 3= sickens ----- and others (specified) in the questionnaires. Those others have to be given codes as well.

SSA data entry clerks are strongly advised to make use of the database structure which has been designed by the FAO SSA development team.

4.6.2   Cell validation and data entry

To minimize errors during data entry, certain variable columns should be validated to restrict entering unexpected data or certain characters and/or range (Read more MS Excel application).

Before any data entry begins a questionnaire is given a number and no two questionnaires should have the same number. The existence of a questionnaire number makes strong link between the computer (soft) copy and the paper form and will be useful in the data cleaning stage. Different variables have different data types depending on the type of variable.

- Discontinuous (categorical, classificatory, discrete) variables: variables that cannot be divided into fractions or take finite numbers, e.g. gender (male or female), livestock presence (Yes or No); residential status (Resident, IDP, Refugee, Returnee). These variables can be represented by text e.g. initials (m for male and f for female) or could be assigned numeric codes such as 1=Yes, 0= No; 1=Resident , 2=IDP, 3=Refugee and, 4=Returnee

- Continuous variables – variables that can be divided into fractions or take infinite number of values e.g. Income, temperature, age, area planted, seed quantities, production, yields. These variables are entered as numbers with no unit of measurement attached e.g. for 10kg of seed planted, the quantity of seed planted is normally entered as 10 and not 10kg.

- **Note to the data clerk** - Units for measuring continuous variable may vary from individual to individual or from place to place. This must be standardized before or during data entry.

In order to ensure quality data is entered into the data base, the team leader should put extra efforts to supervise data entry clerks. In controlling the data entry, the team leader should randomly sample questionnaires that have been entered by the data clerk and verify them using the data entry numbers in data base to check if they have been entered correctly. Data entry control is normally done at the end of each day during the data entry process. This process should be done together with the data entry staff in order for him/her sees the mistakes made and build up his/her awareness where to take more care.

Data-entry mistakes and how to correct them:

Codification or simple entry mistakes should be corrected immediately according to the information in the questionnaire. These mistakes are more common in the first days or when the work is done in a rush, but should reduce with time. If a higher frequency of such kind of mistakes is recorded; a higher number of questionnaires should be verified.

Another common data entry mistake is a shift in the columns of the data entries, as either one column was skipped somewhere or entered too early. In these cases, the whole questionnaire should be entered again. One way to minimize column related data entry error is to use different colors for different columns according to the corresponding section of the questionnaire. This allows the data entry clerk to relate the position in the questionnaire to the position in the database.

The importance of accuracy in data entry cannot be overstated, as the correction process can take a lot of work and time.

4.6.2   Data cleaning and verifications

Errors can be introduced during data collection as well as data entry. Before deriving any additional variable or running data analysis, the data manager has to ensure the data is devoid of errors or outliers. In data verification and cleaning, all variables are checked to ensure that there is no error, inconsistent data or outlier. Box 4.3 gives an example which could either be an error or an outlier. Any inconsistent entries or outliers (box 4.3) have to be verified by checking the hard copy of the questionnaire and corrected or appropriate decision made on outliers.

Box 4.3. Example or an error or outliers - The data clerk entered the following quantity (kg) of sesame seed planted by 10 households; 2, 3.5, <u>**45**</u>, 2, 4, 1, 1.5, 2, 5.5 and 2.3. There are two possibilities in this data.

a) An error introduced by the data clerk during data entry where he/she presses key 4 & 5 simultaneously when he wanted to enter 4 or 5, or fails to press a decimal point well when entering 4.5.   This can be corrected by checking the hard copy of the questionnaire and correcting the entry.

b) An outlier – if after checking the questionnaire the number **45** is found to be a correct entry, a confirmation can be made by calling the enumerator (if he can still remembers) of the famers (if the telephone contact is available. If after checking from all these source and the number (45) is found to be true, then this could be an outlier which could significantly influence the result of the analysis.

- In the above data set, when analysis of average quantity of seed planted is done with such outlier, the average goes is 6.9, and when such outlier is omitted from the data set, the average comes down to 2.6.

NOTE: Outliers could be correct data but are deviate from the normal distribution. Statistically they significantly influence the result of analysis

Data cleaning is a tedious process that requires patience and time but it should never be skipped. There are two different levels or ways of ensuring the accuracy of the data entered and obtained. The **first level** is filtering the data using the Excel filtering function.

Activation of filter and cleaning of data take the following simple but logical steps after all the data have been entered.

1) Highlight all the **Variable Headings**

2) Go to **Data** menu and click on **Sort & Filter** icon. Drop down menu will appear on the right side of every variable heading.

3) Click on the drop down icon and scan for any inconsistent data or outlier within the list you see.

4) Once you identified inconsistent data or outlier, first **De-select All**, and then **Select** the inconsistent or outlier data. Click **OK**. Only selected one(s) will appear on the screen

5) Check the **Data Entry Number(s)** corresponding to inconsistent or outlier data identified, Go back to the **Hard Copy** of the questionnaire and **Correct**.

6) Where the inconsistent or the outlier is existing in the hard copy, **Consult** the enumerator or team leader for correction.

7) In the event that neither the hard copy nor the enumerator/team leader cannot help, the data manager will have to make judgment to **Omit (Delete)** the inconsistent our outlier data if it will affect the final analysis.

The second level is to verify the consistency in the link between two related variables, for example,

- A household cannot have more land cultivated with the different crops in a specific season than the total available land for the same season

- A household has no cash savings made in a season but the corresponding variable showed the institution where the cash has been saved.

These errors can be avoided by programming failsafe parameters into the database, so that it would be impossible to enter data that is not consistent. Failing this, the most suitable correction process is to verify with the corresponding questionnaire or through logical deduction.

4.6.3   Deriving variables

Certain variables such as yields, seed rates, multiplication rates, animal units are normally not collected directly using the questionnaires but are derived from two or more variables. For example, yield which is the quantity harvested per unit area of land is derived from quantity harvested from a given area planted by the famers. For any additional derived variable, a column has to be inserted and appropriate calculation be done. The most suitable and easy way for this process is to use formulas. Once the calculations have been made, you have to verify the results, as sometime the results are not correct where data is missing or a number is divided by zero, which is shown with the following symbol: **#DIV/0!** in the database. Those entries have to be deleted before proceeding with the data analysis.

FAO Standard Seed Security Assessment
EXAMPLE OF DATA ENTRY STAFF GUIDELINES FROM NEPAL

Things to be remembered for data entry staff

- You should clearly understand that success and reliability of this study depends on quality of your work as a data entry clerk. You are doing a vital work of this study so you should do it seriously and honestly.
- You should have a good knowledge about the structure of questionnaire, codes for responses for data entry and the database itself. You have been provided training on these aspects to make you eased and efficient.
- There are five parts in the questionnaire set, PART A contains questions regarding general information, PART B contains socio-economic information, PART C contains information related to agriculture, PART D contains information regarding nutrition and coping mechanisms, PART E contains information regarding the livestock intervention.
- The database is prepared on EXCEL spreadsheet so you should have good knowledge of EXCEL and you should know about how to work with Microsoft Excel before you start your work.
- You are provided training on above mentioned aspects, which is a prerequisite for your data entry work. If you have confusion even after training, you should contact your supervisor for further clarification.
- You should entry the responses from the questionnaire into the database following the provided codes and specific instructions.
- Whilst entering data, you should know the nature of each question, whether it is a single option question or a multiple responses possible question. The single option or multiple responses possible question is mentioned in the questionnaire. Dependent of the type of response there are either one column in the database for the single option question or more than one for the multiple questions option. Each response has to be entered into a different column of the database
- There are some questions on which you have to enter quantities. The enumerators could have collected the information in specified unit (local or standard). So you should be very careful about the units mentioned in the questionnaire. If it is mentioned in local units then you should convert them into standard units, the conversion table is provided to you. The standard units are Kg (for weights) and hectares (for areas / surfaces).
- If you find some confusion in the questionnaire, you should note down such confusions and inform your supervisor. He will help you to clarify the responses or take necessary decision if needed.
- You should check whether your computer is connected with UPS (written on the sockets), if not then you should save your work every 5 minutes (as there are quite often electricity disturbance occurring in the city). This will help you to save your work even light goes out.
- You are given a specific limited time to accomplish your work and you have to complete it within given time frame.
- Attention should be given when missing data and no response is given, in principal these are empty cells, except for the numeric information (quantitative) where a CERO should be entered.
- Attention should be also given to enter the correct data into the correct column of the database, especially when the no responses or not applicability means column with empty cells.

FAO Standard Seed Security Assessment
BASIC STEPS IN RUNNING ANALYSIS WITH PIVOT TABLE in MS Excel 2003 ou XP et MS Excel 2007-2010

Day 4: Session 9

Step 1: Open MS Excel program and open a file or database that is already managed and cleaned.

Step 2: Go to the Menu and look for "Insert" tab. In the Insert tab you will find a Table group. Click on PivotTable and then on PivotTable as shown in **Error! Reference source not found.**:

Window 1
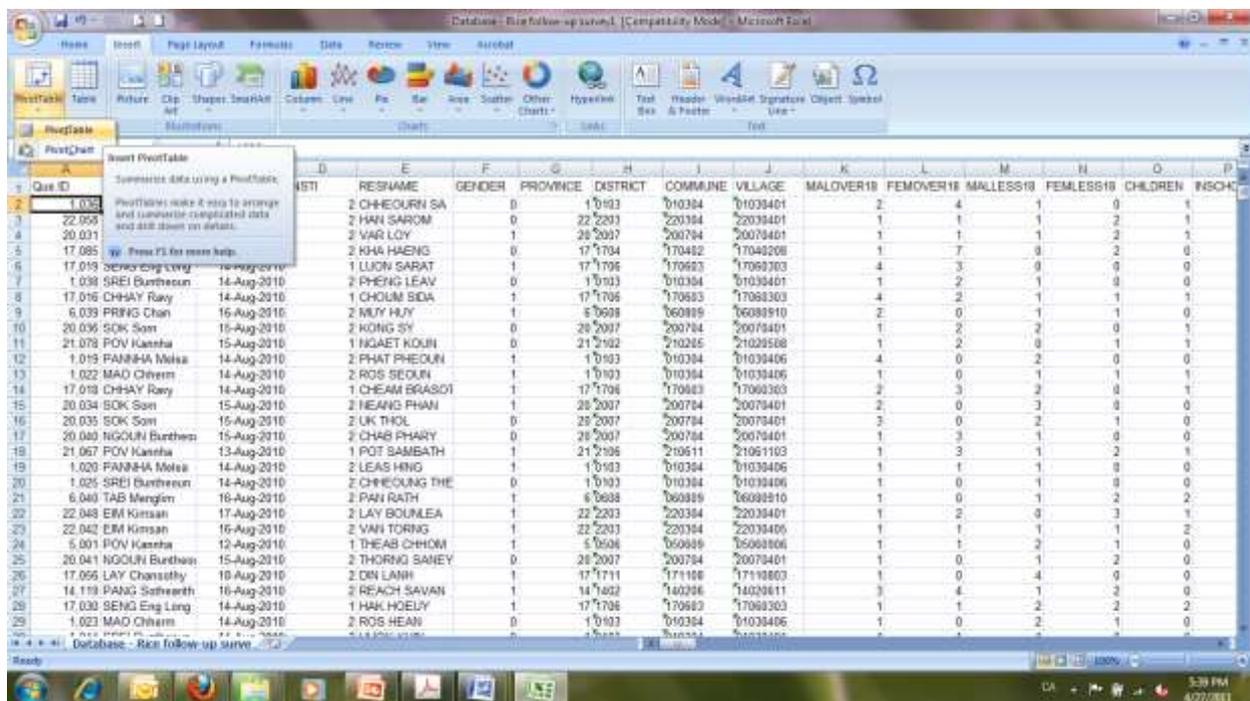
Step 3: After clicking on it, Excel will automatically display a dialog box called "Create PivotTable", please see **Error! Reference source not found.**. Now the program is asking about which data or range of data is to be analyzed. Automatically, if your database is completely cleaned and ready for analysis, the Excel will select all of the data available in the worksheet. .

The displayed dialog box provides the following options:

"Choose the data that you want to analyze": the available options are as following

⊙ "Select a table or range": this is asking what data available in the worksheet to be selected for analysis.

⊙ "Use an external data source": this option enables us to use data from outside e.g. Another server.

Window 2
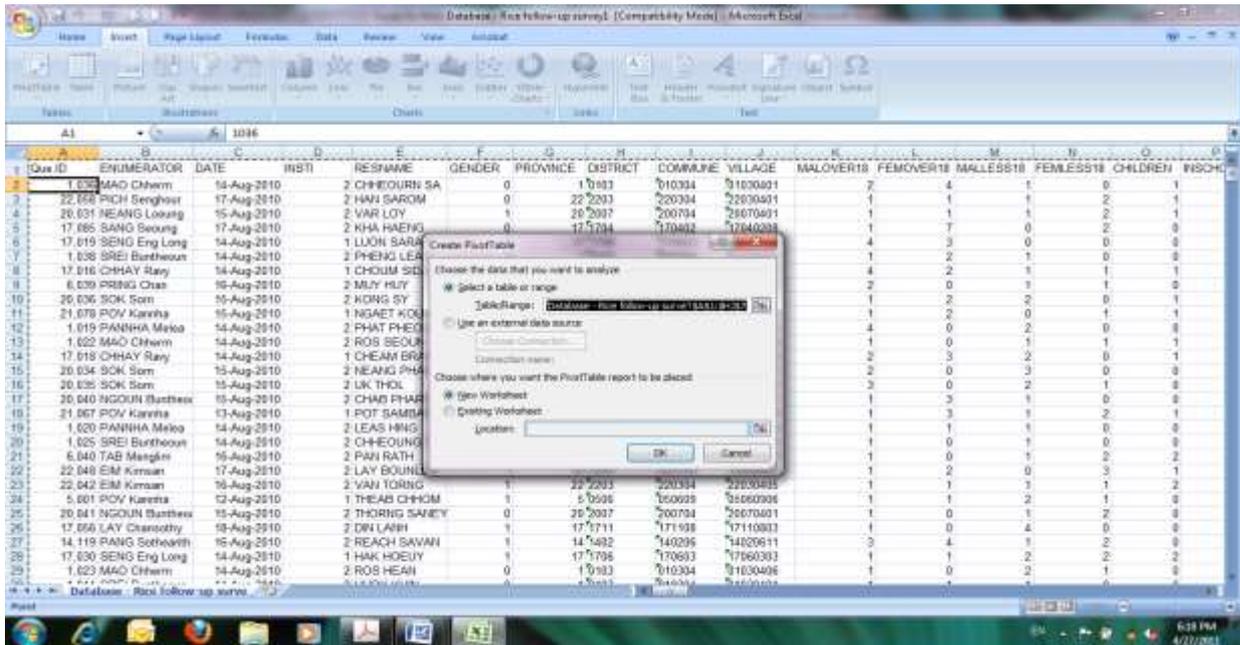
Choose where you want the PivotTable report to be placed: This is to ask us where to put the produced PivotTable. The available options are as follows:

⊙ New Worksheet: if this is selected the produced PivotTable will be placed in a new worksheet, which is newly created automatically.

⊙ Existing Worksheet: if this is selected the produced PivotTable will be placed in any available / created worksheet. If this option is selected we need to define which worksheet to be used by specifying in the Location box. Row and Column also should be clearly specified.

After completing all of these steps, click on OK button.

Step 4: Next, the following Window will be shown, please see **Error! Reference source not found.**

Window 3
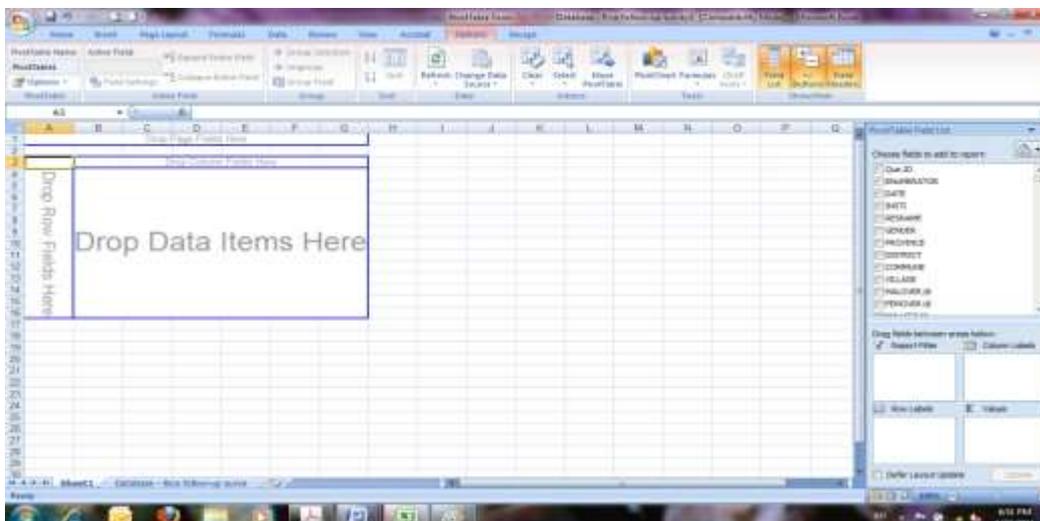
The displayed window is divided into two main parts. In the far right part, we will see a dialog box with the name of PivotTable Field List. This dialog enlists all of the variables that we have selected from Step 3 and these variables will be used for the any analysis.

- Note: Variables available in the PivotTable Field List are the name put in the very first row in the worksheet.

Below the same dialog box, we will see a phrase named "Drag field between areas below". This is where we can take any variables from the above list and put them into analysis and/or calculation based on their types e.g. calculating average, sum, counting...etc

There are two main options to be noticed:

a. ∑ Values (at the right bottom of the worksheet) : In case we want to sum up the value from all cases of one specific variable we just have to drag that variable and put it into this box. Automatically, Excel will do the calculation of summing for that variable.

OR

b. Drop Data Items Herein (at the left upper side of the worksheet), we just have to select the variable whose values are supposed to be analyzed and drag it onto the area named "Drop Data Items Here". Please see **Error! Reference source not found.**

Window 4
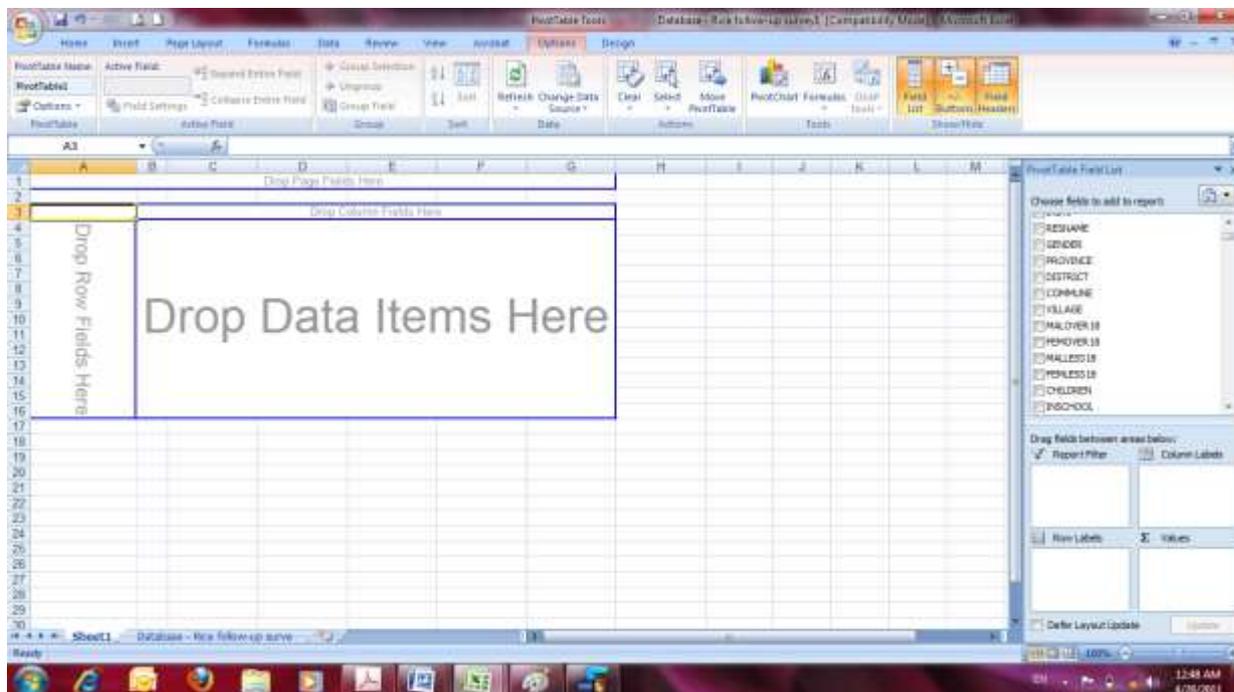
As default the sum of the specific variable is made; in case we want to change the analysis from a sum to another calculation, as count number, max, min, StdDev, etc.), follow the instruction below

a. After completing the dragging of variables onto either "∑ Values" or "Drag Data Items Here" please go to Menu and find "Option". In the group of "Active Field", click on "Field Setting". See **Error! Reference source not found.**

Window 5
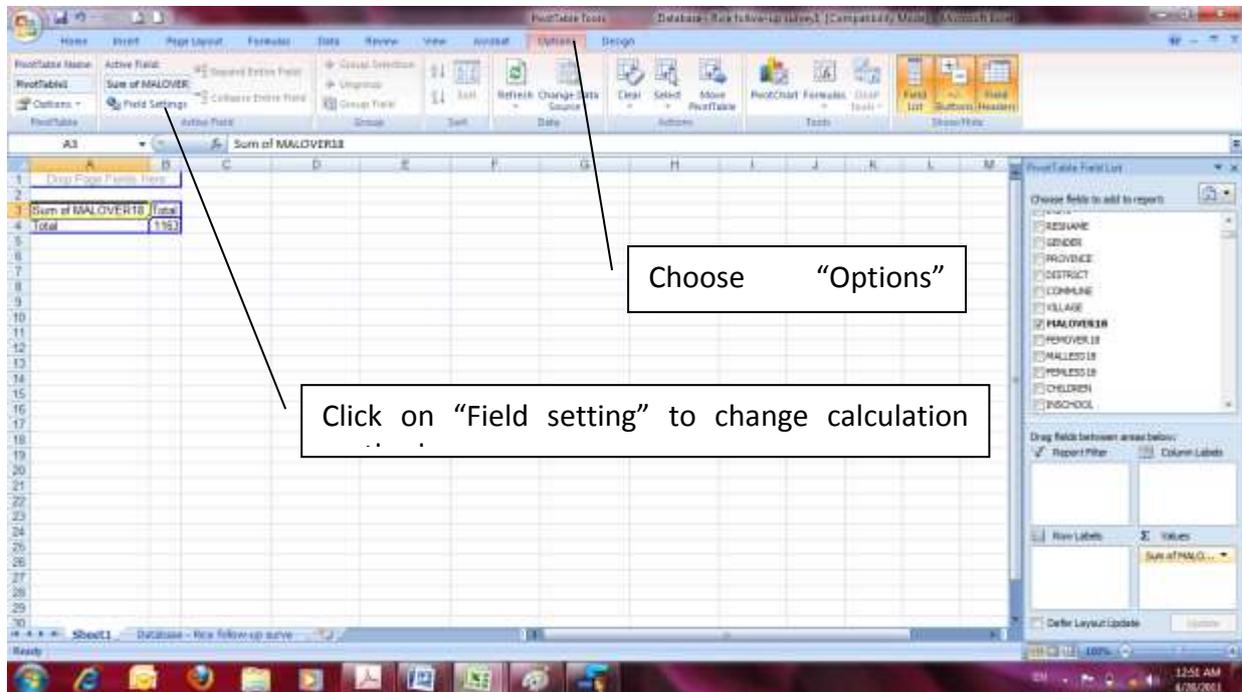
b. The next dialog box will appear with the name as "Value Field Settings", please see Window. Here is to choose any calculation method you would like to run and then click on "OK". The calculation will be done automatically.

c. Alternatively, click on Variable name in the "∑ Values" field setting and the "Value field setting" the dialogue box will appear. Here is to choose any calculation method you would like to run and then click on "OK". The calculation will be done automatically.

Window 6
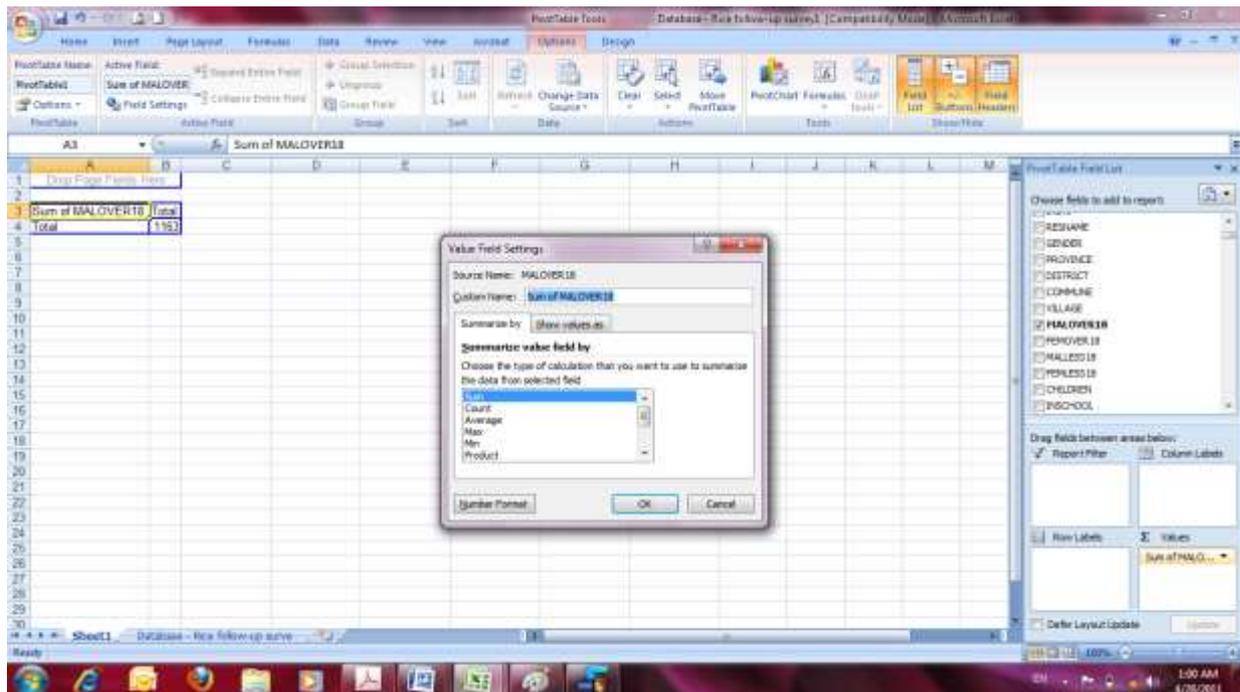
Row Labels: In case we want to calculate one variable by classifying the result based on another variable, we will have to drag the variable that is used for classifying onto the "Row Labels". For instance, we want to find out the average of land holdings of farmers classified by their sex (between men and women). To do so, we need to drag the SEX variable into the "Row Labels" and then drag the variable on landholding into ∑ Values or drop it into "Drag Data Items Here". In general, the variables used for grouping or classifying are the types of Nominal or Ordinal variables.

Column Labels: this is similar to Row Labels. The difference is that the result from "Row Labels" is to classify and appear in row, while from "Column Labels" is to appear in column.

Report Filters: this is also similar to both "Row Labels" and "Column Labels". The difference is that the result from this "Report Filters" is to appear by allowing us to select on only any specific options for display.

4.7.2   Description and use of the common data analysis procedures

As in the questionnaire development, it is important to remember how each type of response can be used during the analysis. The main options are:

Yes / No questions coded as y/n or as 1 and 0: There are two ways to go during the analysis, depending on whether the code is y / n or 1 and 0. If coded 1 for yes and 0 for no, first calculate the sum and calculate later the percentage of 0 and 1 out of the total sample size. For the y and n types of entry, first drag variable heading to the column label" and then to ∑ Values and then calculate the counts (frequency) for each.

a)   *Single response out of a given list: These re*sults are mainly used as <u>differentiating parameters</u> which will be placed either in the row or column section of the table layout. In order to get

their frequency (count numbers), drag the questionnaire number to ∑ Values, then click on the field setting and change to count numbers. table.

b) Quantitative data: These results are mainly used as data to conduct some calculations in the data section of the table layout. The most common used analysis types are: averages, maximum, minimum, standard deviation, etc. They are also the main datasets which are used deriving additional variable such as yield, total household members, grouping of household by land size. Grouping of households according to land size can be done directly in the database as an additional parameter. Once the classification has been give the codes in the right variable column, then the analysis can be run as follows;

   i.   Adjust the data range and update the dataset first

   ii. The variable (land size category) to be analyzed dragged into the corresponding Row or column field setting to set the pivot table for analysis.

   iii. The variables to be analyzed is again dragged into ∑ Values field to run the analysis required, in this case questionnaire number and field settings Count (for frequency) and maintain the other specific parameters as they were before as they will be calculated to the specific differentiating variable accordingly.

   iv. A differentiating variable such as location, agro-ecological zone, or household type could be placed in the corresponding column field settings in order to analyze the data by location or agro-ecology or household type or a combination of two.

c) Qualitative data 1– coded single response with Others option (specify)….: Here predictable responses are normally coded in the questionnaires beforehand, while giving allowances for unpredictable responses as others (specify)…... Here, others have to be coded before the analysis is done. This can be done by the data clerk in consultation with the database manager. The obtained new codes are listed and continued numbered and thereafter the analysis can be done. They can be either used as a differentiating parameters (in column or row) while at the same time the variable questnumber is dragged into ∑ Values field to generate count numbers (frequency).

d) Qualitative data 2 - from open ended questions. Open ended questions tend to produce a range of qualitative data. Here also the data clerks in consultation with the data manager have the code all the possible responses before the analysis starts.

   •   If the open ended question is a single response, then only one variable entry is possible per questionnaire and a single column is provided.

   •   If the open ended question is a multiple response type, then all the possible responses becomes variables and needs different columns.

   These are also analysis as in qualitative 1. The obtained groups (code list) are used as differentiating parameters (in column or row) while at the same time the variable questnumber is dragged into ∑ Values field to generate count numbers (frequency).

4.7.3   Use of differentiating (classifying) parameters

The differentiating parameters such as locations, agro-ecologies, household types or seed sources are drugged into the sections of columns or rows in the table layout (1-2 at a time, 3 possible but will generate complex tables). In the example in table 4.3 bellow, the type of households is the differentiating parameter, and the variables such as number of men or the number of animal units are the analyzed variables.

Running analysis:

i.   Here the differentiating parameter (household type) is normally dragged into a Colum or Row field settings,

ii. The variable (number of men) to be analyzed dragged into the corresponding Row or column field setting to set the pivot table for analysis.

iii. The variable to be analyzed is again dragged into ∑ Values field to run the analysis required, in this case average number of men.

iv. Ensure that the Value field setting is set to the right type of analysis in this case average.

v.   Where an average is calculated, a standard deviation analysis can be done to see if the averages are significantly different from overall the mean.

Table 4.3 Use of differentiating parameters

Parameter	Household types			Overall result	
	Residents	Returnees	IDP	Average	Std Dev.
Average of men	1.4	1.39	1.45	1.42	0.15
Average of animal units	7.22	5.67	2.6	4.7	0.86

From the above example (Table 4.3) the average number of men per family is not significantly different among the various categories (residents, returnees, IDP). The type of household (differentiating parameter) therefore has no influence on this average and the overall average is the one to be reported. However, there were significant differences recorded in between the average number of animals among the various categories. Therefore in this case, the type of household is a significant differentiating parameter for this parameter. This process has to be done for each of the obtained tables.

DATA ANALYSIS WITH MS EXCEL XP

In the instructions that follow, the windows always relate to the instructions presented in the preceding bullet points.

First open the Excel file that contains the database see Window 7. The database has to have one row with the headings of each of the different columns. Each heading has to have a different name. Make the names as short as possible but still in a way that you can identify easily the information or kind of response entered under this column, which will help to conduct the data analysis process. Each of the other rows below represents the data of a specific questionnaire, where the initial number makes the links between them.

Window 7

The Pivot Table feature is an integral part of the MS Excel program, and can be found in the 'data' menu. Select the option Pivot Table Report as shown in Window 8.

Window 8
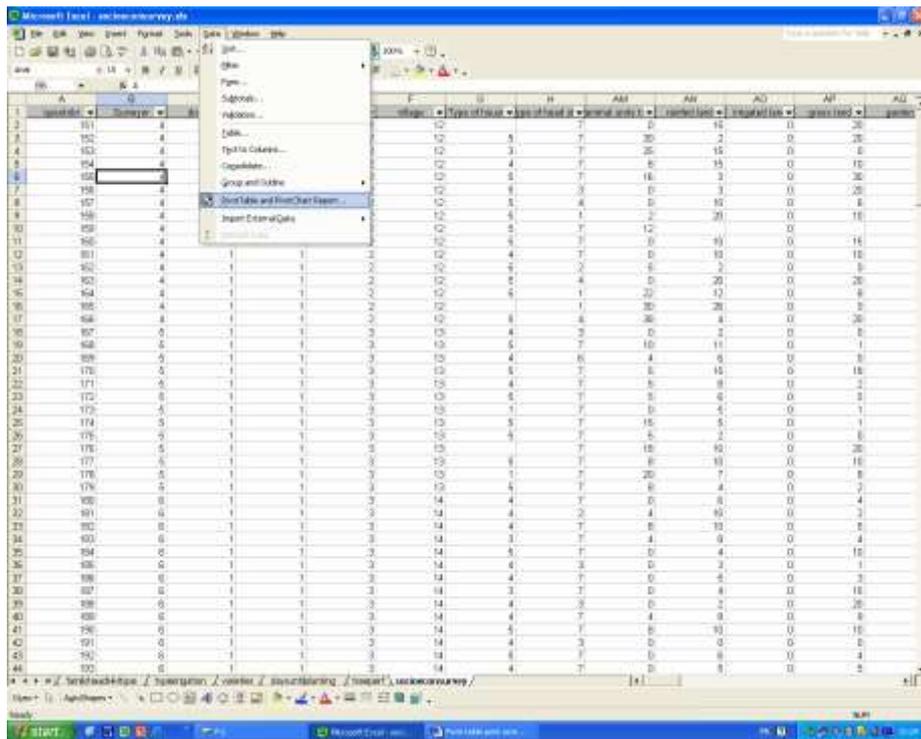
Now follow closely the instructions given below.

- In the new window, as shown in Window 9, select the option 'Microsoft Excel list or database'.

Once the selection is made, click 'next'.

Window 9
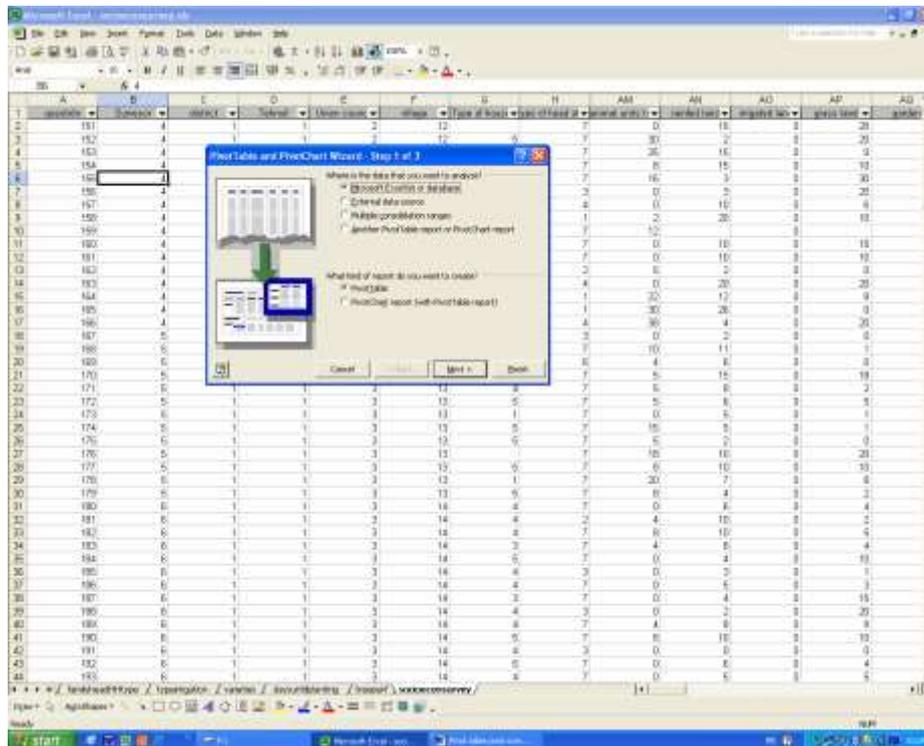
- Automatically a new window appears, as shown in Window 10, requesting the user to enter a range where the dataset is placed and should be analysed. The most recent version of Excel selects the range automatically, taking the whole dataset in the previously open worksheet. In previous versions it is necessary to enter the range of the whole table using the cursor and then select the whole range directly in the datasheet.

Window 10
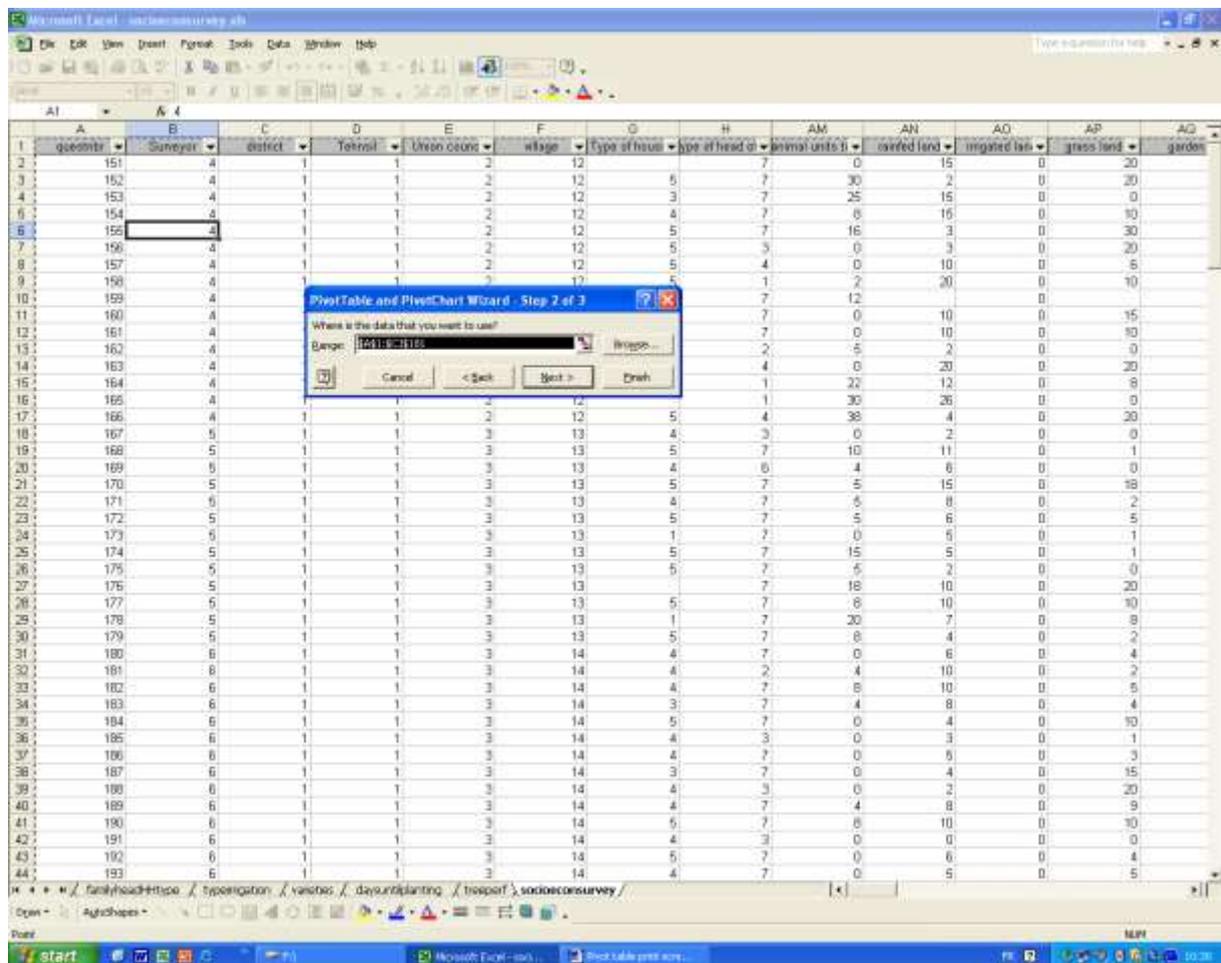
After having finished this operation press 'next'.

- After the previous step, the next window, as shown in Window 11, asks if the results should be made out of the existing results table or if they should be created using once again the initial data set. This has an implication on the size of the file, which is not a problem, and allows tables to be independent from each other. It is recommended to use the initial dataset, and therefore the 'No' option should be selected. This step is skipped when making calculations for the first time and no results table exists yet.

Window 11

- In the next window, as shown in Window 12 it is necessary to decide where the results should be stored; either in a new worksheet or in an existing one. If you select an existing worksheet, make sure to enter also the range where the table should be placed otherwise the previously-generated result table will be overwritten. In general it is recommended to use a new worksheet each time for the newly generated result tables. This would be more suitable because it will provide a better overview and better handling of the results. The only time the second option (existing worksheet) is preferable is when there is a need to have two tables side by side for comparison reasons. In order to ease the handling of the results, a name should be given to each of the created worksheets to allow identification of the type of information stored in it.

Window 12
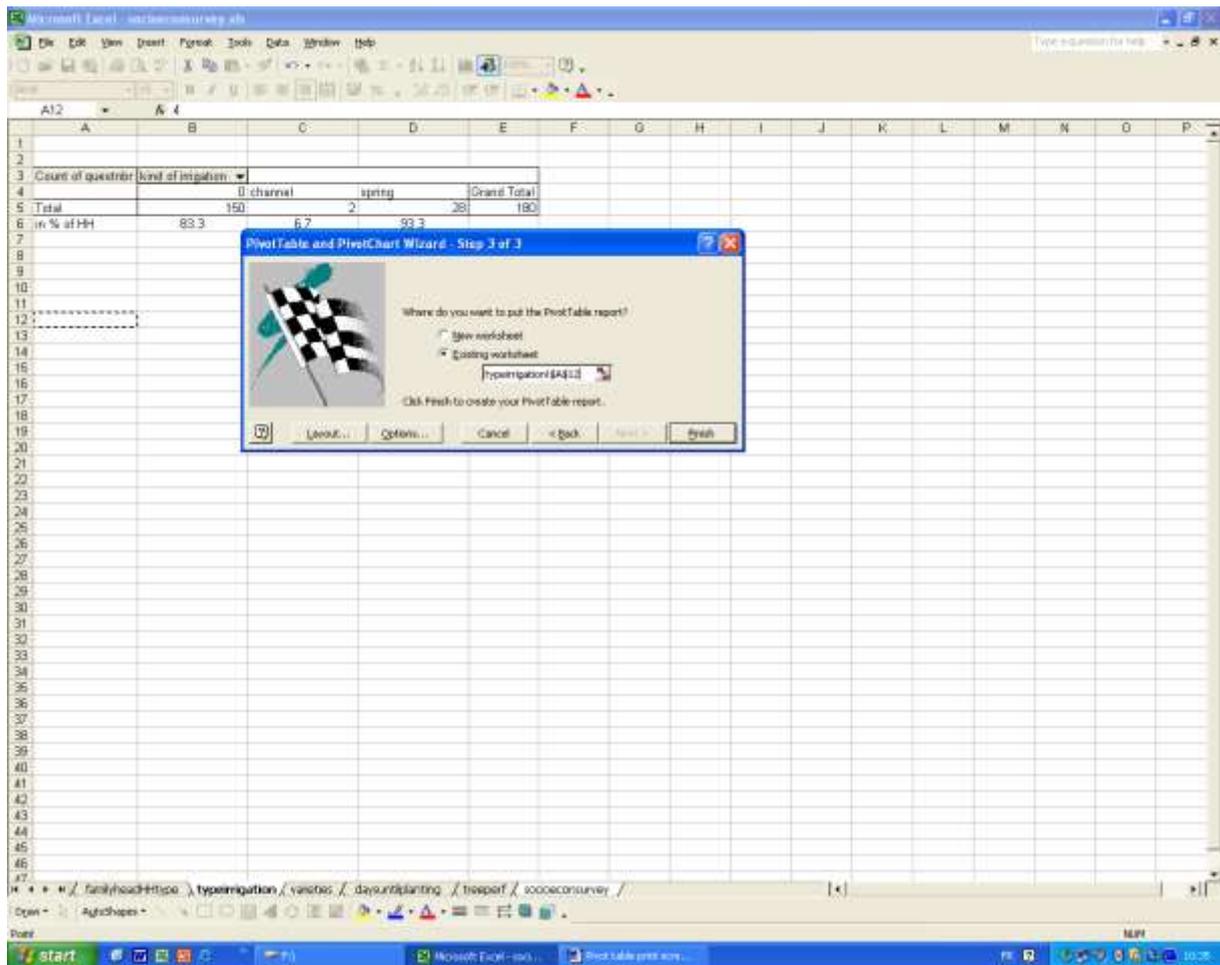
Now select 'layout'.

- In the new window, as shown in Window 13, the frame of a table appears with small boxes containing the headings of the columns of the database.

This is the most challenging part of the data analysis because it is necessary to remember what type of data was entered under each header and the type of information required from them. It is possible to obtain the information directly for averages, sums, maximum, and minimum. It is possible to obtain the information indirectly for percentages by comparing the frequencies with the overall number of entries. The frequency can be obtained by counting numbers for specific entries or calculating the sum from Yes/No questions. Here it is necessary to remember which type of calculations the various types of questions allow.

On the right side are all the parameters represented (heading of the columns of your datasheet), and on the left side there is the table that is being created.

Window 13

- There are three spaces to where the parameter boxes can be transferred: 1. heading of a column, 2. heading of a row, or 3. as data to be analysed in the central part of the table frame. In the space of columns or rows, the headings with two types of datasets can be transferred: 1. the differentiating parameters (one choice or selection out of a given list) which will split the analysed data in the centre into different categories of the selected parameters, or 2. Ranking parameters (where four categories are possible: poor, fair, good, excellent) in order to calculate the frequency of those categories. It is recommended to transfer only one of these parameters each time, otherwise the tables will become complicated for data interpretation. Therefore, for each of the differentiating parameters it is best to create a new table. Looking into the data within the various columns, there should be a significant difference compared to the overall results (last column or row in the table), to ensure that the selected differentiating parameter has an influence on the analysed data. Aside from transferring parameters into columns or rows, it is also necessary to transfer data into the central part as shown in Window 14. The parameters to be transferred will be mainly quantitative data, but also yes/no responses, or when the number of entries need to be counted, such data can be transferred as well.

- Once a parameter has been transferred into the data section by double clicking on the same box, a small window pops up, as shown in Window 15, where the different possibilities of functions that data can be subject to or what statistical analysis could be done with the entries can be seen. Select one of the following options: sum, count (counts all types of entries and not only numeric once), average, maximum, minimum, product, count numbers (counts only numeric entries), and lastly four statistical options (two types of standard deviation or variance). These last four options are not really useful for the type of results needed for reporting.
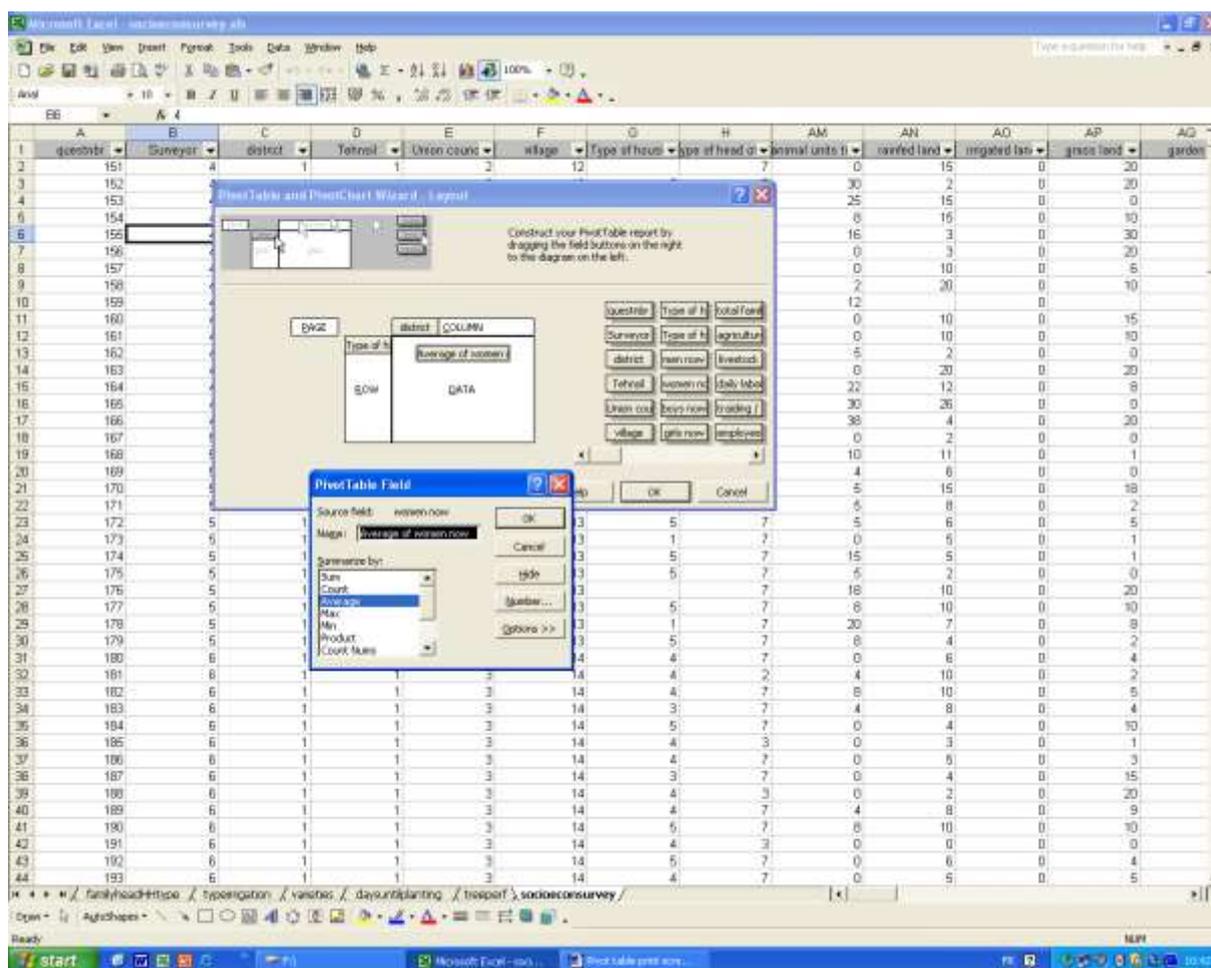
Depending on the result desired, the possibility exists to choose one of the above functions shown in Window 8. In case more than one function is needed it is necessary to transfer again the same parameter into the central part of the table and double click again on the box and select this time the other needed function.

Remember the options for the data analysis depending on the type of question explained in the previous questionnaire development phase.

For a Yes/No question, where Yes was entered as 1 and No as 0, the sum will give the number of the total entries of Yes responses. By comparing it with the total number of entries (count numbers), a percentage can be calculated.

The numeric entries resulting out of questions requesting quantitative information can be subject to the following functions: Max, Min and/or Average.

In addition, depending on the type of average which the user is expecting to calculate, some adjustments have to be made beforehand. Either calculates the overall average of a specific entry like debts (this takes into consideration also those households without debts as '0' has been entered into the dataset for those households without debts). If interested only in the average amount of debts from the households with debts all the '0' should be removed in the dataset under the debt amount column.

Finalize the part of creating the whole table with clicking on 'OK'.

It is always better to make several tables. This is easier later on for interpretation and would be more suitable for the establishment of graphs than a single table with too much information.

- Thereafter the same window reappears, shown in Window 16, from which the layout was selected. Check here as to where the results should be placed, either in a new or in an existing worksheet, if not already done. The best option is to choose each time a new worksheet to eliminate risk of overlapping or erasing previously created tables. Now click on the box 'finish'.

Window 16
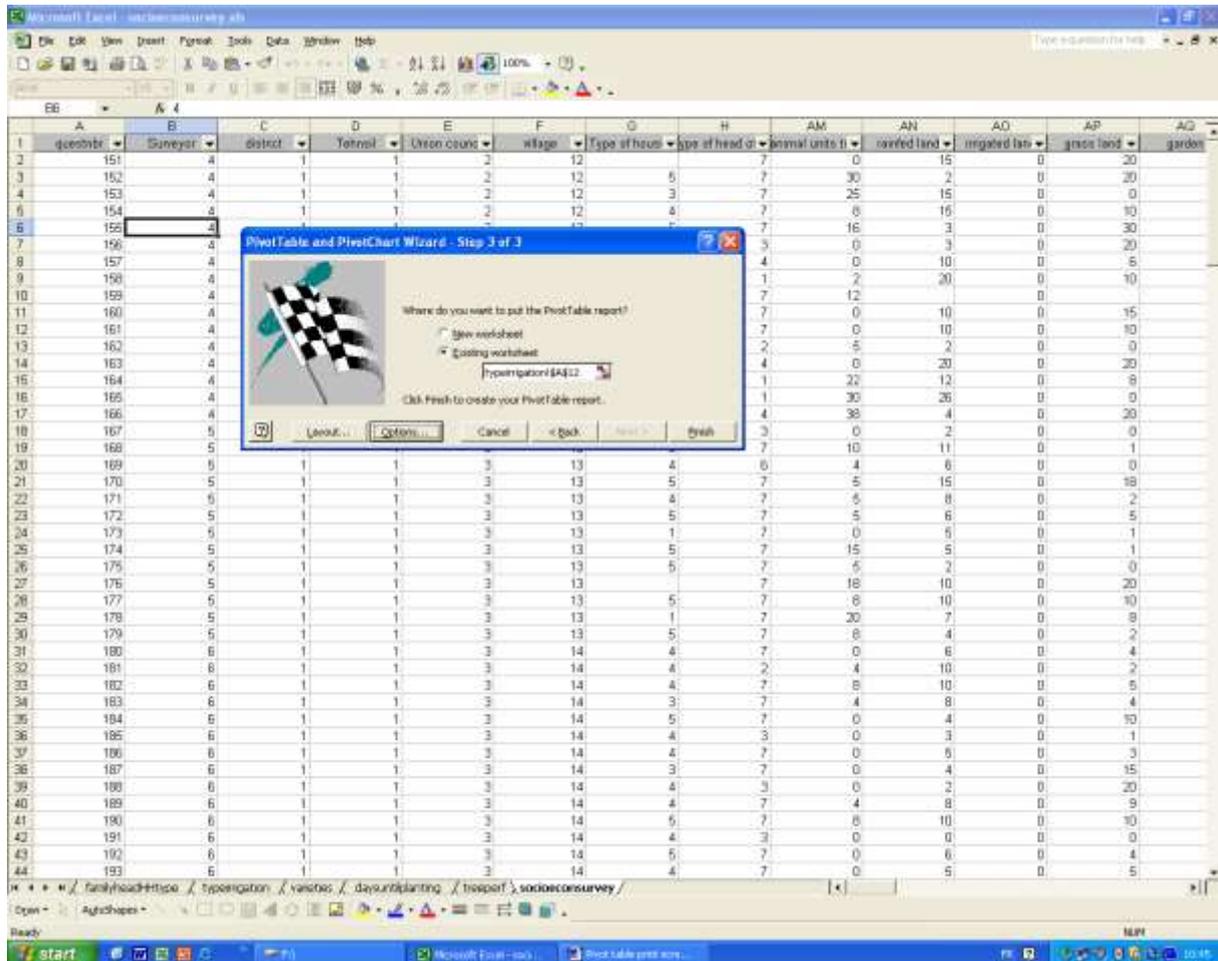
- See in the following window the table of results shown in a simple Pivot Table, see Window 17.

Window 17

Based on these various tables created, it is now possible to make particular tables and graphs required for reporting purposes.
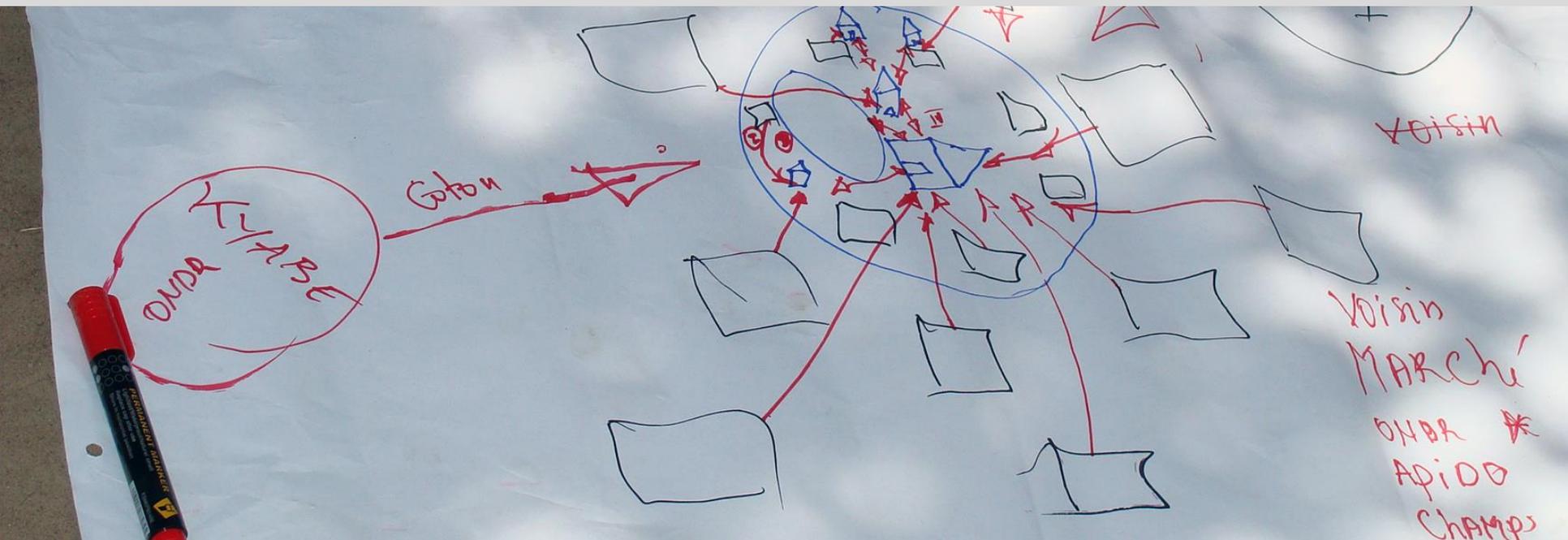
FAO
Seed Security Assessment Training

SSA results

Analyzing data and information
collected during the field visit
(S-10)

Session 10 (1)

Group work, the 3 teams. Led by team leaders, coached by facilitators

Time: 240 minutes (210' work + 30' break)

Output 1: short briefing note/package with the analysis of the field work info

Output 2: 30' presentation (to be presented in plenary in session 11)

Session 10 (2) – contents of report & presentation

Contents of report & presentation

Brief description of the visited area

HHS & LMS: results & main conclusions

FGD: results & main conclusions

KII: results & main conclusions

Brief outline of a local action plan for improved seed security in the visited area

Short concept note proposing a SS assessment intervention in 3 possible local areas or regions of the country

5 main lessons learnt during the field work

Use your own knowledge & experience
+
all you have learnt during this course!

Session 10 (3)

The 30 minutes **presentations** (1 x team) **must be very visual** (use graphs & diagrams, bullet points, etc.) and supported by flipcharts and/or PowerPoint slides.

The 3 presentations will be shared in plenary after lunch, Session 11.

FAO
Seed Security Assessment Training

Presenting in plenary the SSA results
(S-11)

Contents of report & presentation

- Brief description of the visited area

- HHS & LMS: results & main conclusions

- FGD: results & main conclusions

- KII: results & main conclusions

- Brief outline of a local action plan for improved seed security in the visited area

- Short concept note proposing a SS assessment intervention in 3 possible local areas or regions of the country

- 5 main lessons learnt during the field work

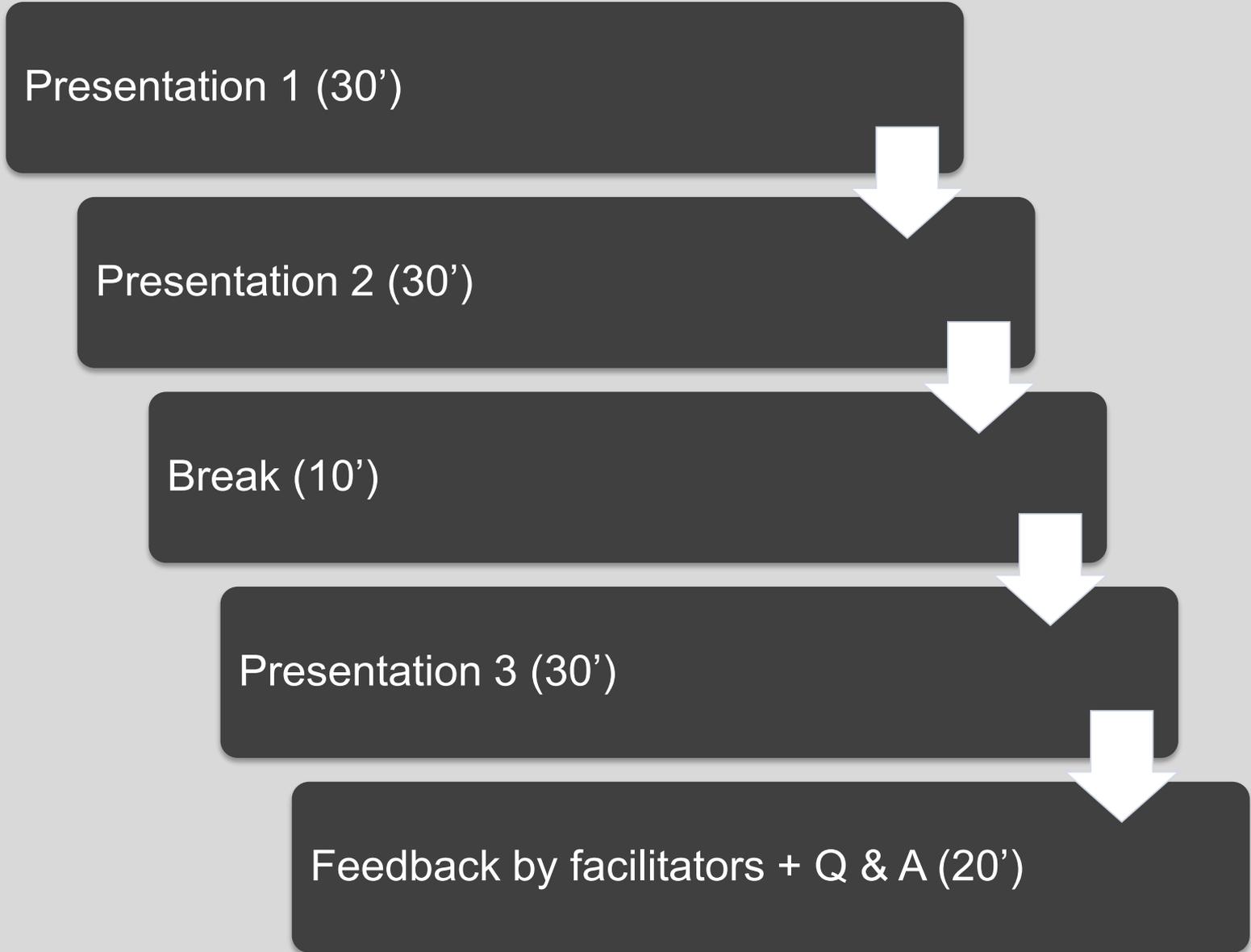# Presenting the work done in session 10 (model 1)

Presentation 1 (30')

Presentation 2 (30')

Break (10')

Presentation 3 (30')

Feedback by facilitators + Q & A (20')

Presenting the work done in session 10 (model 2)

Presentation 1 (30')
+ 5' Q & A & feedback

Break (10')

Presentation 2 (30')
+ 5' Q & A & feedback

Presentation 3 (30')
+ 5' Q & A & feedback

Q & A and final feedback (5')

Anonymous evaluation forms!

2 words, only 2…… and a comment on expectations

For me the course has been…….

Stimulating!

Boring! ☹

Disappointing ☹

Useful

……………!

Challenging!

Please revisit your expectations card from day one and tell us if your expectations have been fulfilled

Seed Security Assessment Training

FAO SSA Training Course
Evaluation Form
(S12-H1)

Name
(optional as the written evaluation is anonymous):

1. How would you rate the overall course programme design?

1- Very poor	2 - Poor	3 - Satisfactory	4 - Good	5 - Very good

Comments:

2. Did the course achieve its objective to provide both theory and practical skills that will enable you to:

   a. Have a better theoretical and practical understanding of seed system security

   Yes/No

   Please briefly explain why and how the content can be improved to better meet this objective:

   b. Understand and apply the Seed Security Conceptual framework (SSCF)

   Yes/No

   Please briefly explain why and how the content can be improved to better meet this objective:

   c. Understand and apply the 5 steps of a Seed Security Assessment (SSA)

   Yes/No

   Please briefly explain why and how the content can be improved to better meet this objective:

Have the confidence to participate in or to lead the implementation of a seed security assessment

      Yes/No

      Please briefly explain why and how the content can be improved to better meet this objective:

3. Which sessions held the most value for you and why?

4. Which sessions held the least value for you and why?

5. What are the top 3 things you will take from this course?

6. What could we do to improve the practical exercises and group work?

7. Should this venue be used for future trainings?

Yes No

If no, why?

8. How would you rate the pre-training information?

1- Very poor	2 - Poor	3 - Satisfactory	4 - Good	5 - Very good

Do you have any suggestions on how it could be improved?

9. How would you rate organization and facilitators?

	1 - Very poor	2 - Poor	3 - Satisfactory	4 - Good	5 - Very good
Organization					
Facilitator (please write name)					
Facilitator (please write name)					
Facilitator (please write name)					
Facilitator (please write name)					

What can the facilitators improve?

Do you have any other comments or suggestions?