

Adaptation to climate change in the Lake Chad Basin

Context

According to the Intergovernmental Panel on Climate Change (IPCC), climate change and the resulting increase in temperatures and rainfall variability are set to have a particularly serious impact on agriculture in the Sahel zone. Droughts and flooding have increased considerably in the Sahel region since the 1970s. According to the United Nations Environment Programme (UNEP), half of the shrinkage of Lake Chad can be ascribed to the impact of climate change and climate variability. The other half is the result of the increased demand for water from Lake Chad's tributaries for irrigation and the needs of growing populations, particularly in Nigeria, Cameroon and Chad.

The Lake Chad Basin is one of the largest sedimentary closed groundwater basins in the whole of Africa. With its extensive pasture and arable land and rich fish stocks, it is an important area both economically and environmentally for the riparian states of Chad, Nigeria, the Niger, Cameroon, the Central African Republic and Libya. Lake Chad and its tributaries form an important water reservoir in the central Sahel region.

Founded in 1964 by the lake's riparian states, the Lake Chad Basin Commission is mandated to conserve natural resources, monitor and coordinate cross-border water projects, regulate and control water use and resolve disputes. Its mandate also includes advising member states on dealing with the effects of climate change, particularly with regard to agricultural development (food security).

Challenge

Around 38 million people from diverse ethnic backgrounds currently live in the Lake Chad Basin. Most of these people are from poor rural households and survive on subsistence farming.



Flood recession farming:
drought-resistant red and

Climate change therefore has an acute impact on agriculture, cattle farming and fisheries. The high level of rainfall variability poses a risk to production on land that is traditionally farmed through rainfed agriculture, irrigation and flood recession farming, as well as from pastureland and fishing. A lack of rainfall leads to failed harvests and damages natural vegetation. Heavy rainfall causes flooding and erodes farmland. These changes in climate conditions result in increased food insecurity, social tensions and poverty, and cause a rise in the number of refugees among the affected population.



Project activities

At the regional level, the project provides support and advisory services to the Lake Chad Basin Commission, the field structures in member countries and national ministries and actors. At the local level, the project works with women and men from agricultural producer groups and organisations in a cross-border pilot zone in Chad and Cameroon. In the pilot zone, activities are implemented in cooperation with non-governmental organisations and national specialist services. Successful traditional and modern adaptation practices in the pilot zone are made available to the administrations, institutions and producer organisations in the entire Lake Chad Basin, as well as to member states.

GIZ's activities include:

- Developing expertise and building capacities in the areas of climate change, adaptation strategies and best practices in the Lake Chad Basin Commission;
- Supporting the Commission by advising member states on creating and implementing national climate adaptation strategies (PANAs);
- Conducting a study on the impacts of climate change on various types of farming systems;
- Developing and disseminating various adaptation measures in the main production systems;
- Creating a network of relevant actors for an exchange of information and data on climate change (platform for regional knowledge transfer);
- Raising awareness among local producer groups and cooperatives.

Project title	Adaptation to climate change in the Lake Chad Basin
Commissioned by	German Federal Ministry for Economic Cooperation and Development (BMZ)
Implementing organisation	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
Partner	Lake Chad Basin Commission
Region	Lake Chad Basin
Overall term	June 2013 – June 2018
Objective	Capacity development and provision of expertise on climate change and adaptation strategies in agriculture

Results

Capacity development and the provision of expertise on climate and agriculture will enable the specialist departments of the Commission to provide comprehensive advice to member states and to develop integrated solutions. This facilitates cross-border coordination in the implementation of PANAs and various adaptation measures by the CBLT.

The sustainability of the adaptation measures carried out at local level is safeguarded by the systematic use of participatory approaches and close cooperation with partners at the governmental and civil society level and will increase farming productivity, which will ultimately improve food security. The project helps achieve the Millennium Development Goals.

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