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Integrated Seed System Development

INNOVAFRICA Food security through smallholder adaptability

Deliverable name: Integrated Seed System Development Lead partner: NMBU Prepared by: NMBU &NIBIO Other partners involved: HU, SFHC, UoM, SUA Objective: To enhance availability of farmer preferred seeds for local & national food security

What is Integrated Seed System Development?

Integrated Seed System Development (ISSD) is a term describing approaches to seed delivery that aims at better linking informal and formal seed development and delivery systems (Figure 1). In InnovAfrica project, we define ISSD as an institutional innovation because operationalization takes interventions at several levels; at the seed regulatory framework level as well as at the technical level of seed development and production. The ISSD programme at InnovAfrica partner Wageningen University and Research have defined a set of guiding principles for operationalizing the ISSD approach (Box 1).

Box 1: Guiding principles for operationalization of the ISSD approach

- 1. Foster pluralism and build programs on diversity of seed systems
- 2. Work according to the structure of the seed value chain
- 3. Promote entrepreneurship and market orientation
- 4. Recognize the relevance of informal seed systems
- 5. Facilitate interactions between informal and formal seed systems
- 6. Recognize complementary roles of the public and private sector
- 7. Support enabling and evolving policies for a dynamic sector
- 8. Promote evidence based sector innovation

Source: <u>http://www.issdseed.org/topic/issd-guiding-principles</u>



Figure 1: Linkages between formal and informal seed systems. The blue circle frames the informal system and the arrows indicates seed and gene flow between the systems. Source: After Louwaars and de Boef (2012).

Why and where to establish ISSD?

The ISSD puts the focus squarely on farmers' *seed security* (Westengen et al. 2018). The objective is to increase farmers' access to well adapted and preferred crop varieties. The InnovAfrica case countries differ in degree of recognition and investment in ISSD. In Ethiopia, ISSD is official policy, in Tanzania there is ongoing production and sale of Quality Declared Seed (QDS) which is an ISSD-type seed certification approach, and in Malawi the new national seed policy-2018 allows QDS sale in the country.

How and when to establish ISSD?

Interventions to support ISSD must be tailored to the national and local context in each project site. The first step is to identify the bottlenecks in the current systems as well as the leverage points for interventions (Haug et al. 2016).

Activities	Year 1	Year 2	Year 3	Year 4
Step 1: Conduct household survey and policy analysis to identify	Х	Х		
bottlenecks & leverage points				
Step 2: Involve Multi-Actor Platform members		Х		
Step 3: Support community seed production		Х	Х	
Step 4: Support establishment of demonstration plots & seed fairs			Х	Х



Figure 2: Abdi Rabi Seed Producer Cooperative farmer Boki Dinku in front of his field for seed production contracted with the regional public seed company Oromia Seed Enterprise (Photo: NMBU)



Figure 3: Community Seed Bank operated by the NGO Biodiversity Conservation Institute (BCI) in InnovAfrica project area at Mzimba in Malawi (Photo: NMBU)

A common operationaization of ISSD is to support community seed production and smallholder seed enterprises (Walsh et al. 2013). Such seed production can be both commercial (Figure 2) and noncommercial. Examples of non-commercial approach are "seed loan" schemes in which an institution (such as a cooperative or Community Seed Bank) gives farmers seeds as a loan to be repaid with a seed quantity interest (Figure 3). An ISSD approach to seed certification is seen in QDS system developed by FAO (FAO, 1993) as a less stringent and more locally adapted approach to quality assurance and labeling.

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