

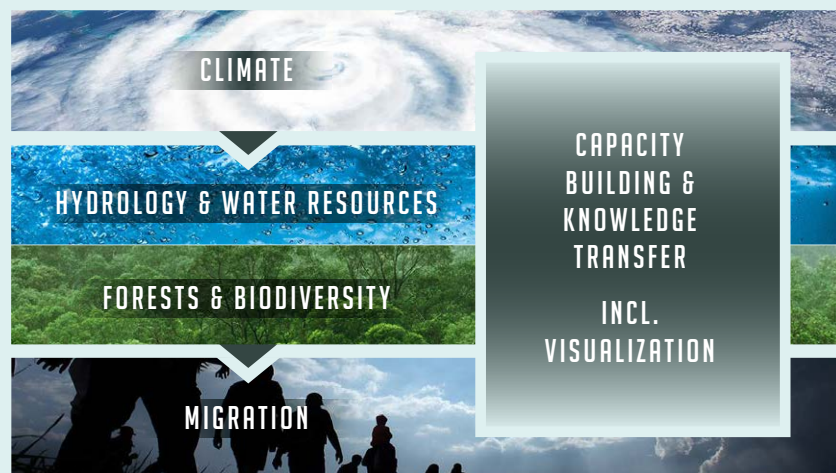
# B-EPICC IN BRAZIL – 2022/2023

*Climate · Hydrology & Water Resources · Forests & Biodiversity · Migration*

## OVERVIEW

About 60% of the Amazon rainforest area is located in Brazil, which plays a central role for the country's nature, people and economy. Increasing deforestation, droughts and fires in recent years threaten the Amazon rainforest. Climate change is likely to exacerbate the negative impacts of the regularly recurring El Niño phenomenon (storms, extreme precipitation, plankton die-off, drought) and affect agriculture and fisheries. In Brazil, therefore, the climatic and hydrological models produced in the B-EPICC project aim to address these challenges and could provide an important basis for climate-resilient adaptation measures. In particular, the issues of sustainable water management and climate-resilient agriculture are key to ensuring food security at the local level. It is also important to explore the potential of reforestation projects as an alternative source of income for farmers to provide them with longer-term livelihood prospects. Overall, the B-EPICC project is dedicated to five themes and activities to promote climate adaptation in Brazil until the end of 2023.

The project Brazil East Africa Peru India Climate Capacities (B-EPICC) is hosted by Germany's Potsdam Institute for Climate Impact Research (PIK). Its aim is to strengthen resilience by enhancing capacities in climate adaptation science and practice together with four partner countries: Brazil, Ethiopia, Peru and India.



In Brazil, the intention is to work with the Ministry of Science, Technology and Innovation (MCTI) as a political partner. The MCTI is in charge of the Brazilian Institute for Space Research (INPE), with which PIK already has close contacts.

Other partners in Brazil are to include the following: National Water and Sanitation Agency (ANA), river basin communities in Brazil (actors from the national, regional and local scale and from the public and private sectors), Universidade Federal de Minas Gerais (UFMG), Universidade Federal de Pernambuco (UFPE), EMBRAPA

## CLIMATE

In Brazil, B-EPICC's climate portfolio focuses on forecasting and prediction of phenomena such as monsoon and El Niño. Early prediction could significantly improve disaster risk management.

## HYDROLOGY AND WATER RESOURCES

B-EPICC's hydrology portfolio focuses on the water-food-energy nexus under climate conditions, seeking to work with local stakeholders on modeling and policy development. The focus is on the SWIM model (Soil and Water Integrated Model), which allows for testing, modeling and forecasting at different scales.

## FORESTS AND BIODIVERSITY

In this portfolio, existing climate impact information systems are augmented with descriptions of reforestation recovery, forest structure recovery, and biodiversity recovery. The aim is to incorporate regeneration strategies into stakeholder climate adaptation or conservation strategies.

## MIGRATION

This portfolio focuses on the linkages between climate change, migration and conflict, with the impacts of changes in land and forest cover on migration movements. Capacity building opportunities on climate migration patterns will be expanded, e.g. through virtual and in person trainings or co-authorship with scientists from Brazil.

## CAPACITY BUILDING

Cross-project capacity building activities link the individual scientific outputs produced in the project, foster stakeholder involvement and serve to transfer the generated knowledge into application.

Activities include:

- stakeholder and training workshops
- co-production of user-oriented climate services
- guest expert stays at PIK
- visualization tools of climate information, accessible to different types of users