



# Supporting Sustainable Agricultural Productivity in Ethiopia

## Improving the agricultural sector in Ethiopia

### Context

Large parts of Ethiopia have a favourable climate for agricultural production, especially the highlands. Yet this potential is far from being fully utilised. Although agricultural production in Ethiopia could feed the population and generate additional income from exporting agricultural products, about ten million people remain dependent on regular food aid. The country is increasingly importing staple foods. Agricultural production falls short of its potential because farms with an average size of only 0.5 ha in the highlands are lacking access to machinery, fertiliser and quality seed. Moreover, farmers do not use the most advantageous production methods. As a result, yields are low even by African standards.

### Objective

Conditions to increase agricultural productivity in Ethiopia have improved by enhancing agricultural framework conditions, developing capacity in the seed system, genetic resource conservation, and mechanised agriculture.

### Approach

Achieving an increase in agricultural yields requires expertise, organisation and high-quality seed. The project is aiming at making resistant, high-yielding seeds available in sufficient quantity and at an affordable price. Farmers and service providers learn using farm machinery and gain a knowledge of modern farm management. Farming cooperatives enhance their management skills and get better income by increasing productivity.

To this end, the project is working together with Ethiopian research, adult education and public administration institutions, helping them to forge links with strong partners from the German private, cooperative and public sector.

**Locally adapted seeds:** Together with the Ethiopian Biodiversity Institute and the German Gene Bank (IPK), the project enhances the conservation of Ethiopia's unique genetic resources. In collaboration with the company

KWS Saat SE and the German Association of Plant Breeders GFPI, it assists the Ethiopian Institute of Agricultural Research in breeding locally adapted barley varieties with improved traits and producing early generation seed.

The project supports nine smallholder cooperatives in the regions of Tigray, Amhara and Oromia to produce certified seed from the locally adapted early generation seed and market it within these regions. A member of the National Seed Advisory Group, and through cooperation with the German Federal Plant Variety Office, the project supports the elaboration and revision of strategies and regulations for the seed sector and promotes the application of international standards in seed quality control and variety release.

Project name	Supporting Sustainable Agricultural Productivity in Ethiopia (SSAP)
Commissioned by	German Federal Ministry of Food and Agriculture (BMEL)
Lead executing agency	GIZ
Ethiopian Partner Organisations	Ethiopian Ministry of Agriculture (MoA) Ethiopian Federal Cooperative Agency (FCA) Ethiopian Biodiversity Institute (EBI) Ethiopian Institute for Agricultural Research (EIAR)
German Partner Organisations	Federal Plant Variety Office KWS Saat SE & Co. KGaA Gemeinschaft zur Förderung von Pflanzeninnovation e.V. Leibnitz-Institut für Pflanzengenetik und Kulturpflanzenforschung
Duration	01/2018 to 01/2021 (Phase II)
Budget	EURO 4.8 million



**Agricultural mechanisation:** Since its opening in 2013, the Agricultural Training Centre in Kulumsa has provided practical training in farm machinery operation and cultivation methods that conserve soil fertility and lead to a long-term increase in productivity. On average 600 farmers, machine operators, Agricultural Technical Vocational Education and Training teachers and students as well as unemployed youth take part in the training courses every year. The training centre is also promoting agricultural mechanisation through field demonstrations and advice on

policies and regulations related to agricultural mechanisation.

**Strengthening training capacities for farming cooperatives:** The project supports the transformation of the Agricultural Technical Vocational Education and Training centre in Ardaita into a college for cooperatives, thus providing a permanent range of training courses for cooperatives. In collaboration with the Federal Cooperative Agency (FCA), the project also engages in training of trainers at five unions, who then train and advise the cooperatives within the union.

## Some results achieved by SSAP in Phase II

### Dialogue for Agricultural Framework Conditions

- The project's advice to improve strategic legal framework conditions in collaboration with the German Federal Plant Variety Office contributed to:
  - The ratification of a national seed policy in 2020
  - Endorsement of new proclamation on plant breeders' rights in 2018 and submission of the related regulation to the council of ministers in January 2020
  - Approval of standards for quality declared seeds (17 crops)
- The national and four regional seed laboratories use improved equipment and apply at least two standards set by the International Seed Testing Association.
- A revised strategy including a business model to transform Ardaita ATVET into a national cooperative college are available.

### Strengthening the Seed Sector and Conservation of Genetic Resources

- The Ethiopian Biodiversity Institute (EBI) stores 32% of the gene bank collection or 17,038 accessions in a new cold room that complies to international standards for long-term conservation.
- EBI has regenerated 64 endangered fava bean accessions.
- EIAR has increased fourfold the number of effective crosses made annually in barley breeding and cut the breeding time for a new variety by 30%. As a result, newly introduced quantitative breeding parameters have significantly improved. At least one new barley variety is expected to be released in 2021.
- 1,300 farmers organized into nine seed producer cooperatives have increased their annual production of barley and wheat seeds from 0 (2016) to 1,200 tons per year. As a result, circa 64,000 farmers are supplied with improved seeds.

### Agricultural Training Centre for Mechanization (ATC)

- In February 2020 Ethiopia's Minister for Agriculture officially announced the transfer of ATC to the Ethiopian Institute for Agricultural Research. Hence, from 16 January 2021 onwards, a permanent Ethiopian organisation will operate the training centre.
- ATC provided hands-on training to 2,012 tractor operators, mechanization service providers and other professionals, 48 ATVET teachers, 750 college students and 80 unemployed youth.
- In 2019, ATC was accredited as an assessment centre for farm machinery operators and as a tractor driving school.
- 90% of unemployed youth trained in tractor operation have found employment.
- ATC demonstrated the use of modern farm machinery and sustainable crop production methods of to 5,118 participants.



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**In cooperation with:** Ethiopian Ministry of Agriculture (MoA)  
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