

# Seed Project Ethiopia

**Strengthening the seed sector –  
improving the food supply**

**SEEDING  
THE FUTURE**  
SINCE 1856





# The KWS Seed Project in Ethiopia

Semiarid climate in the lowlands, temperate climate in the highlands.

Such extremely diverse conditions are a serious challenge to Ethiopian agriculture. The consequences are recurrent food shortages and famines. Most smallholders cannot afford fertilizers, pesticides and irrigation equipment. Robust varieties with excellent resistance and grain quality are therefore key prerequisites for a productive and sustainable harvest.

The problem: There is too little certified seed and too few new varieties adapted to the extremely diverse growing conditions in Ethiopia. This point is addressed by the KWS seed project, which is part of the German Federal Ministry of Food and Agriculture's initiative, "Supporting Sustainable Agricultural Productivity."

## The KWS Initiative "Capacity Development"

With the Capacity Development initiative, KWS SAAT SE supports the training primarily of young plant breeders in Peru and Ethiopia. The program focuses on the development and seed multiplication of locally adapted varieties. In Peru, target crops are corn and quinoa, while in Ethiopia they are barley and wheat.

The initiative also contributes to the sustainable conservation and use of the existing diversity of genetic resources, thus implementing the International Treaty on Plant Genetic Resources for Food and Agriculture.

## Project goal: Improving local food supply

With this project, KWS intends to protect plant genetic resources and make them sustainably usable for Ethiopian agriculture.

In addition, the company aims to secure the development of new barley and wheat varieties. To strengthen the local seed sector, the project supports the description and documentation of regional barley and wheat resources. Such improved documentation will allow for a more efficient use of the existing crop diversity.

# Activities

In support of barley and wheat improvement programs



- high-value breeding material is being provided
- laboratory equipment and instrumentation (e.g. for grain quality analysis) is being made available
- breeders and technicians are being trained
- field trials (e.g. for the evaluation of newly developed varieties) are being given financial support

Furthermore, the project promotes the establishment of seed production cooperatives at the community level in order to enhance smallholders' access to optimized barley and wheat varieties.

Crossing of Ethiopian barley with a German variety

# Initial achievements (2015)

## **Strengthening barley and wheat breeding programs at the Ethiopian Institute for Agricultural Research (EIAR):**

- Provision of 20 German barley and wheat varieties for transferring grain quality traits to local varieties
- Training of employees in breeding methods, field trials, experimental design, etc.
- Training of scientists in marker-assisted selection and development of doubled haploids at the Julius Kühn-Institut and at KWS in Germany
- Delivery of breeding equipment and materials

## **Supporting barley and wheat genetic resource conservation, documentation and use at the Ethiopian Biodiversity Institute (EBI):**

- Training of employees in gene bank management at IPK Gatersleben, Germany
- Repatriation of 7,200 barley accessions
- Delivery of gene bank equipment and materials

## **Supporting small farmers: improving their access to seed from better wheat and barley varieties:**

- Distribution and trial planting of seed samples from improved barley and wheat varieties for 2,000 smallholders so far – with return of the received amount of seed after harvest to local agricultural service offices for distribution to smallholders
- From initiated smallholder multiplication, conservative estimates suggest that over 9,000 farmers have been provided with seed from superior varieties

## **Contribution to political dialogue**

- KWS advisors continuously exchange ideas with Ethiopian seed experts and thus contribute to helping shape the national seed industry development strategy





Cleaning a local barley seed production field in Ethiopia

## Project partners and cooperation

The seed project is financed by KWS in cooperation with the German Federal Ministry of Food and Agriculture.

Another contribution is made by the GFPI, the German Association for the Promotion of Plant Innovation. The main implementing partners are the German Society for International Cooperation (GIZ), the Ethiopian Ministry of Agriculture (MoA), the Ethiopian Institute of Agricultural Research (EIAR), the Ethiopian Biodiversity Institute (EBI) and the Leibniz Institute of Plant Genetics and Crop Plant Research (IPK) in Gatersleben, Germany. The GIZ also involves the Agricultural Transformation Agency (ATA) in Addis Ababa in the project.



With support from



by decision of the German Bundestag



Farmer in the Ethiopian highlands

# Contact persons



**Dr. Bettina I.G. Haussmann**

Capacity Development Manager

KWS SAAT SE

Phone: +49 71 27 / 9 80 14 59

[bettina.haussmann@kws.com](mailto:bettina.haussmann@kws.com)



**Dr. Reinhard von Broock**

Senior Breeding Advisor

KWS LOCHOW GMBH

Phone: +49 50 51 / 477 112

[reinhard.broock@kws.com](mailto:reinhard.broock@kws.com)

## **Publisher:**

KWS SAAT SE

Grimsehlstr. 31, P.O. Box 1463

37555 Einbeck, Germany

Photos: B. Haussmann

Date: January 2016