

# Introduction to Integrated Seed Sector Development



**Integrated Seed Sector Development strives for the development of vibrant, market-oriented and pluralistic seed sectors for enhancing farmers' access to quality seed of superior varieties, thereby contributing to food security and economic development. As an approach, Integrated Seed Sector Development is operationalized by the Centre for Development Innovation of Wageningen UR and the Royal Tropical Institute (KIT), the Netherlands.**

## **The seed accessibility challenge**

Quality seed is a key input for agriculture, with a direct impact on agricultural production and productivity. Integrated Seed Sector Development (ISSD) is an inclusive approach that recognizes and appreciates the complexities of the seed sector. Despite all past public and private efforts in seed sector development, the formal sector fails to adequately address all the complexities of the seed accessibility challenge. The challenge is to ensure farmers have physical access to affordable, quality seed of sufficient quantity at the right time. In addition, the seed must be of a crop and variety well suited to the local production environment and farmers' demands. Throughout the world it is the farmers themselves, and the informal systems in which they participate, that are responsible for the dissemination of the vast majority of seed in circulation.

## **Farmers access seed from various sources**

In reality, farmers obtain seed from a range of different sources. They may, for example, save their own seed of sorghum; procure bean seed from a local seed business/provider; purchase maize seed from a national seed company through a local distributor; and purchase onion seed from a multinational seed company straight off the shelf. Farmers also tend to alter their strategies for securing access to quality seed from time to time. Nevertheless, improved access to quality seed is a prerequisite to increasing crop yield, output and quality, and therefore a key contributor to food security and economic development through agriculture.

## **The seed systems perspective**

ISSD places the issue of access central to its objectives, and addresses the issue from the perspective that multiple dissimilar seed systems coexist in the sector and correspond to the range of seed sources mentioned above. Seed systems can be characterized on the basis of the domains in which

they operate (predominantly public or private, informal or formal, mixed); the functional type of crops incorporated (food crops, cash crops); the varieties used (landraces, improved, exotic, hybrid); their regulating institution for seed quality assurance (informal, quality declared, certified); and the common mechanisms for seed dissemination (local exchange, agro-input distribution schemes, marketing). Seed systems are characteristically different, each presenting their own strengths and limitations, or requirements for improving. The recognition of the relevance of informal seed systems is among key ISSD guiding principles.

## **Making use of seed value chain analysis**

A seed value chain covers the process of activities from the management of plant genetic resources, variety development, early generation seed production, and seed multiplication, to seed distribution and marketing. The importance of farmers as seed users and drivers of the chain should be strongly emphasized, and is another guiding principle of ISSD. For assessing the strengths and weaknesses of, and opportunities and threats to, different seed systems in delivering quality seed to farmers, the mapping of operators, service providers and institutions in governance is highly recommended as a tool for designing strategies to improve the efficiency and performance of these systems. Specific operator-supporter-enabler configurations differ among crops and specific chains, but most significantly between different seed systems.

## **Facilitating interaction between informal and formal seed systems**

This is one of the processes that ISSD aims to facilitate. The concept of ISSD was initially formulated as a way to integrate formal and farmers' seed systems at the technical and institutional levels. For example, in genetic resources management, informal and formal seed systems may be linked through supporting community biodiversity

management. In variety development, professional breeders and farmers may interact through participatory crop improvement. In seed production, farmers' seed management practices may be strengthened through seed extension and linkage to formal research centres. In seed dissemination, informal and formal systems may be linked through the establishment of local seed outlets in farming communities.

### **Integrated development of the seed sector**

Today, the discourse as led by the Centre for Development Innovation, Wageningen UR (CDI) Centre for Development Innovation (CDI) of Wageningen University and Research Centre (Wageningen UR), and the Royal Tropical Institute (KIT) of the Netherlands, describes ISSD as an approach for the integrated development of the seed sector, and not the integration of formal and informal seed systems as the sole objective itself. Development in the seed sector is not a static, linear or singular process; it is a dynamic and complex set of processes influenced by the interests and objectives of multiple stakeholders. No one-size-fits-all approach to development is adequate in addressing the realities and complex demands of the diverse agri-food systems that the seed sector serves. Integration in this context means seeking complementarities in the interests, objectives and activities of stakeholders for the development of a vibrant and pluralistic seed sector.



*Farmer comparing improved millet varieties in Mozambique (credit Willem Heemsker)*

### **Common components to the approach**

In addition to the eight guiding principles of ISSD<sup>1</sup>, several common components to the implementation of the ISSD approach stand out.

#### **1. Local seed business development**

Local seed business development is an approach that strategically links the formal sector and informal seed systems. The component strives to support farmers' organizations in their development as seed enterprises with a local orientation for seed

production and marketing. As such, the focus is on locally adapted varieties of all crops for which there is a local demand for quality seed; this includes both important food and cash crops. The farmers' organizations are supported in building their capacities to produce seed and control quality internally; to manage their business and finances efficiently and effectively; and to operate autonomously in decision-making and technical problem solving. The component achieves this through targeted capacity strengthening and facilitating linkage to input and service providers and marketing agents. For sustainability, the component strongly promotes entrepreneurship and market orientation in partnership with local public sector partners, including government, research, extension and civil society. The relationship with research organizations is particularly important for crop and variety portfolio development and for gaining access to new varieties that are not yet common in the market. These are all important for staying competitive in seed business.

#### **2. Promoting private sector investment**

In countries like Ethiopia and Uganda, ISSD programmes also work in partnership with emerging private seed companies, and promote private sector investment in general. On the one hand, seed companies are supported in strengthening their capacities in seed business management; on the other hand, investors are encouraged and supported to take up seed production and marketing as a business. Linkages with international seed companies are facilitated through trade missions. In Uganda, the programme is currently exploring how to strengthen the horticultural seed sector, bringing on board the expertise and quality products of the renowned Dutch horticultural seed industry. Private sector partnerships are not limited to seed companies only. In Ethiopia, the programme recently engaged in a joint venture in seed value addition with Incotec B.V., a seed technology company with an international focus, based in the Netherlands. The programme is also collaborating on a new initiative with Heineken, sourcing quality seed of improved varieties for the production of malting barley. Heineken recently started investing in Ethiopia as a market for its premium beer products.

#### **3. Partnerships and innovation**

To support the coexistence and strengthening of multiple dissimilar seed systems in the sector, demand-driven support services for diverse seed value chains are needed, in addition to the coordination of common and critical players in these value chains. Partnerships are designed to bring together the operators, supporters and enablers of the value chain. However, partnerships do not always initiate spontaneously. They need brokering and a facilitated process for identifying challenges, common interests and potential solutions. They also need support in sharing the risks and investment in

<sup>1</sup> See ISSD. Introduction to Integrated Seed Sector Development and its guiding principles. Centre for Development Innovation Wageningen UR, April 2014, Wageningen.

experimenting with innovative approaches and in implementing strategic interventions. Examples of topics addressed through partnerships include seed quality assurance, access to early generation seed, access to finance for seed producers, and seed-related education, training and extension. This component of ISSD aims at improving the efficiency and effectiveness of seed value chain coordination and governance through the facilitation of partnerships and innovation processes in topics like those indicated above.

#### **4. Knowledge institutes as facilitators of change**

The first association that people have regarding the work of knowledge institutes relates to science and technology. Whilst science and technology have been fundamental in generating the knowledge and capacities required for innovating products and to some extent also processes, development requires additional dimensions, especially in the context of complex agri-food systems. The demand for multi-, trans- and inter-disciplinary competencies is growing, in part due to limitations in the delivery of knowledge and technologies. Innovating more complex processes, systems and institutions requires a specific set of skills in facilitation. Skills to facilitate multi-stakeholder and innovation processes, and links to relevant knowledge and technologies, are enormous assets to the facilitator. For this reason, and also for generating an evidence basis for intervention, ISSD works in partnerships with research centres, higher education institutes and universities in the execution of research and studies, training and process facilitation.

#### **5. Supporting policy implementation and development**

Having established multi-stakeholder platforms for the joint definition of challenges and design of innovative solutions to these challenges, and having knowledge institutes on board to study and document these processes, experience and evidence is ready to be shared with decision- and policy-makers. The ISSD approach uses action-oriented research and learning, and applies multi-stakeholder process facilitation for supporting policy implementation and development. In addition to using mass media for disseminating video documentaries, newsletters and publications, various fora for sharing experiences and evidences are organized for reaching a range of audiences. In Ethiopia, the ISSD programme and its partners in regional state government have shown that a multi-stakeholder and evidence-based approach can be effective in supporting the scaling of pilots, processes and policies across the country and to higher levels of administration and governance.

#### **Current initiatives and activities**

While the ISSD approach is steadily gaining ground in Africa, it is also being explored in Asia (India). With a proven track record in Ethiopia as an approach to the

direct implementation of interventions at scale, ISSD has likewise been gathering momentum in Uganda following its inception in 2012, and is becoming mainstreamed in governmental and non-governmental organizations.



*A delegation of Ethiopian government officials and private seed companies visiting private seed companies in the Netherlands on a trade mission (credit Gareth Borman)*

#### **National programmes in Ethiopia and Uganda**

In Ethiopia and Uganda the approach is being operationalized in national comprehensive sector programmes that complement the policy objectives of those countries. In February 2009, the Ethiopian Ministry of Agriculture, together with key public, private and civil society stakeholders in the seed sector, endorsed the concept note on ISSD in Ethiopia. In Uganda, the programme works in close collaboration with the National Agricultural Research Organization (NARO). Both the Ugandan Ministry of Agriculture (MAAIF) and NARO have opened up to the ISSD approach and recognize the relevance of informal seed systems. Among other activities and components, over 260 local seed businesses (LSBs) in Ethiopia, and 30 LSBs in Uganda, are currently being supported in collaboration with partners, with the number in Uganda set to rise by an additional 100. In addition, the programmes promote private sector development for improving farmers' access to quality seed. Both programmes approach partnerships and innovation through the facilitation of multi-stakeholder platforms and intervention trajectories. Programme coordination has been successful in supporting policy implementation, with direct contribution to the development of guidelines for the sector. In Ethiopia, the ISSD programme has been a contributor to the amendments of the Ethiopian Seed Proclamation and Plant Breeders' Rights Bill. The ISSD Uganda programme advocated for the inclusion of intermediary (LSBs) and informal seed systems in the seed policy.

#### **National seed sector and seed entrepreneurship assessments in eight African countries**

Even at a wider scale, across the continent, ISSD is influencing seed sector related decision- and policy-making through its platform and assessment-based approach to facilitating action-oriented research and

learning. Through two consecutive phases of the programme on ISSD in Africa (2010-2013), networks in eight countries have been established. As the working modality of the two earlier phases of this programme, local multi-stakeholder task forces are supported in their legitimacy for advising the sector on the results of two consecutive seed sector assessments. National seed sector assessments and seed entrepreneurship assessments bring the seed systems perspective to those countries, having been conducted in consultation with a diverse range of stakeholders, validated in round-table events and presented at national seminars. The findings are published in two corresponding series of briefing notes, which aim to inform policy-makers and practitioners on how to create more coherence between policies and programmes and the practices of farmers and seed entrepreneurs. A synthesis of these results has been endorsed by the African Union Commission (AUC) in two communiqués<sup>2</sup>.

### **Addressing complex challenges to the African seed sector**

Evolving from past phases of the ISSD Africa programme, the Comprehensive Program on ISSD in Africa will be launching its piloting phase in September 2014. The aim of the Comprehensive Program is to work on complex challenges that are of strategic importance to the development of a market-oriented, pluralistic, vibrant, and dynamic seed sector in Africa. The piloting phase of ISSD in Africa will establish an African-embedded structure and network of experts, seed programmes, and associated organizations in the public and private sectors for exploring the relevance and extent of challenges related to four specific themes, which are prioritized for this phase of the programme. The programme will also support the experimentation of innovative solutions to these challenges in collaboration with national partners.

### **Supporting processes in different country contexts**

As a result of their participation in the ISSD Africa assessments, the seed sector stakeholders in Burundi, Ghana and Mozambique have expressed an interest in exploring the possibility of ISSD programmes within their countries. In Burundi and Mozambique, scoping studies have led to proposal development, which is still ongoing. In Ghana, and also Tanzania, intensive scoping studies have been completed for expressing the specific needs for intervention in the seed sector. Similarly, in two states in India (Uttar Pradesh and Odisha) scoping studies are currently being conducted to inform donors and government on the country's specific development needs. In all cases, ISSD advisors from CDI and KIT have been involved in the design and facilitation of scoping studies and concept notes for the development of national ISSD programmes. In

<sup>2</sup> For access to the briefing notes and the two AUC communiqués, visit [ISSDseed.org](http://ISSDseed.org)

Ghana, ISSD advisors, in close collaboration with the ISSD Africa national task force, the Ministry of Food and Agriculture and the Food and Agriculture Organization of the United Nations (FAO), have been coordinating a consultative process for the development of the country's first official seed policy. In addition, in partnership with IFDC and the USAID Feed the Future initiative, ISSD advisors share their experiences in the Agriculture Technology Transfer (ATT) project in northern Ghana. Also in partnership with IFDC, ISSD advisors coordinate the seed-specific component to agri-business cluster development in the Catalist-2 project in the Great Lakes Region.



*Ethiopian investor who specializes in onion seed production (credit Fetien Abay)*

### **Support to ISSD is greatly acknowledged**

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### **For further information**

Please visit our website: [www.ISSDseed.org](http://www.ISSDseed.org)  
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