



Climate Change and Agri-Food Systems

How BMZ supports adaptation and mitigation in the areas of food and nutrition security, rural development and agriculture

WHY IS THIS IMPORTANT?

- Countries in the Global South in particular are already suffering from the **impacts of climate change**. Harvests and the lives of millions of people are threatened **not only by extreme weather events, such as droughts and floods, but also by gradual changes in temperature and precipitation patterns**. Development results achieved by the 2030 Agenda to date are at great risk.
- We are simultaneously experiencing three serious crises in the form of **climate change, Russia's war against Ukraine and the ongoing COVID-19 pandemic**. These are further exacerbating existing global food insecurity challenges. Agri-food systems worldwide need to be made more resilient and able to cope with crises to feed the world's growing population.
- Agri-food systems act as both a threat and a powerful lever when it comes to promoting human and planetary health. **Agri-food systems generate up to 42 per cent of global greenhouse gas emissions**, from food production and land-use change to packaging, transport and consumption. The conversion of forest into agricultural land is responsible for up to 90 per cent of global deforestation.
- **Nationally Determined Contributions (NDCs) are at the heart of the Paris Climate Agreement**. Implementing the mitigation and adaptation targets in agriculture is a major challenge for many countries in the Global South.

AIMS AND SOLUTIONS

- The **Sustainable Development Goals (SDGs)** and UN conventions on climate change (**UNFCCC**),

combating desertification (**UNCCD**) and conserving biodiversity (**CBD**) are regarded as key reference frameworks by the German Federal Ministry for Economic Cooperation and Development (BMZ) and considered in an integrated manner.

- The long-term objective of **BMZ's core area strategy "Transformation of agri-food systems"** is to achieve a **socially and economically just and environmentally sustainable transformation** of agri-food systems within planetary boundaries.
- Within this framework, BMZ promotes **climate resilience and climate protection in the areas of food and nutrition security, rural development and agriculture** through systemic approaches, for example through:
 - Comprehensive **risk management** in the form of climate risk and agricultural insurance, climate risk analyses, (digital) climate information services and early warning systems.
 - **Agroecological approaches** that conserve resources through circular management, promote nature-based solutions and preserve ecosystems and their services.
 - **Soil protection measures and the rehabilitation of degraded soils** to increase fertility and water storage capacity and enable carbon storage.
 - **Measures to build resilience (e.g. to drought)** among particularly vulnerable groups such as pastoralists and agro-pastoralists.
 - **Integrated water resource management** and water- and energysaving technologies that adapt agri-food systems to increasing resource scarcity.

- **Rural governance and land-use/spatial planning** to balance competing interests and conflicting goals in relation to the conservation and the use of natural resources.
- **Innovations along agricultural value chains** that can reduce food losses and the introduction of sustainability standards for deforestation-free and climate-friendly supply chains.
- The diversification of a **nutrition-sensitive, local agricultural production** for improved access to a healthy diet.

SCOPE OF BMZ COMMITMENT

- **Between 2014 and 2021, BMZ provided over 2.4 billion Euro to support nearly 300 projects** related both to climate action and to rural development, food and nutrition security and agriculture. Alongside activities designed to protect the climate, the projects focus particularly on agricultural adaptation measures in Africa.

MULTILATERAL ENGAGEMENT

- Germany is strengthening the exchange of knowledge on low-emission and climate-resilient agri-food systems within UNFCCC's Koronivia Joint Work on Agriculture and its successor programme **Sharm el-Sheikh Joint work on implementation of climate action on agriculture and food security**.
- Under the German G7 presidency, BMZ launched the **CompensACTION initiative** to reward producers for protecting the environment and to enable them to earn a living through additional compensation mechanisms.
- Within the G7, BMZ, together with the World Bank, has launched the **Global Alliance for Food Security**, which can respond quickly, proactively and in a coordinated manner to cases of hunger crises in the context of multiple crises.
- At the same time, the **Global Shield against Climate Risks** was launched, combining climate risk insurance and preparedness activities. The initiative builds on the **InsuResilience Global**

Partnership, which also funds climate risk insurance solutions.

- Acting through the **global research partnership for a food-secure future CGIAR**, BMZ provides 32 million Euro annually to support research on and the implementation of innovative solutions with the potential to transform agri-food systems.
- Through the **Adaptation for Smallholder Agriculture Programme** led by IFAD, BMZ is contributing over 48 million Euro to help make climate and environmental finance accessible to smallholder farmers.
- Germany supports the efforts of partner countries to reach their mitigation targets through the **NDC Partnership**.

SELECTED PROJECT EXAMPLES

BMZ supports projects on climate action and food and nutrition security, rural development and agriculture:

- The **Climate-smart Agriculture and Food System Fund**, co-financed by BMZ, offers climate-smart solutions to support enterprises operating along agricultural value chains in Asia, Latin America and Africa.
- The **Global Programme Soil Protection** promotes sustainable land use and the rehabilitation of degraded soils. In Kenya, the **Sector Project BoDeN** unlocks access to additional financing by trading soil carbon certificates, funding much needed agricultural extension services.
- The **Global Programme Food and Nutrition Security, Enhanced Resilience** supports climate-resilient diets. In Cambodia, for example, it promotes the cultivation of vegetables that contain sufficient micronutrients even at increasing temperatures and therefore permit a healthy diet.
- The **Project for Adaptation of Agricultural Value Chains to Climate Change** supports smallholder farmers in Madagascar with appropriate weather information and insurance.