Seed Security Assessment:
the 5 steps
(S-6)
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
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 (1)
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

- **Sorghum** (N=83)
- **G/nut** (N=43)
- **Sesame** (N=32)
- **Okra** (N=10)

Graph showing yield per feddan for different crops, with categories for poor, fair, good, and average performance.
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

Step 2 – Baseline information. Collecting data from before and after the crisis / disaster (3)
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
OUT TO LUNCH
Step 3 - Understanding **nature, dimension & 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 nature, dimension & impact of crisis / disaster (I)

Descriptors of the disaster

- Cause: natural or social
- Duration: long-short
- Scale (territory-population)
- Mild or severe
- Acute or chronic
- Sudden or gradual start?
- Homogeneous or heterogeneous
Impact of Flood, Conflict in population in South Sudan

Flood

Conflicts

Post Conflict
2012 Floods: 30 reported; 16 assessed; 3400,000 displaced (OCHA, Aug 2012)
2013 floods
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.
Step 3 - Understanding nature, dimension & impact of disaster (I): What are the implication of floods on SSCF elements?

We accept defeat by flood

Smart HH: Just need protection

Real emergency need- protect the seed
Step 3 – Understanding nature, dimension & impact 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 & impact of disaster (III)

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)

Different disasters, different impacts
Step 3 - Understanding nature, dimension & impact of the crisis / disaster (IV)

From internal sources (personal seed reserves) to external (markets & formal providers)

Availability of seeds (offer) still adequate?

Quality & suitability still acceptable?

Significant increase in cost & quantities of purchased seeds

Seed system & seed security

?
Step 4 - Diagnosing seed security problem

Is there a disaster(s) or crisis?  

Yes  

What is the nature?  

Acute (severe/mild)  

No  

Chronic (Severe or Mild)  

Normal, but could be seed insecure
Step 4 – Diagnosing seed security problem in Chronic disaster- Examining Diversity in Crops - Resilience

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

NBELG 2013 (FAO SSA, 2014)
### Step 4 – Diagnosis seed security problem in protracted crisis - Availability

<table>
<thead>
<tr>
<th></th>
<th>Adequate</th>
<th>Not adequate</th>
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<tbody>
<tr>
<td><strong>2014</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall (N=148)</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>SN (N=3)</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Own (N=84)</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>Market (N=64)</td>
<td>45%</td>
<td>55%</td>
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<tr>
<td>Overall (N=167)</td>
<td>41%</td>
<td>59%</td>
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<tr>
<td>SN (N=3)</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>Own (N=91)</td>
<td>38%</td>
<td>62%</td>
</tr>
<tr>
<td>Market (N=68)</td>
<td>47%</td>
<td>53%</td>
</tr>
<tr>
<td>Aid (N=5)</td>
<td>0%</td>
<td>100%</td>
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**Availability (supply) : NBELG 2013**
Step 4 – Diagnosing seed security problem in Chronic disaster (flood)- Access (price)

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<tr>
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<th>Affodable</th>
<th>High</th>
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<tbody>
<tr>
<td>Overall (N=61)</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>Market (N=61)</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>Overall (N=77)</td>
<td>21%</td>
<td>79%</td>
</tr>
<tr>
<td>Market (N=73)</td>
<td>16%</td>
<td>84%</td>
</tr>
<tr>
<td>Aid (N=2)</td>
<td>100%</td>
<td>0%</td>
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2013

2014
Step 4 – Diagnosing seed security problem in protracted crisis - **Quality (germination)**

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

Major Sorghum varieties in NBELG (N=78)

- Malual: 49%
- Anyanjang: 40%
- Nyinthin: 5%
- Luel: 3%
- Yar: 3%
- Rap Chol: 1%
### Step 4 – Diagnosis of seed security problem

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