



Programme on Integrated Seed Sector Development in Ethiopia

2015 Annual report



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Programme on Integrated Seed Sector Development in Ethiopia

2015 Annual report

Wageningen UR, Centre for Development Innovation

Bahir Dar University, Hawassa University, Haramaya University, Mekelle University and Oromia Seed Enterprise

Wageningen UR, Centre for Development
Innovation, April 2016

Report CDI-16-012

Programme on Integrated Seed Sector Development in Ethiopia; 2015 Annual Report. Wageningen University & Research (Wageningen UR) - Centre for Development Innovation, Bahir Dar University, Hawassa University, Haramaya University, Mekelle University and Oromia Seed Enterprise. Report CDI-16-012. Wageningen.

The programme on Integrated Seed Sector Development in Ethiopia aims to strengthen the development of a vibrant, market-oriented and pluralistic seed sector in the country, where quality seed of superior varieties is available and affordable for a larger number of farmers, thereby contributing to food security and economic development in Ethiopia. The programme is a joint effort of Bahir Dar University, Haramaya University, Hawassa University, Mekelle University, Oromia Seed Enterprise, the Ethiopian Seed Association and Centre for Development Innovation of Wageningen UR. Partners include governmental organizations at federal, regional and local level, non-governmental organizations, development organizations, and seed businesses operating at different scales. The programme is funded by the Directorate General for International Cooperation through the Embassy of the Kingdom of the Netherlands in Addis Ababa.

Keywords: Ethiopia, seed sector, entrepreneurship

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Report CDI-16-012



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Contents

Preface	5
List of abbreviations and acronyms	6
Summary	7
1 Introduction	9
1.1 ISSD Ethiopia Programme and its components	9
1.2 The ISSD Ethiopia Programme	10
1.3 Partners in ISSD Ethiopia	10
1.4 Programme management	11
1.5 National Programme Management Unit	11
1.6 Centre for Development Innovation	12
1.7 Programme evaluation	13
2 Programme components	15
2.1 Local seed business development – consolidation	15
2.2 Local seed business development – scaling up	21
2.3 Private seed producers	27
2.4 Seed companies	32
2.5 Partnerships and innovation	34
2.6 Farmer and community based seed systems	37
2.7 Enabling and evolving seed policies	37
2.8 Research and studies	39
2.9 Sharing experiences and lessons learnt	40
2.10 Capacity development	42
2.11 Collaboration with other partners	43
Appendix 1 Regional annual reports 2015	45

Preface

We are pleased to share with you the 2015 annual report of the Programme on Integrated Seed Sector Development in Ethiopia. The programme is a joint effort of Bahir Dar University, Haramaya University, Hawassa University, Mekelle University, Oromia Seed Enterprise, the Ethiopian Seed Association and Centre for Development Innovation of Wageningen UR in the Netherlands.

Enhancing farmers' access to quality seed is key for promoting agricultural growth, food security and economic development. As such seed sector development is high on the agenda of the Ethiopian Government. The Ethiopian Government, but also regional and local governments, as well as other seed sector stakeholders like research institutes, universities, development organizations, seed enterprises and farmer organizations recognize ISSD Ethiopia as a trustworthy partner in the development of the sector. Together we work on increasing the quality, quantity and diversity of seed available to Ethiopian farmers. In addition we work jointly on creating a more enabling environment for the seed sector to flourish.

We greatly acknowledge the contributions of all our partners in their collaboration with our programme. We greatly acknowledge the financial support of the Directorate General for International Cooperation through the Embassy of the Kingdom of the Netherlands in Addis Ababa, which allows the implementation of this strategically important programme.

ISSD Ethiopia PMU and CDI team

List of abbreviations and acronyms

ATA	Agricultural Transformation Agency
BDU	Bahir Dar University
BoA	Bureau of Agriculture
CDI	Wageningen UR, Centre for Development Innovation
CPA	Cooperative Promotion Agency
DA	Development Agents
DGIS	Directorate General for International Cooperation
DSM	Direct Seed Marketing
EGS	Early Generation Seed
EIAR	Ethiopian Institute of Agricultural Research
EKN	Embassy of the Kingdom of the Netherlands
ESE	Ethiopian Seed Enterprise
ESA	Ethiopian Seed Association
FCB	Farmer and Community Based seed systems
HU	Haramaya University
HwU	Hawassa University
ISSD	Integrated Seed Sector Development
KPA	Key Performance Area
KPI	Key Performance Indicator
LSB	Local Seed Business
MoA	Ministry of Agriculture
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoU	Memorandum of Understanding
MSc	Master of Science
MSP	Multi-Stakeholder Processes
MU	Mekelle University
NGO	Non-Government Organization
OSE	Oromia Seed Enterprise
PMU	Programme Management Unit
PBR	Plant Breeder's Rights
R&D	Research and Development
RARI	Regional Agricultural Research Institute
RSE	Regional Seed Enterprise
SNNPR	Southern Nations, Nationalities, and Peoples Region
SPC	Seed Producers' Cooperative
Wageningen UR	Wageningen University & Research
WoA	Woreda office of Agriculture
WoCP	Woreda office of Cooperative Promotion

Summary

The programme on Integrated Seed Sector Development in Ethiopia (ISSD Ethiopia) aims to strengthen the development of a vibrant, market-oriented and pluralistic seed sector in the country, where quality seed of superior varieties is available and affordable to a larger number of farmers. This will contribute to agriculture for food security and economic development in Ethiopia. That is the vision of the ISSD programme in Ethiopia. The programme facilitates targeted interventions in a range of seed systems, and contributes to strengthening seed sector coordination and governance.

In 2015, ISSD Ethiopia consolidated the development of 33 seed producer cooperatives (SPCs) into local seed businesses (LSBs). These LSBs produce and market quality seed of farmer demanded crops and varieties for a local market. These LSBs have been consolidated in their seed production and management capacities. They are producing seed products that are high in demand. Additional attention needs to be given to strengthening LSB capacity in marketing and seed value addition. Both the Agricultural Transformation Agency (ATA) and the Agricultural Growth Programme (AGP) recognize the value of LSBs and their contribution to seed production in Ethiopia, and have been important partners in supporting selected LSBs to strengthen their seed infrastructure. The LSBs supported by ISSD are more profitable in producing seed as a business and more able to negotiate better prices for their seed, and have increased investment in their business. LSBs have continued to demonstrate progress in producing and selling seed outside of government contracts.

Through strategic partnerships with 50 partners, ISSD Ethiopia scaled up the number of LSBs which it supports to 244 in 2015. The aim of these LSBs is to produce seed and provide a more sustainable model for seed production and marketing for both commercial and less commercial crops. Current partners include the Bureaus of Agriculture (BoA), Woreda offices of Agriculture (WoA), public seed enterprises, research institutes, universities and colleges, AGP, farmers unions and NGOs. LSBs are located in high and low potential agro-ecologies. LSBs produce seed of 25 different crops and 117 different varieties. Critically the average LSBs under these partnerships performed above 3 on a scale of 0-4 and the scoring illustrated ample opportunity for improvement in the capacity to add value to seed and in marketing seed. These 50 partners differed in the extent, intensity, and capacity to support SPCs in the development towards autonomous and professional LSBs. This variance is reflected in the annual reports of each of the five ISSD implementing partners (see annexes). The analysis of the performance of partners informs the criteria for partner selection under Benefit-ISSD.

ISSD Ethiopia has the objective to support private small and medium scale seed producers to professionalize and expand their orientations to better meet the seed needs of Ethiopian farmers. Private seed producers continue to work closely as out growers to the public seed enterprises, but also increase the amount of seed which they market directly themselves. In SNNPR and Tigray a selected number of these private investors were able to obtain a certificate of competence and as such became more autonomous in their business. ISSD Ethiopia has been instrumental in helping private seed producers to extend their crop and variety portfolio, find new markets, and become more business oriented and customers focused seed producers. A number of them applied for membership to the Ethiopian Seed Association.

Ethiopia has an emerging private seed sector and the objective of ISSD Ethiopia is to facilitate and promote the development of this sector. In 2015 ISSD Ethiopia continued to support the Ethiopian Seed Association (ESA) to become a viable and professional body capable of representing the interests of the commercial seed producers in Ethiopia. To this end, ESA increased its membership to 31 members, strengthened the management and planning of the ESA secretariat, strengthened the lobbying capacity of ESA, developed guidelines for internal seed quality testing, developed a web site which was launched in April 2015, and published a membership directory of all ESA members.

Direct seed marketing has incentivized companies to strengthen their competitive position in the seed market and ultimately encouraged them to invest more in seed quality. ISSD Ethiopia continued to work with Dutch companies to explore opportunities for investment and for product development. The project supported the Seed2Feed consortium led by INCOTEC in the development of a proposal under the FDOV facility. They worked with INCOTEC on seed coating and with Rhea Composites on the development of a row planter for teff and sesame seeds.

Under the partnerships and innovation component of ISSD Ethiopia, the programme had developed functioning regional seed sector platforms steered by core groups which represent major seed sector stakeholders of the region. These core groups facilitated successful studies and pilots which created an evidence base for scaling innovations in the seed sector.

In 2015, as in past years, ISSD Ethiopia has demonstrated a capacity to put important issues on the policy agenda at both regional and federal level. ISSD has also continued to demonstrate an ability to effectively manage and support strategically important partnerships with the regional BoAs, MoA and ATA which foster a culture of collaboration and learning.

Through these partnerships and with the guidance and technical support of ISSD staff in the regions and the Program Management Unit in Addis, ISSD Ethiopia has made profound national seed policy contributions as reflected by the Seed Proclamation, the Plant Breeders Rights Proclamation, and the Seed Systems Development Strategy. In 2015, ISSD Ethiopia regional units continued to provide consistent and relevant inputs to operationalizing direct seed marketing, improving the effectiveness of early generation seed (EGS) production, and establishing seed regulatory agencies.

1 Introduction

1.1 ISSD Ethiopia Programme and its components

The government of Ethiopia prioritizes agricultural development as key to accelerating growth, overcoming poverty and enhancing food security. Increased agricultural productivity is vital for stimulating growth in other parts of the economy. Improving farmers' access to quality seed of preferred varieties is crucial for increasing agricultural productivity and production, thereby contributing to food security and economic development in the country.

Integrated seed sector development (ISSD) is an inclusive approach that recognizes and builds upon a diversity of seed systems. ISSD recognizes the relevance of informal and formal seed systems, as well as the complementary roles of the private and public sectors. The ISSD approach promotes entrepreneurship and market orientation, and facilitates the development and implementation of enabling and evolving policies, for establishing a dynamic seed sector. Building upon a diversity of seed systems, programmes guided by the ISSD approach foster pluralism in the interests of food and nutritional security, economic development, entrepreneurship and the conservation of genetic resources.¹ The guiding principles of ISSD, listed below in Box 1, help practitioners to deal with the complexities of the seed sector in the design and implementation of seed sector interventions.

Box 1. ISSD guiding principles²

1. Foster pluralism and build programmes upon a 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 sectors
7. Support enabling and evolving policies for a dynamic sector
8. Promote evidence-based seed sector innovation

The African Union Commission has endorsed the ISSD approach in support of its African Seed and Biotechnology Programme for seed sector development in Africa³. In February 2009, the Ethiopian Ministry of Agriculture, together with key public, private and civil society stakeholders in the seed sector, endorsed a concept note on integrated seed sector development in Ethiopia, thereby recognizing the ISSD approach for strengthening the Ethiopian seed sector through interventions in different seed systems.

¹ Louwaars, N.P. and De Boef W.S. 2012. Integrated Seed Sector Development in Africa: a conceptual framework for creating coherence between practices, programs, and policies. *Journal of Crop Improvement*, 26: 39–59.

² ISSD 2013: Introduction to Integrated Seed Sector Development and its guiding principles. Integrated Seed Sector Development in Africa, Centre for Development Innovation, Wageningen UR, Wageningen, the Netherlands. Available at <http://www.wageningenur.nl/en/show/Integrated-seed-sector-development-in-Africa.htm>

³ Find two AUC Communiqués on Integrated Seed Sector Development at <http://www.wageningenur.nl/en/show/Integrated-seed-sector-development-in-Africa.htm>

1.2 The ISSD Ethiopia Programme

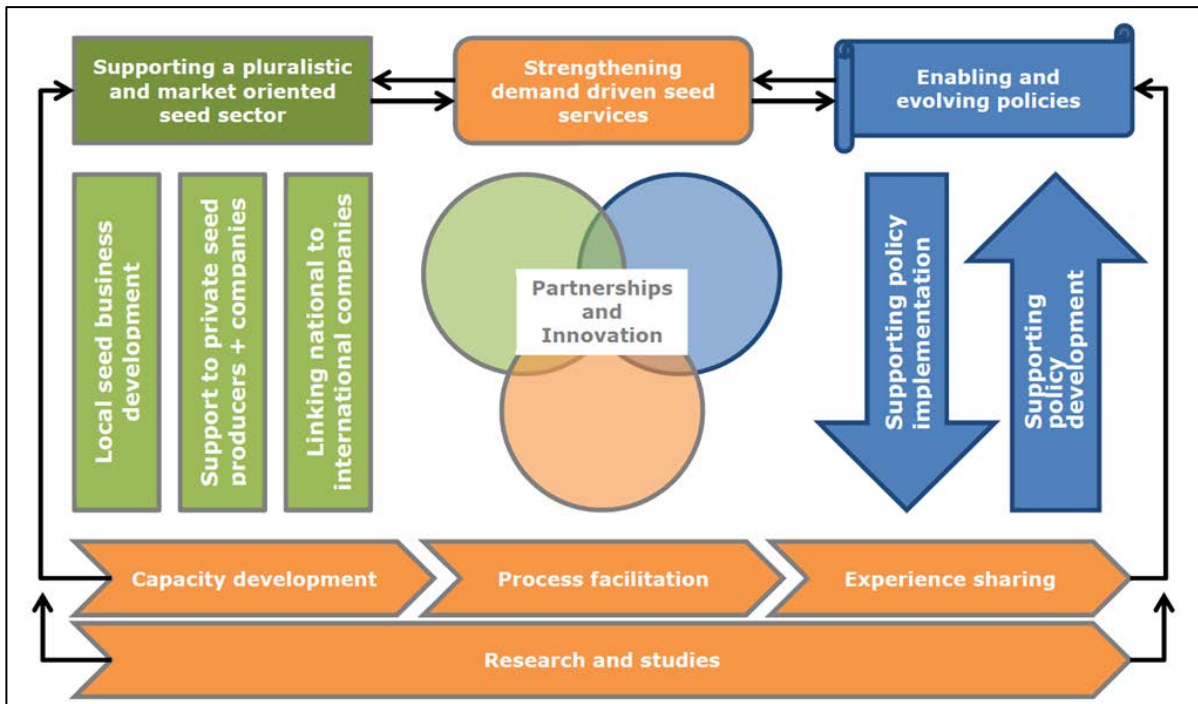


Figure 1 Components of ISSD Ethiopia.

The programme on Integrated Seed Sector Development in Ethiopia aims to strengthen the development of a vibrant, market-oriented and pluralistic seed sector in the country, where quality seed of superior varieties is available and affordable for a larger number of farmers, thereby contributing to food security and economic development in Ethiopia. This is the vision of the ISSD programme in Ethiopia.

The different components of the programme are illustrated in Figure 1. ISSD Ethiopia supports the strengthening of seed producers in different seed systems (*left side of the figure*), including local seed businesses, private seed producers and national seed companies. It also tries to establish linkages with international companies with an interest in seed in Ethiopia. Working with a wide range of stakeholders, regional seed platforms facilitate innovation and learning for supporting seed sector coordination and governance (*centre of the figure*). Experiences of the programme are fed into policy development; but the programme also supports policy implementation (*right side of the figure*). The programme strongly incorporates research, the sharing of experiences, and learning into its different programme components, thereby taking an evidence-based approach to intervention and capacity building (*bottom of the figure*).

1.3 Partners in ISSD Ethiopia

ISSD Ethiopia is implemented in Amhara, Oromia, the Southern Nations, Nationalities, and Peoples Region (SNNPR), and Tigray. It is coordinated by a consortium of partners, comprising Bahir Dar University (BDU), Haramaya University (HU), Hawassa University (HwU), Mekelle University (MU), Oromia Seed Enterprise (OSE), and the Ethiopian Seed Association (ESA), in Ethiopia; and the Centre for Development Innovation (CDI) of Wageningen University and Research centre (Wageningen UR), in The Netherlands. Ethiopian universities and OSE host regional ISSD Units; HU also hosts the Programme Management Unit (PMU), which is located in Addis Ababa. ESA specifically works on strengthening the private seed sector. ISSD Ethiopia is supported by the Directorate General for International Cooperation (DGIS) of The Netherlands, through the Embassy of the Kingdom of The Netherlands (EKN) in Addis Ababa. Find in the Table 1 below the contact details of the Ethiopian and Dutch coordinating partners.

National ISSD Ethiopia partners include organizations within federal and regional state government, including the Federal Ministry of Agriculture (MoA), the Ethiopian Agricultural Transformation Agency (ATA), the regional state Bureaus of Agriculture (BoA), offices of the Cooperative Promotion Agency (CPA), and Research Institutes. The programme also collaborates with non-governmental organizations (NGOs), small and medium scale seed enterprises as well as Seed Producer Cooperatives (SPCs) and their local partners.

Table 1
Coordinating partners of ISSD Ethiopia

Organization	Contact person	Position	Contact details
ISSD PMU	Dr. Amsalu Ayana Aga	ISSD Ethiopia Manager	aga.amsaluayana@gmail.com
ISSD PMU	Mohammed Hassena	ISSD Ethiopia Deputy Manager	mohammed.hassenabeko@wur.nl
BDU	Dr Dereje Ayalew	Amhara regional coordinator	derejeayal@yahoo.com
HU	Dr Nigussie Dechassa	Oromia East regional coordinator	nigussiedachassa@gmail.com
HwU	Dr Hussein Mohammed	SNNPR regional coordinator	aaminaa68@yahoo.com
MU	Dr Fetien Abay	Tigray regional coordinator	fetien.abay@yahoo.com
OSE	Mr Kedir Nefo	Oromia South and West coordinator	kedirnefob@yahoo.com
ESA	Mr Melaku Admassu	Chairperson ESA Board	melaku.admassu@pioneer.com
CDI	Dr Marja Thijssen	Wageningen UR project coordinator	marja.thijssen@wur.nl
CDI	Mr Gareth Borman	Wageningen UR assistant coordinator	gareth.borman@wur.nl

1.4 Programme management

The programme follows a learning-oriented monitoring and evaluation approach to strategically guide the programme towards its objectives. In the strategic guidance, the programme works at different levels with the following units: national executive coordination committee; National PMU; CDI; and Regional ISSD units.

National executive coordination committee

The programme governing and decision making body is the executive committee, which consists of representatives of the six Ethiopian coordinating partners, i.e. BDU, HU, HwU, MU, OSE, ESA; Wageningen UR; and the ISSD Ethiopia Programme director. The executive coordination committee meets three to four times per year to discuss issues that need joint decision in relation to programme coordination and planning. The contracts between CDI and the coordinating organizations form the basis for cooperation; notes of the executive committee meetings are considered annexes to these contracts.

1.5 National Programme Management Unit

The PMU in Addis Ababa hosts the ISSD Ethiopia Programme director, the National partnerships coordinator, the National knowledge sharing and capacity development facilitator, a Programme management assistant, a Finance officer, and a Driver. The PMU supports the regional ISSD units in the implementation of the programme, and is responsible for activities at national level. The PMU is hosted by HU.

Table 2

ISSD Ethiopia Programme Management Unit

Name	Position	Contact details
Dr Amsalu Ayana	ISSD Ethiopia Programme director	aga.amsaluayana@gmail.com
Mohammed Hassena	National partnerships coordinator	mohammed.hassenabeko@wur.nl
Temesgen Woyessa	National knowledge sharing and capacity building facilitator	wtemesgen2005@gmail.com
Edeo Mude	Programme management assistant and private sector support	Second quarter of 2015 only
Meseret Asfaw Haile	Finance officer	meseret170@gmail.com
Tibebu Muluneh	Driver	

In 2015 PMU suffered from understaffing since Mohammed Hassena combined this position with PhD studies within the ISSD Ethiopia programme; Edeo Mude replaced the former programme management assistant, but left the programme in June; and Amsalu Ayana became ill in the fourth quarter of 2015.

1.6 Centre for Development Innovation

The CDI coordinator works closely with the PMU Programme director in the coordination of ISSD Ethiopia. Together with PMU, CDI designs the programme process. A team of CDI staff is associated to the programme providing different types of expertise. These staff organize trainings, support workshops and organize coaching sessions for the regional ISSD units.

Table 3

CDI staff associated to ISSD Ethiopia 2015

Name	Position in programme	Expertise/support area	Contact details
Marja Thijssen	Wageningen UR project coordinator through December 2015	Plant genetic resources and seed systems; general coordination and coaching	marja.thijssen@wur.nl
Gareth Borman	Wageningen UR assistant coordinator	LSBs and partnerships & innovation	gareth.borman@wur.nl
Mirjam Schaap	Senior advisor	Data and knowledge management	mirjam.schaap@wur.nl
Dirk Melgers	Junior advisor	Data management	dirk.melgers@wur.nl
Karen Verhoosel	Advisor	MSP and M&E	karen.verhoosel@wur.nl
Simone van Vugt	Senior advisor	Planning next phase	simone.vanvugt@wur.nl
Rutger Persson	Associate consultant	Private sector development	svalofconsulting@gmail.com
Joep van den Broek	Associate consultant	Collaboration with Dutch private sector	joep.vandenbroek@wur.nl
Faron van der Geugten	Finance & business advisor	Financial management	faron.vandergeugten@wur.nl
Rene Mulder	Finance officer	Financial management	rene.mulder@wur.nl
Cynthia Vitalis	Programme support	General programme support	cynthia.vitalis@wur.nl

Regional ISSD units

The regional scientific coordinators are part time employed and have the responsibility to guide the regional units in the implementation of programme activities; in this task they are assisted by the Programme assistants. In addition each unit has the following positions: Institutional advisor, LSB seed expert, LSB farmer organization expert, LSB agribusiness expert, Partnership facilitator, Private sector expert, Knowledge management and capacity development expert, Finance officer, and two

Drivers. The ISSD programme and its components is structured the same in the five regions. Common Terms of Reference guide the programme staff in their work. However, the contexts of the regions in relation to agricultural production and seed systems vary significantly. The PMU directly supports the regional units in their activities.

Financial management

Centre for Development Innovation has final responsibility for the programme budget. The budget related to Wageningen UR staff (staff time, travel and staying costs) as well as specific general costs (international training, documentaries, publications, etc.) are managed directly by CDI. CDI elaborated contracts with the regional coordinating partners (BDU, HU, HwU, MU and OSE) to manage regional programme activities. An additional contract was elaborated with HU for the PMU in Addis Ababa. Contracts cover coordination costs for all programme components, human resources, and investment and running costs. Budgets were made available to the partners in two advance payments for half-year periods and contracts include guidelines for financial reporting. Each unit has dedicated a financial officer to the project. CDI has developed and provided a set of formats for financial administration, and has provided training to the finance officers and project management facilitators in managing the financial administration system. Financial and auditing reports of 2015 are available as separate reports.

1.7 Programme evaluation

In 2015 the ISSD Ethiopia programme has been evaluated to assess the efficiency, effectiveness, relevance and sustainability of the different project components; and to assess the effectiveness of the institutional implementation framework through CDI, PMU and regional ISSD units.

A team of international and Ethiopian consultants, i.e. Ben Haagsma, Bezabih Emana, Belay Simani, Legesse Dadi visited Addis and the five project regions. The team engaged with the donor, with ISSD staff and with Ethiopian key seed sector stakeholders in workshops and in the field between 16 and 27 March. They debriefed the ISSD Ethiopia executive coordination and the donor on 27 March. After that ISSD Ethiopia executive coordination committee reflected on the evaluation on 19 May and shared the observations with the donor. Find below the strong and critical points from the evaluation for the relevance and effectiveness of ISSD Ethiopia, and for the institutional set-up.

The main strong points in relation to the relevance of ISSD Ethiopia indicated in the evaluation are:

- Its components support the development of a pluralistic seed sector; all components are relevant;
- It is consistent with national seed sector and agricultural policies;
- It recognizes the importance of the private sector (LSBs, seed producers, seed companies);
- It shortens the public seed production and distribution chain (direct seed marketing);
- Its software approach induces systemic change and business mind-set, and compliments hardware approach of other projects;
- It supports increased productivity, food security and economic development.

The main critical points in relation to the relevance of ISSD Ethiopia indicated in the evaluation are:

- No attention to informal seed systems;
- With exclusive focus on seed producers, lack of integrated seed value chain approach;
- LSBs insufficiently linked to other value chains and businesses;
- Insufficient recognition of importance of research institutes as first actor in the value chain;
- Mismatch between allocation of resources to different components and envisaged results;
- Cross cutting issues like gender not adequately considered.

The main strong points in relation to the effectiveness of ISSD Ethiopia indicated in the evaluation are:

- The availability of affordable quality seed has increased;
- Farmers recognize greatly, the importance of quality seed for increasing productivity;
- ISSD Ethiopia has started moving the seed sector, involving key stakeholders at all levels;
- The bottom up approach has generated an evidence basis for influencing decision makers.

The main critical points in relation to the relevance of ISSD Ethiopia indicated in the evaluation are:

- Too much emphasis on pre-determined targets and too little on quality of performance;
- Concerns to reach the maximum number of farmers as quickly as possible may deteriorate quality of effectiveness;
- Specific dimensions of equality in access to quality seed, such as gender and wealth, are not made explicit and are not addressed.

The main strong points in relation to the institutional set-up of ISSD Ethiopia indicated in the evaluation are:

- Universities as hosting organizations being not directly involved in the SVC and accepted by SVC actors in the neutral role of facilitator;
- Project strengthens role and mandate of universities in: research for knowledge generation; becoming more functional and practical in outreach;
- Essential role of PMU in implementation, and PMU support to regions upon their request;
- Direct support of CDI to ISSD regional teams.

The main critical points in relation to the institutional set-up of ISSD Ethiopia indicated in the evaluation are:

- PMU lacks power for playing its role in influencing policy;
- PMU lacks power in project coordination, management and planning, and functions merely as a liaison office;
- Direct linkage between universities and CDI, without involvement of PMU;
- University procurement rules may delay implementation;
- Regional teams are too independent; they do not report to PMU but to CDI; this hinders sustainability.

In addition the team evaluated each and every project component. All details can be found in the evaluation report. We have high appreciation for evaluation team for capturing all different dimensions of the ISSD Ethiopia programme within the short time available for the evaluation. The evaluation has been very helpful in supporting the formulation of the next phase of ISSD Ethiopia, in what to maintain in the new project and where to adapt. Some of the recommendations have been immediately implemented in the third quarter of 2015, like strengthening the role of the PMU. Other recommendations have been used in the formulation of the next phase of ISSD Ethiopia, like development of a new component on informal seed systems.

2 Programme components

This chapter highlights the outputs and outcomes of the ISSD Ethiopia programme in 2015, organized according to the components as outlined in the approved project proposal. For each component we give: (1) introduction and overview of the component; (2) the main activities and outputs; (3) the analysis of the main activities; (4) key outcomes of the main activities (5) lessons learned and the way forward. More detailed information on each component from a regional perspective can be found in the regional annual reports (see annexes)

The different ISSD Ethiopia programme components are:

1. Local seed business development – consolidation;
2. Local seed business development – scaling up;
3. Private small and medium scale seed producers;
4. Seed companies;
5. Partnerships and innovation;
6. Seed policies;
7. Research and studies;
8. Sharing experiences and lessons learnt;
9. Capacity development.

2.1 Local seed business development – consolidation

Introduction

In 2015 ISSD Ethiopia continued to work with the 33 LSBs it has been supporting since 2011. The aim is to help Seed Producer Cooperatives (SPCs) to become more autonomous, business oriented, consumer focused, and professional. A good performing LSB should be technically well-equipped, market oriented, professionally organized, and strategically linked to those stakeholders that make the organization self-reliant in its control over its seed business. Such LSBs, consolidated in their development, are examples for the scaling up of the LSB model with other partners. Please note that in this section we use the terms SPC and LSB interchangeably.

Table 4

Overview of Consolidated LSBs by ISSD Ethiopia partner in 2015

No LSB	Region	Number of farmers (% women)	Total Acreage for seed production (ha)	Seed crops in order of importance
4	Oromia East	452 (22%)	90	Potato, maize, wheat, groundnut
8	Amhara	1,838 (9%)	712	Wheat, teff, maize, malt barley, potato, bean, onion
10	Oromia South and West	903 (12%)	914.1	Wheat, lentil, malt barley, barley, potato, teff
5	SNNP	n/a	350	Wheat, haricot bean, faba bean, teff
6	Tigray	275 (15%)	170	Wheat, barley, maize, rice, teff

Key performance areas

SPCs are strengthened in four key performance areas (KPIs) to become sustainable local businesses. They are supported to become (1) technically well equipped, (2) market oriented, (3) professionally organized, and (4) strategically linked. Key performance indicators (KPIs) have been developed to measure progress of the LSBs over the years for each KPI; see Table 5. ISSD Ethiopia uses the

framework of KPAs and KPIs to design its interventions, and steer the LSBs towards sustainable local businesses.

Table 5

Key performance areas and key performance indicators for successful LSBs

Key performance area		Key performance indicator	
1	Technically well equipped	1	LSB has the capacity required to produce quality seed products
		2	LSB has the capacity required to add value to its seed products
2	Market oriented	3	LSB has the capacity and strategy required for marketing its products
		4	LSB products are in demand
3	Professionally organized	5	LSB is well managed in general
		6	LSB is financially well managed
		7	LSB has the required infrastructure
4	Strategically linked	8	LSB is linked to all required input and service providers

Main activities

Across all five regions of ISSD Ethiopia, the LSBs were assessed using a qualitative scale which is applied to eight performance indicators which are considered to be indicative of LSB's performance. These eight indicators cover four performance areas: level of technically equipment and capacity; market orientation; professional organization; and strategic linkages and integration. Consolidated LSBs demonstrated clear improvement in KPI scores for six of eight indicators in 2015 (see Figure 2).

Please refer to the regional annual reports (see annexes) for a more detailed analysis of LSB activities and performance as every region has a unique focus of activity based upon the context and needs of the LSBs. This means that not all activities have been implemented in each region.

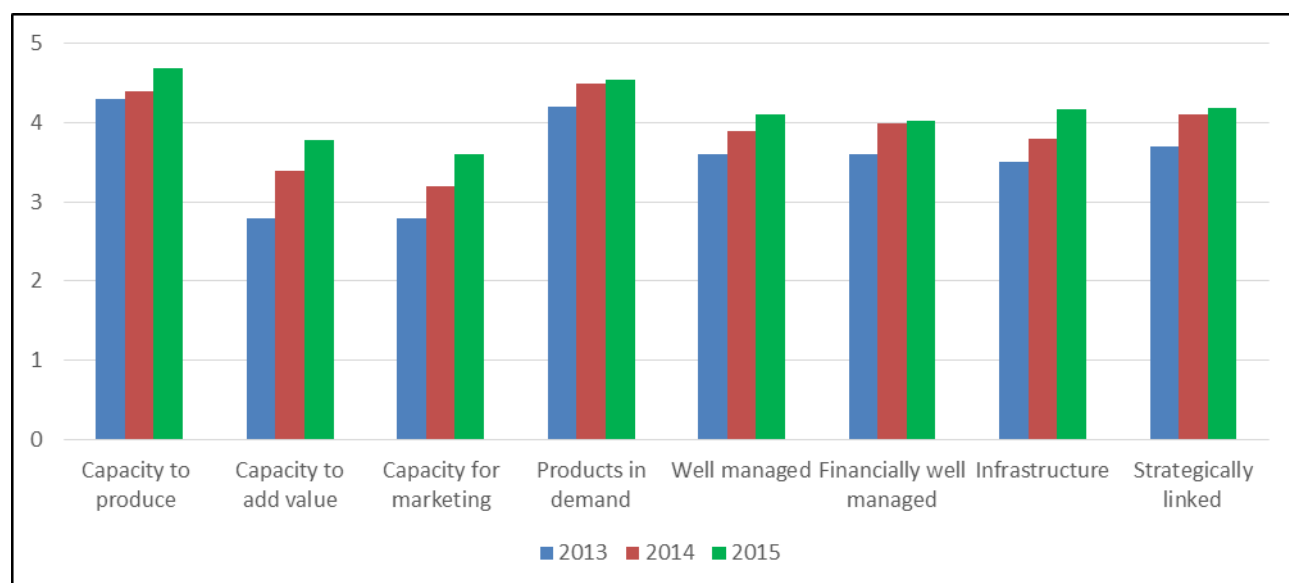


Figure 2 KPI Scores for Consolidated SPC's in ISSD Ethiopia: 2013, 2014, and 2015.

Supporting LSBs to become technically well equipped

Type of activities:

- Training of SPC members and their partners on quality seed production, post-harvest management and seed value addition;
- Technical coaching of LSB members on quality seed production at field level;
- Peer to peer exchange of LSBs in quality seed production, within and outside the region, using the best performing LSBs as an example;
- Supporting LSBs, or model farmers of LSBs, to produce basic seed themselves, under close supervision of experts (WoA, research);
- Development of seed value addition manual for LSBs in local language;
- Facilitation of external field inspection.

Outputs:

- For 2015, the average score across LSBs for capacity to produce seed is 4.7 which is large increase compared with the 2014 score of 4.4 and the 2013 score of 4.3;
- For 2015, the average score across LSB's for capacity to add value to seed is 3.8 which is a significant increase with the 2014 score of 3.4 and in 2013 a score of 2.8.

Supporting LSBs to become market-oriented

Type of activities:

- Identify crops and varieties to produce as seed demanded based on discussions within target sales zone with key actors, establish crop and variety demonstration trials, introduce new germplasm at LSB premises;
- Promotion of seed through the farmers' field days, the organization of seed fairs, announcements at markets, and communication through radio and mini-media;
- Seed profitability studies to advise LSBs on their seed crop portfolio;
- Improvement and update of business plans, making use of the business model canvas tool;
- Training of SPC executive committee members and partners like DAs in seed marketing;
- Peer to peer exchange of LSBs in marketing, using the best performing LSBs as an example;
- Together with LSBs explore new local seed markets as well as opportunities for generating other income streams through for example input marketing.

Outputs:

- For 2015, the average score across LSB's for capacity for marketing is 3.6 which represent a large improvement relative to the 2014 scores of 3.2 and a 2.8 score in 2013. Performance is highly variable among regions. This area needs further focus under Benefit-ISSD;
- For 2015, the average score across LSB's for capacity to produce *products in demand* is 4.5 which is the same as the 2014 score of 4.5 and compares well with the 2013 score of 4.2.

Supporting LSBs to become professionally organized

Type of activities:

- Training of SPC executive committee members and partners on cooperative governance, seed business management, and financial management;
- Working on SPCs' internal bylaw;
- Support SPCs to get a seed production and marketing competence license;
- Peer to peer exchange of LSBs in seed business management using the best performing LSBs as examples; encourage SPCs to hire professional managers;
- Study, awareness raising and training on gender and SPCs;
- Feasibility study and workshop on the establishment of seed unions.

Outputs:

- For 2015, the average score across LSB's for general management is 4.1 which represents a clear improvement to the 2014 score of 3.9 and the 2013 score of 3.6;
- For 2015, the average score across LSB's for financial management was 4.0 which compares well with the 2014 score LSBs also score of 4.0 and the 2013 score of 3.6;

-
- For 2015, the average score across LSB's for infrastructure is 4.2 which is an improvement to the 2014 score of 3.8 and 2013 score of 3.5.

Supporting LSBs to become strategically linked

Activities:

- Strengthening seed core groups at woreda levels, uniting all partners in supporting the SPC towards LSB development;
- Linking LSBs to research institutes and universities for access to new varieties and the provision of basic seed;
- Linking LSBs to seed buyers;
- Linking LSBs to development partners like ATA;
- Organization of field days with participation of BoA and research institutes;
- Exposure visits to research and technology centres;
- Support LSBs in getting access to credit through the organization of finance fairs and setting up meetings linking LSBs with credit providers.

Outputs:

- For 2015, the average score across LSB's for strategic linkage is 4.2 which is a slight improvement to the 2014 score of 4.1.

Analysis of main activities

Consolidated LSBs in 2015 showed in improvement in six performance areas, as measured by KPI changes, with clear gains registered in capacity to produce, capacity to market, and capacity to add value.

Co-financing in physical infrastructure is an important criteria to rationalize where to make investments, to increase ownership among LSB members, and to reduce the chance of making too much investment into physical assets and over capitalizing seed businesses, i.e. – underutilization of equipment and infrastructure.

Value addition only makes sense if the effort is paid back through an increased seed price, which is not the case for raw seed produced on contract for the government. This area needs continued focus under Benefit-ISSD.

LSBs score low where they are accustomed to contractual seed growing and high where there is more direct seed marketing. Generally LSBs do not face problems selling their seed when the seed crops are carefully selected and the quality of the seed is good.

LSB performance has increased dramatically due to improved staffing such as more professional management, hiring of accountants and cashiers. In addition members contribute through service charge payment. Most critically, business thinking has now been increasingly internalized.

The establishment of seed core groups has been instrumental in facilitating and strengthening improved linkages for LSB which is illustrated by LSBs getting more regular support from WoA and WoCP, and increasingly support from ATA. Core groups require more guidance and support as there is a lot of turnover in regards to membership.

SPC's in all regions continue to indicate challenges in acquiring basic seed and their appreciation to ISSD for facilitating linkages with public seed enterprises and public research centres. Most SPC are indeed able to acquire basic seed but there is a great opportunity to improve the extent to which SPC's are well informed seed consumers making informed choices about specific crops and varieties and then acquiring basic seed at their discretion. The solution lies in part in the continued efforts to improve early generation seed but also in improving the knowledge of SPC's as informed seed consumers. This can be done by strengthening linkages with research and with seed buyers (farmers, institutional buyers) so that the most market demanded crops and varieties are grown by SPC's.

Key outcomes of main activities

Some of the key metrics associated with the successful performance of consolidating local seed businesses include assessing the price at which they sell seed relative to grain prices, investments which LSBs make into their seed business, and the changes in their seed sales channels. In 2015, ISSD Ethiopia's consolidated LSBs demonstrated very good results in all these performance areas.

LSBs: seed sales and prices

Seed price related to grain price is a good indicator for success of the LSBs in terms of getting a price differential and adding value. The average sales price of LSB seed is has consistently been much higher than grain prices, see Table 6, which illustrates the business case for LSBs and the LSB capacity at value addition.

Table 6

Seed price versus grain price for a number of indicator crops

Crop	Maximum seed price gotten by LSBs*	Minimum seed price gotten by LSBs	Average seed price gotten by LSBs	Grain price at harvest time	Ratio seed price/grain price
Barley	1,014	806	880	676	1.30
Chickpea	1,434	820	1,035	788	1.31
Common bean	1,445	900	1,186	633	1.87
Sorghum	875	650	689	513	1.34
Teff	2,210	1,115	1,640	1,230	1.33
Wheat	1,165	738	856	695	1.23
Potato	915	328	607	326	1.86

*Note: all prices are in ETB/quintal

Investment of LSB in its business

Profit re-investment by LSBs in their seed business is considered a measure of success. The target for LSB's is 10% of profit reinvested; see M&E framework indicator 2.3. Profit re-investment varies per region and SPC.

Amhara reported a more than 70% increase in investment by SPCs from 2014 (159,145 birr) to 2015 (278,154 birr).

Tigray reported that its SPCs invest 15-20% of their sales back into the SPC and that this has been encouraged by the increased trend of development partners supporting infrastructure investment and encouraging members of recipient SPCs to cost share.

The Oromia South and West unit reported that SPCs invested 5-18% of 2015 net profits with six SPCs doubling their reinvestment from 5-10%.

Different sales models for LSBs

Diversifying sales channels by selling to different customers (WoA, NGOs, directly to farmers) can help seed business become more sustainable, diversify revenue streams, and be more profitable. During the course of ISSD, many SPCs have evolved from being reliant on contractual seed growing of one crop for a public seed enterprise to selling to a multitude of institutional seed buyers (WoA, NGO's) and increasing direct seed sales to farmers. The target for LSBs is to 50% of seed sales made directly to farmers; see M&E framework indicator 2.4.

For 2015, sales figures cannot be completed for all regions yet as not all crops have been threshed and sold. However, data from 2014 illustrates strong gains over 2013 (see Figure 3). For example, the volume of seed sold directly to farmers increased by nearly 20% from 2013 (31%) to 2014 (37%) in Oromia, SNNPR, and Tigray. Similar positive trends were reported for contract purchases which decreased by 25% cumulatively across these same regions from 2013 (37.6%) to 2014 (28%). In these same regions, volumes of seed sold to institutional buyers increased from 31.6% in 2013 to 35% in 2014. These trends point to significant success in selling seed directly to farmers. Preliminary indications from these same partners suggest that the 40% threshold for seed sold directly to farmers will be surpassed in 2015.

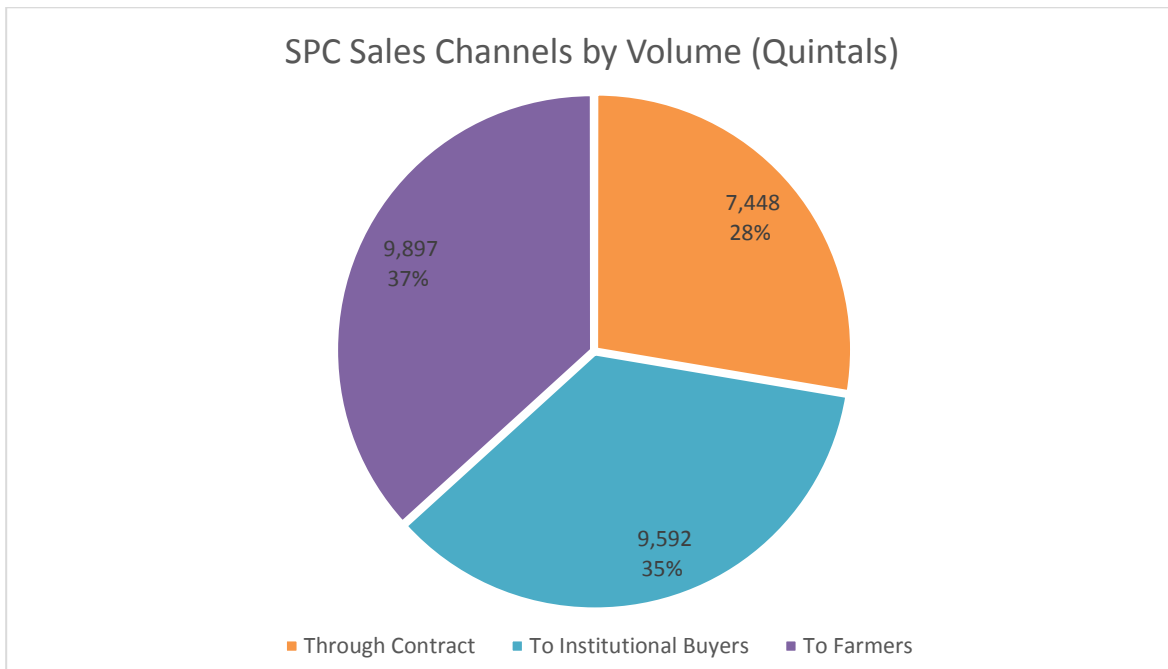


Figure 3 Marketing channels by Volume of Seed Sold in Amhara, Oromia, SNNPR, and Tigray (based on 2014 data)

Lessons learned and the way forward

Business training and planning for LSBs is essential so that they are capable of making sound strategic decisions related to growth areas, where to invest, and how to grow their portfolio. LSBs in the consolidation programme developed business plans, but mostly as a one-time exercise; business plans were generally neither updated, nor used as a strategic tool to guide business development. This needs attention in the next phase of Benefit-ISSD.

A certificate of competence (CoC) for an SPC is an important threshold to indicate its competence as a seed producer and capacity to professionalize its business. A CoC can also be used to differentiate the LSB and potentially extract a higher unit price on seed; it allows LSBs to market the seed by themselves. Obtaining a CoC is an important step for the SPC in its development towards an autonomous and sustainable business. A CoC also guarantees access to basic seed in some of the regions, which is still a major bottleneck in the seed value chain.

Woreda seed core groups are uniting SPCs and local seed sector stakeholders like the woreda office of administration, WoA, WoCP and cooperative unions, but also NGOs and in some cases MFIs. These groups discuss solutions to challenges experienced by individual SPCs, and coordinate services provided to the SPCs in a way that professionalizes their business. These locally embedded structures are important for backstopping, and for creating independence of the SPCs from ISSD Ethiopia.

LSBs in the consolidation programme score on average good to excellent for six of the eight key performance indicators, and are considered to be sustainable in these areas. Data on 28 SPCs show that 25 of them are profitable, which is also an important indicator for sustainability in business. Most of them still lag behind in the key performance areas of Capacity to add value to the seed, and Capacity for marketing; these two areas need specific focus in the next phase of Benefit-ISSD.

More successful SPC's which have received multiple years of support and register high grades in key performance areas should no longer be a focus for direct LSB support in Benefit-ISSD. These high scoring LSB should be 'graduated' to receive lower levels of support and guidance out of recognition of their success and sustainability.

2.2 Local seed business development – scaling up

Introduction

Through strategic partnerships with universities, public sector research, and government and non-governmental seed programs the ISSD programme is able to leverage a diversity of organizations to scale up the number of LSBs supported by ISSD. Instead of working directly with LSBs, LSB experts provide indirect support through facilitating exposure visits and trainings, coaching partner staff, and linking partner supported LSBs into the ISSD network. The aim is to increase the scale at which ISSD promotes sustainable and market-oriented approaches to seed production and marketing of locally preferred crops and varieties.

Partners with an interest in the LSB approach get an extensive introduction to ISSD and sign an MoU with ISSD Ethiopia which specifies roles and responsibilities and includes a co-funding target of 75%. Partners are expected to use the LSB key performance indicators to assess performance of LSBs they work with. The 33 consolidated LSBs serve as references to partners and 'scaled-up' LSBs. This target for this component was to support 170-340 LSB to achieve a significant share of local seed markets where they operate, while embracing commercial seed production approaches, and to work with at least 20 partners.

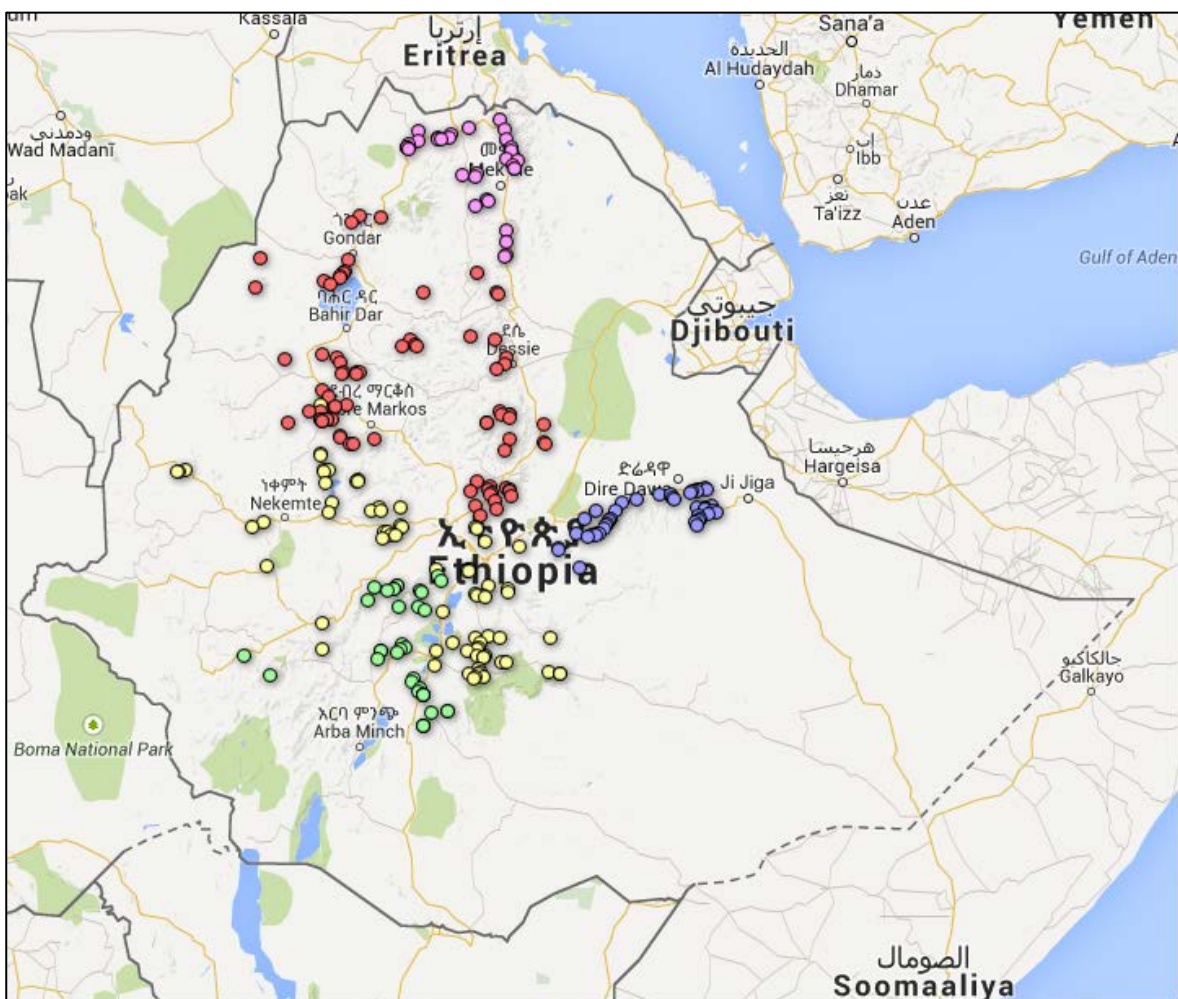


Figure 4 Location of all LSBs as supported directly (consolidation) or indirectly (scaling up) through ISSD Ethiopia in Tigray (pink dots), Amhara (red dots), Oromia South and West (yellow dots), Oromia East (blue dots) and SNNPR (green dots).

Scaling up partners and collaboration model

In 2015, ISSD Ethiopia worked with 50 partners to support a total of 244 LSB via the scaling up component. Partners include government agencies, seed enterprises, research institutes, universities, AGP, farmers unions and NGOs; see Table 7 for a breakdown of scaling up LSB by region and by partner.

Table 7

LSB scaling up partners and numbers of associated LSBs

Partners	Amhara	Oromia East	Oromia South & West	SNNPR	Tigray	Total
Number of LSBs						
BoA, Zonal & Woreda office of Agriculture				8	28	36
WoCP	18		20			38
Public seed enterprises			10			10
Research institutes	18	11	14		3	46
Universities and colleges	27	19	11	5	11	73
AGP			5		3	8
Farmers unions		6		10		16
NGOs		3	5	6	3	17
<i>Total # SPCs</i>	<i>63</i>	<i>39</i>	<i>65</i>	<i>29</i>	<i>48</i>	<i>244</i>
Number of partners						
<i>Total # partners</i>	<i>14</i>	<i>7</i>	<i>14</i>	<i>7</i>	<i>8</i>	<i>50</i>

Main activities

Find below the main activities and outputs of supporting partners in the implementation of the LSB approach. The main activities and outputs are presented along four key performance areas (KPA) which are used to assess the performance of LSB's in becoming sustainable local seed businesses. These include: (1) technically well equipped, (2) market oriented, (3) professionally organized, and (4) strategically linked. Scaling up LSBs demonstrated clear improvement in KPI scores for seven of eight indicators in 2015 (see Figure 5). These results are particularly impressive considering that this involved 244 scaled up LSBs and 50 partners.

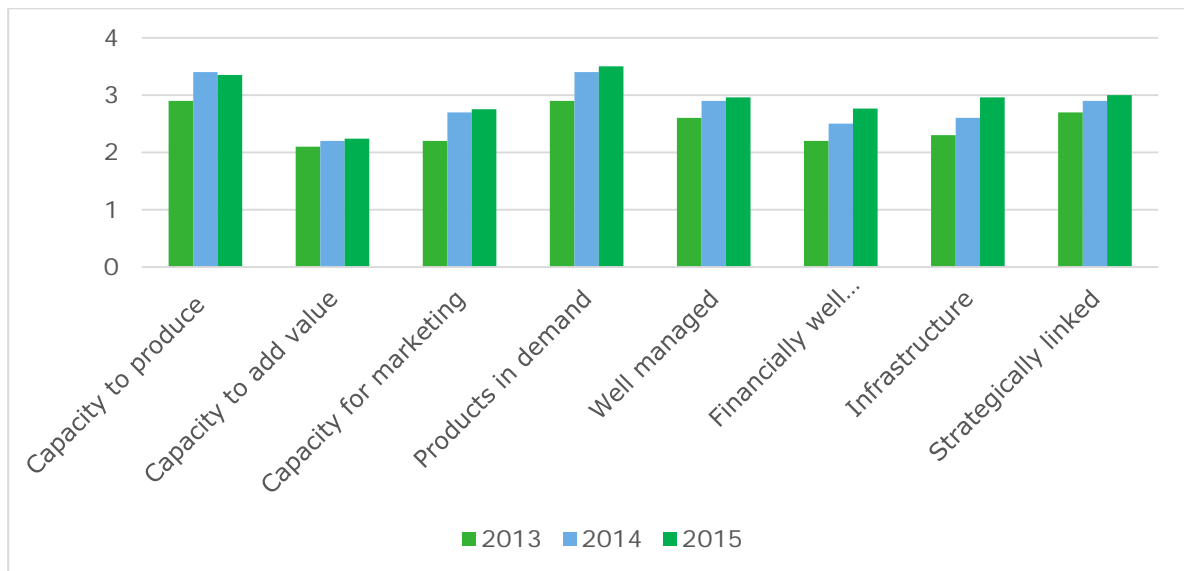


Figure 5 *KPI Scores for Scaling Up SPC's in ISSD Ethiopia: 2013, 2014, and 2015.*

Find more detailed descriptions in the regional annual reports as annexed to this report. Please note that every region had its own activity plan, based upon the needs of its partners; not all activities as mentioned below have been implemented in each region with each partner.

Technically well equipped

Type of activities:

- Training of strategic partners, local partners (woreda focal persons, DAs) and SPC members on issues like quality seed production;
- Facilitate repairing of/access to seed processing machinery for seed value addition of scaling up LSBs;
- Facilitate field inspection of selected LSBs.

Outputs:

- LSBs scored 3.3 in 2015 for capacity to produce seed which was a slight reduction to the 2014 score of 3.4 and the only indicator among the eight not to register an improvement over 2014;
- LSBs scored 3.0 in 2015 for infrastructure which marks a large improvement compared to the 2014 of 2.6;
- LSBs scored 2.2 in 2015 for capacity to add value which was the same score as in 2014.

Market oriented

Type of activities:

- Training of strategic partners, local partners (woreda focal persons, DAs) and SPC members on issues like seed value addition, seed marketing and business management;
- Facilitate the organization of field days and organize agribusiness fairs for product promotion.

Outputs:

- LSBs scored 3.5 in 2015 for capacity to produce products in demand which represents a small improvement to the 2014 score of 3.4;
- LSBs scored 2.8 in 2015 for capacity for marketing which represents a small increase over the 2014 score of 2.7.

Professionally organized

Type of activities:

- Training of partners on the ISSD and LSB approach and the LSB performance assessment framework;
- Develop MoUs with partners, agreeing on responsibilities, activities and budgets;
- Performance assessment of partners in LSB scaling up;
- Experience sharing visits of partners to consolidated LSBs, and of scaling up LSBs to consolidated LSBs;
- Coaching and monitoring of partners and visiting/monitoring of one SPC per partner.

Outputs:

- LSBs scored 3.0 in 2015 for general management which was an improvement on the 2014 score of 2.9;
- LSBs scored 2.8 in 2015 for financial management which compared well to the 2014 score of 2.5.

Strategically linked

Type of activities:

- Organization of discussion fora at zonal levels for local partners to create awareness and improve local embedding of LSBs;
- Link LSBs and partners to research and knowledge institutes for access to new varieties as well as technical support;
- Facilitate LSB access to basic seed, and support partners in basic seed production.

Outputs:

- LSBs scored 3.0 in 2015 for strategic linkages which compares favourably to the 2014 score of 2.9.

Analysis of main activities

Across all regions, more efforts were made in 2015 to support management and marketing of LSB and less of a production focus. The most widespread scaling limitation was access to basic seed.

Functioning local seed core groups were extremely useful to facilitate better linkages for SPCs and scaling up through different partners.

Scaling up partners were more successful in supporting LSBs when coaching and support to LSBs was part of their annual planning and budgeting. This resulted in more systematic support to LSBs which was an outcome of better planning by partners.

LSB performance varies considerably by partners. Consistently low score with a partner indicate that the partner is not performing. When the partner has LSBs where performance varies greatly, this may signal the need to reconsider how LSBs are identified.

Different type of partners focus support where they have a comparative advantage. So for example, universities focused on capacity development; research institutes on basic seed access and field days; WoCP's on legalization of the group, auditing, administration, and supporting infrastructure investments like stores; cooperatives with basic seed, seed production training, and purchase of certified seed. AGP helped LSBs access basic seed, construct stores, develop market linkages, and with auditing and training. This understanding enables ISSD Ethiopia and partners to tailor support so that the comparative advantage of scaling partners can most effectively be leveraged to support LSBs.

LSBs are considered to be 'specialized cooperatives' under federal and regional proclamation and amendments and their pursuit of a business model is often challenged at the local level.

Partner support to LSB scaling is not always strong and in such cases it is reflected in LSB performance. Scaling up LSB requires regular visits and support in order to see improvement in their performance.

Farmer field days are a crucial activity at local level to demonstrate and sell seed from LSBs and to bring together the diversity of partners involved in effective seed system development.

Key outcomes of main activities

Some of the key metrics associated with the successful performance of scaling local seed businesses include their performance using the qualitative key performance indicator scale (Figure 5), assessing the quantity of seed produced by the scaled LSBs (Figure 6 and Table 8).

LSB seed production figures

Figure 6 shows the total amount of seed produced in the four regions from 2010 to 2014. This staggering increase in seed production by scaled up LSB is a manifest indication of the impact of this component on seed production in Ethiopia. Across the four regions production increased by nearly 50% since 2012 with 2014 representing an approximate 10% increase compared to 2013.

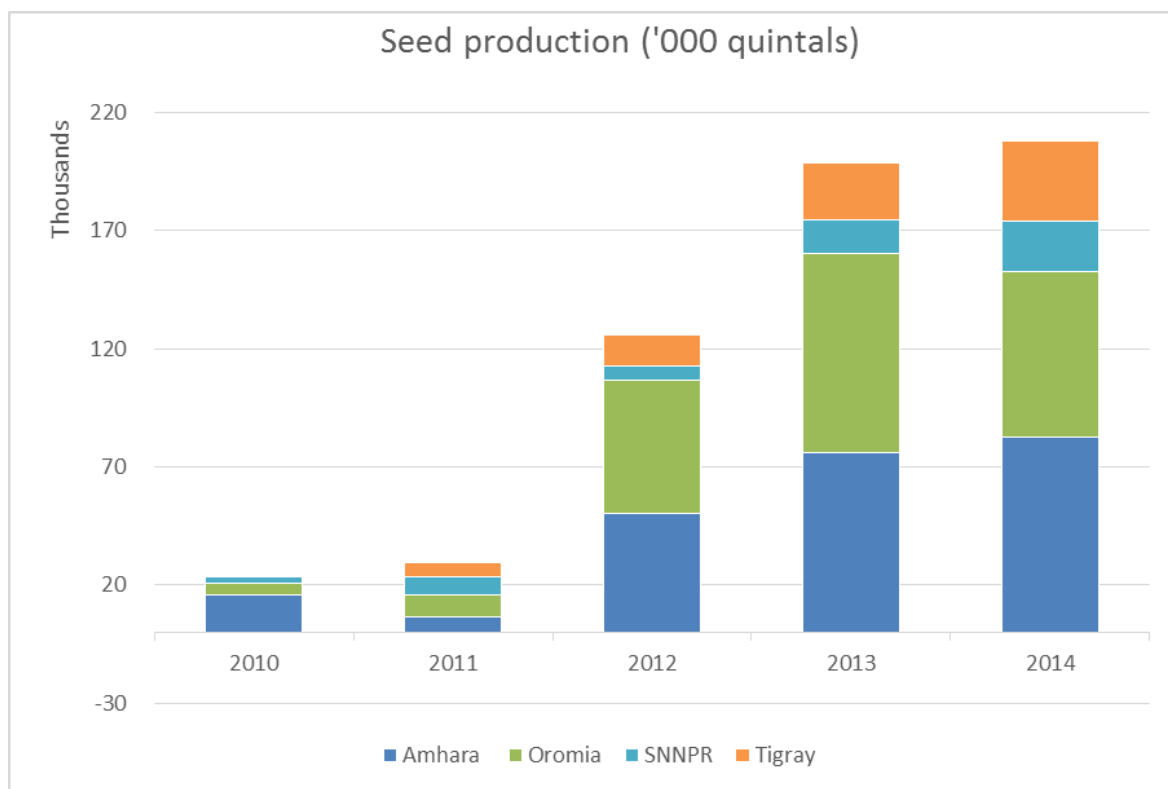


Figure 6 Total seed production in quintals from 2010 to 2014.
Note: potato and coffee are excluded.

Table 8 demonstrates the enormous contribution of ISSD supported LSBs to seed production in Ethiopia. The numerator for the percentage is based on aggregating LSB seed production in given areas. The denominator for the percentage is based on projecting seed needs in these same areas. Estimated seed needs are based on cropping areas estimates provided by the Ethiopian Statistics Authority and estimated average seed replacement rates of once every four years, with the exception of hybrid maize, of which assumes annual replacement. These seed replacement rates estimates are aggressive and thus these figures are likely underestimate the contribution of ISSD supported LSBs to seed production in Ethiopia.

Table 8

Estimated Percentage of Seed of Selected Crops Originating from ISSD LSBs

Crop	2010	2011	2012	2013	2014
Barley	0.4%	1.5%	5.5%	8.9%	7.2%
Chickpea	NA	0.2%	2.6%	7.8%	12.7%
Common bean	0.9%	3.2%	2.3%	3.2%	10.2%
Finger millet	NA	NA	2.6%	0.9%	1.8%
Groundnut	1.0%	0.7%	2.9%	5.9%	12.1%
Lentil	NA	0.5%	4.5%	16.0%	22.8%
Maize	2.1%	0.5%	1.9%	1.7%	2.6%
Potato	3.1%	5.3%	11.4%	22.3%	20.7%
Rice	7.5%	72.4%	44.1%	31.7%	37.8%
Sesame	NA	NA	0.2%	1.1%	10.5%
Sorghum	NA	NA	6.8%	14.1%	14.9%
Soybean	NA	NA	10.4%	3.7%	9.6%
Teff	0.1%	0.9%	5.6%	12.8%	20.1%
Wheat	1.8%	2.4%	12.1%	18.2%	31.1%

LSB crops and varieties

Table 9 illustrates the significant diversity of crops and varieties produced by LSBs since 2010. The last column 'grand total' shows the total number of varieties produced by LSBs over the years. When the grand total is lower than the sum of all varieties for all years for a given crop, this means that some varieties were no longer grown which reflect the fact that LSBs are responding to market demand. What can be clearly observed from this table is that LSBs produce quality seed of a large number of varieties, which cannot be produced through the public seed enterprises. In this respect, LSBs cater for a specific local seed demand.

Table 9

Number of varieties for each crop grown by LSBs from 2010 to 2014

Crop	Number of Varieties					Grand Total
	2010	2011	2012	2013	2014	
Barley – food		1	5	9	7	11
Barley – malt	2	1	3	9	7	11
Black cumin			2	1	1	3
Chickpea		1	2	3	4	5
Coffee				1	1	1
Faba bean			3	8	8	10
Field pea		1	1	4	7	7
Finger millet			1	2	6	6
Groundnut	2	2	4	2	4	6
Haricot bean	2	3	3	5	8	9
Lentil		1	1	2	1	2
Linseed			3	3	3	4
Maize – hybrid	2	2	4	4	4	5
Maize – OPV	4	3	4	5	5	8
Onion		1	2		1	2
Pea			1			1
Potato	7	8	12	12	13	21
Rice	3	2	1	2	4	4
Sesame			1	2	5	6
Sorghum			5	4	4	8
Soybean			1	2	5	6
Teff	1	1	5	11	9	16
Wheat – bread	7	10	16	19	24	31
Wheat – durum			2	5	5	6
Grand Total	30	37	81	112	131	180

Lessons learned and the way forward

LSBs provide a significant seed contribution to the four regions in which ISSD Ethiopia operates. The aim of the Ethiopian government is to support the increase of community based seed production and the development of SPCs over the coming years. In that sense ISSD Ethiopia aligns well with government policy.

Scaling up LSBs have increased their performance in all four performance areas, however are not sustainable yet. A careful assessment of LSBs is needed to select the ones with the highest business potential for further support. In the next phase of Benefit-ISSD emphasis will be more on the quality of the LSBs supported instead of the quantity of LSBs supported.

The regional teams report that the intensity of engagement of partners with the LSBs has increased, however, this intensity differs greatly among partners. LSB performance is usually stronger where partners provide more training and visits and where the performance framework is used as a baseline to improve LSB performance. More careful identification of partners is critically important in the next phase of Benefit-ISSD; only partnerships with committed partners should be continued.

ISSD Ethiopia works with a diversity of partners in LSB scaling. Partners differ in the expertise they can provide to the LSBs. Additional capacity building is necessary to be able to provide a more complete package of services and support for LSB development. Also the establishment of local seed core groups, bringing together different areas of expertise for LSB support, is extremely important to increase the sustainability of development efforts.

ISSD Ethiopia approaches SPCs as business entities. SPCs have a specialized status which allows them, for example, to be selective in membership and only accept those members who can adhere to the principles of quality seed production. This sometimes caused friction caused with the open membership principle of cooperative promotion. Benefit-ISSD has to collaborate closely with Cooperative Promotion at all levels (national, regional, local) to ensure that bottlenecks related to SPC organization are solved.

Measuring the impact of a seed production enterprise, where there is an overarching aim to increase farmer access to quality seed, should also include looking at the consumer to understand how the seed user has increased their access and use of quality seed. This aspect will be studied in detail in the next phase of Benefit-ISSD.

An increase in farmer based seed production is necessary in order to cater to the needs of less resource endowed farmers and out of acknowledgement that some crops and varieties have low profit margins and may not be attractive from a pure seed business perspective. Supporting informal seed systems in the next phase of Benefit-ISSD aims to address this issue.

2.3 Private seed producers

Introduction

Private small and medium scale seed producers in Ethiopia often operate as out growers to the Bureau of Agriculture (BoA). They produce mainly certified hybrid maize seed, which is distributed through the government seed distribution system. These seed producers generally have basic skills on quality seed production but have poor marketing, business orientation, and entrepreneurial capacity. ISSD aims to increase the number of professional seed producers and strengthen their seed business skills, to enable them to supply a significant quantity of quality seed to markets in Amhara, Oromia, SNNPR and Tigray. The component aims to promote and support the system of small and medium scale seed producer and facilitate their collaboration with other companies and research.

An overview of private seed producers supported by ISSD

While maize continues to be the most important seed crop for private seed producers there is a great deal of regional variation. In Tigray sesame is an important seed crop and in Amhara and Oromia South and West there is a large diversity which may be attributable to the presence of large seed companies and a lot of out-growing. In SNNPR, PSPs are usually out growers to the public Southern Seed Enterprise. In Tigray and Oromia East, PSPs are mostly investors and agro-enterprises which move to seed as a business.

Table 10

Private seed producers in four regions in Ethiopia in 2015

	Number of PSPs					Total
	Amhara	Oromia East	Oromia South & West	SNNPR	Tigray	
Number of companies ¹	11	3	12	14	11	51
Number of companies producing maize ²	9	1	7	10	4	31
Seed crops	Maize, forage, onion, pigeon pea, teff, wheat	Maize, carrot, potato	Maize, black cumin, chickpea, forage, onion, potato, teff, wheat	Maize, haricot bean, rice, teff, wheat	Maize, chickpea, forage, onion, sesame, teff, wheat	
Acreage for seed production (ha) ³	1,279	10	977	2,322	148	4,735

¹ Only companies that have produced seed in 2015 have been counted; ² These companies produce maize seed solely, or maize seed as part of their seed crop portfolio; Acreage of seed production includes out-growers.

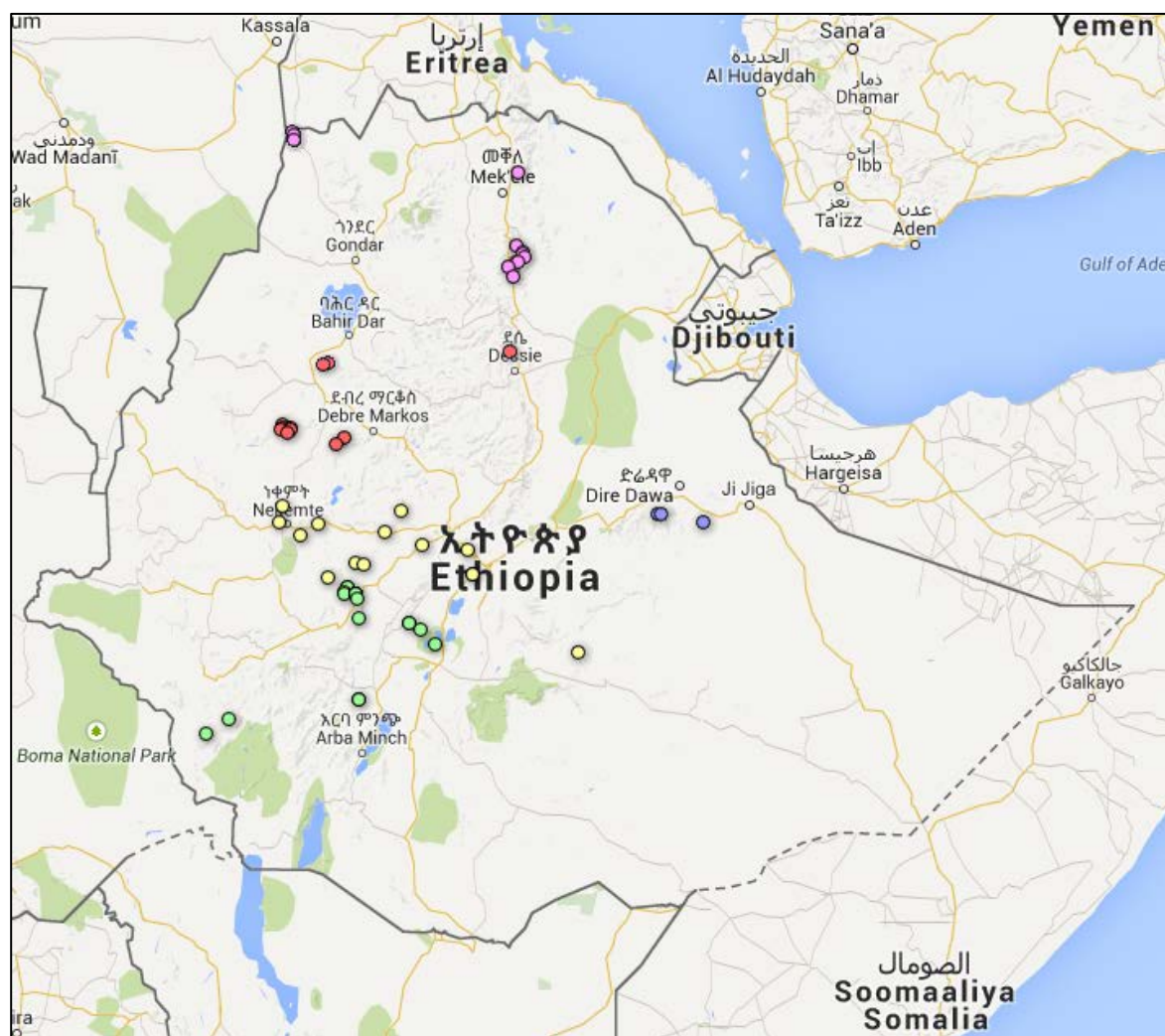


Figure 9 Location of private seed producers and companies in Tigray (pink dots), Amhara (red dots), Oromia South and West (yellow dots), Oromia East (blue dots) and SNNPR (green dots)

Main activities

Find below the main activities and outputs related to the PSP component. The main activities and outputs are presented along four key performance areas (KPIs) which are used to assess the performance of LSB's in becoming sustainable local seed businesses. These include: (1) technically well equipped, (2) market oriented, (3) professionally organized, and (4) strategically linked. Please note that whereas the KPAs for LSBs and PSPs are the same, the KPIs are slightly different and adapted to the specific character of PSPs. PSP demonstrated clear improvement in KPI scores for all ten PSP indicators in 2015 (see Figure 10). A more detailed description of PSP activities can be found in the regional annual reports, see annexes. Not all activities as mentioned below have been implemented in each region.

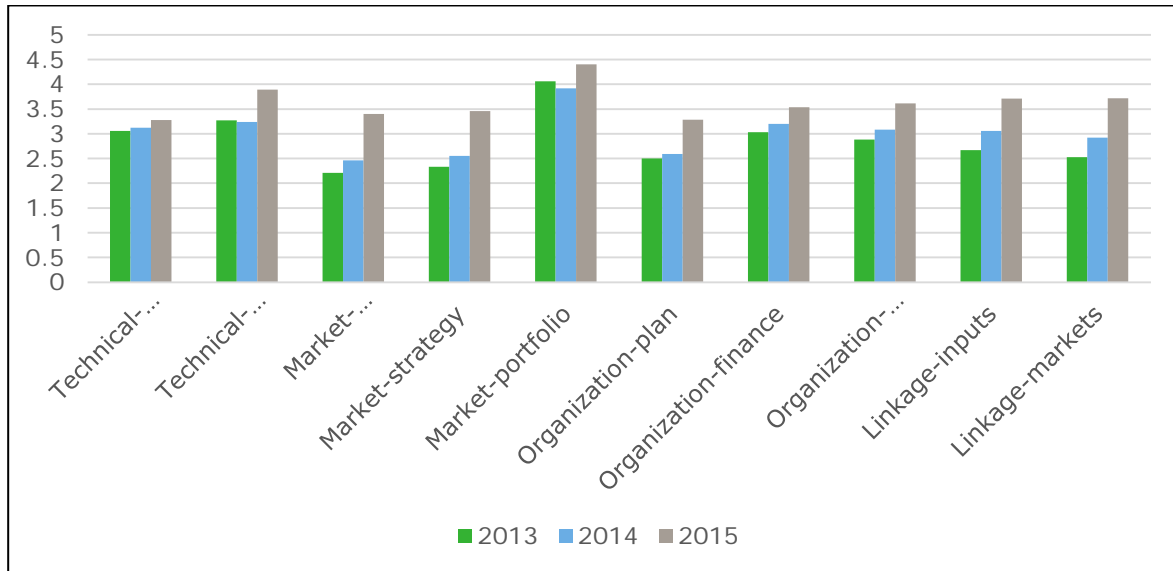


Figure 10 KPI Scores for PSPs in ISSD Ethiopia: 2013, 2014, and 2015.

Technically well equipped

Type of activities:

- Through a grant (with requested co-funding) improve the infrastructure of the PSPs, help PSP's acquire equipment;
- Train in basic seed production;
- Facilitate access to basic seed;
- Provide training and support to address post-harvest seed handling and storage issues.

Outputs:

- In 2015 the score of the PSPs on technical seed production capacities was 3.3, an improvement on the 2014 and 2013 score of 3.1;
- In 2015, the score of the PSPs on technical post-harvest capacities was 3.9 which compares favourably with the 2014 score of 3.2 and the 2013 score of 3.3;
- The 2015 score on infrastructure was 3.6, a nice improvement to the 2014 score of 3.1 and 2013 score of 2.9.

Market oriented

Type of activities:

- Support PSPs to be involved in direct seed marketing;
- Training on critical success factors for seed business, seed entrepreneurship and business management;
- Support of seed promotion activities.

Outputs:

- In 2015 the score of the PSPs on market demand identification was 3.4 which compares favourably with the 2014 score of 2.5;
- In 2015 the score of the PSPs on market strategy was 3.6 which was a large improvement on the 2014 score of 2.6;
- In 2015 the score of PSPs on market-seed crop portfolio was 4.4 while in 2014 the score was 3.9 and in 2013 the score was 4.1.

Professionally organized

Types of activities:

- Training on seed business management, financial management, business planning;
- Coaching and monitoring on organization and management;
- Facilitate PSP's to participate in and make use of Ethiopian Seed Association support and services.

Outputs:

- In 2015 the score of PSPs on their organizational management plan was 3.3 while in 2014 the score was 2.6 and in 2013 the score was 2.5;
- In 2015 the score of PSPs on financial management plan was 3.5 while in 2014 the score was 3.2 and in 2013 the score was 3.0.

Strategically linked

Activities:

- Link PSPs to successful larger companies for experience sharing and niche market opportunities.
- Identify investors in seed business for high value crops such as forage, fruits, haricot bean, rice, sesame and vegetables;
- Link PSPs to the Ethiopian Seed Association for services and support;
- Link PSPs to other seed value chain actors, including other private seed producers and companies, public seed enterprises, BoA and research;
- Lobby and advocacy with policy and decision makers to create a more enabling environment for private seed producers; more competitive seed price setting, more enabling seed standards, guidelines, and licensing arrangements.

Outputs:

- In 2015 the score of PSPs on links to inputs and services was 3.7 while in 2014 the score was 3.1 and in 2013 the score was 2.7;
- In 2015 the score of PSPs on links to markets was 3.7 while in 2014 the score was 2.9 and in 2013 the score was 2.5.

Analysis of main activities

PSPs need to improve their capacity to assess market opportunities and market seed. This is a common challenge as many PSPs started as out-growers for public enterprises.

Across all regions, PSPs demonstrate low capacity in business planning, access to finance, and access to basic seed.

Direct seed marketing encouraged many PSPs to stay in the seed business.

Many PSPs focus on the same varieties of maize, and only through the quality of their seed they can differentiate themselves from competitors which they increasingly are able to do through direct seed marketing and in identifying niche market opportunities.

Certificate of competence (CoC) is increasingly being requested by seed quality and quarantine authorities in order for PSPs to market seed commercially.

Across all regions PSP's have improved their linkages with other seed value chain actors but this continued to be an area where PSP's can improve significantly.

More effort needs to be put on management as the scores for organizational management and financial management indicate a great opportunity for performance enhancement in these areas.

Private seed production has gone up over the years due to increase in production capacity but also a more enabling environment for private producers and companies as reflected in direct seed marketing. In some areas private seed production has remained stagnant or reduced due to unfavourable price setting where producers are not able to recover the costs of seed production.

Key outcomes of main activities

The amounts of quality seed produced and sold in the different regions (M&E framework indicator 6.1) and their profitability (M&E framework indicator 6.2) are indicators of PSP success. Figure 11 shows the amount of seed produced by PSPs and seed companies from 2012 to 2014. The profitability of PSPs varied considerably across the regions. SNNPR recorded the highest seed production by PSP and seed companies followed by Amhara. Please refer to the regional annual reports for more detailed discussion and breakdown of PSP production in 2015.

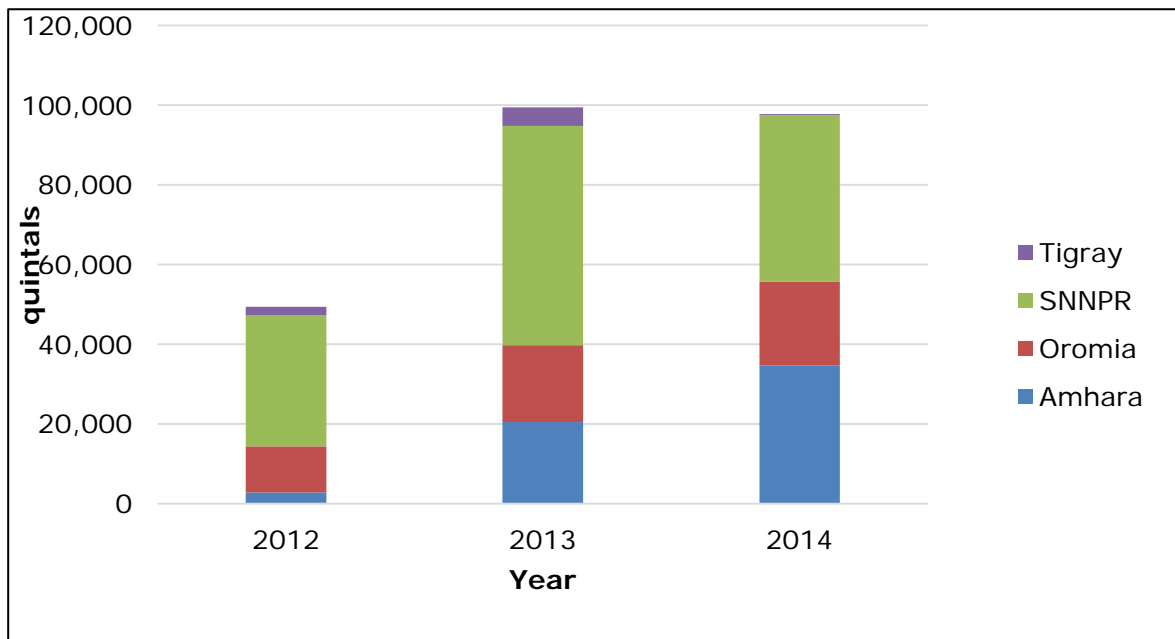


Figure 11 Seed production by PSPs and seed companies segregated per region.

Table 11 illustrates the seed production and profitability of PSPs in 2015. Amhara and Tigray regions both reported that all PSP and seed companies were profitable with Amhara also citing two examples of unknowns. An ‘unknown’ is when the financial information available does not yield a clear profit or loss or when insufficient data precludes company management from making an estimation.

Table 11
Profitability of private seed producers and seed companies per region in 2015

Region	Profitable	Not profitable	Unknown	Total
Amhara	11	0	2	13
Oromia	10	4	1	15
SNNPR	11	4	4	19
Tigray	9	0	0	9

Lessons learned and the way forward

The regional governments now recognize the potential contribution of private seed producers to the seed sector; trust in private seed producers has increased. This is visible, for example, through an increased number of certificates of competence provided to private seed producers in SNNPR, allowing them to market their own seed (and not being forced to remain out-growers to public enterprises). Also other actors, like research, have increased trust in the private sector.

Private seed producers have improved their performance over the past year, however, a lot remains to be done in professionalizing their business. Performance of the private seed producers varies greatly among regions. Seed can be highly profitable, however, mechanisms of seed price setting have to be reconsidered to keep private investors interested in seed business. Benefit-ISSD will continue to train and coach the most promising and motivated private seed producers to strengthen their business.

Many private seed producers are searching for strategic partnerships to give them competitive advantage in business. Some are searching for partnerships to get access to new varieties. Others are searching for partnerships to acquire the seed infrastructure for adding value to their seed. Benefit-ISSD Ethiopia will continue to link private seed producers to input and service providers and to business partners, and will keep encouraging them to invest in their business.

Direct seed marketing improved opportunities in business for private seed producers. In for example Amhara, the government did not become involved in seed distribution of maize in 2015, forcing private seed producers to professionalize in marketing. Facing competition in direct seed marketing, private seed producers also started to invest in seed value addition, for example, selling seed in small packages.

In relation to market orientation, a lot still remains to be done on issues like new product development (crop and variety diversification), opening local retail outlets, organizing customer feedback, product promotion, etc. These issues will be picked up in the next phase of Benefit-ISSD Ethiopia.

2.4 Seed companies

Introduction

This component facilitates and promotes investment in seed production and marketing of seed companies in Ethiopia by both national and international seed companies. It aims to strengthen public seed enterprises and private seed companies and to facilitate investment of international seed companies. This component included support to strengthen the role and capacity of the Ethiopian Seed Association (ESA) and its member base. The component is managed by the ISSD Ethiopia PMU, in close collaboration with the ESA and consultants Rutger Persson and Dr Lemma Dessalegn. Joep van den Broek managed relations with the Dutch seed sector.

Main activities

The main thrust of work for this component involved activities support by the Ethiopian Seed Association.

Activities:

- Revised by laws of Ethiopian Seed Association (ESA);
- Build web site for ESA;
- Strengthen planning and daily duties of ESA;
- Develop membership directory and develop company profiles ESA members;
- Build database of seed entities in Ethiopia;
- Conduct ESA awareness workshop to raise profile of ESA among different seed entities: input suppliers, CGIAR, vegetable producers;
- Organize training programs and workshops for members;
- Develop a seed quality testing guide for and training material on post-harvest seed management;
- Develop a business plan template and provide training to members on the use of the template;
- Lobby for more seed policy and regulation which is enabling for the private sector: this includes variety protection, pricing, royalty regimes, and the expansion of direct seed marketing;
- Support ESA to be represented at relevant forums for the development of seed business in Africa (AFSTA congress in Zimbabwe);
- Plan and execute the annual general assembly of the Ethiopian Seed Association;
- Pursue funding leads with a variety of donors to support ESA activities and to underwrite some of the operating costs of the ESA secretariat;

- Organization of a seed session for Dutch companies at the Netherlands-Ethiopia Business event for the Dutch private sector in November;
- Facilitation of partnerships with the following companies:
 - o ENZA, for the testing and registration of onion varieties in Ethiopia;
 - o Koppert, for looking into business opportunities in Ethiopia;
 - o Rhea Composites, for development, testing (in Ethiopia), and the subsequent adaptation of a row planter; plus investment in market development and finding business partners in Ethiopia. The company is trying to set-up a manufacturing and distribution network in Ethiopia;
- Support of the INCOTEC, Koppert, TradeCorp and Rea Composites consortium of the formulation of a successful proposal under the FDOV facility.

Outputs:

- 250 by laws of ESA in Amharic and English were published and distributed;
- The ESA website was launched: <https://ethiopianseedassociation.wordpress.com>;
- The organizational chart for ESA was developed and share with members;
- 200 copies of the business plan template including a hypothetical seed company case study were printed and distributed;
- 1200 copies of the ESA promotional brochure were published and distributed;
- Workshop session and excursion for seed companies as part of the Netherlands-Ethiopia Business event;
- Three partnerships with Dutch companies under the ISSD Ethiopia PPP facility;
- Approved proposal under the FDOV facility.

Analysis of main activities

The Ethiopian Seed Association has taken great strides in improving its visibility in Ethiopia and in its internal managements, planning, and daily operations.

The membership directory and data base of seed entities operating in Ethiopia should be a formidable tool for ESA in the future in terms of promoting networking opportunities for its members and developing new business linkages.

The publication of ESA bylaws and registration of new logo and name by the Ethiopian Ministry of Trade were important steps for ESA members to recognize the changes in ESA.

ESA has increased its role in the Ethiopian seed sector in terms of its capacity to promote the production of quality seed and to participate in forums in order to further the aims of the seed sector in Ethiopia.

The Dutch seed sector is recognizing Ethiopia as an interesting market for their products. However, it is not yet the most conducive environment for seed production. The Netherlands-Ethiopia Business event provided insight into the needs of the Dutch sector for investment in Ethiopia.

INCOTEC (full amount) and Koppert (partly) paid back the ISSD Ethiopia PPP grant. Development of the FDOV proposal did not give them the time to implement the initially agreed practical activities within the given time frame (January – December 2015).

Key outcomes of main activities

The new ESA logo and the membership directory has enhanced the visibility of ESA and build the confidence of ESA members in the role and future of ESA to bring together the interests of members and better serve the seed sector in Ethiopia.

Membership in 2015 has increased to 31 members.

Lobbying and networking capacity of ESA members have increased greatly as ESA has become an effective forum to represent common interests of its members.

The Dutch seed sector indicated the need for an exception to the Seed Proclamation, for permitting the production of seed for export without going through all the variety registration procedures. Currently, upon specific request of the Minister of Agriculture, Benefit-ISSD is formulating a directive to make this possible.

Table 12*Members of the Ethiopian Seed Association from 2012 - 2015*

Year	Registered members	Number paid members*
2012	17	14
2013	22 ²	12
2014	22	18
2015	31	27

* 'Paid' members refers to members who paid their annual membership fee.

Lessons learned and the way forward

Many of the private seed companies need further support to professionalize and this can in part be achieved through the networking, lobbying, and capacity development which ESA members enjoy from their participation in ESA.

Strong private sector development is crucial for the emergence of a more sustainable, efficient, and customer oriented seed sector in Ethiopia. To this end, other programs in Ethiopia which are committed to sustainable seed sector development should also contribute to support ESA.

ESA should maintain its focus on building membership and meeting the needs of its member through a combination of training in producing seed quality, business management, and lobbying for seed regulation and policy which is conducive to private sector seed development.

The Dutch seed sector specifically asks for information on the agricultural, seed sector and business environment in Ethiopia. In addition the private sector asks for clear and transparent laws, regulations and guidelines on issues like variety release, plant variety protection, quality control and seed exports. This needs to be taken up under Benefit-ISSD

PPP grants can be a nice tool to provide seed money for sharing the risk of initial investments in a new country, and gain knowledge and experience on the seed sector.

2.5 Partnerships and innovation

Introduction

The partnerships and innovation component aims to develop a mechanism for facilitating innovation and learning in the seed sector. A regional core group of key seed sector stakeholders in the region steers the partnership and innovation process. The seed sector platform is the mechanism at regional level to bring stakeholders together to discuss and prioritize seed sector challenges and suggest possible solutions. Partnership and innovation projects in the region are identified through the core groups and regional seed sector platforms. These partnership and innovation grants allow for experimental and innovative solutions. This component strengthens seed sector coordination and governance by bringing together stakeholders to work in partnership on solving key bottlenecks in the seed sector.

Main activities

Through the regional core group, each region makes investments into different projects to address bottlenecks which they have identified in their respective regions. These partnership and innovation projects vary by region as a reflection of the context and interests of the different regional core groups and seed sector stakeholders. Please refer to the regional ISSD Annual reports for a more detailed breakdown of core group members per regions, the partnership and innovation grants for each region, and region specific analysis of these projects.

Table 13
Partnerships and innovation projects in each region during 2015

Partnerships projects and activities	Amhara	Oromia East	Oromia South & West	SNNPR	Tigray
Direct seed marketing (DSM):	X		X	X	X
- Awareness creation and training workshops					
- Scaling of DSM pilots					
- Monitoring and Evaluation of DSM implementation					
- Strengthen implementation of DSM through multi-stakeholder performance assessment					
- Training and Certification of seed dealers, development of seed dealer network					
Early Generation Seed (EGS) production:	X	X	X	X	X
- Establishment of seed units in research centers					
- Consultation and planning workshops					
- Development of EGS strategy and EGS guidelines					
- Monitoring of EGS production					
- Quality assurance for EGS					
Seed regulatory authorities/ quality advisory services:	X	X	X	X	X
- Establishment of a seed unit at regional level					
- Support the functioning of the seed regulatory authority					
- Development of guidelines and manuals					
- Assessment of capacity needs					
- Capacity building of staff of the seed regulatory authority					
- Awareness raising with other stakeholders					
- Support the development of seed quality advisory services					
- Support experience sharing					
Improve Awareness and Capacity of Regional Core Groups:	X	X	X	X	X
- Develop working modalities and guidelines					
- Analyze seed sector and draft regional seed system strategy					
- Support training and experience sharing for core group					
- Involve core group in strategic ISSD processes like EGS study, ISSD evaluation, DSM promotion, and establishing seed units at regional level					
Access to seed production or storage infrastructure:	X	X			
- Construct DLS Stores for Potato Seed					
- Farm machinery performance assessment					
- Development, testing and release of different machineries					
Strengthen seed producers and their organizations:			X		X
- Establishment of an SPC union and lobbying SPCs to be members					
- Support access to land for private agricultural investment in seed					

Analysis of main activities

Strong coordination and network building and the seed sector was promoted as result of the core group meetings and regular engagement of the core group with respect to making decisions and following the implementation of partnership and innovation grants.

Direct seed marketing and recognition of the role of the private sector was greatly enhanced in a number of regions as a result of partnership and innovation grants.

EGS production improved in several regions as a direct result of the of partnership and innovation grants due to improved technical capacity of seed units, improved linkages between EGS producers and buyers, and the increased coordination at regional level through the core group which improved linkages and put key EGS bottlenecks under direct discussion and reflection by the core group and regional seed sector stakeholders.

Seed regulatory authorities at regional level saw improved capacity in a number of regions as result of the support provided by the partnership and innovation grants.

Key outcomes of main activities

Direct Seed Marketing

Increased use of DSM has reduced the complicated seed distribution chain which was the conventional approach, this has led to an attitude change by suppliers who are now more customer focused and by farmers who follow up with suppliers if there are issues related to quality. The new market oriented system has resulted in lower quality seed and seed producers being more easily identified, and much less left over seed as supply and demand are better linked as a result of the direct marketing. Farmers experiencing DSM universally indicate that it is a better approach and they do not want to go back to the old way of government led purchase and distribution. The collaboration between ATA, AGP, BoA, and ISSD on DSM implementation was enhanced and that has resulted in improved understanding of the optimal roles of different actors in supporting DSM.

Early generation seed

There is now a better understanding of the bottlenecks to EGS production and the role differentiation among different actors when it comes to EGS. An overarching analytic framework for looking at EGS has been instrumental in developing improved collective understanding of the issues and opportunities in EGS. BoA commitment to address EGS production issues has increased. Research centres have placed more emphasis on EGS production and more budget allocation to EGS activities and more leadership and initiative on solving EGS challenges.

Seed regulatory authorities

Through the advisory role of the regional core seed teams, detailed analysis of the structural arrangements necessary for the establishment of independent seed regulatory authority has been made and shared with regional technical committee. The BoA has given more attention to this issue and to this end has been supported by both ISSD and ATA. As a result of tailor made ISSD training on seed health, seed laboratory staff at regional level have increased their capacity. Working modalities for quality assurance and certification have been implemented by seed regulatory authorities through the active support of ISSD partners. Core group members benefitted from exposure visits to look at seed testing and regulatory regimes in other contexts.

Lessons learned and the way forward

Institutionalization of the regional core groups, as coordination and decision making bodies on strategic issues in seed sector development, is crucial to promoting decentralization, sustainability, and good governance in the seed sector. This will get further attention in the next phase of Benefit-ISSD. The core group composition needs to be reconsidered in order to have the most appropriate representation to not only advise the project on partnerships and innovation, but also on other components of the programme.

Grant making and monitoring modalities, i.e. - the identification and follow-up of partnership and innovation grants, should be streamlined and standardized across all regions. This can make it easier for the core groups to receive additional grant making funds, from other sources, and for these funds to be channeled through a common mechanism.

Regional specific seed sector development strategies can be supported more effectively with a strong core group and well-functioning regional stakeholder platform. This will enable regions to be more effective in contributing to the AGP plans and targets and speed the development of the seed sector in the region.

Following the recommendations of the ISSD Ethiopia evaluation, in the next phase of Benefit-ISSD a more integrated seed value chain approach will be taken. In practice this will mean, for example, not focusing on DSM in general, but looking specifically into DSM within hybrid maize seed value chain; or, not looking at EGS in general, but focusing on EGS in the seed value chain of legumes.

2.6 Farmer and community based seed systems

Introduction

Addressing farmer and community based seed systems has the potential to greatly contribute to food and seed security, increasing farmers access to seed in less favourable agricultural and remote areas that have been neglected for seed interventions so far. This is a new component that ISSD Ethiopia wants to address, with strong focus on women farmers, orphan crops and nutrition security. The Bill & Melinda Gates Foundation aims to support this programme component through a grant of 1.5 million USD for three years. Work on this system started in 2015, with the aim to continue it in the new Benefit-ISSD.

Main activities

National workshop to design baseline methodology, facilitated by Abishkar Subedi, genetic resources and informal seed systems expert of CDI, and Lisa Price, gender and nutrition expert of Oregon State University.

Regional units gathering some baseline data to refine the baseline methodology.

Completion of the baseline methodology and instructions by Abishkar Subedi and Lisa Price.

Analysis of main activities

The LSB system works with legalized farmer groups, with food and semi-commercial crops, with mostly improved varieties, and with a commercial/business orientation; it is therefore somehow exclusive. The farmer and community based seed system works with individual farmers or informal groups, it is serving all categories of farmers, including poor farmers; it addresses crops important for food security which are often ignored by research (orphan crops), and works with a diversity of local and recycled improved varieties; it has a service and not a market orientation and is inclusive. Support of LSBs requires different knowledge, skills and approaches than support of farmer groups in community based seed production. The baseline workshop started to build the knowledge and skills of ISSD Ethiopia staff on this issue.

The baseline methodology has been developed with ready to use instructions and data collection formats. However, the BMGF project was not yet approved in 2015. Therefore the executive coordination committee started to postpone the implementation of the baseline to 2016, also because new/additional staff for this project will be hired on the BMGF budget.

Key outcomes of main activities

Awareness has been built with ISSD Ethiopia staff on farmer and community based seed systems, and staff are ready to implement the baseline studies.

Lessons learnt and the way forward

A proposal on the support of farmer and community based seed systems has been submitted to BMGF and is still awaiting approval.

Work with our own staff shows that a lot of awareness raising and training on farmer and community based seed systems needs to be done within the sector to have this system recognized as an important and valuable seed source.

2.7 Enabling and evolving seed policies

Introduction

This component support and facilitates the development and promotion of enabling and evolving seed policies. ISSD Ethiopia wishes to contribute to the policy dialogue with strategies which are evidence based. The objective is to strengthen the development and implementation of enabling policy frameworks and guidelines and improve the capacity for implementation. This component is led by ISSD PMU, with support from Ethiopian Seed Association, and it supported at regional level by the ISSD Ethiopia scientific coordinators.

Main activities

Make EGS presentation on ISSD Africa training and planning meeting. Share ISSD Ethiopia experiences in sustainable EGS production system and take part in ISSD Africa planning and task sharing

Present a seminar on PVP under UPOV Convention. Raise awareness of stakeholders about PVP under UPOV convention

Serve on a task force to advise MoA to implement PVP. Enhance the completion of the revision of PVP law and its subsequent implementation

Organize ISSD Africa planning meeting. Conduct action research to produce evidence for Seed Sector Development to Support CAADP Implementation within the Framework of the African Seed and Biotechnology Programme.

Facilitate the production of synthesis report of Alignment between Seed Sector-related Strategies and Programmes and the CAADP Process in Ethiopia. Produce evidence for Seed Sector Development to Support CAADP Implementation within the Framework of the African Seed and Biotechnology Programme.

Stakeholders workshop on EGS production and supply system in order to identify new directions and approaches to address EGS challenges.

Support the National platform for seed regulatory bodies in Ethiopia. Exchanging experiences among regulatory bodies and harmonize procedures.

Analysis of main activities

ISSD has been facilitating effective EGS production system at its regional units and collaborates with national stakeholders to institutionalize the system. This effort is bringing promising results in increasing EGS supply and its further scaling up and institutionalization at national level. Such experience of ISSD Ethiopia shared at ISSD Africa meeting in Entebbe in February 2015.

In Ethiopia despite some start on linking EGS producers with certified seed producers, strategizing production and supply system of early generation seed remain a challenge. In order to overcome this challenge, ISSD join hands with ATA and Scaling Seeds Technologies Partnership in Africa (SSTP) project. Analysis of the existing EGS system was done by ATA analytics team and future directions were proposed. Series of workshops supported by ISSD, SSTP were conducted to discuss on the result of the analysis and refine future interventions

Seed inspection is done by laboratories that are accountable to regulatory authorities in Amhara and SNNPR, and to regional bureau of agriculture in Oromia and Tigray. The regulatory system in general is young and is decentralized, which is liable to differences in operation system. However, seed inspected by one of the laboratories can be sold in any part of the country. This necessitates harmonizing seed inspection system and exchange of experiences across laboratories. ISSD re-initiated the forum already created by ATA and sponsored the third meeting.

In collaboration with CIMMYT/Ethiopia, ISSD has given seminar on PVP under UPOV to key stakeholders from MoA, research system and public and private seed enterprises.

Key outcomes of main activities

Supply of EGS is improving as a result of ISSD interventions. LSBs are being entitled in EGS allocation by the regional BoA and RARIs. Joint planning of EGS production is underway in ISSD regional units. Crop specific EGS supply system thinking started in Ethiopia

Study of integration of ISSD concept into CAADP process is finalized.

The EGS study report was discussed in a series of workshops supported by ISSD and SSTP aiming at identifying strategies to overcome the challenges of EGS production and supply in Ethiopia. The report and the different discussions acknowledged the need to have different systems of EGS for different crops in Ethiopia. This will be further refined with implementation strategy.

The forum helped the different seed regulatory laboratories to share their practical experiences and challenges, as well as discussed as to how to harmonize their system of inspection. It was noted that in some regions early generation seed production is not certified, giving signal on some of the root cause of seed quality in Ethiopia. On this line the participants of the workshop have also agreed the

national seed laboratory to be a member of ESTA, representing Ethiopia, which will enable them to use updated EASTA standards and procedures.

Main lessons learned and the way forward

In working with stakeholders on policy interventions conducive conditions are important to start the intervention. A number of activities have been delayed because the programme was dependent on activities from other bodies like the Ministry of Agriculture, to be implemented first.

The PVP Proclamation has not been officially approved yet, and more awareness creation in the form of seminars and training is necessary to convince the decision markers on the need of PVP and its implementation.

To change the system, collaboration with other supporting institutions is necessary. ISSD Ethiopia collaborates well with stakeholders like MoA and ATA, but also CIMMYT on policy related issues. ISSD Ethiopia is recognized by other stakeholders in the sector for its work on institutional change processes.

A nice example of collaboration in this area is the work done on EGS, together with ATA and AGRA, with support from BMGF and USAID. ISSD Ethiopia, ATA and AGRA jointly organized in-depth EGS studies and regional and national workshops to strategically address the issue of EGS in the country. The initial idea of working on contractual EGS production for all crops was not enough; the idea of developing different EGS production and supply systems helped the stakeholders to view and strategize the system differently.

ISSD Ethiopia effectively organized a number of national forums to facilitate exchange of ideas and discuss opportunities for interventions on key seed sector bottlenecks in Ethiopia. The project aims to continue doing that in the next phase of Benefit-ISSD.

2.8 Research and studies

Introduction

ISSD emphasizes research and studies across its components to improve the evidence base and to guide seed sector interventions. To this end, ISSD Ethiopia supports MSc research studies on topics considered important for the development of the seed sector and staff are supported to obtain their MSc degree. In addition, four PhD studies were supported in collaboration with Wageningen University. Moreover, in each region, development agents (DAs) who have been working closely with the LSBs in the consolidation programme, are supported in obtaining their BSc degree. The purpose of this component is to enhance staff capacity and promote innovation in the seed sector.

Main activities

BSc research grants:

31 DAs are currently completing their studies.

MSc research grants:

No new research proposals have been developed for 2015. Regions have supported the MSc students to complete their ongoing studies. Find in the regional reports in the annex more details on these studies. The development of a compilation of MSc thesis abstracts has been facilitated, to allow a better sharing and use of the recommendations within ISSD Ethiopia. Due to illness of Amsalu Ayana, this activity has not been completed.

PhD studies:

Three ISSD Ethiopia staff are continuing their PhD studies with Wageningen University: (1) assessing the performance of market orientation in the Ethiopian seed system – Shimelis Altaye, WU Marketing and Consumer Behaviour Group; (2) Market orientation in the context of LSB in Ethiopia – Dawit Tsegaye, WU Marketing and Consumer Behaviour Group; (3) Unpacking the seed policy process in Ethiopia: identifying opportunities for collaborative governance in seed sector development – Mohammed Hassena, WU Law Group. The students are envisaged to complete their thesis work in 2016. One additional ISSD Ethiopia staff, Dandena Gelmesa, is currently pursuing his PhD in

collaboration with Haramaya University, working on the screening of potato genotypes for drought and heat tolerance, which is an extremely important issue of Oromia East.

Analysis of main activities

The BSc, MSc and PhD grants have two objectives: contribute to capacity building in the seed sector; and providing methodologies/approaches for addressing a particular and challenge generate evidence for innovation. Especially the provision of BSc grants to DAs closely associated with the first generation LSBs is highly appreciated by BoA, and an example for other DAs.

ISSD Ethiopia has been supporting MSc thesis research on selected thematic topics. The MSc thesis abstracts of those who completed between January-June 2015 are available; abstracts for those who completed between July and December 2015 still need to be finalized.

Key outcomes of main activities

31 BSc students are close to graduation and 13 MSc students completed their studies; four PhDs are well on their way for completing their studies in 2016.

The diversity of MSc and PhD studies give new insights into a range of issues that can improve seed production and seed use. Examples are recommendations on appropriate seed rates, insights into the effect of seed treatment, insight into the profitability of seed as a business, relation between seed source and the performance of the seed, etc.

Lessons learned and way forward

Providing DAs with BSc grants appears to be a strong incentive mechanism for the DAs to continue supporting SPCs towards sustainable local businesses.

It is important to ensure that recommendations from MSc studies will be used in practice. This needs additional effort from the programme to translate the scientifically written thesis into practical field recommendations.

MSc research projects have been formulated to address a gap in the seed sector which is important for integrated seed sector development. However, it takes at least a year before study results become available, which is a long time. In specific cases it may be more efficient to do research through ISSD staff or consultants hired for a short time period.

2.9 Sharing experiences and lessons learnt

Introduction

The ISSD Ethiopia programme aims for continuous sharing of experiences and lessons learnt within its programme components, among components, and with partners at all levels of the Ethiopian seed sector. A wide range of instruments is used for sharing experiences and lessons learnt, to foster the use of concepts, methodologies, insights and practices among partners and stakeholders in various domains. The objectives of this component is to share experiences and lessons learned and promote the use of new concepts, methodologies, insights and practices among partners and stakeholders in various domains and at various levels.

Main activities

Please note that the general approach towards sharing of experiences is similar in all regions; however, activities may differ among regions. At national level a number of different activities are coordinated. The main activities of the programme include:

- Development of a publication the achievements of ISSD Ethiopia 2012 – 2015 for seed practitioners within Ethiopia and beyond, describing general approaches and methodologies, and also including many case studies;
- Broadcasting a weekly radio programme on seed related issues for farmers and their local partners;
- Development of publications like newsletters, magazines, flyers, fact sheets, posters, press releases and policy briefs, to share activities, innovations and achievements with partners and key stakeholders;
- Development of specific publications like the DSM regional booklets (Amhara);

- Management of the ISSD Ethiopia website, including blogs to share the programme's activities and achievements with a wider audience;
- Social media management like a Facebook page and twitter, to encourage interaction with interested professionals;
- LSB twinning, allowing sharing of experiences between LSBs and with partners;
- Regional workshops to share ISSD Ethiopia experiences and to discuss the national seed strategy and the link of ISSD to the regional AGTII seed sector development strategy;
- Other type of experience sharing meetings, seminars and discussion forums for partners at regional level;
- Development of promotional materials to increase the visibility of the programme.

Analysis of main activities

Please refer to the region specific annual reports for 2015 for a detailed analysis of the sharing experiences and lessons learnt activities for each region.

ISSD Ethiopia uses a variety of communication materials and distribution channels to reach its different audiences (M&E framework, indicator 16.1). For example farmers and local partners are reached through local radio and leaflets published in local languages; also face-to-face tools are used like twinning of LSB sites, in which farmers learn from their peers. Regional stakeholders are reached for example through glossy magazines, books (e.g. DSM study in Amhara) and national and regional websites, but also through e.g. regional workshop events. National level actors are reached through national and regional ISSD Ethiopia websites, workshops, seminars and policy dialogues on specific topics. ISSD Ethiopia staff is also invited to share ISSD experiences in key seed events organized by other stakeholders at regional, national and international level, which shows that these audiences are effectively reached.

Using all these communication channels and tools we often presume that seed sector stakeholders in Ethiopia know about ISSD Ethiopia and its activities and achievement (M&E framework, indicator 16.2). Different types of stakeholders, including farmers, have indicated that they have changed their daily practices based upon experiences and lessons as shared by ISSD Ethiopia. An example from Oromia East is that the weekly radio programme has motivated smallholder farmers to apply for SPC membership and some SPCs operating in marginal and drought prone areas who heard about the success of other SPCs got involved in seed business.

Key outcomes of main activities

We did not identify outcome indicators for this specific component. It is a support component of the ISSD Ethiopia programme. See above concrete activities and outputs.

Main lessons learned

The main lessons learnt include:

- Content management of interactive radio programmes enhances appropriate message delivery to SPCs;
- Media diversification is necessary to keep in touch with different target groups;
- Local media, particularly radio, remains vital to communicate with farmers;
- Concise, simple and vivid content messages are necessary to attract audiences and readers;
- Updating social media is enabling easy access of information;
- Experience sharing visits support strategizing future actions;
- Policy briefs attracted policy makers and other partners to read them immediately after sharing, e.g. immediately after meetings;
- Translation in local language (magazines, social media pages) attracted more readers.

Sustainability and way forward

- More emphasis will be put on assessing the effectiveness on of the different communication tools;
- Refinement and implementation of comprehensive communication strategy across the regions;
- Alignment of communication efforts with BENEFIT partnership and its projects;
- Updating ISSD Ethiopia website and other social media channels on the next phase of ISSD Ethiopia and the BENEFIT partnership;
- We will continue to organize experience sharing to share successes, innovations and effective strategies;

-
- We will strengthen the collaboration with (local) media actors (e.g. radio), to increase the visibility of ISSD and to produce and air seed related subjects (e.g. seed business);
 - We will emphasize the organization of community dialogues at grassroots level to reach more women farmers.

2.10 Capacity development

Introduction

Within all programme components, different modalities are developed for strengthening the capacity of ISSD Ethiopia staff and partners. Capacity building activities are always needs based, and are designed in such a way that new knowledge and skills can be immediately applied to support the development of the seed sector in Ethiopia. The objective of this component is to develop modalities for capacity development at national and international level, for all sector components for ISSD-Ethiopia staff and partners.

Main activities

Tailor-made trainings:

- Seed producer cooperative management and governance for five ISSD Ethiopia farmer organization innovators;
- Data analysis using STATA tools for ISSD Ethiopia innovators and selected university staff;
- ISSD Ethiopia writeshop for ISSD Ethiopia innovators.

International trainings on:

- Integrated seed sector development in Wageningen for 1 ISSD Ethiopia staff (PMU) and 4 strategic programme partners (ATA, EIAR, MoA);
- Media design for social change in Wageningen for six ISSD Ethiopia knowledge sharing and capacity development innovators;
- Plant genetic resources and seed in India for three ISSD Ethiopia innovators (Agribusiness innovator from SNNPR, Farmer organization innovators from Amhara and Tigray).

In addition many trainings have been organized by ISSD Ethiopia staff at regional and LSB level, for a diverse range of partners; find more information on these trainings in the regional annual reports. This included a training on seed dealership and management for 40 seed sales agents in SNNPR.

Analysis of main activities

Through the trainings mentioned above the capacity of staff and partners have been developed in the respective areas (M&E framework, indicator 17.1); the activities section mentions the trainings topics and number of participants. Trainings have been developed based on a specific demand, and designed as such that new knowledge and skills could be immediately brought into practice in ISSD Ethiopia specifically, and the seed sector in general.

Key outcomes of main activities

We did not identify outcome indicators for this specific component. It is a support component of the ISSD Ethiopia programme. See above concrete activities and outputs.

Lessons learned and the way forward

The main lessons learnt include:

- Continuous efforts in developing skills and knowledge of seed sales agents are key factors to increase the efficiency of DSM and other innovations;
- Tailor-made trainings of ISSD Ethiopia staff build their capacity as well as confidence, and improve their efficiency as well as motivation; as such these trainings benefit the realization of targets in ISSD Ethiopia;
- International training of strategic partners improved the collaboration with ISSD Ethiopia;
- The same is true for regional and local partners considering training in Ethiopia;
- Trainings should be organized as such that the real needs of the trainees are addressed and the training is delivered at an appropriate time so knowledge can immediately be brought into practice;
- Higher demand for on-the-job trainings, also for management staff;

- Provision of course materials ahead of any training could facilitate the training and increase participation;
- Tailor-made training of ISSD Ethiopia staff and partners needs to be continued, a new training needs shall be identified;
- Also at regional and local level the program needs to design trainings to improve the knowledge, skills and implementation capacity of ISSD Ethiopia partners at all levels;
- Proper planning, organization and collection of feedback at the end of the trainings are essential, serving as an input for subsequent trainings (e.g. organizing a platform to monitor the results of the trainings after some time);
- ISSD Ethiopia staff should continue to upgrade their educational levels.

2.11 Collaboration with other partners

Introduction

The ISSD Ethiopia programme collaborates with many partners towards strengthening the seed sector in Ethiopia, and shares similar objectives with many other organizations and seed programmes. These programmes operate at national, regional and local scale. This chapter highlights collaboration with some specific partners like the Agricultural Growth Programme (AGP), the Agricultural Transformation Agency (ATA) and specific agricultural development programmes supported by the Netherlands Government like CASCAPE and the Sesame Business Network (SBN). The objective of this component is to create synergy and avoid duplication of efforts in ISSD Ethiopia programme interventions. These collaborations are instrumental in promoting sustainability and in increasing the impact of ISSD activities across all of the aforementioned components.

Collaboration with the Ministry of Agriculture

ISSD Ethiopia works with the Plant Quarantine and Regulatory Directorate of MoA on seed quality related issues. ISSD Ethiopia has contributed to the formulation of the recently approved Seed Proclamation. However, collaboration is not as strong as we would like it to be; the unit is understaffed and has been completely occupied with formulation of the seed regulations and the establishment of an implementation structure for the new regulations. An important issue still on the agenda is the ongoing amendments to the Plant Breeders' Right Proclamation, which needs to be expedited.

Collaboration with the Agricultural Transformation Agency

ATA is a key partner for ISSD Ethiopia. ATA together with MoA had the lead in the development of the Ethiopian Seed Systems Strategy. This strategy provides a framework and many entry points for strengthening the seed sector. ATA has taken up a number of innovations of ISSD Ethiopia, and supports scaling and institutionalization of these innovations. ATA and ISSD Ethiopia collaborate in Direct Seed Marketing (DSM) and in supporting the seed regulatory agencies of the region. They have also joined efforts in coordinating EGS supply. ATA has supported selected LSBs with grants to strengthen their infrastructure. More details are provided in the regional annual reports.

Collaboration with the Agricultural Growth Programme

The Agricultural Growth Programme supports agricultural development in selected high potential woredas in Ethiopia. It recognizes quality seed as an important input to improving agricultural production and productivity. Currently close to 60 LSBs are operating in AGP woredas in the four regions. Thus, for the technical aspect of quality seed production, the regional ISSD units are working close with AGP to solve constraints of seed production in these woredas. Over the past year AGP, through ACDI/VOCA, has provided grants to selected LSBs to strengthen their seed production infrastructure. Find more details in the regional annual reports.

Collaboration with CASCAPE

CASCAPE is one of the programmes supported by EKN in Addis. It works on improving agricultural productivity through promoting evidence-based best agricultural practices. The regional annual reports report on collaboration with CASCAPE in the following areas:

- Oromia East: awareness creation on food and nutrition; and promotion of the cultivation of nutrition dense crop varieties;

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- Oromia South and West: Support to the development of LSBs;
 - SNNPR: Education on nutrition;
 - Tigray: Strengthening SPCs.

It is obvious that for improving agricultural productivity, quality seed and good agricultural practices go hand in hand. Collaboration in this area needs to be further strengthened.

Collaboration with the Sesame Business Network support programme

Another project supported by EKN Addis is the SBN support programme. This programme focusses on working on sustainable and inclusive sesame value chain development. From 2014 SBN and ISSD Ethiopia collaborated in Amhara on the identification of private seed producers, and Tigray region on actually strengthening sesame seed production. The two programmes shall continue to collaborate in assuring the demand for quality sesame seed is met.

Appendix 1 Regional annual reports 2015

- Amhara
- Oromia East
- Oromia South and West
- SNNPR
- Tigray
- ISSD PMU

To explore
the potential
of nature to
improve the
quality of life



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Report CDI-16-012

The Centre for Development Innovation works on processes of innovation and change in the areas of food and nutrition security, adaptive agriculture, sustainable markets, ecosystem governance, and conflict, disaster and reconstruction. It is an interdisciplinary and internationally focused unit of Wageningen UR within the Social Sciences Group. Our work fosters collaboration between citizens, governments, businesses, NGOs, and the scientific community. Our worldwide network of partners and clients links with us to help facilitate innovation, create capacities for change and broker knowledge.

The mission of Wageningen University & Research (Wageningen UR) is 'To explore the potential of nature to improve the quality of life'. Within Wageningen UR, nine specialised research institutes of the DLO Foundation have joined forces with Wageningen University to help answer the most important questions in the domain of healthy food and living environment. With approximately 30 locations, 6,000 members of staff and 9,000 students, Wageningen UR is one of the leading organisations in its domain worldwide. The integral approach to problems and the cooperation between the various disciplines are at the heart of the unique Wageningen Approach.

