

Facts and Figures

Adaptation for smallholders to climate change

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Worldwide the effects of climate change are evident. Agriculture is particularly affected by the changing conditions, since it depends crucially on the stability of the surrounding ecosystem and the availability of natural resources.

Coffee and tea need particular climatic conditions. Coffee grows best at temperatures between 25° and 35° Celsius with alternating periods of rain and sunshine. For tea it is important that rainfall is spread evenly throughout the year and that the ground does not get waterlogged.

In East Africa climate change is causing longer, more extreme periods of drought. The consequences, such as water shortages and soil erosion, are having a negative effect on the quantity and quality of tea, which in turn means that tea farmers' incomes are decreasing as their livelihoods depend completely on the sale of this single cash crop.

Central America is witnessing extreme weather events as a result of climate change. Heavy rainfall and hurricanes are destroying crops and plantations and causing landslides. In the region of Chiapas in Southern Mexico, croplands are becoming less suitable for growing coffee as a result of unpredictable rainfall patterns and changing temperatures. Today, 80–90 % of the region is climatically suitable to grow coffee; by 2050 this figure is expected to drop to only 30–40%.

In South America coffee cultivation is also suffering due to a range of weather phenomena attributable to climate change. Droughts during the coffee flowering and ripening season, periods of frost that were almost unknown in the past, and heavy, but delayed, rainfall are affecting the quantity and quality of the crops.

What do we know?

Smallholders in developing and emerging countries are particularly affected by climate change. They lack access to information on the climate and to technical and financial support mechanisms. To ensure coffee and tea growing remains viable in the long term, and to thus safeguard the livelihoods of the producers, it is vital to analyse and understand the farmers' vulnerabilities to climate risks. Options for adaptation can then be developed based on these findings.

What are we doing?

The aim of the strategic alliance between Cafédirect and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH* is to work with coffee and tea smallholders that are part of Cafédirect's value chain to develop examples of how to cope with negative impacts of climate change. At the same time, the project aims to improve access to financial and technical support mechanisms for these farmer communities. Comprehensive information can be found at: www.adapcc.org

How do we do it?

Analysis. In conjunction with the people affected, the effects of climate change are evaluated using a specially developed risk and opportunity analysis tool.

Strategy. Based on this analysis, site-specific adaptation strategies are designed and implemented with each group.

Financing. At the same time, financing options at local and international level are identified to ensure that the adaptation strategies can be implemented over the long term.

The target groups are actively involved throughout all phases of the strategic alliance, ensuring that the activities are sustainable with broad impact.

What we accomplish ...

... on the political level

- Intensive cooperation with the Central American Regional Unit for Technical Assistance (RUTA).
- Sensitising regional and national decision-makers on the need to adapt cultivation systems and agricultural land use to climate change.
- Establishing local networks, in which ministries, research institutes and other GIZ projects work together to find ways of adapting to climate change.
- Planning and supporting public campaigns to raise awareness and build capacities for adaptation to climate change.
- Developing financing instruments through regional organisations to promote the implementation of adaptation mechanisms.

... within the company (Cafédirect)

- Maintaining long-term, sustainable production of high quality coffee and tea.
- Recording the effects of climate change on coffee and tea growing.
- Developing strategies for working on the subject of climate change with smallholders.
- Breaking new ground on the subject of climate change adaptation in the smallholder sector.
- Strengthening the relationships with supplier groups.
- Strengthening consumer identification with Cafédirect's values.
- Winner of the City of London's Sustainable City Award.
- 'Highly commended' by the UNDP World Business and Development Award and the BCE Environmental Leadership Award.

... toward sustainability and broad impact

- Incorporation of adaptation strategies into long-term strategic planning by various Mexican producer organisations.
- Training of 21 trainers in Latin America, who are able to develop and run their own climate change adaptation workshops.
- Planting of hedges by smallholders in Mexico to prevent long-term soil erosion.
- Setting up a local weather station in Nicaragua to measure

precipitation and temperatures in the region and use the data for long-term adaptation planning.

- Development of a handbook for training trainers on adaptation to climate change in the Latin American coffee sector.

The adaptation strategies developed in each of the four pilot countries were very different. Below are some examples of the measures from each pilot:

KENYA

Introduction of new agricultural products to diversify income and support food security.

MEXICO

Construction of 30 solar driers, enabling the coffee beans to be dried even if there is unexpected rainfall.

NICARAGUA

Sensitisation of 296 smallholders in ten workshops on climate change.

PERU

Instigation of an afforestation project under the CarbonFix Standard. A portion of the profits from this project will be used to fund further adaptation measures.

... with the target group

- Jointly analysing the effects of climate change on coffee and tea cultivation.
- Developing and implementing appropriate adaptation strategies.
- Sensitising and training producers to the subject of climate change.
- Introducing energy-saving stoves to protect the surrounding ecosystem and natural resources.
- Smallholders are producing organic fertilisers.
- Safeguarding producers' incomes.
- Growing of own food by tea farmers in Kenya alongside the cash crop to ensure availability and avert malnutrition and illness.

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Further information is available at:

www.adapcc.org
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