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Terraced fields in Rwanda

GERMAN GOVERNMENT AND FEDERAL STATES PROGRAMME
Bund-Länder-Programm (BLP)

Federal state – partner country
Rhineland-Palatinate – Rwanda

Title
Support for the Development of Digital Agro-meteorology in Rwanda for Climate Change Adaptation

In cooperation with the GIZ programme
Digital solutions for sustainable development II

Financing arrangements

BMZ contribution	€ 231,839
Rhineland-Palatinate contribution	€ 157,304

Duration
01.06.2021 – 31.12.2022

Responsible ministry
Ministry of Economic Affairs, Transport, Agriculture and Viniculture of Rhineland-Palatinate

This project helps to achieve the following Sustainable Development Goals (SDGs):

2 ZERO HUNGER · 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE · 13 CLIMATE ACTION

Improved Weather Forecasting for Agriculture in Rwanda

Local situation

Rapid growth in Rwanda's population has led to over 40 % of the soil being significantly degraded as a result of intensive use, e.g. through erosion or acidification. The problem is exacerbated by the impacts of climate change. Due to Rwanda's hilly topography around 90 % of its arable land is particularly susceptible to drought and heavy rainfall. The country's agriculture sector suffers from extreme weather events and crop failures.

Until now, most weather stations have been manually operated. This can lead to delays in recording information and to inaccuracies. The digitalisation of weather stations and the associated expansion of agricultural meteorology have the potential to improve harvest yields.

Cooperation arrangements

In May 2019, Rwanda's first Digital Transformation Center – funded by the Federal Ministry for Economic Cooperation

> "Action to protect the climate and adapt food supply chains to climate change are the largest global challenges of the 21st century. The project Digi-Agri-Meteo-Rwanda is about using the opportunities offered by digitalisation to establish modern agro-meteorology systems as a source of high-quality data to aid decision-making in agriculture. As an equal partner in the project, we are helping to build a climate-friendly and resource-saving agricultural sector that will be resilient in the face of climate change."

Dr Volker Wenghoefer,
Ministry of Economic Affairs, Transport, Agriculture and Viniculture of Rhineland-Palatinate, Division for Rural Service Centres, Vocational Training and Advice on the Agriculture and Household Sectors

Agriculture in Rwanda

and Development (BMZ) – opened in the capital, Kigali, with assistance from the technical cooperation programme Digital Solutions for Sustainable Development II. Its objective is to promote the development of sustainable digital applications.

As part of the German Government and Federal States Programme (German: Bund-Länder-Programm; BLP), the project described here will complement the technical cooperation programme through its focus on digital agricultural meteorology. Thanks to its many years of experience and pioneering role in this field, Rhineland-Palatinate has been able to provide advise on agricultural meteorology to different national and international actors. It has also maintained an intensive partnership with Rwanda for the last 39 years. In 2019, the Rhineland-Palatinate Ministry of Economic Affairs, Transport, Agriculture and Viniculture (MWVLW) and the Rwandan Ministry of Agriculture and Animal Resources (MINAGRI) signed a cooperation agreement on agriculture. This created a framework for the digitalisation of Rwandan agriculture. Both ministries are involved in implementing the project. The project's other Rwandan partners are Meteo Rwanda (the Rwandan national meteorological authority) and the rural service centre DLR Rheinhessen-Nahe-Hunsrück (DLR RNH).

What we are doing – and how

The project consists of three phases.
It starts with an analysis of the country's existing agricultural meteorology infrastructure. This will identify, which technical solutions are needed to digitalise weather forecasting in Rwanda and which additional information services might be useful to Rwanda's agriculture sector in this context. The findings will be used by the project partners in Rwanda and Germany to draw up an implementation plan.

During the implementation phase, weather stations in Rwanda will be automated. Specialists from Germany will help Meteo Rwanda expand its electronic data-processing activities. Temporary placements will be arranged for Meteo Rwanda staff at the DLR RNH. In addition to the procurement of new IT infrastructure, the project will support local efforts to develop a first agricultural meteorology information service that will act as a model for others and help relevant agencies make decisions that promote sustainable and climate-proof agricultural practices.

Useful links

- Technical cooperation programme Digital solutions for Sustainable Development (Rwandan Digital Transformation Center) II: https://www.giz.de/en/worldwide/73176.html

- Meteo Rwanda – Rwanda Meterology Agency: https://www.meteorwanda.gov.rw/

- More information on the programme: https://bund-laender-programm.de/en https://www.giz.de/en/worldwide/91262.html https://www.giz.de/en/worldwide/34949.html