

ESP 2021 – 2027
Narrative progress report 2024

Ethiopian SEEDPARTNERSHIP

WAGENINGEN UNIVERSITY & RESEARCH

Wageningen Social & Economic Research
Wageningen, May 2025
Report WSER-2025-A004

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1 Summary sheet

Programme title	Ethiopian Seed Partnership (ESP)
Mission	Small-scale food producers have increased food security, nutrition, and resilience to shocks and stresses.
Goal	Ensure the delivery of quality seed of adapted varieties to these small-scale food producers across the country.
Intended outcomes	1) Private sector strengthened in its contribution to seed delivery; (2) Uptake of innovations and empowerment of young men and women increased; (3) Responses to seed insecurity are effective and sustainable; and (4) Transformation of the seed sector is enabled.
Country	Ethiopia
Programme duration	6 years (September 10th, 2021 – December 31st, 2027)
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Budget	€ 14,500,000

2 Executive summary

a. Lessons learned, results, and conclusions

- Outputs towards Outcome 1 − Private sector strengthened − On track. The Ethiopian Seed Partnership (ESP) supported domestic businesses produced 3,059 mt of quality seed and expanded their portfolios to 33 varieties across 12 crops (cereals, pulses, oilseeds, and forages).
- To address limited access to finance—a key barrier—we advanced the Guarantee to Grant (G2G) scheme, set to begin in 2025 with Awash Bank of Ethiopia as the implementing partner.
- We successfully launched a cohort of 12 women seed value chain entrepreneurs, strengthening sector business skills, leadership, and knowledge of sustainable agricultural practices (SAPs).
- The Ethiopian Seed Association (ESA) advanced the implementation of its business model, appointed new leadership, and initiated a member segmentation exercise to better tailor services and advocacy. 70% of its members rated its services as above satisfactory.
- We consolidated our work in four value chains (forage, leafy vegetables, animal feed, and young plant propagation) and initiated two new ones (chickpea and grass pea). Due to the lack of registered new varieties and limited access to early generation seed (EGS), we shifted our priority on new variety trials and varieties registration in partnership with domestic and international seed companies.
- Outputs toward Outcome 2 − Human resource capacities in the seed sector are strengthened − are on track. Security concerns restricted activities at Bahir Dar University, but Haramaya University revised its MSc Seed Science curriculum and developed three short-term course modules. 33 interns (7 female) gained permanent employment; 15 (4 female) started their own businesses. Lack of start-up capital was a major constraint for graduates interested in starting their own businesses.
- Sub-contracted international seed companies and local partners reached 13,386 farmers (4,016 female) through SAP demos and trainings. Recognising gaps in high yielding new oilseed and forage varieties, we launched a new round of partnership calls in collaboration with the International Seed Federation, resulting in applications from 22 companies across Europe, Asia, and Africa.
- Outputs towards outcome 3 − Activities on responses to seed insecurity are effective and sustainable − This outcome was kickstarted when Memoranda of Understanding (MoUs) were signed with regional governments, and the project launched, in Somali, Afar, and Tigray. Ten priority woredas were selected for implementation, and preparations for seed system security assessments initiated.
- Outputs towards outcome 4 − Activities supporting the transformation of the seed sector − On speed. ESP supported the establishment of regional seed coordinating bodies in five regional Bureaus of Agriculture (BoAs) (Central Ethiopia, Amhara, Sidama, Tigray, and Benishangul-Gumuz) to lead regional seed sector coordination and transformation.
- ESP supported the Ethiopian Agricultural Authority (EAA) in strengthening its capacity for seed regulatory services, including piloting different modalities for distinctness, uniformity, and stability (DUS) test and national performance trials (NPTs); developing standard protocols for selected crops; and exploring sustainable models for variety testing sites. We have successfully piloted barcodes to combat counterfeit seed, in collaboration with the regulatory authorities of Amhara, Oromia, and Central Ethiopia. ESP continued supporting the EAA and the Ministry of Agriculture (MoA) in developing eight directives and two new seed regulations. The majority remain pending approval, although they were validated several months ago.

b. Main steering implications for the next reporting period

- Conflict/insecurity remain major challenges, particularly in Amhara and West Oromia: ESP will continue to emphasise conflict sensitivity in programming.
- Limited access to finance remains a key barrier for domestic seed businesses: ESP will focus on establishing close collaboration between businesses and Awash Bank for G2G and will partner with more domestic and international seed companies, prioritizing oil seed, fodder, and forage crops.
- Hastily planned emergency seed responses can weaken local systems in conflict/drought-affected areas: ESP's expansion in Tigray, Afar, and Somali will accelerate rehabilitation and strengthening the resilience of local seed systems in coordination with humanitarian, development and peace-building actors.
- Poor sector coordination hinders performance: We will support the regional seed coordination committees and facilitate systems thinking to address their challenges.
- Institutionalization and the use of digital tools remain incomplete: We will continue supporting EAA in exploring options, including institutionalizing DUS and NPT test modalities, finalizing directives and regulations, and exploring the operationalisation of digital seed certification.

3 Introduction

a. Description of programme and intervention strategy

The Ethiopian Seed Partnership (ESP) builds upon the Ethiopia-Netherlands Seed Partnership (ENSP) by reaching beyond its original mandate to enable the business of the private sector and enter new areas affected by drought and conflict. The goal and intended impact of the ESP is that small-scale food producers will have increased food security, nutrition, and resilience to shocks and stresses through their improved access to quality seed of adapted varieties of diverse crops. This is supported by Ethiopia's Ministry of Agriculture (MoA), the Embassy of the Kingdom of the Netherlands, and the European Union Delegation to Ethiopia.

ESP investments will improve access to quality seed for one million small-scale food producers', progressively decrease the yield gaps of 500,000 of them, and expand the area under sustainable agricultural practices (SAPs) by 12,500 hectares. These impacts will be enhanced and sustained by the effective layering of gender, nutrition, and climate interventions. To achieve this, the following four primary outcomes will be pursued: (1) The private sector is strengthened in its contribution to seed delivery; (2) Human resource capacity in the seed sector is strengthened; (3) Responses to seed insecurity are more effective and sustainable; and (4) Transformation of the seed sector is enabled.

- Private sector strengthened: Activities will boost production and diversify the variety portfolios of 25 domestic seed businesses by 75%. Business planning, technical training, and better access to finance will enhance their production, quality, sales, profitability, and sustainability. An incubator for small- and medium-scale enterprises will promote inclusion by supporting emerging female-led seed enterprises. Partnerships with at least three international companies will expand local seed production, create jobs, increase exports, and improve Ethiopia's trade balance. The ESP will also strengthen ESA's organizational capacity and promote quality seed uptake across six value chains for food and nutrition security.

- Human resources strengthened: this will be achieved through the uptake of innovations and increased empowerment. By the end of the Partnership, five knowledge institutes (three more than currently) will have improved their seed-related curricula. A total of 350 youth—at least half of them women—will have gained skills through education, training, and internships, more than doubling the original target; skilling young people is key to improving seed sector performance. Furthermore, 50,000 farmers (a 25% increase in reach) will have been trained on sustainable agricultural practices, with half of them being women. Farmers require a diverse portfolio of new and improved varieties to keep up with rapidly changing climates; led by international seed companies, we will increase their knowledge of sustainable agricultural practices (SAPs) and how to get a return on their investment in quality seed.

- Seed insecurity response: This new component of the Partnership focuses on areas affected by conflict, disasters, and climate shocks that disrupt seed systems. Seed system security assessments will be used to guide more effective humanitarian responses. To address chronic seed insecurity, we will promote market-based approaches and develop strategic seed reserves. We will also strengthen farmer- and community-based seed systems, partly by establishing three sustainable community seed banks and introducing 30 climate-resilient varieties. In areas where conflict has halted seed service provision, we will reconstruct 10 strategic assets and train new personnel to restore functionality.

- Enabling transformation: Performance will be measured by at least 15 improvements in seed policies, regulations or systemic solutions that benefit tens of thousands of farmers. The Partnership will support five platforms that contribute to policy development, implementation, and coordination. It will also improve the service provision of 10 seed regulatory bodies (double the current reach) and leverage €20 million in trade and investment, representing an €8 million increase (or two-thirds more than the current target). In addition, systems and networks that improve seed sector coordination will be strengthened and introduced across the humanitarian-development-peace (HDP) nexus.

b. Review of follow-up measures taken since the last reporting period

- Our proposed plan to expand the programme to new geographic areas affected by conflict and drought was approved by the Embassy of the Kingdom of the Netherlands in the third quarter of 2024, resulting in the kick-start of project activities in Tigray, Afar, and Somali.
- Business incubation in Agricultural technical vocational education and trainings (TVETs) was seen as a good opportunity to create employment for youth. In 2024, ESP explored opportunities to work with ATVETs and held discussions with the Ministry of Skills and Labour, through which an appropriate ATVET institution was identified. Following discussions with the selected ATVET, a collaboration agreement was drafted for signing and implementation.
- Through our internship activities and broader university networks, we identified a gap in the competencies of graduates to successfully start their own businesses. As a result, we have now included youth in the seed incubator programme alongside women-led businesses.
- Due to a lack of breeders at the Ethiopian Agricultural Authority (EAA), trials for variety registration have been conducted in collaboration with research institutes as a pilot. To ensure EAA can independently manage these trials in the future, ESP closely monitored the recruitment of breeders. By the end of 2024, EAA had hired at least one breeder to coordinate ongoing trials, but additional breeders are still needed to manage the workload.

c. Relevant contextual changes and their potential impact

- ESP faced significant contextual risks, particularly in conflict-prone areas such as Amhara and West Oromia. The risks included theft, violence, and kidnappings, which impacted travel, monitoring, and activity implementation. Mitigation measures included limiting travel unless necessary, applying remote communication systems, using air transport, and restricting travel to safer hours. These measures will also inform planning and implementation in 2025. Annex 2 provides our assessment of conflict and insecurity risks, their influence on activities, and the mitigation measures taken.
- The combined impact of conflict and drought in Ethiopia has disrupted food production and access to seed, displacing millions and increasing livelihood vulnerability. In response, ESP proposed an expansion into new geographic areas affected by these crises. The proposal was approved in the third quarter of 2024, and project activities in Tigray, Afar, and Somali began in the fourth quarter.
- Unexplained government interests continued to pose challenges to private sector growth. To address this, ESP led the establishment and facilitation of Seed Coordination Committees at both federal and regional levels, lobbied for policy implementation, and emphasized capacity building.
- In July 2024, the National Bank of Ethiopia reformed its foreign exchange (forex) regime, liberalizing the currency exchange rate with immediate effect. This led to a devaluation of the Ethiopian Birr and hyperinflation, affecting project costs and budgetary resources. It remains to be seen whether selected domestic seed businesses will be able to recover their increased production costs in a competitive yet profitable market.
- Limited access to credit has been a significant challenge for seed businesses, as agriculture is deemed high-risk by financial institutions. To address this systemic issue, we developed an innovative, first-of-its-kind G2G scheme in the seed sector. However, due to a lack of approval for our concept note, we were unable to start the activities as planned.

4 What we learned and how we learn

- Engaging potential partners such as Horti-LIFE and the World Vegetable Centre in various consultative workshops fostered opportunities for collaboration. Consequently, the ESP project and Horti-LIFE reached an agreement to promote SAPs, with a particular focus on soil test-based nutrient management methods in key vegetable-producing regions.
- The graduates of the internship programme faced the challenge of a shortage of start-up capital to start individual small businesses. They addressed this by forming groups to launch businesses and pursue grant opportunities.
- The structure of the TVET training system differs significantly from that of universities. Revising the curriculum for ATVET may require a distinct strategy. At this stage, collaborations with ATVET institutions should prioritize fostering young entrepreneurs and enhancing business incubation centres, with the long-term goal of revising and updating the curriculum.
- EAA continues to utilize Ethiopian Institute of Agricultural Research (EIAR) centres' resources for DUS and NPT testing, with an increasing number of crops and varieties involved. While efforts to

recruit breeders are commendable, progress in securing a dedicated variety testing site remains limited and requires coordinated efforts with development partners and the national variety release committee.

- Digital technologies like barcoding have effectively supported seed certification and helped combat counterfeit seeds. Providing essential seed laboratory equipment—along with installation, maintenance, user training, and regular monitoring—improves seed certification efficiency.
- Despite the development of several directives and regulations in conjunction with EAA and other partners following Seed Law 1288/2023, the majority remain pending approval, although they were validated several months ago.
- We encountered challenges in improving access to early generation seed (EGS) due to unclear mandates, limited institutional capacity, and the prioritization of public enterprises. This has affected local seed companies, which often struggle to access EGS and frequently rely on informal networks to meet their needs. To address these issues, we facilitated partnerships between research institutes and seed companies through an advance ordering system. Additionally, efforts were made to encourage a surplus EGS exchange mechanism among local seed companies.
- The Regional Bureaus of Agriculture (BoAs) and the federal Ministry of Agriculture (MoA) still view seed as a political commodity that should be controlled to ensure equitable distribution and benefit for farmers. They are also expected to play a significant role in implementing regulations, collecting seed demand, and coordinating the sector.
- Our partnership with international seed companies is showing promising results. However, delays in budget disbursement to their local partners in Ethiopia affected activity timelines. Learning from this, we revised our partnership modality to ensure local partners are not impacted by budget availability issues.
- In previous years, we primarily focused on the ESP learning agendas through MSc/MA student thesis research topics, but student interest was limited. In response, we revised our approach to include not only students but also university faculty members and ESP partner activities.
- *How we learn:* In addition to monitoring indicators and incorporating recommendations from the mid-term review (MTR), ESP conducts research and studies to validate assumptions in its theory of change and respond to stakeholder questions through its learning agenda. We engage regularly with the sector through meetings, workshops, seminars, study visits, and learning events. In April 2024, ESP hosted a side event at the ISSD Africa Conference in Addis Ababa to gather expert feedback on our humanitarian response approach in the seed sector. We also organised an annual 3−4-day ESP Retreat, bringing together all staff to train on new concepts, share lessons learned, review progress and challenges, and plan for next year. The 2024 retreat highlighted the need for stronger coordination among ESP partners and more in-depth discussions on key issues affecting progress. As a result, five ESP thematic working groups were established, each including at least one staff member from every implementing partner.

5 Progress towards outcomes

a. Progress towards our outcomes

Outcome 1: Private sector is strengthened in its contribution to increased seed delivery

Output 1.1: Seed production doubled and diversified

In 2024, targeted efforts strengthened private seed companies through a needs-based training and coaching programme focused on seed business management, agronomy, seed quality assurance, and financial practices. Ongoing mentorship ensured the practical application of skills, leading to improved business operations and better access to early-generation seed (EGS).

To address EGS shortages, private seed companies received support in placing advance orders from Ethiopian Institute of Agricultural Research (EIAR) and other sources, guided by demand assessments and technical assistance. An EGS exchange mechanism was also introduced, allowing companies to share surplus seeds, improving utilisation and fostering sector collaboration.

An experience-sharing visit was facilitated, exposing private seed companies to SAPs and newly released crop varieties. Participants visited EIAR regional research centres, where they observed high-yielding and climate-resilient varieties under different agroecological conditions. They also visited the Ethiopian Agricultural Business Corporation (EABC) EGS multiplication farm and Corteva's seed storage facility, gaining insights into advanced seed handling and storage techniques. Inspired by experiences in Uganda, Ethiopian seed companies began piloting the use of small transparent seed packs to enhance trust and accessibility for smallholder farmers.

The project took a major step in designing the G2G scheme, which addresses the key bottleneck of limited access to finance for local seed companies. The scheme allows ESP-supported seed companies to double their access to working capital through loans and provides an incentive for timely repayment through a grant mechanism that is activated upon full loan repayment. A rigorous assessment of three Ethiopian banks was undertaken, out of which Awash Bank was selected as the implementing partner. A concept note on G2G was approved by WUR executive board and submitted to EKN Addis Ababa. The scheme is expected to begin implementation in the second quarter of 2025.

To expand access to improved varieties, adaptation trials were conducted on 27 soybean varieties from the International Institute of Tropical Agriculture (IITA) and four hybrid maize varieties from Mukushi Seeds company of Zimbabwe. The trials evaluated the varieties' yield potential, disease resistance, and adaptability to local conditions. Initial results indicate promising performance, with potential for broader adoption. In addition, seed companies established micro-demonstration plots and organized field days, providing smallholder farmers with firsthand exposure to new high-yielding and climate-resilient varieties. This should further promote direct seed marketing from companies to farmers.

Challenges persisted in 2024, particularly in Amhara and Oromia, where security concerns limited field visits and direct technical support. While remote advisory services were provided, they could not fully replace on-site assistance. Limited access to EGS remained a constraint, alongside financing challenges that affected seed production and distribution. Anatoli Forage Seed Company faced an additional setback due to the absence of the government tender process, a key market channel in previous years. These constraints highlight the need for continued engagement to address financing gaps, improve seed availability, and strengthen resilience in Ethiopia's private seed sector.

Table 1 Selected domestic seed business, their portfolio and production (2024)

Business	Location	Portfolio	Production (MT)
Gudeta	Oromia	Teff, Wheat	212
Binyam	Amhara	Maize, Faba Bean	354
Tuqa Ketar	Oromia	Barley, Wheat, Faba Bean	145
Borer	SNNPR	Maize, Teff, Chickpea, Haricot Bean	656
Burqa	Oromia	Wheat, Teff, Chickpea	354
Hulume	SNNPR	Haricot Bean	535
Loma	Amhara	Maize	168
ATM	Oromia	Teff, Wheat, Chickpea	583
Anatoli	Oromia	Oats, Lablab, Cowpea, Sudan Grass, Rhodes grass	52
			Total: 3,059

Output 1.2: Private sector organized

In 2024, two ESA representatives attended in the African Seed Trade Association (AFSTA) Congress. Their participation provided valuable opportunities for collaboration, knowledge exchange, and networking to support the growth of the private seed sector.

Following the departure of the previous General Secretary, ESA–with support from ESP–appointed a new Executive Director to lead the organisation forward. ESP also supported ESA in organizing the National Seed Forum, contributing to both resource mobilization and event planning. To improve communication and engagement, ESA developed brochures and flyers to attract new members and regularly updated its website and social media channels. These efforts aimed to enhance the organisation's visibility and strengthen connections with both current and prospective members. 70% of its members rated its services as above satisfactory.

ESA also conducted a member segmentation exercise, categorizing members based on their business focus. This initiative is expected to help tailor services and advocacy efforts more effectively. ESA had also planned to facilitate experience-sharing visits among members to exchange best practices in the seed sector and to involve high-level officials in relevant visits. However, these activities have not yet been implemented because of security challenges in the country.

Output 1.3: Performance of value chains for nutrition improved

We continued our activities in four value chains (forage, leafy vegetables, animal feed and young plant propagation) and started work on two additional value chains (chickpea and grass pea). Progress in the forage value chain has been most advanced. Anatoli is continuing pre-commercial trials on nine top-performing alfalfa varieties with the aim of selecting two to three for registration next year. A collaboration has been established with the Bridge+ programme to enable Anatoli to sell their forage seed to large-scale dairy farmers and dairy cooperatives. In addition, a needs assessment for establishing a seed quality laboratory at Anatoli's facilities has been completed, with the lab scheduled to be set up in 2025.

In the leafy vegetable chain, progress has been made with the establishment of a vegetable nursery in the Southwest. The nursery will be used to provide seedlings of Rijk Zwaan leafy vegetable varieties to approximately 3,000 female cooperative members and will also serve as a site for demonstrations and training. The final agreement between ESP and Damascene is yet to be formalized due to delays in defining the scope of the work. In parallel, a separate home-gardening pilot has been launched to explore ways to increase the availability of vegetable seedlings in urban and semi-urban areas, specifically in Addis Ababa and Debre Zeit.

Conversations to determine the scope of activities in the animal feed and edible oil value chains have continued throughout 2024. In these conversations with partners active the chain–Alema Koudijs Feed, Senselet and Samanu–the limited availability of registered sunflower and canola varieties, along with the lack of domestic seed production, have been consistently identified as major challenges. As a result, we have shifted the focus of our activities from working with off-takers in the value chain, to prioritizing trials and the registration of sunflower and canola varieties with domestic and international seed companies. Local partners for these activities have been found–Borer and Samanu–and international partners will be identified through work with a sunflower seed expert, beginning in the second quarter of 2025.

In the young plant propagation value chain, some progress has been made. Our aim is to establish a vegetable nursery with a plant tissue culture laboratory, modelled after the successful approach used by Growpact, a Dutch company, in Kenya. Truvalu–Growpact's investor–has expressed interest in exploring opportunities in the Ethiopian context and identifying a suitable local nursery for investment. Three potential local partners have already been identified for this purpose.

For the chickpea value chains, we conducted value chain analyses to identify key bottlenecks. In the chickpea sector, most seed producers continue to grow older varieties that remain in demand, despite the registration of at least eight newer, higher-performing varieties. Limited collaboration with research institutes has restricted the availability of EGS, and farmers are often unaware of these improved options. To address this, we are testing new varieties with two chickpea companies that are part of the domestic seed business group, while also connecting them with major off-takers. In addition, we will support the development of collaboration agreements with these off-takers and their out-grower farmers.

Progress has been made in the grass pea value chain, highlighting the absence of a formal seed system in Ethiopia. Despite its nutritional value and climate resilience, grass pea poses a neurotoxicity risk when overconsumed. Although the low-toxin variety Wasie was registered in 2005, its EGS is not produced, and farmers still use older, high-toxin types. To address this, we partnered with the John Innes Centre and the University of East Anglia to build a business case for introducing Wasie and other low-toxin varieties. One seed producer is ready to act on the recommendations, but EGS availability remains a bottleneck. We are working with ICARDA and Debre Zeit Research Centre to resolve this.

Table 2 Progress towards Outcome 1

Outcome 1	Private sector strengthened in its contribution to seed delivery
Output 1.1	Seed production increased and diversified
Results	• Achieved an additional 3,059 MT of quality seed production across 12 crops and 33 varieties. • Delivered training and coaching to 10 seed businesses on seed business management, covering agronomic best practices, quality assurance, sustainable agricultural practices (SAPs), financial management, and operational efficiency. • Conducted needs assessments and baseline studies to evaluate financial management, seed production capacity, marketing strategies, access to EGS, and regulatory compliance. • Facilitated seed companies in placing advanced EGS orders from EIAR and promoted surplus sharing among those facing shortages. • Successfully piloted small transparent seed packs with domestic seed businesses, with further upscaling planned for 2025. • Facilitated knowledge sharing through visits to EIARs, where participants gained experience with high-yielding, climate-resilient crop varieties and advanced techniques in storage, processing, and multiplication. • G2G (guarantee to grant) scheme concept note approved by the WUR Executive Board and submitted to EKN for review and approval. Awash Bank selected as the preferred partner for G2G implementation. • Supported companies in strengthening their financial reporting and management systems, to prepare for G2G loan applications once the scheme is operational. • Identified and trained a new cohort of 12 women in the seed value chain, strengthening their business skills and knowledge of SAPs. • Provided coaching and support to 12 female-led enterprises through experience-sharing business visits and a business pitch competition. • Implemented a gender advisory role within a private seed business to promote gender inclusivity and to support gender-responsive initiatives.
Output 1.2	Private sector organized
Results	• Facilitated the participation of ESA representatives at the AFSTA Congress 2024. • Supported ESA in organizing the National Seed Forum 2024 • Supported ESA in developing outreach and communication systems, resulting in the publication of brochures and flyers to attract new members, and the regular updating of the website and social media channels. • Advised ESA on member segmentation, categorizing members by business type (importers, local producers, exporters), and crop focus (field crops vs horticultural crops).
Output 1.3	Performance of value chains for nutrition improved
Results	• Forage: conducted second-round pre-commercial trials for 9 alfalfa varieties (forages) to determine the varieties for registration; Anatoli is selling seeds to dairy farmers and cooperatives involved in the Bridge+ programme. • Leafy vegetables: established a vegetable nursery in the Southwest and assessed demand for leafy vegetable varieties amongst 3,000 female cooperative members. • Animal feed: strengthened value chain to achieve objective of domestic sunflower and canola seed production; identified seed producers and seed off-takers. • Young plant propagation: Established linkages to set up a plant tissue culture facility and vegetable nursery to strengthen domestic young plant propagation and supply • Chickpea and grass pea: conducted value chain analyses, established linkages between DZARC and chickpea producers to enable production of better-performing varieties, collaborated with JIC and UEA to establish business case for grass pea.
Partners	• 10 domestic seed businesses, EIAR, DZARC, IITA, World Vegetable Centre, Mukushi Seeds (Pvt.) Ltd, ESA, Horti-LIFE, BRIDGE+, Damascene Essential Oils Processing PLC, Alema Koudijs Feed, Senselet and Samanu, Rijk Zwaan, John Innes Centre (JIC), University of East Anglia (UEA)

Outcome 2: Human resources capacities in the seed sector are strengthened

Output 2.1: Performance of selected knowledge institutes improved

A series of activities were undertaken in collaboration with Haramaya University to strengthen seed sector capacity through course curriculum development and short-term training courses. Following a meeting with the Vice President for Academic Affairs, the MSc Seed Science and Technology (SST) curriculum underwent an in-depth review. External reviewers assessed the revision and feedback from a validation workshop on August 31, 2024 was incorporated. The final curriculum was submitted to the University Senate for approval.

In parallel, a consultation meeting was organised to design short-term training courses, engaging senior professionals from the seed sector. As a result, an agreement was signed between SWR Ethiopia and Haramaya University to host these trainings. The university developed three training course modules: Seed Production and Business Management, Seed Quality Assurance, and Seed Sector Governance. Potential participants from the seed sector were invited and jointly screened by the University and the ESP project. Haramaya University successfully facilitated the first short-term training course under Module I. A total of 20 participants from local and public seed companies, agricultural research institutions, and MSc students enrolled in the university SST course.

Output 2.2: Young men and women enrolled in internships

Significant progress was made in the implementation of the internship and youth entrepreneurship development programme. An online screening and placement process was conducted for the third round of the internship programme, resulting in the successful enrolment of 36 interns. The third-round interns were placed with four international seed companies, three local seed companies, and two public seed enterprises, providing them with valuable hands-on experience. To support their professional growth, targeted training sessions were organized: Personal Development and Motivation training for the third-round interns, and Entrepreneurship and Business Management training for the second-round interns.

A total of 33 interns (7 female) obtained permanent employment opportunities, either within host seed businesses or other organization; an additional 15 interns (4 female) became self-employed by starting their own businesses. Graduates from the second internship programme demonstrated entrepreneurial initiative by establishing a business named *Dae Bushu Animal Feed Producer* in Hawassa. Additionally, a series of meetings were held with the Ministry of Labour and Skills and Alage Agricultural TVET College, leading to an agreement to collaborate on youth entrepreneurship development and business incubation initiatives.

Output 2.3: Uptake of sustainable production practices increased

As part of efforts to enhance sustainable agricultural practices (SAPs), local seed distributors were supported to identify and promote relevant SAPs within their intervention areas. These practices included pest and disease resistant varieties, the use of Personal Protective Equipment (PPE), insect and pheromone traps, the judicious use of pesticides, staking of tomato and pepper plants, crop rotation and diversification, integrated soil fertility management, production planning, and the creation of market linkages.

In addition, soil testing kits were introduced and validated against conventional laboratory procedures to improve soil analysis and fertiliser recommendations. A training session was organised for researchers and laboratory technicians at the Batu Soil Research Centre, in collaboration with Wolkite University, to support accurate fertiliser application based on crop-specific requirements. Further collaboration will be explored in 2025 with Horti-LIFE to pilot a business model for soil testing kit-based service provision to farmers, and with RAISE-FS to integrate plant-based nutrient management knowledge.

We have established a collaboration with the International Seed Federation (ISF) to strengthen ESP's public-private partnership (PPP) strategy. Three members of the ESP team participated in the ISF Congress in Rotterdam in May 2024 to build networks with international seed companies and regional/national seed trade associations. In partnership with ISF, an Expression of Interest (EoI) was launched for international seed companies interested in doing business in Ethiopia. A total of 22 companies from Europe, Asia, and Africa submitted EoIs, and nine were shortlisted. In the first quarter of 2025, subsequent steps–including inviting detailed proposal submissions and the final selection of seed companies–will be carried out.

Table 3 Progress towards Outcome 2

Outcome 2	Human resources capacities in the seed sector are strengthened
Output 2.1	Performance of selected knowledge institutes improved
Results	• Supported Haramaya University in revising the MSc Seed Science and Technology curriculum with external experts' input. The final version was submitted to the University Senate for approval. • Supported HU in organising a consultative process with seed sector experts, leading to the development of three short-term training course modules: Seed Production and Business Management, Seed Quality Assurance, and Seed Sector Governance. • Organised a partnership agreement with HU to implement the above three training course modules. • Organised the first module of the training course (Seed Production and Business Management) by HU for a total of 20 participants from local seed companies, public seed enterprises, research institutions, and MSc students on the SST course programme. • Organised a partnership agreement with Alage Agricultural TVET, with support from the Ministry of Labour and Skills, to launch a youth entrepreneurship and business incubation programme.
Output 2.2	Young men and women enrolled in internships
Results	• 36 interns enrolled in the third-round internship programme. • Facilitated placement of 36 interns in four international seed companies, three local seed companies, and two public seed enterprises. 33 interns (7 female) gained permanent employment; 15 (4 female) started their own businesses. • Delivered training courses for the interns on Personal Development and Motivation (for third-round interns) and Entrepreneurship and Business Management (for second-round interns). • Delivered a training course for graduates of the internship programme on Vermicompost Production and Management, in collaboration with the South Agricultural Research Institute in Hawassa.
Output 2.3	Uptake of sustainable agricultural practices increased

Outcome 2	Human resources capacities in the seed sector are strengthened
Results	• Documented available SAPs in Ethiopian agriculture research institutes through a consultative workshop with researchers, MoA officials, local seed distributors, and partners such as Horti-LIFE and the World Vegetable Centre. • Enhanced capacity of technicians at Batu Soil Research Centre in the use of soil-testing kits. • 5,205 farmers visited field demos organised by local distributors of international seed companies. • 30 different varieties of ten vegetable crops demonstrated to farmers by the local partners of international seed companies. • 4,064 farmers trained by local distributors/partners of international seed companies on their technologies for SAPs and production of vegetable and potato. • 13,386 farmers (4,016 female) obtained knowledge and skills on sustainable horticultural practices. • Launched a new round of partnership calls for international seed companies in collaboration with the International Seed Federation; received applications from 22 companies across Europe, Asia, and Africa; and shortlisted nine for the next steps.
Partners	• Haramaya University, Alage Agricultural TVET, South Agricultural Research Institute, Batu Soil Research Centre, Wolkite University, Bakker Brothers, EASI Seeds, Enza Zaden, HZPC, Nunhems Ethiopia PLC, Rijk Zwaan. • This was carried out with support from the Ministry of Labour and Skills, SNV- Horti-LIFE, World Vegetable Centre, and the International Seed Federation.

Outcome 3: Responses to seed insecurity are effective and sustainable

Output 3.1: Humanitarian efforts are fit for purpose

Mercy Corps became an ESP consortium partner in November 2024 and has since made significant progress in initiating activities. Implementation began in Somali, Afar, and Tigray, following the signing of Memoranda of Understanding (MoUs) with the respective regional governments. Regional kick-off workshops were held to present project activities and promote collaboration and networking among stakeholders.

A total of ten priority woredas were selected for the implementation of ESP project activities in Somali (Tuli-Guled, Owbare, Haroreys), Afar (Amibara, Afambo, Dubti), and Tigray (Alage, Endamehoni, Degua Temben, Raya Azebo), based on criteria such as suitability for last-mile seed production, food security status, crop diversity, presence of local seed networks, and the potential for engagement with development and humanitarian actors.

Key humanitarian and development actors operating in formal and intermediary seed systems were mapped in each region for potential partnerships and networking. In Somali, 27 cooperatives (some affiliated with Somali Seed Enterprise) and 15 agro-input suppliers were identified. In Afar, three community-based seed producers, two private seed companies, one public seed enterprise, and a research institute were mapped. In Tigray, 13 seed producer cooperatives/unions, three community seed banks, and two private vegetable seed producers were identified.

Humanitarian organisations active in food and seed security interventions−World Vision, FAO, WFP, ICRC, CRS, CARE, Goal Ethiopia, among others−were identified for future collaboration, along with relevant public institutes, local NGOs, and service providers.

Preparatory work for seed system security assessment (SSSA) was initiated using the Context Analysis Toolkit, starting with a review of existing studies and documentation in Somali, Afar, and Tigray, particularly within the ten ESP-targeted woredas.

Output 3.2: Farmer- and community-based seed systems strengthened

We have organised a series of meetings with the Regional Agricultural Research Institutes (RARIs) in Somali, Afar, and Tigray to identify crops and varieties for crowdsourcing and Participatory Variety Selection (PVS) trials in the project woredas. In the initial phase, over 30 varieties of key crops were identified. The preparation of partnership agreements with the RARIs in all three regions were also initiated to implement the crowdsourcing and PVS trials.

Output 3.3: Seed service provision rehabilitated

A discussion was held with the Bureau of Agriculture (BoA) and the seed regulatory authority in Tigray to assess the status of seed service provisions for various types of seed producers. Available reports on damage to seed service provision facilities due to the conflict in Tigray were reviewed to identify existing information and gaps. Based on these gaps, a supplementary assessment is planned for 2025 to determine interventions in capacity building and the reconstruction of dilapidated seed infrastructure, in coordination with the regional government and humanitarian and development actors.

Table 4 Progress towards Outcome 3

Outcome 3	Responses to seed insecurity are effective and sustainable
Output 3.1	Humanitarian efforts are fit for purpose
Results	• Signed MoU with the regional governments of Somali, Afar, and Tigray. • Organised regional project kick-off workshops in Somali, Afar, and Tigray, presenting the project activities and fostering collaboration. • Selected ten priority woredas for the implementation of ESP project activities in Somali (Tuli-Guled, Owbare, Haroreys), Afar (Amibara, Afambo, Dubti), and Tigray (Alage, Endamehoni, Degua Temben, Raya Azebo) based on sets of selection criteria. • Identified key humanitarian and development actors for future collaboration. including relevant public institutes involved in formal and intermediary seed systems interventions across Somali, Afar, and Tigray. • Initiated Seed System Security Assessments (SSSA) using the Context Analysis Toolkit, by reviewing existing studies and documentation in Somali, Afar, and Tigray.
Output 3.2	Farmer- and community-based seed systems strengthened
Results	• Initiated partnership agreements with regional agriculture research institutes (RARIs) in Somali, Afar, and Tigray, to implement crowdsourcing and Participatory Variety Selection (PVS) trials. • Identified over 30 varieties of key food security crops for crowdsourcing and PVS trials in collaboration with the three RARIs.
Output 3.3	Seed service provision rehabilitated
	• Reviewed available information on damage to seed service provision facilities by the conflict in Tigray.
Partners	• Somali Region Pastoral and Agro-pastoral Research Institute (SoRPARI), Afar Pastoral and Agro-pastoral Research Institute (APARI), Tigray Agricultural Research Institute (TARI). • Support from the regional governments of Somali, Afar and Tigray.

Outcome 4: Transformation of the seed sector is enabled

Output 4.1: Seed sector is governed more collaboratively

As part of the seed sector coordination and transformation process, ESP supported the establishment of seed coordinating bodies in five regional Bureaus of Agriculture (BoAs): Central Ethiopia, Amhara, Sidama, Tigray, and Benishangul-Gumuz. These coordinating bodies possess substantial credibility to lead regional seed sector coordination and transformation efforts. Additionally, the BoAs now operate with clearly defined roles and responsibilities, primarily focused on developing strategic directions for regional seed self-sufficiency, conducting demand forecasting (by crop type and area), and facilitating coordination platforms among seed value chain actors.

The ESP initiated the development of a seed sector performance monitoring tool using an interactive dashboard. The tool will help actors in the seed sector–especially the federal MoA and regional BoAs–to track specific seed sector performance and provide evidence of the areas that need improvement through better coordination and collaboration.

Output 4.2: The provision of seed regulatory services enhanced

ESP continued to make a signification contribution to the development of several key directives supporting the initiatives of the EAA and MoA, thereby strengthening the seed regulatory environment of Ethiopia. These include following: the Certificate of Competence (CoC) Directive; the Quality Declared Seed (QDS) Directive; the Self and Third-Party Seed Certification Directive; the Rejected Seed Directive; the Emergency Seed Supply Directive; the Seed Production Directive; and the Illegal Seed Trade Control Directive. ESP collaborated with the ATI and AGRA in the development of the directive on Illegal Seed Trade Control. Additionally, ESP supported the development of two new seed regulations: the Seed Reserve Regulation and the Regulation on Compensation for Damages Caused by Poor Seed Quality.

The seed regulatory authorities of Amhara, Oromia, and Central Ethiopia have successfully piloted the barcode use for seed certification, targeting hybrid maize due to its vulnerability to counterfeiting. A stakeholder review workshop was held in Amhara to strengthen stakeholders' understanding of the barcode tagging system. Positive feedback highlighted a reduction in illegal seed trade reports, fewer farmer complaints, and growing investment by regulatory bodies from their internal budgets—indicating progress toward institutionalising the innovation.

To improve the efficiency of seed laboratories service delivery in seed certification, we identified and procured important equipment for selected regional and federal seed laboratories. The support also included improvement in the seed samples storage room facilities. However, we could not organise experience exchange visits between the selected seed labs due to security problems in travel.

Together with senior EAA officials, we assessed gaps in the digitalization of seed certification. The local developer and EAA were engaged to complete the system, provide training, and link regional systems to the MoA server. While progress was made, the developer's contract concluded before on-the-job training could be delivered. A joint solution has been planned with EAA for implementation in 2025.

An awareness-raising workshop on the new Seed Proclamation No. 1288/2023 was successfully conducted in Bahir Dar, Amhara, for seed sector stakeholders. The event brought together 45 participants, including representatives from regional seed regulatory bodies, public and private seed producing companies, the BoA, and the Regional Agricultural Research institute.

We supported the Oromia Regulatory Authority in conducting a field day at their Grow-Out Test (GOT) site in Shashamane, which currently serves as a reference site. Three key challenges were identified for future action (i) difficulty obtaining authentic samples for GOT from agricultural research centres. (ii) limited land and facilities to establish reference GOT sites, and (iii) lack of a clear framework for using GOT results in decision-making. The field day was attended by 37 participants from federal and regional agricultural research centres, public and private seed companies, regional regulatory authorities, ATI, ESP, BoA, and EAA.

4.2.2 Support variety testing and registration

The first-year Distinctness, Uniformity and Stability (DUS) test and National Performance Trial (NPT) for bread wheat data were analysed and reported by the EAA. The second season of testing, involving 14 potential bread wheat varieties, was successfully completed for both DUS and NPT assessments. In 2024, a new application for 12 bread wheat candidate varieties was received, processed, and successfully tested. These applications were submitted by five Agricultural Research Centres (ARCs): KARC, Bore, Bako, Fiche and Yebello. Additionally, a progress review workshop on the independent variety testing pilot was held with breeders, EAA staff and some development partners, to gather feedback on implementation.

Four agreements (MoUs) were signed between EAA, SWR Ethiopia and the international seed companies in order to conduct a variety adaptation trial by the companies themselves. Seed companies received orientation training from the regulatory authority on the modality of the pilot. Out of four private seed companies who signed the agreement, three of them successfully conducted the trial. The adaptation trial was conducted for six varieties of three crops−tomato, onion, and hot pepper. Moreover, we assisted the national technical committee (TC) in evaluating the field trial performance of vegetable seed companies, which ultimately decide the varieties for registration.

To conduct the DUS and NPT test, standard crop protocols developed for five vegetable crops: onion, tomato, pepper, potato, cassava and sunflower. The protocols were validated, finalized, and ready for use. We collaborated with the GIZ-funded Supporting Sustainable Agricultural Productivity (SSAP) project and BASF Germany to deliver a training course on DUS and NPT testing for barley and wheat breeders and EAA officials. It is important to note that knowledge of DUS test statistical analysis is still lacking.

ESP collaborated with EAA, GIZ-SSAP, and ATI to organise a consultative workshop on creating awareness on the importance of DUS testing sites, followed by a workshop where nine sites were validated. Participants recommended that EAA gradually increase its capacity to manage DUS and NPT tests—initially outsourcing, then focusing on key crops (wheat, barley, maize, tef, and sorghum), and then with EAA taking full responsibility. They also proposed securing testing sites by requesting land from research institutes or regional governments.

4.2.3 Upgrade phytosanitary services

The senior expert we have seconded to EAA has been actively involved in the technical aspects of developing the e-phyto certification system, including outlining/mapping earlier processes and working with the customs commission to synchronize with the existing single window framework.

To finalise the regulated non-quarantine pest (RNQP) list for selected crops, a ToR of the working group was prepared and submitted to the Plant Quarantine and Regulatory Lead Executive Office. However, the further execution of this activity was on hold because of a delay in the approval of the Plant Quarantine Proclamation.

To ensure that EAA staff are thoroughly acquainted with various International Standards for Phytosanitary Measures (ISPM), our senior expert provided coaching and engaged in one-on-one discussions regarding pest risk analysis of quarantine pests (ISPM 11), guidelines for notifying non-compliance and emergency actions (ISPM 13), and the application of integrated measures in a systems approach for pest risk management (ISPM 14). Support was provided for the preparation and validation of the manual for plant quarantine procedures. Experience on using this manual was also shared with

inspectors responsible for plant quarantine. The manual is mainly intended to strengthen export and import inspections.

The service fee for different seed regulatory services was submitted to MOA but returned back to EAA for amendments following the devaluation of the currency. It is now under process at MOA to submit to the council of ministers.

Output 4.3: Trade and investment in the seed sector is leveraged

Ethio-Netherlands Seed Committee meeting was held in October 2024. The following two activities/tasks were identified for intervention (i) awareness training for customs, Ethiopian airline staff and post office staff to curb importation of counterfeit seeds and (ii) to explore and produce concept note on how vegetable seed counterfeit can be mitigated in consultation with ESA.

Table 5 Progress towards Outcome 4

Outcome 4	Transformation of the seed sector is enabled
Output 4.1	Seed sector is governed more collaboratively
Results	• Facilitated the establishment of seed coordinating bodies in five regional Bureaus of Agriculture (BoAs): Central Ethiopia, Amhara, Sidama, Tigray, and Benishangul-Gumuz. • Supported these BoAs to defining their strategic roles in regional seed self-sufficiency, seed demand forecasting, and the coordination of seed value chain actors. • Developed an interactive seed sector performance monitoring dashboard to support MoA and regional BoAs in tracking seed sector performance and identify areas for improvement.
Output 4.2	The provision of seed regulatory services is enhanced
Results	• Supported EAA to complete first-year DUS and NPT tests for bread wheat, conduct second-season trials for 14 varieties of bread wheat; process 12 new applications from five ARCs (KARC, Bore, Bako, Fiche and Yebello). • Piloted independent variety testing (six varieties of tomato, onion, hot pepper) by international seed companies. • Conducted pilot review workshop with breeders, EAA staff, and partners to gather feedback on implementation. • Delivered DUS/NPT training for barley and wheat breeders and EAA officials (in partnership with GIZ-SSAP and BASF Germany) • Contributed to finalizing standard DUS/NPT crop protocols for six crops: onion, tomato, pepper, potato, cassava, and sunflower. • Held workshops with EAA and partners to validate nine DUS testing sites; develop a phased strategy for EAA to manage DUS/NPT tests; develop two options for securing land for variety testing. • Supported Oromia Regulatory Authority to host field day at Shashamane Grow-Out Test (GOT) site for strengthening post-certification seed control and assessing GOT performance. • Piloted barcode system for seed authenticity with regulatory authorities from Amhara, Oromia, and Central Ethiopia; held awareness workshop in Amhara for seed companies, inspectors, BoA experts, and researchers. • Contributed to the development of two new seed regulations: Seed Reserve Regulation and Regulation on Compensation for Damages Caused by Poor Seed Quality. • Contributed to the drafting of three directives: Emergency Seed Supply Directive, Seed Production Directive, and Illegal Seed Trade Directive. • Organized regional workshop in Amhara to introduce Seed Proclamation No. 1288/2023 to 45 regional seed stakeholders. • Supported the two regional seed testing laboratories with basic seed quality analysis equipment. • Provided coaching to EAA on key ISPMs (ISPM 11, 13, and 14) to strengthen capacity in pest risk analysis and management • Supported development and validation of a plant quarantine procedures manual and shared it with quarantine inspectors to strengthen export and import inspections.
Output 4.3	Trade and investment in the seed sector is leveraged
Results	• Convened the Ethio-NL Seed Committee meeting (October 2024), which prioritized two key actions: conducting awareness training for customs, Ethiopian Airlines, and postal staff to curb counterfeit seed imports, and developing a concept note with ESA to address vegetable seed counterfeiting.
Partners	• MoA, EAA, Regional Bureaus of Agriculture of Central Ethiopia (Amhara, Sidama, Tigray, and Benishangul-Gumuz), GIZ, BASF Germany, ATI, Ethio-NL seed committee.

b. Unintended positive and negative effects of the intervention

Positive effects

- The forex situation in the country has improved, and the availability of forex for vegetable seeds is increasing. This will also help other activities (PPP and value-chains) progress considerably. The situation is not perfect yet, but delays in obtaining forex have decreased.

c. Progress on cross-cutting topics: gender, youth, nutrition, and climate

Gender and youth

ESP has well integrated gender and youth empowerment across all its programme components. Our flagship women and youth business incubator has already demonstrated success, with 18 women and youth showcasing improved entrepreneurship and business management skills. The scholarship and internship programmes have led to permanent job placements, including both employment and self-employment, with female applicants prioritized to promote gender equity. In 2024, over 4,000

women farmers benefited from trainings and demonstrations by international seed companies and their local partners, gaining new knowledge and skills in sustainable agricultural practices.

Nutrition

Our strategy is nutrition-sensitive in that we target diversification in crop and variety portfolios. We assume that increased diversity in production results in increased diversity in consumption, and do not work on behavioural change for nutrition outcomes, apart from what is planned for our projects in selected value chains where we prioritise nutrition dense crops such leafy vegetables, oil seeds, and pulses. To this end, diversity was a criterion in the selection of the 10 domestic seed businesses. In 2024, these businesses produced high-quality seed for over 12 crops and 33 varieties. We also conducted successful trials on sunflower and forages to identify improved varieties for animal feed, recognizing the importance of animal protein in Ethiopian diets.

Climate

ESP's climate change adaptation strategy focuses on increasing access to and use of high-quality seed from a diverse range of crops and varieties suited to the local production environments of Ethiopian farmers. To achieve this, we mobilize partnerships with Ethiopian Agricultural Research Institutes, CGIAR centres, international seed companies, and domestic seed companies. In addition, subcontracted international companies will reach tens of thousands of farmers through demonstrations and farmer training on various SAPs. In 2024 alone a total of 13,386 farmers have obtained knowledge and skills on various sustainable horticultural practices.

6 Visibility

- The ESP project was launched in Addis Ababa on October 25, 2024, with the gracious participation of the State Minister of Agriculture, senior officials from various public institutions, representatives from the private sector, development partners, and non-governmental organizations.
- An ESP introductory video explaining our mission and intended outcomes has been produced. The video was used during the launching of the project. The video and an introductory brief on the programme appear on the landing page of the ESP project website.
- Large-size posters showing the different components of ESP and the achievements of ENSP have been produced. The posters were used during the ESP launch, which gave insights to participants about the project.
- The seventh to tenth issues of the ESP newsletter were published and shared with more than 1,200 recipients in our Mailchimp register. Soft copies were posted on our website and social media, and 100 copies of each issue were printed and distributed at events.
- News stories of major activities and lessons learned have been shared via our Facebook, X (Twitter), and LinkedIn. Electronic copies of all communication items are stored on our website.
- Other print media items like brochures, leaflets, banners, and stickers have been prepared.
- Documentation is an integral part of any project, as it allows for the preservation of key information and provides evidence of the efforts made. Pictures and footages from events and activities implemented by ESP have been documented and archived to provide a historical record of progress. Documents are stored on cloud services and an external hard drive.

Website and social media analytics

The ESP website has had a significant increase in traffic, with 5,432 visitors and 11,127 visits for 28 posts up until 31 December 2024. The website's international reach is reflected in the number of visitors from countries such as the Netherlands, the United States, Germany, China, and others. This highlights the content's broad appeal and importance to a diversified global audience.
Similarly, the ESP LinkedIn page has attracted more than 4,000 followers. On the ESP LinkedIn page in 2024 more than 60 content items have been posted, including publications, newsletters, photographs, videos, and reposts about ESP and its partner activities. These posts have had over 120,000 impressions, showing a high level of interest and involvement.

7 Sustainability

a. Measures to enhance programme sustainability

Our approach to seed sector development is grounded in food systems thinking, recognizing the complex interplay of socio-economic and environmental drivers. We address systemic challenges through integrated, multi-level interventions, informed by systems analysis and focused on building governance and social capital for sustainable change. This enables meaningful contributions to food security, nutrition, and socio-economic resilience.

A major component of our work involves institutional capacity building. We have worked closely with the Ethiopian Seed Association (ESA) to strengthen its operations and long-term viability. Through support to its secretariat, we have supported ESA in developing its response to member needs, launching new services, expanding its membership, and improving its visibility. ESA is now well-positioned to take on a greater leadership role and eventually assume more responsibilities from ESP.

Similarly, we continue to support the EAA by embedding our technical expert to enhance its human resource capacity. This has enabled EAA to deliver key services, including variety testing, registration, and phytosanitary controls—services it had not previously offered. Additionally, we have worked with both EAA and the MoA to develop and validate new seed directives and regulations that are foundational to building a more enabling regulatory framework and encouraging private sector growth.

One of the major constraints facing domestic seed businesses is lack of access to finance, as agriculture is deemed high risk by financial institutions. To address this, ESP developed the G2G scheme, a pioneering financing mechanism tailored to the seed sector; full implementation is planned for 2025. The initiative aims not only to improve access to finance but also to influence behaviour among the financial institutions, convincing them that investing in seed business is credible for their future too.

b. Description of exit strategy (if applicable)

Our exit strategy is interconnected with our pathways of sustainability. The ESP exit strategy emphasizes engaging key stakeholders from the outset through to the execution of activities, ensuring the continuity and sustainability of initiatives. This approach enables us to harness the knowledge and resources of diverse stakeholders, resulting in more meaningful and lasting impacts. By collaborating closely with public institutions, we align our efforts with government policies and priorities, integrating our plans into broader development frameworks. Additionally, engaging the private sector unlocks innovation and the potential for scaling solutions. The measures outlined to strengthen programme sustainability serve as a clear illustration of this approach.

8 Monitoring, evaluation and learning

In 2024, the Monitoring, Evaluation, and Learning (MEL) team effectively executed several critical activities to support the ESP programme. These efforts played a pivotal role in enhancing the planning, monitoring, and learning frameworks for ESP initiatives. Below is a summary of the key accomplishments during the year:

The MEL team developed robust tools to optimize data collection processes. These included:

- Templates designed for collecting production and sales data from seed companies.
- Data collection forms tailored for local seed producers.
- Standardized templates for capturing event-related and other pertinent data.

An ESP Indicator Tracking Table (ITT) was established to facilitate the efficient monitoring of programme progress. Data was systematically recorded in the ITT, ensuring precise tracking of programme indicators. The team also worked on identifying and refining ESP learning agendas based on input from the ESP team. These learning agendas were structured into seven thematic areas, each addressing specific learning questions. An engaging document was produced for the learning agenda and made available on the ESP website (https://esp-seed.org/wp-content/uploads/2025/02/260225-esp-learning-agendas.pdf) for ease of access). Regular monthly meetings were conducted to strategize and improve MEL processes. During these sessions, indicator definitions, content, reach metrics, and estimation methodologies were reviewed and updated. Targets and indicators were adjusted in response to feedback from the mid-term review. Additionally, a training session on Adaptive Management was organized to enhance the team's skills and flexibility in managing MEL activities effectively.

9 Organizational development and human resources

Mercy Corps joined as an ESP consortium partner following the completion of signing of the consortium agreement in the fourth quarter of 2024. Mercy Corps has completed the recruitment of ESP project staff and established field offices in Tigray, Afar, and Somali.

In October 2024, we organized blended training courses on systems thinking, adaptive management, and conflict sensitivity for our staff.

10 Finance

Presented in a separate document.

Annex 1: Indicators and targets

No.	Indicators	FNS / PSD	Reach 2021-2022	Reach 2023	Reach 2024	Baseline	EOP target	Cumulative reach	% Reached	Note
1	Number (#) of small-scale food producers with improved access to quality seed		140,348	256,821	415,226		1,000,000	812,395	81.2	
	female		42,104	77,046	124,568		330,000	243,719	73.9	
	male		98,244	179,775	290,658		670,000	568,677	84.9	
	youth		42,104	51,364	83,045		330,000	176,514	53.5	
2	Number (#) of small-scale food producers that progressively decrease the yield gap (FNS)	B.1.2.; B.1.3.	70,174	128,410	207,613		500,000	406,197	81.2	
	female		21,052	38,523	62,284		165,000	121,859	73.9	
	male		49,122	89,887	145,329		335,000	284,338	84.9	
	youth		14,035	25,682	41,523		165,000	81,239	49.2	
3	Area (ha) under sustainable agricultural practices increased (FNS C.1.2.) indicator was: Area under sustainable agricultural practices increased (ha) EOP 48.000 reach 3,850)		54	2,452	2,789		12,500	5,295	42.36	
1.1	Percentage (%) increase in production (MT) of 25 domestic seed businesses supported (new)		0	9.37	3.7	0	75	13.07	17.42	Seed production figures included only the 9 seed companies data
1.1.1	Percentage (%) increase in diversity of crops and varieties in the portfolios of 25 domestic seed businesses (new)		0	54.16	33	0	50			
1.1.2	Number (#) of domestic seed businesses having accessed a blended financial product worth min. €100,000 ea. (DDE Q) (new)						12			
1.1.3	Number (#) of women with improved entrepreneurship skills who have been empowered in business management		-	6	12		30	18	60	
1.2.1	Percentage (%) of Ethiopian Seed Association members evaluate services above satisfactory		30	50	70		70	70	100	

No.	Indicators	FNS / PSD	Reach 2021-2022	Reach 2023	Reach 2024	Baseline	EOP target	Cumulative reach	% Reached	Note
1.3.1	Number (#) of value chains important for food security and nutrition increasing their uptake of quality seed of adapted varieties		2	2	4		6	8	133.3	
2.1	Number (#) of human resources with increased capacities		293	9,853	13,454		50,350	23,600	46.9	
	female		88	2,956	4,030		25,175	7,074	28.1	
	male		205	6,897	9,404		25,175	16,506	65.6	
	youth		59	1,970	2,687		25,175	4,716	18.7	
2.1.1	Number (#) of knowledge institutes with new or updated seed-related curricula and courses (FNS D.2.)		-	1	1		5	2	40	There was an assumption that Mekelle University has MSc. program in SST, but there is no program and Agricultural TVETs have training related to seed
2.1.2	Number (#) of young men and women educated or trained in newly developed seed curricula and courses		-	-	20		100	20	33.3	--Priority given to female applicants, but the number of female applicants was very small
	female		-	-	10		50	10	13.3	
	male		-	-	10		50	10	86.7	
	youth		-	-	20		100	20	60	
2.1.3	Number (#) of young postgraduates supported in doing relevant research		16	8	13		50	37	74	
	female		1	8	8		25	17	68	
	male		15	-	5		25	20	100	
	youth		16	8	13		50	37	74	
2.2.1	Number (#) of young graduates enrolled in seed sector internships		17	36	36		200	89	44.5	
	female		11	22	6		100	39	28	
	male		6	14	30		100	50	63	
	youth		17	36	36		200	89	45.5	
2.3.1	Number (#) of small-scale food producers having participated in demonstration and training on sustainable agricultural practices (FNS B.2.2.) indicator was: Number (#) of small-scale food producers trained on sustainable agricultural practices		260	9,809	13,385		25,000	23,454	93.8	

No.	Indicators	FNS / PSD	Reach 2021-2022	Reach 2023	Reach 2024	Baseline	EOP target	Cumulative reach	% Reached	Note
	female		78	2,943	4,016		25,000	7,036	28.1	
	male		182	6,866	9,370		25,000	16,418	65.7	
	youth		52	1,962	2,677		25,000	4,691	18.8	
3.1	Number (#) of new, improved, and climate-resilient varieties introduced to seed-insecure areas						30			
3.1.1	Number (#) of seed systems security assessments conducted using the CAT in conflict- and drought-affected areas						10			
3.2.1	Number (#) of districts where participatory variety selection and field days take place						10			
3.2.2	Number (#) of community seed banks established						3			
3.2.3	Number (#) of young women trained in community seed bank management						30			
3.2.4	Number (#) of districts where linkages are facilitated between domestic seed businesses and seed-insecure communities						10			
3.3.1	Number (#) of assets in seed service provision reconstructed						10			
4.1	Number (#) of improvements in seed policy and regulation or solutions to systemic problems benefitting at least tens of thousands of farmers (FNS E.1., DDE N)		0	8	5		15	13	86.67	
4.1.1	Number (#) of platforms or networks contribute to policy development and implementation, and coordination		1	3	4		5	8	160	(NSAG, ENS Committee, regional seed core team, NSQC platform)
4.2.1	Number (#) of seed regulatory service providers strengthened in capacity (DDE L)		4	4	6		10	14	140	(Oromia, Amhara, Central Ethiopia, EAA, Benshanguel Gumuz, Bong (SW Ethiopia)

No.	Indicators	FNS / PSD	Reach 2021-2022	Reach 2023	Reach 2024	Baseline	EOP target	Cumulative reach	% Reached	Note
4.3.1	Amount of money (€) invested by domestic businesses, international companies, and development partners in sector-strategic capital (DDE J) indicator was: Number (#) of grants accessed and loan agreements signed by seed companies of a minimum of 10.000 USD		11,000,000	2,800,000	11,659,271		20,000,000			

Annex 2: Risks and mitigation measures

Contextual risks

In 2024, the ESP project faced significant contextual risks, particularly in conflict-prone areas such as Amhara and West Oromia. These risks included theft, violence, and kidnappings, which affected travel, monitoring, and the implementation of activities. Mitigation measures included limiting travel to essential trips, using remote communication systems, opting for air transport, and restricting travel to safer hours.

The risk related to a lack of political will for reforms was considered low, as liberalization efforts were supported by both policy direction and global trends. However, unexplained government interests continued to challenge private sector growth. To address this, ESP led the establishment and facilitation of Seed Coordination Committees at both federal and local levels, advocated for policy implementation, and emphasized capacity building. Additionally, contrary to earlier concerns, reduced turnover among decision-makers in 2024 helped maintain continuity in these efforts.

Foreign investment interest in Ethiopia remained limited due to factors such as the country's non-membership in the OECD and ongoing security concerns. Nevertheless, Ethiopia's agro-ecological potential remained a strong attraction. ESP addressed these challenges by raising awareness through various platforms and networks and showcasing successful initiatives via project communication channels.

Forex restrictions were identified as a high-risk factor for the seed sector during the 2024 planning phase. However, following the introduction of Ethiopia's new market-led forex policy in July 2024, this is no longer considered a barrier to achieving project objectives.

Risk	Risk assessment (low / medium / high) + motivation	Influence on outputs of activity + motivation	Mitigating measures and residual risk
1. Conflict and incidences of theft, kidnapping, and violence reduce the safety and security of staff and partners travelling to the field	high: • Armed conflict is becoming more common in certain areas • Rising incidents of theft, violence, and kidnappings threaten the safety and security of staff and partners • The root causes of conflict and violence remain unresolved	medium: • Some companies shifted or discontinued activities in conflict-affected areas • Delays in planned activities, e.g. seed companies postponed their plan next year • Physical monitoring and support hindered, especially in Amhara and West Oromia (e.g. intern supervision, seed companies filed coaching, national variety performance test pilot)	• Non-essential travel avoided, plane travel only • Host companies monitored intern movement and provided security updates • Interns relocated to safer areas where possible • Stakeholders convened in secure locations for meetings, training and workshops • Travel limited to safe hours • Remote support and communication (e.g. some activities via phone and online) used where needed

Risk	Risk assessment (low / medium / high) + motivation	Influence on outputs of activity + motivation	Mitigating measures and residual risk
2. Lack of political will to implement reforms to encourage private investment in the sector	low: • Level of unwillingness depends on personalities of decision makers • Some resist liberalization because of political interests in seed control (seed as political commodity) • Food sovereignty remains a key concern • Governance and the economy are trending in the direction of liberalisation for some time now • Immense global forces of trade and financing reinforce current trends	medium: • Hidden agendas and government interests limit our effort to strengthen private sector support • However, existing policies can be used to promote private sector development	• National and regional seed committees re-initiated to prioritise agendas and steer reform • Made continuous efforts in collaboration with others on EAA to implement piloted policies • Joined forced with other partners to provide capacity building support for policy implementation
3. Turnover of decision makers and allies in government	low: • Staff turnover occurs frequently in government offices • This disrupts continuity in collaboration and policy implementation • The underlying causes of high turnover rates have not yet been addressed	low: • In 2024, staff turnover was significantly reduced, and no government restructuring occurred	• Risks were anticipated, but actual turnover in 2024 was low
4. Lack of interest from international companies to invest in Ethiopia	medium: • Lower-than anticipated willingness to invest because of various concerns (Ethiopia is not a member of the OECD; no implementation of IPR/plant variety protection; bureaucratic government service provision, safety and security great concern to foreign investors) • However, Ethiopia's agro-ecological conditions are favourable for vegetable seed production and thus attractive to seed companies	medium: • Limited number of international companies applied for PPPs • Generally, the sector is generating what it could compared to its potential if it can attract international investments	• Efforts were made to raise awareness about the potential of seed business opportunities in Ethiopia through the International Seed Federation, international and regional seed congresses, Plantum, and SeedNL platforms • Documented and communicated programme successes • Facilitated company access to public institutional services
5. Forex reserves remain seriously constrained	low: • Ethiopia's large trade deficit and food import reliance are contributing factors • However, the Ethiopian government aims to increase exports and substitute imports with local production	low: • Forex availability is an important driver of international companies' trade with Ethiopia • Since July 2024 Ethiopian forex policy has liberalised to a market-led system • International companies can now access forex directly from banks	• Recent policy reform has relaxed the forex market • Forex access has been decentralized, improving availability

Programme risks

In its effort to improve access to (EGS for local seed companies, ESP encountered significant challenges due to unclear mandates, limited institutional capacity, and the prioritization of public enterprises. This has affected private companies, which often struggle to access EGS and frequently rely on informal networks to meet their needs. To address these issues, ESP facilitated partnerships between research institutions and seed companies, fostering a more collaborative approach. Additionally, efforts were made to encourage cooperation among domestic seed companies to improve EGS availability within the private sector.

Limited access to credit posed a major challenge for seed businesses, as agriculture is considered high-risk by financial institutions. Small seed companies often lack sufficient collateral, limiting their access to finance and affecting their growth and production capacity. As a result, they rely on informal financing sources, which are costly. ESP studied these financial access issues and plans to introduce a G2G scheme in 2025 to improve credit access for small seed businesses.

A shortage of skilled manpower also posed a risk to the seed sector's development. In response, ESP focused on human resource development, recognizing the growing demand for diverse skills. In collaboration with Haramaya University, ESP introduced short-term training in seed science and technology and promoted internships to align with sector needs.

Although a low-risk factor, the lack of youth interest in the seed business was anticipated. Recognizing youth engagement as essential for long-term sustainability, ESP promoted youth role models, provided scholarships, sponsored internships, and developed short courses to encourage participation.

The sector's traditional male dominance limited women's involvement. While marketing and business roles offered some opportunities, women's participation remained low despite targeted efforts. ESP's outreach initiatives showed progress. To build on this, ESP offered women-only MSc scholarships, collaborated with university gender offices, and involved female alumni in outreach, promoted couple participation in training and demonstrations to enhance women's involvement and adoption of SAPs.

Risk	Risk assessment (low / medium / high) + motivation	Influence on outputs of activity + motivation	Mitigating measures and residual risk
1. Domestic seed businesses cannot access sufficient quality EGS (early-generation seed)	medium: • Unclear mandates, poor task division, and limited capacity result in EGS shortages • Priority is given to the maintenance and multiplication of widely adapted varieties sought by public seed enterprises • The private sector is disadvantaged in accessing EGS, as public seed enterprises have priority access	medium: • EGS production and supply is changed, public research institutes are the main producers • Allocation of EGS still done by government, private companies received leftover allocations • Some private companies use informal networks for access to EGS	• Facilitated linkages between domestic seed companies and research institutes/public seed enterprises for EGS access • Enabled peer linkages for domestic seed companies (e.g. Borer seed company in Central Ethiopia supplying other companies in Benishangul Gumuz)
2. Formal financial institutes are not convinced to make credit available to domestic seed business	medium: • Agriculture is riskier business for credit providers than certain other sectors • Most small-scale seed business do not have collateral to get credit access • However, collateral guarantee systems, new financial product development, and government policy shifts are expanding access to credit	medium: • Some seed companies' growth and expansion inhibited by lack of access to finance • This has resulted in reduced volume of seed production • Some companies with critical financial shortage try to access finance from informal sources	• Conducted studies on access to finance and potential solutions • Designed a G2G scheme for seed companies to access loans from banks
3. Human resources capacity development is irrelevant for the seed sector	medium: • Skilled HR is an essential for sector professionalism and the adoption sustainable agricultural practices (SAPs) • The uptake of sustainable agricultural practices demands skilled labour in agronomy • Seed-related curricula and courses are few • But universities and ATVETs do offer education and training	low: • There is a change in the attention given to the seed sector • Demand from the seed sector for a more diverse set of knowledge and skills has increased • Host companies provided employment for interns and requested for additional interns • Universities and ATVETs are open to and constructive about curriculum updates for seed science and technology and seed systems	• Started the SST short course training at Haramaya University • Promoted internships to seed companies and stakeholders • Disseminated new SST curricula via our communication channels

Risk	Risk assessment (low / medium / high) + motivation	Influence on outputs of activity + motivation	Mitigating measures and residual risk
4. Employment in the seed sector attracts little interest from youth	low: • Arguably, there are other sectors offer more attractive incentives for employment • Traditionally, employment has focused on seed production, requiring in-depth technical knowledge and field experience. • However, seed business, marketing, and private investment are developing, leading to a demand for broader skills	medium: • Our youth strategy hinges upon youth participation in education and internships, and significant resources are budgeted for these activities • For strong degree of complementarity and synergy between our investments in education and employment, youth participation is needed	• Strongly consider youth in the development of communication strategy. Put youth role models in the spotlight to attract others • Involve companies and local communities in outreach for encouraging youth participation • Sponsor youth participation in education and internships (e.g., scholarships, stipends) • Invest in the development of short course training on subjects not traditionally a part of seed science and technology education (like seed business, marketing
5. Organizations in the seed sector are not interested to host internships	low: • Organizations are in need of capacity and interested to meet young talent • International companies have already expressed great interest to host interns • With financial support from the programme, local organizations have now expressed the same.	medium: • The aim was to place 200 interns, but due to limited interest of some companies it was difficult to achieve this number	• Included intern hosting obligations in international company contracts • Covered full intern costs for some companies unable to do so • Placed interns in public research institutes
6. Education, training, and employment in the seed sector attracts little interest from women	low: • Agriculture and seed are male-dominated disciplines • Traditionally, employment has focused on seed production, requiring in-depth technical knowledge and field experience. • Traditional, seed business, marketing and private investment are developing, leading to as demand for diverse expertise	medium: • Finding women to participate in our internships, grants and other support activities was limited • However, participation improved slightly this year but still far from anticipated; more targeted outreach is attracting more women	• Launched women-only MSc research grant • Engaged university gender offices to promote women participation • Involved women alumni in outreach activities and promotional efforts
7. Promoted sustainable agricultural practices are not gender responsive	medium: • Task division in agriculture and seed is gendered • It is possible that a trade-off exists between environmental and socio-economic outcomes when it comes to agronomy • Practices that are environmentally sustainable may be disproportionally hard for women to adopt	medium: • Number of women reached through demos and trainings was low • There is no clear understanding and conception of the dynamics involved, so mitigating measures may be ineffective	• Efforts were made by international companies to invite couples in training courses and demos on SAP
8. An unsafe working environment exists, in which staff are not protected from sexual exploitation and abuse	low: • EKN has highlighted the need for procedures to protect staff from sexual exploitation and abuse • As a follow-up, SWR Ethiopia has taken measures	Medium: • An unsafe working environment, in which staff are not protected from sexual exploitation and abuse, affects staff both at a personal level as well as professionally	• A one pager on Protection from Sexual Exploitation and Abuse (PSEA) Core Principles (in several languages) has been developed and incorporated in the SWR Ethiopia HR manual • Staff have been sensitized, and a whistleblower procedure is in place • Presence of PSEA policies with ESP partners being assessed

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