



RESEARCH PROGRAM ON
**Climate Change,
Agriculture and
Food Security**



Farms of the future: preparing farmers for a believable climate future



Photo credit: Peter Casier

Climate change will have both positive and negative impacts on agriculture in different parts of the world. In areas where climate conditions are expected to be favourable in the future, farmers can benefit from increased agricultural production. But adaptation to progressive climate change is vital in negatively impacted areas. CCAFS has developed a 'climate analogue tool' which connects regions around the world based on current and future climate conditions.

The CCAFS team in collaboration with research teams from Oxford University and the International Center for Tropical Agriculture (CIAT) and local partners initiated the 'Farms of the Future' field-based research program in the Indo-Gangetic Plains in 2012. The team used the climate analogue tool in the 'Farms of the Future' sites identified by CCAFS. By connecting analogue sites, the research aims to enable farmers to better envision how their site-specific agricultural future might look like. It helps them test climate resilient cropping systems and technologies in farmers' fields.

Objectives

- To establish, test and validate a farmer-to-farmer learning methodology for strengthening the adaptive capacity of small-holder farmers.
- To identify and connect climate analogue sites and encourage farmer-to-farmer exchanges to improve understanding of local practices and available technologies.
- To identify cultural, economic and institutional obstacles to climate change adaptation for small-holder farmers.

Locations

Rupandehi District (Beora), Nepal

Partners

Oxford University, International Center for Tropical Agriculture (CIAT)

Approach

- A study site is selected based on its vulnerability to climate change and climate variability. Researchers liaise with farmer groups to facilitate the farmer exchange visits.
- The latest climate projections for specific target sites are incorporated into the CCAFS' climate analogue tool in order to identify analogue locations that will in the future have a similar climate.
- One or two analogue sites are short-listed for farmer exchange visits based on distance, cultural similarity and willingness of farmers to participate.

- Existing climate change adaptation initiatives in the target sites are identified.
- Farmer exchanges are conducted as exploratory scenario exercises and embedded in a broader strategic capacity development program. The visits, usually lasting a week, help farmers familiarise themselves to a broad set of adaptation options practised by farmers in the analogue site. Local leaders and private and public sector partners are also involved in the knowledge exchange program.

Initial Results

- In Nepal, climate analogue sites for farmer-to-farmer exchanges were identified in Rupandehi district.
- Networks were established between the analogue sites to foster farmer-to-farmer knowledge exchange visits and establish connections with government agencies and other organizations.
- Community members in the sites participated in trainings to improve their understanding of climate change adaptation practices and available technologies.
- On-the-ground testing of climate resilient agricultural practices and technologies were carried out.
- Farmers have shared their experience and knowledge from their study tour with their own communities.
- A model for community-to-community knowledge exchange in climate change adaptation and the potential to scale out in the region and beyond has been set up.

ABOUT CCAFS

The CGIAR Research programme on Climate Change, Agriculture and Food Security (CCAFS) is a strategic partnership of CGIAR and Future Earth, led by the International Center for Tropical Agriculture (CIAT).

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