Introduction to Integrated Seed Sector Development and its guiding principles

ISSD contributes to agricultural development

Quality seed is a key input for agriculture with an immediate effect on agricultural production and productivity. Integrated Seed Sector Development (ISSD) is an inclusive approach that recognizes and builds upon a diversity of seed systems in the sector. At Centre for Development Innovation (CDI), Wageningen UR and at Royal Tropical Institute (KIT), we use the ISSD approach to guide us in the design and implementation of seed sector interventions that are coherent with farmers' agricultural practices. We do this with the main objective of enhancing farmers' access to quality seed of superior varieties, and contribute to food security and economic development.

A seed sector is composed of different seed systems

To work with the ISSD approach we need to understand and acknowledge the coexistence of the seed sector's multiple seed systems. Seed systems can be characterized on the basis of the domains in which they operate (public, private, informal, formal, mixed); the type of crops involved (food crops, cash crops); the type of varieties used (landrace, improved, exotic, hybrid); the type of seed quality assurance mechanisms operational (informal, QDS, certified); and the seed dissemination mechanisms active (local exchange, agro-input distribution schemes, agrodealers).

Informal, intermediary and formal seed systems

We can generalize from the diversity of seed systems, three clusters, namely: informal seed systems; formal seed systems; and intermediary systems that are on their way towards formalized regulation. Examples of informal seed systems are the farmer-saved and community-based seed systems. Formal seed systems include public and private seed companies, which may operate at national and at international levels. Relief seed and local seed business are systems operating in the intermediary cluster. Every country has its own landscape of informal, intermediary and formal seed systems.

ISSD guiding principles

In working with the ISSD approach, we recognize a number of guiding principles.

1. **Foster pluralism and build programs on diversity of seed systems**

   This is our first guiding principle. In reality, a farmer gains access to seed from different seed systems, e.g. he/she will save his/her own seed of sorghum, buy/exchange bean seed from a local seed business/provider, maize seed from a national seed company, and onion seed from an international seed company. Each seed system has its own values and limitations and requires a unique approach in strengthening it. ISSD targets interventions in specific seed systems.

2. **Work according to the structure of the seed value chain**

   A seed value chain covers the process of activities from management of plant genetic resources, variety development, early generation seed production, and seed multiplication to seed distribution and marketing. We map the operators, service providers and the institutions of the enabling environment in a seed chain, which differs among crops and specific chains, but most significantly between different seed systems. The objective is to design strategies to enhance the efficiency of the seed value chain. The importance of farmers as seed users and drivers of the chain is emphasized.

3. **Promote entrepreneurship and market orientation**

   The value chain approach is linked to this next guiding principle. Entrepreneurship for us means making a business out of seed production and distribution and/or related seed services. Why entrepreneurship? Well, because by its definition it is market oriented and an important incentive for sustainable development. Entrepreneurship and market-orientation can be promoted in both formal and informal seed systems, for private as well as public actors in the seed value chain.

4. **Recognize the relevance of informal seed systems**
   Despite all past public and private efforts in seed sector development, informal seed systems continue to dominate in most developing countries, supplying more than 80% of the total seed used by farmers. Farmers rely on the farmer-saved seed system, in which seed production is integrated in crop production, for many locally important crops since seed is simply not available through other sources. Informal seed systems are key for smallholder farmers in relation to food security and promoting resilience in the face of increasing uncertainty.

5. **Facilitate interactions between informal and formal seed systems**
   This is what we try to accomplish in ISSD. Farmers and formal sector professionals may be linked in various ways through different components of the seed chain. For example in genetic resources management the systems may be linked through supporting Community Biodiversity Management. In variety development, professional breeders and farmers may interact through Participatory Variety Selection. In seed production, farmers' seed management practices may be strengthened through seed extension and linkage to formal research and seed technology development centers. In seed dissemination, informal and formal systems may be linked through the establishment of local seed outlets in farmer communities.

6. **Recognize complementary roles of the public and private sector**
   Different stakeholders in the sector have different objectives and interests in seed sector development, but also complementary roles to play. This also counts for the public and private sector. At a superficial level, two predominant forces can be generalized, namely development-led and market-led seed value chain operation. Following a development agenda on seed and food security, the public sector strongly focuses on the production of quality seed of improved varieties for the main food crops. The private sector strives for efficiency and effectiveness in product development for maximizing profit, and thus has a generally good understanding of what the market demands. It is Government's role to create an enabling environment for quality seed production by combining food security and economic development objectives.

7. **Support enabling and evolving policies for a dynamic sector**
   With ISSD we aim to make seed policies more coherent with the practices and realities of farmers and advocate for enabling and evolving policies that support a dynamic sector. Policy frameworks should support the strengthening of multiple seed systems and not strive single-mindedly for an evolution towards one general presupposed norm or ideal. Appreciating the dynamics of the agricultural sector, these policies need to be able to accommodate changing circumstances.

8. **Promote evidence based seed sector innovation**
   Last but not least, through the ISSD approach we promote evidence based seed sector innovation as a guiding principle. We support research and studies providing evidence for the design and implementation of seed sector interventions. Furthermore, we facilitate stakeholder partnerships to jointly experiment with innovative approaches towards solving key seed sector bottlenecks. Accordingly, knowledge institutes are natural partners in ISSD.

ISSD guiding principles for designing effective interventions

ISSD programs aim to strengthen different seed systems in a country; supporting the development of a vibrant, pluralistic, and market-oriented seed sector. By cultivating an enabling environment for innovation and the coexistence of different seed systems, a wider range of farmers and seed entrepreneurs will benefit. An increased access to quality seed will support food and nutrition security and economic development. We use the guiding principles as a tool to help us in the design of such effective seed sector development programs.

Examples of such programs are ISSD Ethiopia (http://www.issdethiopia.org) and ISSD Uganda (http://apf-uganda.ning.com/group/integrated-seed-sector-development-programme).

Moreover, we support a programme that promotes exchange and learning on ISSD related themes in a range of countries in Africa (http://www.wageningenur.nl/en/show/Integrated-seed-sector-development-in-Africa.htm).

More information

Marja Thijssen, PhD
Centre for Development Innovation, Wageningen UR
P.O. Box 88, 6700 AB Wageningen, The Netherlands
Tel. +31 (0)317 486865
E-mail: marja.thijssen@wur.nl
www.wageningenur.nl/cdi

Willem Heemskerk
Royal Tropical Institute, Development Policy & Practice
P.O. Box 95001, 1090 HA Amsterdam, The Netherlands
Tel. +31 (0)20 568 8335
E-mail: w.heemskerk@kit.nl
www.kit.nl

Please cite as: ISSD. Introduction to Integrated Seed Sector Development and its guiding principles. Centre for Development Innovation Wageningen UR, April 2014, Wageningen.