The Advisory Service on Agricultural Research for Development (BEAF) works on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) to support 17 international agricultural research centres in developing innovative solutions for sustainable agriculture that benefit smallholders in developing countries.

BEAF supports development-orientated research projects, gene banks and the assignment of international experts to achieve these targets. The focus is on linking agricultural research with development cooperation partners to ensure that research projects promote diversified nutrition and help secure the livelihoods of millions of smallholders.

Worldwide, more than 820 million people suffer from hunger and about two billion of the world’s population are malnourished. To respond to rising global demands for nutritious food supplies, agricultural production needs to increase by 50 per cent by 2050. At the same time, the effects of climate change and unsustainable farming practices negatively impact agricultural resources such as fertile land, water and biodiversity. In many developing countries, the restricted access to resources of women in agriculture and huge post-harvest losses further exacerbate food insecurity. To address these challenges, smallholders in developing countries require innovative technologies, improved and adapted crop varieties and sustainable farming methods.

The Advisory Service on Agricultural Research for Development (BEAF) supports

1. **The improvement of crop varieties** that produce higher yields and withstand extreme weather conditions. Efforts focus on conventionally bred crop varieties that are crucial for a healthy and diverse diet. Target crops range from staples such as wheat, maize, rice and cassava to neglected indigenous types of vegetables, root and tuber crops.

2. **The development of adapted technologies and farming practices** that conserve soil, water and biodiversity and increase high-quality yields. BEAF’s portfolio encompasses farming, aquaculture, livestock breeding and entomology as well as forestry, water and land management.

3. **The conservation of agrobiodiversity** by preserving plant genetic resources of more than 35 crops and tree species. Resources in 12 gene banks are publicly available for further research and breeding.

4. **The application of research products in farming practices** by cooperating with smallholders. Following a holistic approach, research centres also work with partners in development cooperation and the public and private sectors, for instance to develop business models for new technologies.

Our objective:

Innovative and sustainable agriculture enables smallholders in developing countries to increase income and improve nutrition, while protecting and conserving natural resources.
Examples of project activities

Germany is a founding member of the global research partnership CGIAR and has a long history of supporting international agricultural research. Every year, several research projects with a duration of three years receive funding.

Since 1985, rice farmers in South-East Asia have been able to save nearly USD 1.5 billion every year due to higher-yielding varieties from CGIAR. Rice varieties developed with German funding by International Rice Research Institute (IRRI) are more resistant to flooding. Over five million producers were able to secure their food supplies and income.

Insect infestation used to cause severe losses in harvest and income in Kenya’s mango production. The International Centre of Insect Physiology and Ecology (ICIPE) develops measures in integrated pest management to address this. Funded projects led to a reduction of the use of synthetic pesticides, while income of mango farmers increased by between 22 to 48 per cent.

Benefits

Advice and political agenda setting
BEAF supports BMZ to shape Germany’s contribution to international agricultural research. It advises BMZ on strategic and technical matters and is a member of the European Initiative for Agricultural Research and Development (EIARD).

Funding research projects for development
BEAF selects and manages the funding of research projects and assures their scientific quality, orientation towards development outcomes, its gender-sensitive approaches and potential for scaling in order to facilitate broad application of research findings. BEAF also supports strategic partnerships between agricultural research and GIZ projects to ensure wide-ranging impact.

Development of human resources
A joint venture of the Centre for International Migration and Development (CIM) and BEAF facilitates the placement of integrated experts from Germany in international research centres. The Task Force on Scaling works on the challenges of scaling innovative technologies and methods and implementing them in agricultural practice. Selected master students are supported to conduct research abroad in cooperation with a centre.

Further information: www.giz.de/agricultural-research4development