ISSD SNNPR

News letter -*September 2019*

Crop Portfolio Diversification for Nutrition Security and Climate Change Adaptation

Informal seed system can often be the best system through which seed can be accessed into remote areas and for poor farmers. It has a strong focus on women farmers (gender), traditional and neglected crops, access to appropriate varieties, and nutrition security.

In view of this, ISSD implemented crowd sourcing (CS) as an efficient variety deployment method, which is new and innovative approaches, to create demand, offer basket of options and ensure crop and/or variety diversification and quick dissemination of various new and improved varieties. In addition, participator variety selection (PVS) used as a tool to enhance farmers participation in the process of variety selection.

Based on CS and PVS implementation in *Belg* season in SNNPR by ISSD with the collaboration of the Woredas Office of Agriculture and Jinka Agricultural Research Center, four farmers field days were organized during July 10 to August 19, 2019. The male and female farmers, development agents, agriculture experts, Woreda heads of MOA, Woreda Gender Office heads and Woreda Finance heads were participated on the events.

The first field day was conducted at Derashe Woreda Laygaw Argoba Kebele on July 10 2019. This field day was held in order to facilitate farmers' variety selection process on which 84 (female and male) farmers participated and selected three varieties from the eleven varieties tested. These varieties include Tatu, Ibado, SAB 632, Zoshua, Dab 107, Nasir, Kat, Ser 119, Hawassa Dume, SER 125 and Rori planted on farmers training center replicated three times. The event was inaugurated by the ISSD SNNPRS unit manager Dr. Girma Abera.

The selection process was started by women participants which were 30 plus. First carefully instruction was given by the ISSD experts and by the Kebeles DAs (with local language translation) about the selection process and how they are going to select the 1st, 2nd and 3rd outstanding varieties that adapt to the agro-ecology. Following that after carefully going round and assessing the difference among the eleven varieties tested, the female farmers selected the top three varieties using different colour cards provided to them by the ISSD experts. After wards the male participants which were 54 also followed the same steps and did the selection as well.

In the meeting conducted after the variety selection process the results of the selection of both male and female were announced officially by adding the votes of male and female participants. Accordingly, 48 male and 36 female a total of 84 farmers vote for three varieties as first, second and third (SER 125, SAB 632 and Ibado), respectively.

After announcing the results the participant farmers were asked to state their reasons for selecting these three varieties as the top ones. A female farmer by the name of Gebeyanesh stated that she choose the varieties SER 125 as 1st. and SER 125 as 2nd based on its high yield, plumped seeds and higher number of seeds per pod. She also brought the three harvested seeds of improved varieties from her plots in separate bags and displayed on the table for the experts and the audience to evaluate, since they matured earlier than on FTC.

The male farmers also explained the reason why they choose SER 125, SAB 632 and Ibado as the top priority respectively, i.e. because of high yield, more number of seed per pod, more pod number per plant and early maturity.

Picture showing the inauguration of farmer's field day in Laygaw Argoba Kebele FTC, Derashe Special Woreda in Belg season.

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"The first variety is s early maturing and high yielder. So that's why I choose, regarding the second variety even though it take much longer time from the first one for harvest it got also better yield he stated".

Towards the end of the program the participants promised that they will focus on multiplication of the selected seed of improved varieties and welcome another varieties that can be good to their local environment and promised to take the work as their own.

In south Ari woreda Bai Tsemay Kebele farmers' field day was

Male farmers evaluating haricot bean varieties planted during Belg season in Derashe woreda on farmers' field day during 2019

conducted with the collaboration of ISSD and Jinka Agricultural Research Centre on August 8, 2019. The field day was focused on finger millet varieties evaluation, which were 13 new improved varieties such as Addis 01, Urji, Gudetu, Dega 1, Koako 1, Bonya, Tesema, Tadesse, Baredo, Wama, Gute, Bako and Tikur Dagusa tested on FTC. The varieties also directly distributed to 100 male and female farmers as well. The program was inaugurated by South Omo Zone Agriculture Office head Gidalk Alkimi.

Muhaba Sultan, Jinka Agricutural Research Center (JARC) Director, further stated that the varieties tested on the FTC here are also tested by farmers themselves at their on farms (plots). Following JARC head, the ISSD SNNPR Regional Unit Manager Dr.Girma Abera took the stage and gave speech about the work ISSD is doing for the benefit of the agricultural community and getting access to a better and quality seed. He stated the importance of CS and PVS work to the community.

He further advised the farming community to select what is best for local environment carefully because afterwards the woreda Agriculture Office will take over to multiply the variety (s) selected by male and female farmers. Mr. Mulatu Gebissa, ISSD seed expert explained the process of selecting the best varieties by the community themselves for better and quality seed access. The selection process was conducted in ballot method by the two gender groups using different colored cards. The results were announced at spot as follows, where variety named Tadesse stood first followed by Teseesma and Kako 1.

"Select what is best for local environment carefully because afterwards the woreda Agriculture Office will take over to multiply the variety(s) selected by male and female farmers" Dr. Girma Abera.

Finger millet participatory variety evaluation on FTC in South

Both male and female farmers selected the three top varieties of their preferences. As the farmers explained they select Tadesse as their 1st choice because of the high yield and its adaptability to their environment and also stated that Tesema the second selection is also because of its high yield and some they also mentioned its taste as well also Kako 1 got the third position by being better yielder than the rest 10 varieties. At the end of the ceremony the farmers thanked ISSD and Jinka -Agricultural Research Centre for bringing this opportunity to them and promised to continue the work that is began by both parties.

In Kedida Gamela woreda of Kembata Tembaro Zone, farmers' field day was conducted on August 5, 2019 focusing on the haricot bean where 7 varieties of haricot bean were deployed, which are Nasir, Dume, Ibado, Ramada, Gagabea, Awash 1 and Rori as our team done for the previous areas. The selection process was conducted by both male and female farmers and they selected the three best varieties, Ibado, Rameda and Awash 1 in that order. As we did for the others we asked the farmers why they choose this varieties as best they stated they choose Ibado as first because it fits the environment, a high yielder and most importantly they mentioned that Kedida Gamela have a shortage of land and this varieties have a high nitrogen content and when we replace other crops on the land the Nitrogen and other minerals will help the other crop to be very productive and that's really useful for us they said.

The program was closed by Dr. Girma Abera by appreciating the work and thanking them for giving attention to the process. He advised the woreda experts and head of Agriculture Office to seriously take this improved varieties and maintain the seeds to be harvested to use for the next year seed multiplication.

The last field day focusing on haricot bean was conducted on August 19, 2019 in Wolayita Zone, Humbo Woreda on which 8 varieties deployed. These varieties are Tato, Gegeba, Rori, Kat B9, Ibado, Dume, Nasir and Ramada, which were tested on FTC. The event started by an opening speech given by Ato Tegegn - the Woreda Agricultural Office head and the Parliament Member of woreda and ISSDs project manager had their speech respectively. The woredas agricultural experts in collaboration with ISSD staff gave the instruction about the selection process and gave 3 different coloured cards for every participants to perform selection.

The selection process was done accordingly and they selected the three top improved varieties with their own preferences. Thus, these were Rori with 86 votes, Remeda with 61 votes and Ibado with 39 votes were selected by the farmers. They stated their reason of selection as high yielder and better adaptable to the environment as their major reason for their selection.

As the climate change is become the major threat for countries like Ethiopia this kind of crop diversification work will play the bigger role in the climate change adaptation as well as giving access to quality seed to the farming community. In addition, the inclusion of nutrition dense legume crops in the CS and PVS activities enhance the nutrition security of the host farmers in the region.

Famers field day at Humbo Woreda Belg season planted with haricot bean during 2019.

Gender Inclusive Improved Seeds Evaluation Enhanced Participation of Local Farmers

In Ethiopia, women's access to productive resources has been very limited and their contribution to agricultural growth is unrecognized because of socially constructed gender role division. This in turn decreases overall agricultural performance and returns to the farming communitiy.

ISSD Ethiopia Hawassa University unit has been working to close the existing gender gaps in seed sector by making all project interventions gender sensitive and responsive. It supports both male and female farmers' equally in informal seed sector intervention and mainstreaming gender in all project components. Key areas of interventions that support informal seed system include creating access of improved varieties to male and female farmers through gender inclusive crowd sourcing (CS) and participatory variety selection (PVS). The project specifically aimed to empower female farmers in their access and use of quality seed of varieties of their preference. Strong emphasis is placed on germplasm access and use (deepening the farmer portfolio) for the most appropriate varieties.

Inclusion of female farmers in variety evaluation events

For 2019 informal seed sector intervention, gender sensitive target farmers' identification was conducted. Where, among 3600 farmers who were selected for CS and PVS activities, 1800 (50%) are female farmers**.** For this intervention**,** male farmers in male headed households, female farmers in male headed households and female farmers in female headed households are targeted. Through crowd sourcing for increased variety deployment, the project has been generating a great deal of local data on varietal preferences of men and female farmers. Final evaluation of varieties deployed has been conducted with male and female farmers based on their trait preferences. Among thirteen CS and PVS intervention woredas in 2019, four woredas; Derashe, Kedida Gamela, Humbo and South Ari (Jinka research center), have organized farmers field days for the Belg season planted crops. Of which 50% of the participants of the event were female farmers.

During the events, the variety selection process through voting was conducted separately for male and female farmers. Based on the result, the discussions were conducted and farmers selected three different varieties they prefer among many varieties deployed per crop. This process led women farmers to have equal access and use of quality seed /variety/ they prefer. This process gives position to female farmers' knowledge and experience on variety evaluation and recognized their contribution to seed sector development.

Female farmers used certain trait as a selection criteria of the haricot bean varieties tested on Farmers Training Centers in each Kebele. These traits are like seed colour, seed size, seed taset and early maturity, since most of these traits are very much related with their food utilization and their experiences. The participation of female farmers in seed selection based on their trait preference ensure their access to varieties and services equivalent to their contribution. Addressing female farmers' crop and varietal preferences is a key in facilitating access to quality seed of their preferred varieties among community in sustainable base. Thus, currently farmers in the project target area have an experience of sharing and exchanging the best performing varieties of different crops (i.e. tef, haricot bean, sorghum, finger millets, and faba bean) in their locality both within and outside of their community**.** This enhanced farmers' ability to select the best varieties and increased their demand to the quality seed rather than depending on the single variety per crop for long time.

In *Belg* season of 2019, CS and PVS were conducted in Derashe, South Ari, Kedida Gamela and Humbo Woredas of SNNPR. Accordingly, in each wordea two Kebeles were selected for the project activities implementation through CS and PVS. In each Kebele 100 host farmers (50 male and 50 female) were involved as CS implementer were each farmer was given three varieties of crops to test at their own (Table . These field days show that the ISSD project promoted equal participation of male and female farmers in seed sector transformation.

Table 1: Haricot bean varieties selected on farmers' field day in Derashe Woreda during Belg season of 2019

Varieties	Male	Female	Total	Rank
SER 125	23	11	34	1st
SA 632	13	7	20	2nd
Ibado	5	6	11	3rd

Finger millet is an important food and beverage crop in South Ari, Jinak South Omo Zone. During the farmers' field day male and female farmers reported that this crop has special attachment to the local people, since it is drought tolerant, resistant to storage pests and requires less fertilizer inputs for production. In addition, they mentioned that the crop has many uses as food crop, beverage making and also good soup for women when they give child birth.

Table 2: Finger millet varieties selected on farmers' field day in South Ari Woreda during Belg season of 2019

Varieties	Male	Female	Total	Rank
Tadesse	20	14	34	1st
Tesema	20	12	32	2nd
Kako 1	15	15	30	3rd

Table 3: Haricot bean varieties selected on farmers' field day in Kedida Gamela Woreda during Belg season of 2019

Varieties	Male	Female	Total	Rank
SER 125	23	11	34	1st
SA 632	13	7	20	2nd
Ibado	5	6	11	3rd

Table 4: Haricot bean varieties selected on farmers' field day in Humbo Woreda during Belg season of 2019

Varieties	Male	Female	Total	Rank
Rori	69	17	86	1st
Remeda	54	7	61	2nd
Ibado	23	16	39	3rd

Thus, out of the eight haricot bean varieties tested on FTC in Humbo Woreda, the three top in terms of agronomic performance, seed quality, disease resistance and yield and selected by farmers are shown in table 4 above.

Some Achievements of the ISSD SNNPR Project in 2019

Institutionalizing the Direct Seed Marketing in SNNPR(DSM)

Seed is an important input for agricultural production and rural development in Ethiopia. Use of improved quality seed significantly increases agricultural production and improve livelihood of farmers. Access to seed includes the type (different crops and varieties), quality (e.g. colour, size, nutrition value etc.) and quantity (volume) of the seeds required by the users. Seed can contribute to agricultural production if and only if it is available in good quality, in sufficient quantity, at the right time with affordable price.

Effective seed marketing and distribution is as equally important as developing improved variety, seed production and processing to increase crop production and productivity. The government of Ethiopia has developed various seed-related policies to ensure that farmers get the right seed at the right place and time. However, this seed marketing and distribution system has still great challenges. This is because of the fact that the seed marketing and distribution uses only one channel (the structure of BoANR or cooperative unions). This channel , is quite long chain and inefficient in timely seed delivery at the right place. As there is no direct contact between seed enterprises and farmers there is often lack of accountability and traceability, reducing trust and confidence of farmers in quality of seed they are buying. The system does not allow the seed enterprises to get feedback from farmers and to know demand of farmers in terms of type, amount and quality.

In order to solve the challenges in seed marketing and distribution, the ISSD Ethiopia Program initiated the innovative approach of implementing direct seed marketing in pilot woredas of Amhara (2011), and Oromia and SNNPR (2012), by involving seed enterprises to directly sell their seeds to farmers. The pilot project has been implemented in collaboration with Bureau of Agriculture at regional, zonal and woreda levels. In SNNPR State, DSM was first piloted in Belg season of 2012, in Bona Zurya woreda by marketing maize seed.

In SNNPR, the DSM is currently operational in the selected 45 woredas out of 130 total woredas in the region. In 2018 cropping season a total of 13 seed producers have been involved in the DSM within SNNPR, while a total of 120 DSM agents have been participating in the marketing of certified seeds of 6 crops (maize, wheat, tef, food barley, faba bean and haricot bean seed). In 2018 cropping season 72,983 quintals of certified seed are marketed by DSM.

In order to make a full use of the benefit that the DSM can bring about, the operation of the program has to be enhanced. Having common understanding among different stakeholders about the concepts, goals and guiding principles of DSM is very crucial for the proper implementation and sustainability of the program. Thus, for this to happen, consultative meetings and discussion were made among the seed core groups.

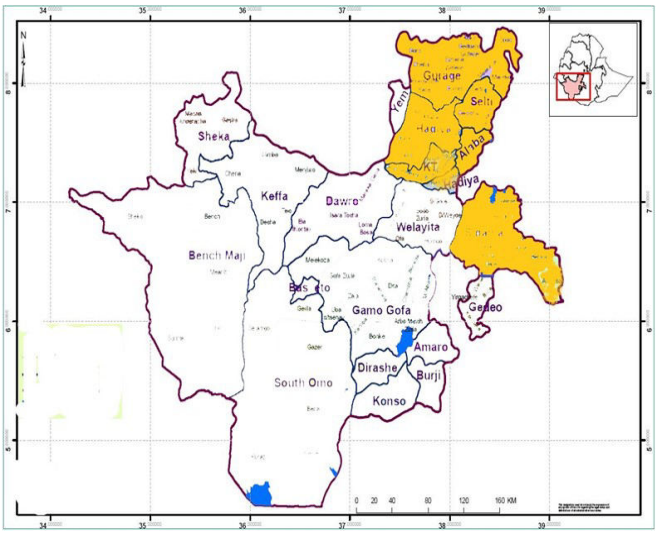

Figure 1: Map of the Zones addressed by DSM in SNNPR State during 2018.

The main expected benefits of DSM can be summarized as follows:

- Traceability of the seed sources and accountability for seed quality increased, which increases farmers' trust;
- The time spent and resources allocation for seed distribution could be saved/reduced and hence they can now concentrate on training and advisory services of farmers;
- Agro-dealers hold responsible for seed failure since seed distribution is now managed by them, which considerably improves the relationship between DAs and farmers;
- Seed Companies will be rewarded for better quality seed production and distribution, thus an incentive to improve on quality in the future;
- There is less seed fraud and storage damage as the seed value chain is much shorter.

In SNNPR State, DSM was first piloted in *Belg* season of 2012, in Bona Zurya woreda by marketing maize seed. In the Meher season of 2012 DSM was implemented in another 4 woredas through the marketing of wheat seed. At that time ESE and SSE were engaged in the direct marketing of hybrid maize seed. However, during the *Meher* season only SSE was engaged in the direct marketing of wheat seed. The amount of seed and type of varieties marketed through ESE and SSE with DSM in 2012 is shown below (Table 1).

Table 1: Performance of DSM in 2012 by woreda, companies, varieties, and quantity supplied (qt) and distributed in SNNPR

Woreda	Company	Crop Variety	Seed distributed (qt)
Bona	ESE	BH 660	457
	SSE	BH 660	343
		Maize total	799
Angacha	SSE	Dendea	400
Anelemo	SSE	Digelu	105
	SSE	Dendea	100
Damot/G	SSE	Galema	200
Dalocha	SSE	Galema	100
	SSE	Simaba	100
	SSE	Digelu	200
		Wheat total	1205

The DSM implementation in SNNPR State has been increased in terms of woreda coverage, the number of seed companies engaged and also in the amount of seed marketed. In 2018, the number of area coverage increased to 45 woredas, the number of crop type increased from one to 6 types, the number of seed producers increased to 13, the number of DSM agents increased to 120 .

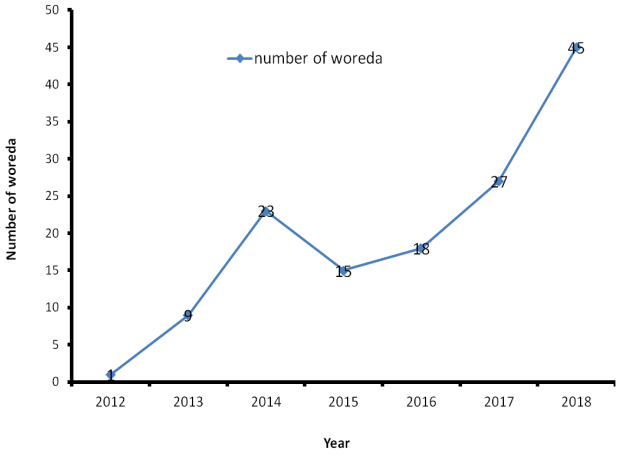

Figure 2: Progress of DSM in woreda coverage during 2012 to 2018 in SNNPR State.

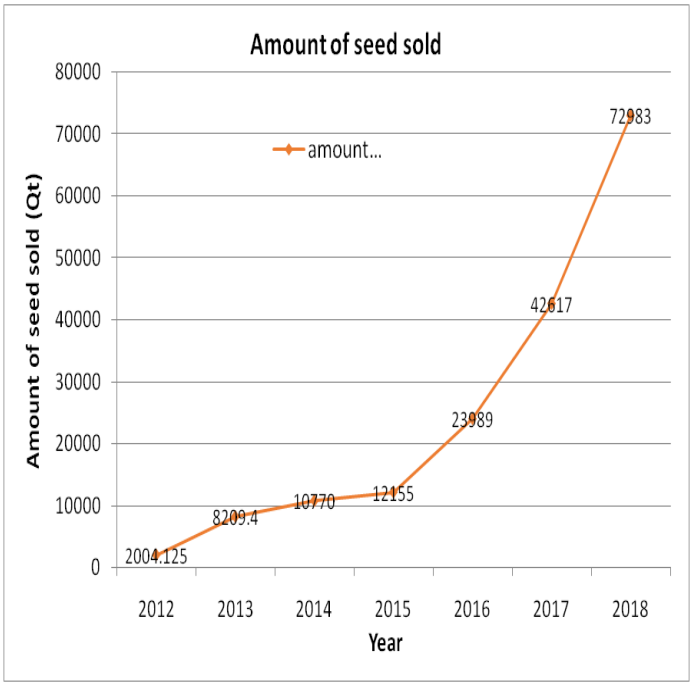

Figure 3: The past three year (2016-2018) progress in terms of the amount of seed marketed through DSM by crop type in SNNPR State.

Stakeholders Training on CS and PVS

Since 2016, ISSD Ethiopia SNNPR unit has been conducting the informal seed system intervention activities with the aim of strengthening the regional informal seed system. A training focusing on PVS, crowd sourcing, gender sensitive informal seed system intervention and data collecting system was held at the town of Shashemenefrom Feb 26 – 28, 2019.

The second training of CS and PVS was organized at Hosena on 26 June 2019. The participants were agriculture extension experts, DA, focal persons at Woreda nd Kebele levels of Lemo, Anlemo and Adilo woredas. Similarly, the third training on the the same topic was organized at Halaba on 30 July 2019. The participants on the training weree agriculture extension experts, DA, focal persons at Woreda and Kebele levels of Dalocha, Kedida Gamela, Humbo and Halaba Woredas.

Cluster based farmers' seed multiplication for wider scale seed utilization

ISSD has been operating in Ethiopia by the aim of improving female and male smallholder farmer's access to and use of quality seed of new, improved and farmer preferred varieties to sustainably increase agricultural productivity.

The local seed multiplying groups in other terms, Local Seed Business (LSB) development is one component of the ISSD Ethiopia Program, focusing on organizing and supporting groups of farmers (often legally registered as seed producer cooperatives) to produce and market quality seed that has great local demand. These groups are the immediate seed sources of their woredas and serving the farming community in general.

Cluster based farmers' seed multiplication is a fast track approach for improved seed extension and deliver system that helps to reach more local farmers with improved seeds of good quality, sufficient quantity, at the right time with affordable price. ISSD SNNPR is playing the facilitation, adviser and couching role in cluster based farmers' seed multiplication process. The agricultural offices also facilitate the clustering approach and implement it on the ground, by facilitating inputs like seed and fertilizers uses. The improved seeds multiplication is based on CS and PVS achievements over the last years.

Faba bean seed multiplication at Chena woreda, Kefa Zone

The seed multiplication is under implementation in 4 woredas on a total of 27.25ha with 4 crop types of faba bean, haricot bean, wheat and tef with a total of 13 different crop varieties during the *Meher* season in 2019. At Humbo Woreda of Wolayita Zone 2.25ha of haricot bean and 6ha of tef, at Chena Woreda of Keffa Zone 3ha of faba bean, at Dalocha Woreda of Silte Zone 2ha of wheat and 4ha of tef, and at Lemo Woreda of Hadiya zone 6ha of tef and 4ha of wheat is under multiplication.

The following are the crop varieties under multiplication: Tumsa, Dagaga and Dosha from faba bean; Hawassa Dume, Gegeba and Ibado from haricot bean; Quncho and Kora from tef and Wane, King bird and Ogolcho of wheat which were selected from 2018 CS and PVS activities. The selected varieties are early maturing, relatively high yielding, disease and pest resistant which contributes for the improvement of seed system of the region.

As we are working on the seed sector transformation the seed multiplication work will have bigger role in enhancing the productivity of the farming community. ISSD goal of farmer's access to and use of quality seed of new, improved and farmer preferred varieties to sustainably increase agricultural productivity will be achieved by reaching more local farmers and wider scaled improved seed utilization.

Wheat seed multiplication at Dalocha nworeda, Silte Zone

Innovative Seed Multplication By Derashe Worde

Sorghum seeds are multiplied on 2ha of land in Derashe Woreda by the support of Office of Agriculture and Rural Development, based on 2018 ISSD project achievements, aiming to scale up improved seeds utilization in Derashe Woreda, Segen Peoples Zone.

Sorghum seed multiplication at Derashe woreda, Segen Peoples Zone

The Integrated Seed Sector Development Project (ISSD Ethiopia) is one of the proud projects under the BENEFIT partnership.

The Bilateral Ethiopian Netherlands Effort for Food, Income and Trade (BENEFIT) Partnership unites four projects funded by the Directorate-General for International Cooperation (DGIS) of the Netherlands Ministry of Foreign Affairs and implemented by Wageningen University and Research: CASCAPE, ISSD-Ethiopia, SBN and ENTAG.

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ISSD Ethiopia aims to improve female and male smallholder farmer access to quality seed of new, improved and/or farmer preferred varieties sustainably increase agricultural productivity. Using an Integrated Seed Sector Development approach, ISSD Ethiopia promotes a vibrant, pluralistic and market oriented seed sector.
ISSD Ethiopia works through teams based at Haramaya University, Bahir Dar University, Mekelle University, Hawassa University and the Oromia Seed Enterprise. ISSD Ethiopia is part of the BENEFIT partnership the Project Management Unit is hosted in the BENEFIT office.