



Adaptation to Climate Change – A Case for Business?

Climate change is predicted to have strong impacts on the global economy. *The Stern Review* estimates that annual costs will reach 5% of global GDP, with the potential to rise to 20% if no action for mitigation and adaptation to climate change is taken. While climate change adaptation has typically been dominated by public sector interventions, successful adaptation will depend on the engagement of both public and private sector. Climate change matters to business, and business also matters to climate change adaptation.

Climate change does not only pose risks, it also offers business opportunities!

In many developing countries, small- and medium-sized enterprises (SME), as well as the supply chains and production facilities of large companies face multiple climate-induced risks. Climate change poses not only physical risks to properties and facilities but also disrupts supply chains and the demand for products. As governments formulate policy responses to climate impacts, businesses may also face finance-related or regulatory risks that could result in costly litigation and damage to reputations. Particularly strong impacts are felt in

- » Companies that have to decide on long-term capital investments;
- » Sectors where production processes are dependent on weather variables or prone to regulatory risks related to climate change;
- » Industries that are heavily dependent on transport or on natural resources in their supply chain;
- » Companies that respond to climate change risks, e.g. insurance providers.

However, a risk for one business may represent an opportunity for another. The World Bank estimates a demand of up to USD 171 billion for new adaptation products and services. The *Global Adaptation Index* was developed by the Global Adaptation Institute as a navigation tool to guide opportunities for private sector investment in adaptation.

The private sector gets engaged on its own.

The incorporation of risk-management into businesses that are vulnerable to climate change (e.g. water scarcity for agribusiness, food and beverages industry) is one pathway to adaptation

in the private sector. Climate-related risks are increasingly evaluated by the insurance and reinsurance industries, resulting in new products and the identification of new client groups. While the German insurance provider, Allianz, has enlarged its portfolio of micro-insurances against severe weather conditions, Munich Re has tapped into the market of weather-index insurance plans for affected farmers.

Many of the new business activities will be found at the “bottom of the pyramid” – i.e., at the start of the supply chain, often in developing countries. Examples include Cafédirect, the UK’s largest fair-trade coffee and tea company, which has worked together with GIZ to train its suppliers in adaptation methods. Within developing countries, large companies and SME are also picking up on new business opportunities. India’s leading agribusiness company, ITC, invests in watershed management to ensure an adequate water supply for its business. Coastal farmer co-operatives in Bangladesh engage in shrimp and crab production to complement their rice crops. Other first movers that have been recognized are BASF, Bayer CropScience, Coca Cola, Monsanto, Osram, PepsiCo, Reuters, Siemens Swiss Re and Unilever, and SMEs like Nanogate (G) or Vestergard Frandsen (CH).

On behalf of BMZ, GIZ has kick-started a number of initiatives on private sector and adaptation.

To get a better understanding of the needs and potentials of the private sector, as well as possible incentives, resources from the *German Energy and Climate Fund (ECF)* have been used to address the following topics:

1. Understanding risks for private sector and offering tools to manage them

Climate change risks for the private sector in many developing countries have not been assessed thoroughly, nor have adaptation options been identified. This was confirmed by two studies commissioned by GIZ on behalf of BMZ: one focused on the climate and disaster resilience of SME in selected developing countries, while the other analyzed the adaptive capacity of the Indian agriculture and textile sectors. The PACT assessment



framework (www.pact.co) used in the latter can help policy makers and decision makers within an industry to recognize the necessary levels of adaptive capacity and to identify and implement measures to accelerate change. *Climate Proofing for Development* is another tool that can support companies in adaptation risk assessment.

2. Understanding business opportunities and identifying promising fields of action

A study commissioned by GIZ identified the following promising fields of action for businesses:

- » raising agricultural productivity,
- » information and communication technologies,
- » index insurance and financial tools,
- » decentralized services for water and energy and
- » disaster preparedness and infrastructure.

The private sector can play an important role in disseminating technologies that assist other actors in adapting to climate change. GIZ is currently preparing a training that will help businesses in developing countries create and deploy new products and services that support adaptation. An existing

training coaches German companies in improving their own resilience and seizing adaptation-related market opportunities (<http://www.giz.de/ibf>).

3. Public-private dialogue

BMZ has invited representatives from government, the private sector and the research community for the international event *“Adaptation to climate change: The business case”*, to be held in March 2012 in Bonn, Germany. This stakeholder dialogue will continue at the International Business Forum in mid-2012.

4. Promoting innovative technologies

GIZ pilots incentive mechanisms for early action and supports pilot measures that demonstrate the effectiveness of innovative technologies for climate change adaptation. An example for a public-private partnership is the “buried diffuser”, developed at the Arid Regions Institute in Tunisia and manufactured and distributed by Chahbani Technologies (Chahtech). This underground irrigation technique enhances irrigation efficiency and can thus play an important role in regions that increasingly face climate-related water shortages. GIZ and Chahtech are cooperating to improve agricultural, touristic and urban water management in the Tunisian Médenine region. In addition, GIZ has launched the IMPACT Business Award to reward enterprises that showcase outstanding business models in combating climate change. Over 130 submissions were received, with 30% addressing adaptation and 70%, mitigation of greenhouse gases.

How to take action a step further?

A key conclusion from this work is: Engaging the private sector in climate change adaptation holds a huge potential for accelerating global adaptation efforts. Particularly in supply chain or value chain settings, approaches that bring together stakeholders from different stages of the chain on the risks and opportunities stemming from climate change and that stimulate joint action across different stages hold much promise. The experiences of development cooperation both in building adaptive capacity and private sector development can be a useful starting point for private-sector engagement in adaptation.

Climate Proofing of value chains in Cambodia

Climate change is increasingly disrupting value chains – most notably in the agricultural sector. Therefore, the GIZ Climate Proofing tool has recently been adapted for use in a value chain development setting. Here, the private sector is assisted to take action and mobilise resources for adapting to climate change.

Climate proofing of value chains has already been successfully piloted in Cambodia, where options for adapting to climate change were identified in the rice value chain, such as the systematic introduction of new flood and drought-resistant varieties. Also, gasification of rice husks was found to serve both adaptation and mitigation purposes, as it would provide energy during weather-related disruptions to the power grid, while at the same time using renewable instead of fossil fuel energy sources.

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