

## Public Private Partnership of Cafédirect and GTZ

# Adaptation for Smallholders to Climate Change

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# 1. Background and Key Problem: Climate Change

## Climate Change in Africa

### IPCC and UNFCCC predict.

- 50 % reduction in rain-fed agriculture yields by 2020
- Low adaptive capacity
- 25 % decrease in number of precipitation
- High vulnerability to drought and desertification

### Impacts on Agriculture:

- Reduction of soil fertility
- Increased probability of pest attacks
- Water stress problems and drought periods



# 1. Background and Key Problem: Climate Change

## Climate Change in Latin America

### IPCC and UNFCCC predict:

- Increase in temperature
- Semi-arid vegetation will be replaced by arid land vegetation
- Glaciers disappear
- Change in precipitation patterns
- Increase of hurricane activities, tropical storms and floods

### Impacts on Agriculture:

- Reduction of soil fertility, decrease in soil water
- Destructive landslides increase
- Destabilised slopes, disruption of water resources
- Change in seasonal patterns



# 1. Background and Key Problem: Climate Change

## Problem

One of the most affected economic sectors will be the one most dependent on natural environment: agriculture

## Vulnerability

... and therefore smallholders in rural areas

## Lack of...

...information on climate change and its related impacts  
...adaptation capability  
...access to external financial and technical support



## Project Approach

PPP project to strengthen the capability of smallholders in the coffee and tea sector to cope with the impacts of climate change



## 2. Project Objective

### Objective

Producer groups of Cafédirect's supply chain have created examples how to strengthen their capability to cope with the impacts of climate change and how to improve their access to respective financial and technical support mechanisms.



### Indicators

- 3 pilot groups have started specific risk reduction measures
- Adaptation strategies include measures to be implemented by the producers themselves, with external technical and/or financial support, and measures taking into account other stakeholders of Cafédirect's supply chain
- Project's results are documented, shared with relevant stakeholders of the producer chain, and have been evaluated as valid support to improve farmer stakeholder's adaptiveness

### 3. Project Design: Public-Private Partnership (PPP)

#### Input of Cafédirect

- Economic interest in strengthening producers' capacities to secure fair trade coffee and tea production
- Network and resources of Producer Partnership Program
- Financial and technical support (450 T€)

#### PPP

to strengthen smallholders adaptiveness to climate related impacts

#### Input of GTZ

- interest in sustainable development by strengthening smallholders and creating examples for adaptation strategies
- Network and Resources Development Cooperation
- Financial and technical support (300 T€)

## 4. Target Group and pre-selected Focus Regions

### Target Group

27 coffee producer groups in Africa and Latin America

9 tea producer groups in East Africa and Asia



## 4. Target Group and pre-selected Focus Regions

### Focus Regions

Latin America: Mexico, Nicaragua, Peru

East Africa: Kenya, Uganda, Tanzania

*Selection criteria: number of producer groups, severity of climate change impacts, national and local support structures*



## 5. Impacts on Agriculture in Focus Regions

### Mexico

- Highly vulnerable to climate change
- Stress on water availability, changes in precipitation
- Deforestation, erosion, biodiversity loss, soil degradation (Chiapas)
- Droughts
- Sea level rise
- El Niño phenomena getting stronger (main indicator for precipitation variability, e.g. Chiapas)
- Tendency towards more hurricanes
- Agriculture affected by water shortages



## 5. Impacts on Agriculture in Focus Regions

### Nicaragua

- High vulnerability to hurricanes, increase in hurricane activities
- Intensifying rainfall events, increase of precipitation amount on rainy days
- General warming
- Highest deforestation rate in CA, erosion, biodiversity loss
- Sea level rise
- Phenomena of El Nino getting stronger
- Destructive landslides
- Soil degradation



## 5. Impacts on Agriculture in Focus Regions

### Peru

- Stress on freshwater availability
- Peru's highlands: *friaje* phenomena: extreme colds, waves of cold
- Glaciers disappear: Andes 1970-1997: 20% reduced
- Glaciers: seasonal shift of stream flow → more in winter, less in summer
- Glacial lake outbursts
- General warming
- Droughts in summer



## 5. Impacts on Agriculture in Focus Regions

### Tanzania

- Receding glaciers of Mount Kilimanjaro
- Floods, droughts, poor harvests
- Frequency of extreme weather events
- Soil erosion, floods, loss of fertile lands during rainy season
- General water scarcity, floods in rainy season, soil degradation
- Rivers drying out in summer
- Possible disappearance of glacial water reservoirs
- Loss of vegetation cover



## 5. Impacts on Agriculture in Focus Regions

### Uganda

- Rise in temperature: drastic reduction of area suitable for robusta growing (UNFCCC, background Paper)
- Water stress



## 5. Impacts on Agriculture in Focus Regions

### Kenya

- Will be most affected by water scarcity (in focus regions)
- Soil degradation
- Floods in rainy season
- Decline in precipitation (ILRI 2006)



## 5. Impacts on Agriculture in Focus Regions

### Coffee

- Requires wet and dry seasons, dry period in spring needed for flowering
- Drought in summer diminishes production/quality
- Rain during spring period disrupts flowering



### Tea

- temperature elevation (e.g. in Kenya) can cause expansion of production to higher areas
- grain filling period can be reduced by higher temperatures
- high temperatures can have detrimental effects on flowering
- crop water balances affected through precipitation changes



## 5. Impacts on Agriculture in Focus Regions

### Conclusion

There is no general agreement about changes in precipitation/climate, but about precipitation variability in the focus areas. There will be more extreme events and patterns:

- Stronger rainfall on less days (increase in annual mean precipitation)
- Increased runoff in rainy seasons
- Stronger tendency towards drought in summer
- Temperature increase
- Tendency towards erosion soil degradation
- Tendency towards floods
- General tendency towards drought
- Disruption of water resources
- Increased incidence of pest attacks



## 6. Strategy and Project Approach

### Producer Dialogue

Identifying the key problem and demand in a participatory way  
Collecting practical information concerning climate variability  
*Instruments:* qualified questionnaire, workshops, bilateral meetings  
*Partners:* Twin and Imani

### National Research

Mapping relevant national stakeholders  
Collecting information concerning scientific climate scenarios and statistics, impacts studies on crops, support mechanisms

### Stakeholder Mapping

Mapping international climate and agriculture institutions and potential project cooperation partners  
Collecting information concerning climate change data and financial and technical support mechanisms

### Impact Assessments

Identifying specific needs and risks for smallholders in selected representative pilot groups  
Elaborating potential short- and long-term solutions



## 7. Expected Output

### Results

- Detailed information about climate impacts and risks for producers in the coffee and tea sector in different representative regions
- Overview of adequate adaptation instruments
- Methodology to identify adaptation strategies in the coffee and tea production
- Pilot tested case-specific adaptation strategies
- Options for a financing scheme to ensure long-term financing
- Network of institutions and producers to share experiences and knowledge
- Evaluation, discussion and dissemination of project experiences amongst the main stakeholders in order to improve future support



## 8. Stakeholders and Partners

### **Producer Groups**

36 producer groups in Latin America and East Africa as the main stakeholders and beneficiaries

### **Cafédirect**

UK's largest Fairtrade hot drinks company producing high quality 100 % fairtrade coffee, tea and cocoa;  
Investing profit back into Producer Partnership Program  
Contributing to sustainability of the growers' business

### **GTZ**

International cooperation enterprise for sustainable development  
Corporate objective: to improve people's living conditions  
Contributing technical expertise in rural development and DC

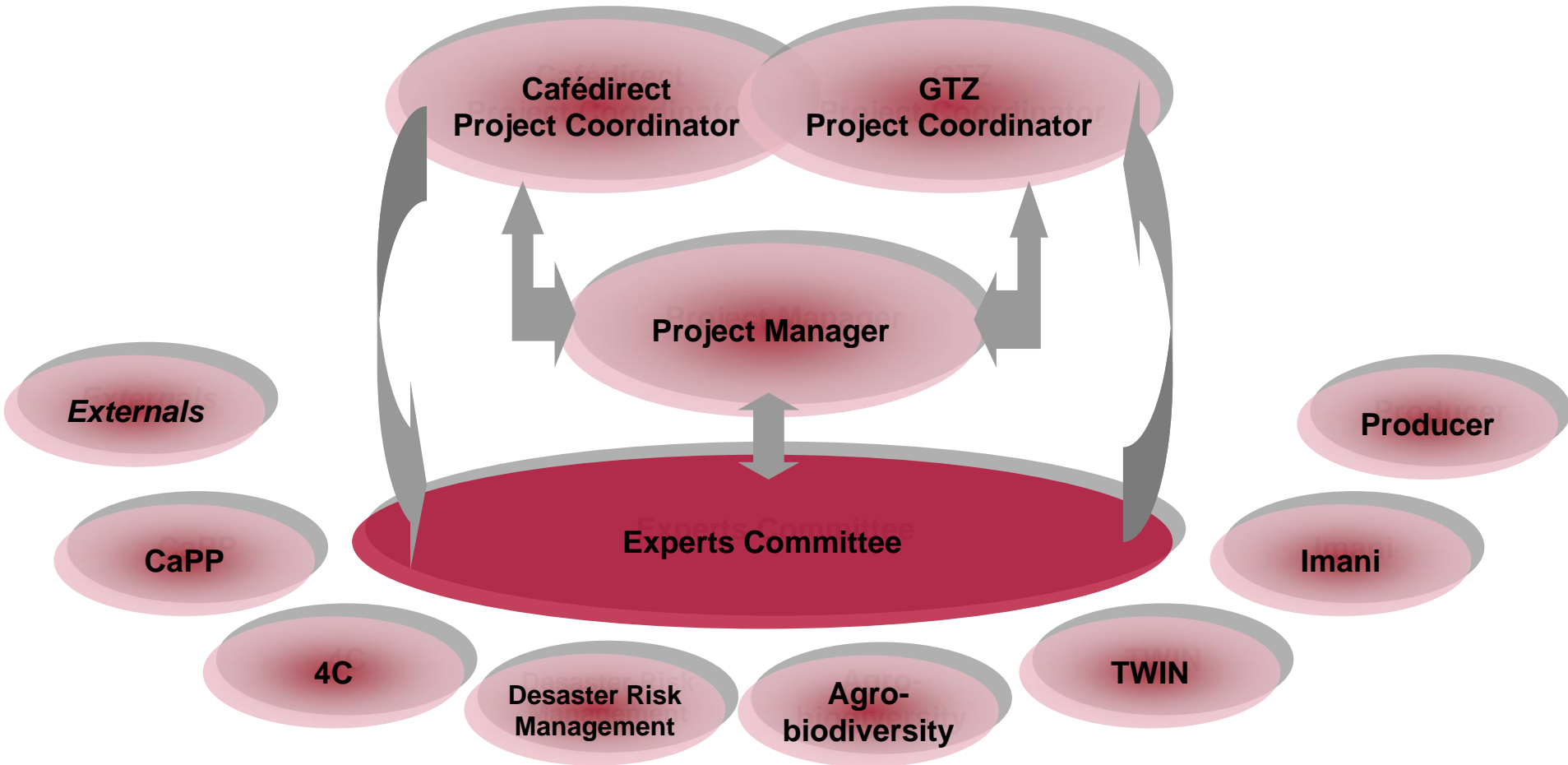
### **Twin / Imani**

Respectively, an alternative trading and a consulting company with the objective to assist in the process of economic/social development in developing countries; partners of Cafédirect and in close relationship with producer groups

### **Others**

Development cooperation community, Coffee and Tea Community, Climate Change Community, Stakeholders in pilot regions and along Cafédirect's supply chain

## 9. Management Structure



## 10. Stakeholder Mapping



## Contact

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