

# Strategic Alliance 09 | 2009

Adaptation for smallholders to climate change



## Weatherproof coffee



*Pedro Rodriguez\*, 41, and his family of six live in the Chiapas region of Mexico. The family's livelihood is secured by selling the high quality Arabica coffee that he cultivates on a small farm. Like most of his neighbours, who also produce coffee, Pedro helps to make Mexico one of the world's biggest producers of coffee. While 80% of Mexico's coffee production is exported to Europe, Pedro and other coffee farmers remain the poorest segment of Mexico's population.*

*In the past few years, Pedro's crops have increasingly been damaged by hurricanes and devastating rains. Temperatures have risen measurably and rainfall patterns have changed. The process of drying the harvested coffee beans, which takes place in the dry months of January and February, has been particularly affected as farmers can no longer count on those months being rain-free. 'Because of the heavy rainfall and the storms, not only has our crop become steadily smaller, the quality of the coffee has suffered as well', Pedro explains. He has heard of global climate change, and can see real impact the weather is having on growing and harvesting his crop, but he has no idea what he can do to counter the negative trends. Year after year he watches, helpless, as his coffee yields dwindle – and the Rodriguez family can barely afford the basic necessities as it is. If things continue like this, Pedro will have to give up the plantation, but he has no idea what his family will then live on.*

\* Fictional person

### Climate change – a global challenge

Global climate change is taking a toll everywhere. The places most badly hit, however, are developing countries like Mexico that do not have the financial means or technical know-how to fight the greenhouse effect and its consequences. In addition, the economies of these countries depend heavily on agriculture, which is strongly affected by weather phenomena such as El Niño. The British Fairtrade company Cafédirect works with more than 250,000 smallholder coffee, tea and cocoa farmers in Latin American, Africa and Asia, many of whom have already paid a heavy price for climate change. In Nicaragua, for example, huge swaths of the land currently suitable for growing coffee are likely to be lost in the coming decades.

### Countering climate change with the support of strong partners

Cafédirect wanted to take concrete action and so it turned to the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, in the hope that together they could find ways of preparing smallholder farmers for climate change. The result was a three-year development partnership (Adaptation for Smallholders to Climate Change, AdapCC) founded in 2007 on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) and funded by the German Government. The project is the first of its kind in the world and is being carried out in Latin American and East African countries in which coffee and tea are becoming more difficult, if not impossible, to grow because of climate change.

In four pilot groups in Kenya, Mexico, Nicaragua and Peru, AdapCC is working on model adaptation techniques that are to be replicated in the wider tea and coffee sector worldwide.

### The project's starting points

**Analysis.** First, evidence of the regional effects of climate change are analysed in Latin American and African supplier countries. Here, AdapCC works with local smallholder organisations and draws on existing studies and knowledge from national and international research institutions. Next, the project partners look for pilot groups among the country's coffee and tea producers to represent its various regions and problems.

**Strategy.** Detailed adaptation strategies are developed for the pilot groups. All strategies are developed and subsequently implemented together with the smallholder farmers themselves. One aspect of this stage of the project is to find starting points from which to leverage new tools and results in the country to ensure their further development beyond just this pilot project.

**Financing.** At the same time, the partners have engaged in dialogue with other interested groups on long-term financing options for the adaptation process. They review to what extent other sources of funding can be used, such as certain funds from national and international institutions or additional revenues from climate-friendly production.



### The example of Mexico

In the Mexican pilot group Más Café, to which Pedro belongs, the analysis has been completed and a five-part adaptation strategy developed. One decision, for example, was to keep the existing shade trees in the plantations and plant more of them, so as to protect the coffee ecosystems and the surrounding area from heavy rainfall and landslides, to improve the condition of the soil and to channel and absorb water. The coffee producers have also been trained in simple but effective farming techniques to control and contain diseases and pests naturally. In addition, research is being conducted into how to sequester greenhouse gases in Más Café areas of cultivation, so as to contribute to climate protection. Financial returns could then be used to implement further measures of adaptation. 'And soon', Pedro reports, 'we will be able to reforest our land with our own seedlings from our nursery'. He is proud to have taken part in the pilot experience. Now that he knows why his crop is steadily shrinking, and that he can do something about it, he has renewed hope. In the meantime, he has become one of those who not only work their plantations, but also tirelessly share his experience and encourage as many producers as possible to take up the learnings from the development partnership.

For more information see [www.adapcc.org](http://www.adapcc.org)  
[www.develoPPP.de](http://www.develoPPP.de)

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