

---

## Report on Climate Change Impacts

---

Cafédirect plc and the German Technical Cooperation have completed a report on the impacts of climate change on the tea and coffee production of smallholders in Latin America and East Africa.

The report is the result of the first phase of the Public-Private Partnership project “Adaptation for smallholders to Climate Change – AdapCC”, between the leading British Fairtrade company selling hot beverages and GTZ. The prime objective of the project is that producer groups of Cafédirect’s supply chain strengthen their capability to cope with the impacts of climate change and improve their access to respective financial and technical support mechanisms.



The report offers a sound summary of the most recent data on climate change impacts on Mexico, Nicaragua, Peru, Tanzania, Uganda, Kenya. Furthermore, it includes the results of a survey on producers perception and awareness of climatic changes and possible adaptation strategies. Impacts of climate change differ greatly between the regions. All countries will experience rising average temperatures and substantial variations in water availability. Whereas the Latin American regions are threatened by floods and hurricanes, East Africa is most seriously affected by droughts. The results of the producer dialogue show that most producers already have ideas on how to cope with climate change, but they lack financial and technical support to put them into practice.

The report further highlights the relevant institutions and organisations that offer information or technical and financial support. The availability of meteorological data differs greatly between the countries where Cafédirect’s producer groups are located. While Mexico has a strong institutional landscape and has already published its Third National Communication to the United Nations Framework Convention on Climate Change, other countries have a much weaker institutional framework.

## Executive Summary from report on climate change impacts

### ***Which are the main climate change impacts on the focus regions and hence on coffee and tea producers?***

All six focus countries are threatened by climate change impacts, whereas the most serious effects are the **substantial variations of water availability**, the **increase of average temperature** and an **increasing number of extreme weather events** like hurricanes, floods or drought periods. All six countries were hit heavily in the past and further impacts are predicted for the future in these regions. Whereas the Latin American regions are threatened by extreme weather events, Africa Sub-Sahara is the region most seriously affected by droughts and most vulnerable to climate change. The main impacts of these climate changing phenomena are water stress and water scarcity problems, destroyed landslides and reduced land for agriculture, loss of soil fertility and biodiversity leading at least to harvest losses in agricultural production, increasing poverty and food shortage. Besides changing climate the **on-going destruction of the environment** and natural resources impacts agricultural production seriously.

### ***How do producers perceive climate change? Are they willing to participate in a project aims to cope with climate change? Do they have the capacity to adapt to changing conditions?***

Nearly all interviewed farmers confirm to **have experienced climatic changes** on their farms during the past 20 years. They name the most relevant effects and their consequences for smallholder production and **have their own ideas of how to cope with climate** and environmental threats. The **lack of financial and technical support** and the missing awareness among politicians are the main barriers for adaptation. Any **support** to implement the adaptation to climatic change impacts is **most welcome**, especially in the context of farmers' ideas and demands.

### ***Are data available regarding changing climate conditions over the last decades and regarding future climate conditions? Is there an institutional and political framework for the implementation of adaptation strategies?***

With regard to the availability of climate related and meteorological data the six focus countries differ very much. Mexico is the leading country in terms of climate change impacts, mitigation and adaptation measures and their strong institutional landscape. Nicaragua indeed belongs to the zones with highest disaster risks, but climate scenarios or impact assessment data are inaccessible. The institutional landscape is weak, but some international development agencies have already started the implementation of disaster risk management or adaptation projects. The same situation can be observed in Peru. Many international scientists are concentrating on effects

and consequences of glacier melting. Several international organisations have yet started adaptation programmes, but the political agenda is not focussing on climate threats at all.

Although the institutional landscape in the East African countries is even worse, there is a greater availability of climate data.. This is due to high political interest of the international community to support the world's poorest region hit most by climate change impacts. Hence a lot of studies, impact assessments, and scientific reports are being developed leading to regional project activities from the private and the public sector. As a result one could highlight that **climate related data is available in some regions**. Hence future activities of the present project shall concentrate on the regions, where such data is available. Mainly on international level there is a strong political framework for implementing climate related issues. The experiences and support mechanisms are focussed on mitigation measures, but as awareness for the strong need to adapt the poor to serious impacts is rising, adaptation funds and other support mechanisms will increase in the near future.

**What are adaptation options? What are traditional instruments to cope with worse climate conditions? What kind of adaptation strategies do other stakeholders implement (private sector, development cooperation project, governmental strategies)?**

The so far identified main areas for implementing adaptation instruments are **technical and financial adaptation measures, measures to improve the framework conditions** as well as **capacity building** measures. Regarding the development of strategies no-regret measures as short-term solutions for existing threats and long-term strategies to prepare for future scenarios shall be differentiated. The **identified instruments are very similar to the producers' ideas** of how to cope with climate change. In the development of adaptation strategies the combination of **mitigation and adaptation effects** shall be taken into account. For example, waste utilisation, organic production and afforestation offer **carbon reduction potential** that could be used for generating and selling carbon credits. Hence the financing for adaptation could be assured and the implemented measures to reduce carbon also support adaptation to climate changes.

**How can adequate financing mechanisms be designed (international, regional funds, carbon trading schemes, own set up mechanisms, including the actors of the Cafédirect supply chain)?**

Regional and international funds for implementing adaptation measures and environmentally friendly technologies and practices were screened. An overview and evaluation of the most recommendable financing sources is elaborated. A first draft for modelling a carbon trading scheme along the Cafédirect's supply chain is also available.

***Which is the adequate approach to develop adaptation strategies?***

As the next important step on the way to developing adaptation strategies the specific threats and risks of pilot producer groups and appropriate adaptation options will have to be identified. The realisation of Risk Assessments is an adequate instrument to identify those risks and opportunities. A concept and timeframe is elaborated and will be presented at the Experts Committee meeting.

*The full report will be available at the end of 2007.*

For further information please don't hesitate to contact Kathleen Jährmann, Project Manager at:

[Kathleen.jaehrmann@gtz.de](mailto:Kathleen.jaehrmann@gtz.de)