

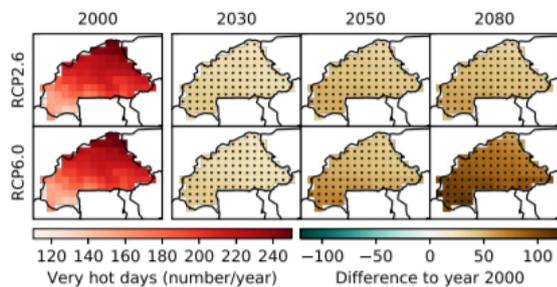


Understanding climate risks – developing strategies for adaptation

Cooperation with the Potsdam Institute for Climate Impact Research (PIK)

BACKGROUND

Many countries have recognized the need to implement climate change adaptation measures as the only means of overcoming existing challenges and securing development achievements. The World Bank estimates that, in the absence of ambitious action, an additional 100 million people could slide into extreme poverty by 2030 as a result of climate change. At the local level, however, the implementation of effective adaptation



Projections of the annual number of very hot days (daily maximum temperature above 35 °C) for Burkina Faso. Scenarios with lower (RCP6.0) and higher (RCP2.6) mitigation ambition.

strategies often lacks robust and spatially disaggregated data on the expected impacts of climate change and their costs, as well as concrete recommendations for action.

Such information is particularly important for the agricultural sector, which is highly dependent on weather conditions. The challenge is to adapt to changing climatic conditions to protect livelihoods in developing countries while making a sustainable contribution to global food security.

PROJECT APPROACH

In order to address this challenge, the German Federal Ministry for Economic Cooperation and Development (BMZ) has entered into deepened cooperation with the Potsdam Institute for Climate Impact Research (PIK), one of the world's leading climate research institutes. At the interface between science and development policy, application-oriented development research and relevant capacity in the partner countries are to be expanded. The first focus of the cooperation is the project **AGRICA – Climate risk analyses for identifying and weighing adaptation strategies in sub-Saharan Africa**. On behalf of the BMZ, PIK has been preparing comprehensive climate risk analyses and compact climate risk profiles since 2018 with the support of the *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)*.



The focus of the project is on the countries of the Sahel and sub-Saharan Africa. These are among the poorest countries in the world and

the most vulnerable to climate change. In the Sahel, for example, climate change threatens to exacerbate not only food insecurity but also crises and conflicts.

CLIMATE RISK ANALYSES

For investments in agriculture to be sustainable, they must systematically take impending climate risks into account. These comprehensive national studies therefore model the entire causal chain – from changing temperature and precipitation patterns to altered water availability and resulting climate impacts on the agricultural sector. Subsequently, adaptation strategies are identified and analyzed for their feasibility, cost efficiency, effectiveness, and suitability for the local context.

The results of the studies provide the partner countries with a basis for decision-making that has been derived from state-of-the-art climate risk modeling. The findings can be used in the development and implementation of Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs) and sectoral strategies.

The close involvement of local actors from politics, science and civil society plays an important role in the research process and ensures that the adaptation strategies are suited to local conditions and the needs of the partners. So far, five climate risk analyses have been commissioned. The national studies for Ghana and Ethiopia have already been completed, and analyses for Burkina Faso and Niger, as well as a district study for northern Ghana, are nearing completion.

CLIMATE RISK PROFILES

The climate risk profiles were conceived as a tool for the systematic consideration of climate risks in development planning. They provide a compact and country-specific overview of existing and projected climate risks in key sectors. The profiles are targeted to a broad audience and have been created for 12 countries so far (Burkina Faso, Chad, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Mali, Madagascar, Mauritania, Niger, Tanzania and Uganda).

OUTLOOK

- **Expansion of knowledge co-production with researchers on the ground and use of the results** in research and policymaking at various levels, as well as reduction of local data gaps (e.g., through regional research networks such as WASCAL and local universities)
- Application of the study approach to **other countries** in sub-Saharan Africa, depending on country interest
- **Dissemination and consideration of findings in development planning:** explanatory videos; provision of materials for decision-makers, smallholder farmers, and implementing organizations
- **Study at the transnational level** for the Sahel: applying the study methodology at the regional level and extending the approach to food security
- **Establishing the study approach** within international cooperation via various bodies and initiatives (e.g., Sahel Alliance, European Union)