Adapting irrigation to climate change (AICCA)

This project aims at improving the sustainability and supporting the adaptation of small-scale irrigation to climate change in West and Central Africa.

Climate change represents a challenge for rural people in West and Central Africa, causing water shortages and droughts in some areas and floods in others. It impacts both the demand and availability of water for agriculture, affecting the proportion of people suffering from insecure access to water. Smallholder farmers are among the most vulnerable to the impact of climate variability. Hence, adapting small-scale irrigation and other forms of agricultural water management to climate change to ensure sufficient availability and reliable access to water is a priority for their livelihoods.

The objectives

The design and development of new irrigation infrastructures as well as the adaptation of the existing facilities require new guidelines that incorporate climate change variability, as there is a lack of information on the climate change impact on water management structures in the region.

The project therefore has the objective to:

- Assess and define the requirements to adapt small-scale irrigation systems to climate change in the main agro-ecological zones of West and Central Africa.
- Assist farmers of the region to adapt small-scale irrigation to climate change.
The outcomes

The project provides concrete tools to enable farmers and policymakers involved in water management to benefit from climate change adaptation, by making the right decision on small-scale irrigation practices to preserve their agro-ecosystems. In particular, the project offers:

- Up-to-date information on the vulnerability of small-scale irrigation systems to climate change in the main agro-ecological areas of the West and Central Africa region.
- Reference guides on the adaptation of small-scale irrigation to climate change.
- Knowledge exchange, technical assistance and training of farmers and other stakeholders. This will allow to improve their capacity in planning investments on small-scale irrigation by integrating and minimizing costs for adaptation to climate variability.

The activities and the focus

The first phase of the project focuses on a regional analysis in eight African countries: Chad, Gambia, Ivory Coast, Mali, Liberia, Mauritania, Niger and Sierra Leone. It describes the climate change implications on irrigated agriculture and highlights the irrigation technologies and best practices adapted to climate shocks that are valuable to scale up.

A second phase is implemented in four pilot countries: Gambia, Ivory Coast, Mali and Niger, where an in-depth analysis is carried out to assess the impact of climate change on irrigation systems, to propose adaptation strategies and to estimate their costs.

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For more information

www.fao.org/in-action/aicca

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