

DeSIRA-LIFT Terms of Reference

Expert in Farmer-Managed Seed Systems (FMSS) (NKE 3.19, Cat II)

Assignment: Scoping study on farmer-managed seed systems for increasing agricultural productivity, food and nutrition security and resilience

1. Background

The [DeSIRA Initiative](#) seeks to enhance an inclusive, sustainable and climate-relevant transformation of rural areas and agri-food systems, by linking agricultural innovation with research and education for developmental impacts at scale. It supports actions in low- and middle-income countries (LMICs) to strengthen agriculture and food systems resilience, the relevance of the national and regional innovation systems, and the coherence and efficiency of their agricultural public research and extension services related to climate change adaptation.

DeSIRA-LIFT is a *service project* (June 2021 – May 2025) to the European Commission (EC), Directorate General for International Partnerships (DG INTPA) with the main objective to enhance the impact of the DeSIRA Initiative by providing (on-demand) services to DeSIRA project holders and partners. DeSIRA-LIFT includes three service areas aligned to the three DeSIRA Pillars: *Service Area 1* supports country-led DeSIRA projects to enhance their impacts on climate-oriented innovation systems in line with more sustainable food system transitions. *Service Area 2* supports the Comprehensive Africa Agriculture Development Programme (CAADP) ex-pillar IV organizations in their Agricultural Knowledge and Innovation Systems (AKIS) related roles. *Service Area 3* supports policy makers on themes related to agricultural research for development (AR4D) and innovation policies and programming. DeSIRA-LIFT is implemented by member organisations of Agrinatura (CIRAD, ISA, NRI, SLU, WUR) and EFARD (COLEAD).

The Ordinary Session of the Assembly of the African Union (AU) in Sirte, Libya, on 5 July 2005, in discussing the importance of improved seeds for increasing agricultural productivity and food security in the continent, recognized that African governments individually cannot confront challenges represented by developments in the international seed industries and by legal and technical issues, which restrict access to genetic resources and biodiversity. Therefore, the AU has embarked on a mission to harmonise continental and regional policy frameworks on seed systems. The African Seed and Biotechnology Programme (ASBP) provides a strategic approach for the comprehensive development of the seed sector and related biotechnology in Africa, taking into account the different needs of the countries and regions.

The African Union (AU) Department of Rural Agriculture, Rural Development, Blue Economy & Sustainable Environment (DARBE) mandated the Forum for Agricultural Research in Africa (FARA) to serve as the Secretariat of the African Seed and Biotechnology Partnership Platform (ASBPP). The Secretariat coordinates the activities of the ASBP Working Groups and Clusters overseen by its Steering Group.

The ASBP specifically recognizes the importance of the formal and farmer-managed seed systems in Africa leveraging on the principles of plurality and Integrated Seed System Development (ISSD), contributing to CAADP processes leading to access to quality seed.

2. Rationale of the assignment

High-quality seeds are one of the most important inputs for crop production and hence food security. The term seed system refers to the network of actors and the activities involved in the development and management of crop varieties, and the production, distribution and use of seed and other propagating materials of these crop varieties. A functioning seed system should sustainably enable farmers to have access to the quality seeds of their choice and purpose, at the right time and price from the farmers' investment perspectives. The centrality of the farmer in making a choice is critical because he/she is the

customer in this case. This in effect means that the seed on offer must align to the farmer's requirements and needs which would include not only agronomic traits but organoleptic traits as well. If the organoleptic traits are not conferred by the commercial seed system, efforts and resources have to be deployed to improve the farmers' seeds because they have already been selected for agronomic and organoleptic traits by the farmers themselves. This makes the farmer seed systems a complementary option to the commercial seed system.

Different types of seed systems exist, but they are generally classified into two main groups (Louwaars and de Boef, 2012)¹: formal/commercial seed systems and farmer-managed (or informal) seed systems. Formal/commercial seed systems are purposefully designed, often for cash crops and staple food crops, and are operated by 'professionals' (e.g., plant breeders, seed regulatory agencies, seed companies, farmer cooperatives, farmer seed producers, seed inspectors, agro-dealers and other seed marketing agencies) and regulated by national policies, legislation, standards and contracts. In farmer-managed seed systems (FMSS), farmers produce, disseminate and access seed directly from their own harvest or through exchange and barter from within their communities or nearby ones. However, it should be noted that different countries and programs may define FMSS differently and distinguish different sub-categories of seed systems that are considered under the informal sector. The seed outside the formal sector may be of variable quality and the distinction between seed and grain is not always clear. This system is typically used for minor or local food crops and landraces, but it also integrates commercial varieties. Seeds of these crops do not generally make a business case to attract national, regional and international seed companies' investment efforts. Thus, farmer-managed seed systems have so far received little support, as the focus of governments and private sector has been on promoting the organized or commercial seed sector. However, recent initiatives start to recognize farmer-managed seed systems and promote some form of regulation such as Quality Declared Seed (QDS) as a key component in the seed sector ecosystem, which is further supported in discussions on emerging issues such as climate change and environmentally robust agriculture. Participatory plant breeding projects in different parts of Africa, often related to (NGO-driven) community seed banks, have shown that local varieties may have vast potentials for improvement and that promoting the development of FMSS could be an important complementary strategy towards food security. In the ECOWAS countries a customised regulatory system has been developed specifically for FMSS. In countries like Kenya some crops that were exclusively within the FMSS domain like cassava, have been brought to the official seed regulatory system with the requisite regulations, procedures and standards developed. Indeed, African farmers typically access seed from various systems, and these systems can be considered as complementary.

Although data has become increasingly available on the formal seed systems (e.g., TASAI², FMSS indicators in the CAADP 4th Biennial Review, AGRA, AUC, etc) in the past decade, information on the farmer-managed seed systems remains scattered, scanty and little robust. It is often claimed that more than 75 per cent of the seed planted by African smallholder farmers is accessed through FMSS. However, this percentage varies by country and crop. Furthermore, Africa's contribution of about 20% of the global commercial seed market does not take FMSS into account. This underscores the need to gather evidence on this important aspect of seed. Equally, updated information is required on the opportunities and challenges of FMSS related to the potentials of improving local crop varieties and producing seed of high quality to further increase its contribution to food security. Although AU Member States recognize the importance of FMSS, there is little concrete support for FMSS activities such as community seed banking and local seed business development. Yet, examples of new practices can be found, spearheaded by civil society and in some cases

¹ Louwaars NP, de Boef WS (2012) Integrated Seed Sector Development in Africa: A Conceptual Framework for Creating Coherence Between Practices, Programs, and Policies, *Journal of Crop Improvement* 26(1): 39-59.
<http://dx.doi.org/10.1080/15427528.2011.611277>

² [TASAI - Seeds Dashboard](#)

supported by governments such as Ethiopia, Malawi, Mali, Nigeria, Uganda, Zambia and Zimbabwe (Andersen, 2018³; Andersen et al., 2022⁴; Meixner Vásquez and Andersen, 2023⁵; Vernooy et al., 2023⁶).

The ASBP action plan (2020-2030) comprises 10 components. This Terms of Reference (ToR) is in particular related to Components 1, 4, 5, 6 and the cross-cutting cluster on FMSS of the ASBP (see Annex 1 for more detail):

- Component 1: enhance policy and regulatory framework for an efficient seed system
- Component 4: strengthen seed production systems
- Component 5: enhance development of quality assurance systems with important stakeholder contributions
- Component 6: improve seed storage, marketing and distribution channels
- Cross-cutting cluster FMSS: Strengthened linkages between the formal and informal seed sectors

This assignment is commissioned in consultation with the ASBP Technical Steering Committee, in order to contribute (and further inform) the ASBP work plan. The Terms of Reference were endorsed on November 9th 2023 by the Africa Seed and Biotechnology Partners Platform.

3. Scope of the assignment

The Expert(s) will undertake a scoping study to review and update the current knowledge on seed systems in Africa, with an emphasis on the informal sector and FMSS. The assignment will cover several aspects of FMSS in the context of the ASBP action plan (2020-2030). The objective is to verify several assumptions and hypotheses on FMSS and offer recommendations for further actions and policies based on the latest insights and review of best practices within countries purposefully selected for this scoping study.

The scoping study will include an overview of best approaches and practices in strengthening FMSS across the African continent and a synthesis of a regional and continental status, covering each of the four sub-regions of the continent. Starting point of the study will be the results on the FMSS indicator in the 4th Biennial Review of the CAADP (to be released early 2024).

The scoping study should seek to answer the following questions:

1. What is the role of farmer-managed seed systems within the wider context of seed systems to ensure access to quality seed?
 - a) What definitions of FMSS are being used?
 - b) What percentage of total seed used for the different food crops (cereals, roots, vegetables, selected minor crops) are accessed through FMSS in selected countries?
 - c) What is the importance of FMSS in guaranteeing the access of women and youth to quality seed?
 - d) What are the exchange mechanisms that exist for FMSS seeds (by %)
 - e) In cases where FMSS seed is sold, what is the price difference between FMSS seed and seed from the formal sector?

³ Andersen R (2018) *The Impact of the Development Funds' and EOSA's Community-based Agrobiodiversity Management Programme in Ethiopia*. FNI Report 7/2019. Lysaker: Fridtjof Nansen Institute. <https://www.fni.no/getfile.php/1311359-1574863736/Filer/Publikasjoner/FNI-R0719-Andersen.pdf>

⁴ Andersen R, Meixner Vásquez V, Wynberg R (2022) Improving Seed and Food Security in Malawi: The Role of Community Seed Banks. *FNI Policy Brief* 1/2022. Lysaker: Fridtjof Nansen Institute. <https://www.fni.no/getfile.php/1315836-1659965574/Filer/Publikasjoner/FNI%20Policy%20Brief%202022%2001%20English.pdf>

⁵ Meixner Vásquez V, Andersen R. (2023) Community seed banks: Instruments for food security or unsustainable endeavour? A case study of Mkombezi Community Seed Bank in Malawi. *Food Security* 15: 1087–1108. <https://doi.org/10.1007/s12571-023-01374-4>

⁶ [Policies, laws, and regulations in support of farmer-managed seed systems: still a long way to go. A review of 14 countries in Africa. – ISSD Africa](#)

- f) What are the main challenges and opportunities regarding the preservation of genetic resources, improvement of local varieties, quality assurance and seed production, exchange and selling of seeds in FMSS?
 - g) What are the positive and negative interactions between the formal and informal seed systems and what are the tensions (if any)?
 - h) What initiatives exist in support of FMSS? How do these initiatives compare to the support of the formal seed sector?
 - i) How do national legislation and policies affect the operations and potentials of FMSS?
2. What can be done to improve the FMSS?
 - a) Which sustainable funding models can support the development of the FMSS in Africa?
 - b) How should national legislation and policies be shaped to support the development of FMSS? In this context: What level of regulation (if any) by government agencies is necessary and why?
 - c) What could be the constraints associated with regulating FMSS and possible solutions?
 - d) Which mechanisms can be deployed to manage (silent) conflicts between the commercial seed sector and FMSS?
 - e) Which policy instruments can be developed by governments in order to make FMSS synergistic to commercial seed systems with the objective of enhancing both food security and seed business?
 3. How can Africa recognize and document indigenous African knowledge behind the selection and maintenance of varieties and seed handling until sowing in the FMSS?
 - a) How can this knowledge be integrated in the regulation and development of FMSS in order to improve quality of farm-saved seed?
 4. What are the prospects of observing equivalence in promoting best practices of strengthening FMSS nationally, regionally or continentally?

Activities include:

- Literature review of recent reports and publications (since 2005), including lessons learned from major seed programs such as the Integrated Seed Systems Development⁷
- Methodology development for the scoping study
 - o Identification of key informants (e.g. experts; representatives of public service, civil society, breeders, seed producers, farmers)
 - o Design of questionnaires (mainly qualitative)
 - o Interviews and focus group discussions with regional, continental and international key informants
 - o Analysis of datasets (CAADP 4th BR, TASAI, others) and other sources if available
- Validation workshop to identify gaps and link the study findings with ongoing seed initiatives on the continent
- Analysis of policies in order to determine those that directly or indirectly support FMSS
- Outline future perspectives for FMSS and policy recommendations

4. Deliverables

The deliverables of this assignment are the following:

- Short inception report describing the methodology of the scoping study

⁷ www.issdafrica.org

- A synthesis report
- Policy brief
- Powerpoint presentation with main findings

5. Reporting

The Expert will report to the Service Area 3 Leader and the DeSIRA-LIFT Project Director on progress and validation of timesheets.

The expert is expected to submit the draft deliverables for validation with an advisory group consisting of ASBP advisors and policy officers of DG INTPA (EC).

6. Duration of the assignment

The assignment includes 85 working days during the period February 2024 till September 2024.

7. Location of the assignment

The assignment will be home-based and includes a desk review.

8. Required qualifications and experience

The expert (Cat II) will have:

Qualifications and skills

- Education at least Master degree in International Development, Social Sciences or Agricultura Sciences; or, in its absence, equivalent professional experience.

General professional experience

- At least 6 years' professional experience in areas directly relevant to international development, agricultural sciences, seed systems, or likewise.

Specific professional experience

- At least 5 years' professional experience in areas directly relevant to agriculture in an international setting, including
 - Knowledge of national and international seed policies in Africa
 - Knowledge and experience of formal and informal seed systems in Africa
 - Thorough understanding of farmer-managed seed systems in Africa
- A research track record in the following fields is appreciated: social studies in formal and informal seed systems.
- Knowledge in seed regulatory institutional development and seed quality assurance in Africa.
- Experience working in Africa in consultation with professional organizations (farmer organizations, NGOs, private companies, research centres, etc.) and/or international organizations in the field of informal and formal seed systems development and / or multi-stakeholder processes.
- Familiar with the ASBP and CAADP framework.

Soft skills

- Ability to work in a team and in a multicultural context
- Motivation, self-direction and proactiveness
- Methodological rigour, priority management and organisational skills
- Excellent writing and oral presentation skills in English.

Language skills

- Excellent writing and oral presentation skills in English
- Working knowledge in French is an advantage