



## Resilience and seeds

For the 70 percent of the world's poor who live in rural areas, agriculture is the main source of income and employment. However, agriculture is also highly exposed to a range of natural and man made disasters. Therefore making agriculture more resilient to different kinds of shocks is an important goal; indeed sustainable development cannot be achieved without resilient livelihoods.

To resume agricultural production after emergencies, farmers need to be seed secure, i.e. to access adequate quantities of good quality seed and planting materials of preferred crop varieties in time for the planting season. Seed security is an important part of overall resilience in risk prone environments.

Consequently, FAO emergency operations often focus on improving seed security through seed distribution, seed vouchers and/or seed fairs.



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## Why a Seed Security Assessment?

In many countries, emergency and recovery seed interventions are based on a limited understanding of the impact of crisis on seed systems. Indeed, a **2015 study**<sup>1</sup> found that, in the Horn of Africa and the Sahel, **less than 10 percent of post-disaster seed related interventions were based on any kind of assessment** of the seed system and seed security.

Such ignorance may lead to inefficient and potentially harmful seed related interventions, with implications for livelihood recovery. Sound assessments of seed security and seed needs are therefore required in order to support effective agricultural recovery.

## What is Seed Security Assessment?

Assessing seed security is a process which originated in the late 1990s through the development of the seed security conceptual framework by Catholic Relief Services and was continued by other seed aid practitioner organizations, notably FAO and CIAT. A tool for seed system security assessment was developed and published by CIAT in 2008. Since then this tool has been extensively used and further developed. FAO developed **the Seed Security Assessment (SSA) toolkit**<sup>2</sup> in 2013-14. This is a standalone toolkit freely available for practitioners' use in English, French and Spanish.

The **FAO SSA toolkit** uses both qualitative and quantitative data collection tools such as key informant interviews, focus group discussions and sampled household and local market surveys. Through mixed data analysis and standard reporting, SSA provides short, medium and long term recommendations for action.

## In numbers

- ✓ Between 2007 and 2012 in Africa alone, seed security projects amounted to at least **US\$200 million of donor funding**<sup>3</sup>
  - ✓ Since 2003 over **50 SSAs have been conducted**, most of these in Africa<sup>1</sup>
- ✓ A **crop variety** that grows well in one agro-ecological zone may be unsuited to another only **20 km** away<sup>4</sup>
  - ✓ Worldwide, **informal seed systems** provide **between 80 and 90 percent** of seed stocks<sup>4</sup>
  - ✓ For some grain crops, **seed can be 50 times more expensive per kg** than the actual food grain<sup>5</sup>



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The Seed Security Assessment carried out in 2014 in South Sudan resulted in a significant change in emergency seed procurement, away from international procurement and towards collection of locally produced seed from farmers organizations in less affected areas. Once collected, the seed was distributed in highly food insecure areas affected by conflict.

*“From the focus group discussions, we found out that there is no major problem of seed availability, quality and suitability of the local varieties of the major crops (sorghum, groundnut and sesame) being grown in the state”* said Joseph Okidi, leader of the SSA, referring to an assessment undertaken in Northern Bahr el Ghazal. *“Own seed and local market seed are the major sources of seed farmers need for planting in these areas”.*

## Implementing SSAs

Successful implementation of a SSA relies on solid expertise. To support and develop this expertise the SSA training can be conducted at two levels, depending on the experience of participants.

**Intensive SSA training:** where capacity and skills in conducting SSAs is limited, a **5-day intensive training** should be conducted by experienced facilitators. This training takes the participants through nine sessions: *Session I:* Course introduction; *Session II:* Seed system basic concepts; *Session III:* Seed Security Conceptual Framework; *Session IV:* Seed interventions in the recent past (country and/or regional perspective); *Session V:* The steps of conducting SSA; *Session VI:* SSA site selection, standard tools, and sampling; *Session VII:* Field work preparation and data collection; *Session VIII:* Data management, analysis and reporting; and *Session IX:* Developing a Plan of Action.

**Refresher SSA training:** this is aimed at staff who have already been trained and is followed by an actual assessment. It lasts **3 days**. *Day 1:* Theoretical aspects; *Day 2:* Adapting and pre-testing SSA tools; and *Day 3:* Planning of field work.

Between 2014 and 2015, FAO trained about 200 practitioners in nine countries (Ethiopia, Kenya, Somalia, South Sudan, Uganda, Burkina Faso, Chad, Mali, Niger). Forty-six of those trained received further training to become SSA trainers. The beneficiaries of the training ranged from staff from government ministries and institutions, national and international NGOs, community-based organizations involved in seed related activities, as well as FAO staff themselves.

Depending on the national capacity and the size and remoteness of the target area, **implementing a SSA from start to finish typically ranges from US\$15 000 to 60 000**. The cost of conducting **SSA training alone** without a follow on assessment is normally in the range of **US\$5 000 to 20 000**, depending on the number of participants (normally 10-30), whether it is an intensive or refresher training, residential or non-residential.

## Guidance, dissemination and uptake

Dissemination of the SSA results to relevant stakeholders is easy; however, ensuring **uptake of recommendations from the SSA by decision makers** is much more challenging. Limited understanding and lack of awareness of the importance of SSA results is an area that FAO seeks to address through knowledge sharing and policy support. Ultimately, the SSA process is only as good as the decisions that it leads to.

Reports of SSAs undertaken in the Sahel (Burkina Faso, Chad, Mali and Niger) and Eastern Africa (Ethiopia, Kenya, South Sudan, Uganda) in 2013-14 are available in English / French at:

<http://www.fao.org/in-action/food-security-capacity-building/project-components/seeds/conducting-national-ssa/en/>

Training materials are available in English, French and Spanish at:

<http://www.fao.org/in-action/food-security-capacity-building/project-components/seeds/revision-of-ssa-guidelines-and-training-materials/en/>



## References

1. **FAO.** 2015. *Seed Security Assessments in Burkina Faso, Chad, Mali, Niger Ethiopia, Kenya, Somalia and South Sudan, 2003-2013: Key Findings and Recommendations*. OSRO/GLO/301/EC.
2. **FAO.** 2016: *Seed Security Assessment: A Practitioner's Guide*. Rome.
3. **Sperling, L. & McGuire, S.** 2012. Fatal Gaps in Seed Security Strategy, *Food Security*, 4 (4). pp. 569-579.
4. **Sperling, L.** 2008. *When Disaster strikes. A guide to assessing Seed System Security*. International Center for Tropical Agriculture: Cali, Colombia.
5. **Louwaars, N.P.** 2007. *Seeds of Confusion: The impact of policies on seed systems*. Doctoral Thesis. University of Wageningen.