DEW Point
DEVELOPMENT RESOURCE CENTRE
ENVIRONMENT – WATER – SANITATION

DFID Department for International Development

Private sector and climate adaptation (part 1)

DEW Point Enquiry No. A0368

A report by Nick Harrison

August 2010

Title:	Private sector and climate adaptation (part 1)	
Client:	Su-Lin Garbett-Shiels, DFID	
Client contract No:	06 7037	
DEW Point Ref:	A0368	
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Amendment record:	Version:	Date:
	Draft Final Report	20/08/2010
	Final Report	
Reference:	Harrison N., 2010, *Private sector and climate adaptation*, DEW Point.	
Task Manager :	Ingrid Carlier	
Quality Assurance. DEW Point:	Elizabeth McVeigh	Date: 20/08/2010

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[1] Consortium comprises Harewelle International Limited, NR International, Practical Action Consulting, Cranfield University and AEA Energy and Environment

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1. Description of enquiry

We now have a set of analytical papers on the role of the private sector in adaptation commissioned from a number of different sources. In order to be able to support appropriate action and investment from businesses in developing countries, these papers need to be converted into practical advice which can be shared with private sector networks and policy advisors through DFID country offices.

How can the private sector in developing countries build resilience to climate impacts and take advantage of business opportunities for adaptation?

We are looking for two products here: (a) a well presented 4 page note for DFID climate colleagues to share with our business and policymaker networks in country and during our missions to improve understanding of what role there is for the private sector in adaptation at country level and (b) a shorter 2 page piece detailing the criteria we should be setting for our Business Innovation Facility to support a select number of private sector firms.

a) *We would like the first note to feature 3 or 4 boxes with case studies of how the private sector has adapted to climate change in developing countries and how it has supported adaptation in the wider community in which it operates. These case studies can include insurance and water sectors but we would also like an example from the agricultural and tourism sectors. The note should explain that the private sector needs to adapt for 2 reasons. The first is to protect its operations from the impacts of climate change (risks) and the second is to design, produce and deliver goods and services that will help the community to adapt (opportunities). It should also include sections describing the constraints to adaptation (why hasn't more adaptation been undertaken before), where might there be conflict (if any) between adaptation by the private sector and the community and the public policy and regulatory conditions required to support private sector action (i.e. what is the role of the public sector in this).*

b) *The second note can be a shorter (2 pages) note which, based on the Terms of Reference of the BIF, presents high level principles for adaptation against which the Business Innovation Facility (http://www.dfid.gov.uk/About-DFID/Who-we-work-with1/Business/Business-Innovation-Facility/ and http://businessinnovationfacility.ning.com/) should be selecting its projects to which it will provide advisory services. The BIF aims to build stronger partnerships between DFID and the private sector. The objective of these partnerships is to take advantage of market opportunities in developing countries and to maximise the transformational impact of business through including the poor as consumers, employees and producers. Business initiatives that will be supported by the Facility will include, but not be limited to those that:*

    - *Develop, or adapt existing, supply and distribution chains so as to increase the participation of disadvantaged producers, informal traders and employees*
    - *Develop new, or adapt existing, products and services needed by the poor and/ or enable greater access to these products and services to the poor*
    - *Develop low carbon and/or climate resilient business models that lead to direct positive impacts for the poor.*

We would like to ensure that the Selection committee of the BIF have the information to be able to select clients that are directly pioneering climate resilient growth in developing *countries, or where the focus of the business is not adaptation, that the committee do not support a company whose business plan increases its own vulnerability to climate change or the local community.*

This note should lean heavily on the evidence base for note 2 but be tailored to the BIF and should be presented in annotated bullet form.

2. How can the private sector in developing countries build resilience to climate impacts and take advantage of business opportunities for adaptation?

2.1. Introduction

Regardless of our success in reducing global greenhouse gas emissions over coming decades, inertia in the global climate system means that rising temperatures, increasingly extreme and unpredictable weather events and centuries of sea level rise are now unavoidable. Their impacts will be severe, with consequences for health, agriculture, water supplies and many other areas vital to social and economic development.[i]

As a consequence, climate change impacts now represent a significant and growing threat to private sector operations across the globe. From large multinationals to local small and medium-sized enterprises, all will be significantly impacted[ii] either directly or indirectly, with consequences becoming most severe in developing countries[iii].

Public resources for adapting to these impacts are limited[iv] and even with international assistance, developing country governments and communities will not be able to tackle them alone. Whilst the private sector cannot provide a substitute for public action[v], it has crucial roles to play in protecting its own operations and in enabling adaptation in the wider community on which it relies for its staff, customers and suppliers. New technologies, partnerships, business models and ways of sharing risks will all become increasingly crucial[vi] and will provide new commercial opportunities through the design, production and delivery of products and services that will help the community adapt.

Risks and opportunities vary considerably across geographic locations[vii] and sectors, and consequently require varied adaptation responses whether they are ‘hard’ measures such as flood defences and improved water storage facilities or ‘soft’ measures, such as land use planning and natural resource management[viii]. The socioeconomic structure of a country (e.g. level of economic growth and poverty) is also a strong indicator of its vulnerability[ix] and it is in the least resilient countries where the benefits of proactive climate risk management, and the opportunities for investment in climate-adapted goods and services, will be greatest.[x]

To date the private sector response to climate change has largely focussed on mitigation and in many countries preparations for climate impacts are still at an early stage[xi]. Consequently, understanding of the role of the private sector in adaptation is still relatively limited[xii]. What is clear so far is that the private sector has two strong imperatives to act. Firstly to protect its own operations from climate impacts and secondly to provide goods and services that will help the community to adapt.

Based on recent evidence of how private sector operations are adapting in developing countries, we outline in the following pages ways in which businesses can effectively help to build resilience by protecting their own operations and taking advantage of business opportunities for adaptation by helping their wider community to adapt. We also consider the risk of *conflicts* in adaptation, outline *constraints* that have held back progress so far and suggest a number of ways the public sector can help to address these.

2.2 Building resilience to climate impacts

Building effective country level resilience to climate impacts requires a proactive, planned approach to adaptation and will only be achieved if the private sector effectively protects its own operations and collaborates with communities in which it operates to help them to do the same.

2.2.1 Collaborating to avoid conflict

Key business risks from climate impacts are now well documented and range from project planning, operational, and supply chain risks; to shifts in demand for goods and services, loss of social license to operate and damage to reputation. Others include changes in policy and regulation, litigation risks and increasing difficulty securing finance and insurance[xiii].

Some of these risks can be managed internally (see following page) but many require collaboration with, and support of, the wider community in which the business operates. For this reason, building effective resilience to climate impacts demands that internal risk management is undertaken in ways that supports rather than undermines the adaptive capacity of the wider community. If undertaken effectively, this can lead to new business opportunities, and if not, can cause conflict and generate new risks[xiv]. For example, a beverage manufacturer taking water from community sources to adapt to increasing water scarcity may address this initial risk, but (as a famous beverage company operating in Kerula, India discovered to its cost in 2003[xv]) in so doing, creates new secondary risks from reputational damage and loss of license to operate as the aggrieved (and thirsty) local community protest.

***Adapting water:* Water auditing and management**

The brewing company SAB Miller in collaboration with WWF, developed a new water strategy based on water footprint analysis of its beer production in South Africa and in collaboration with local communities. Implementation follows a 5 R's approach developed with SAB Miller India and aims to reduce water consumption by 25% by 2015:

- ***pRotect*** - Influence farmers to ensure responsible water use and understand the watersheds in which we operate breweries and bottling plants
- **Reduce** - Change attitudes and behaviour to reduce water consumption within our plants
- **Reuse** - Collect waste water streams within facilities and re-use appropriately
- **Recycle** - Investigate new technologies to recycle water
- **Redistribute** - Provide local communities with clean water through community investment programmes and treat wastewater so it can be used for irrigation or other purposes.

Source: Tomorrow's company (2009) *Private sector climate change adaptation efforts in the developing world – An Indian case study*.

Other documented examples where adaptation efforts have led to conflict include:

- Ecotourism and natural resource protection forcing community migration[xvi]
- Biotech patents making climate resilient crops unaffordable to farmers[xvii]
- Environmental and social damage caused by big dams[xviii]
- Improved water quality increasing demand and causing supply conflicts[xix]

Effective collaboration is essential for building resilience to climate impacts. Not only in helping fully understand the wider risks and opportunities for the private sector but also how to most effectively address them in ways that avoid conflict and ensure sustainable, community-wide adaptation.

***Adapting Insurance:* Weather-indexed insurance**
In 1995, PepsiCo started a contract-farming program with potato farmers in India, which included index insurance in the contract-farming package to limit farmers' weather-related risks and establish longer-term relationships with farmers. The product sold by ICICI Lombard and Weather Risk Management Services (WRMS) pays out based on the number of consecutive days above a critical humidity and/or temperature and WRMS also sends weather advisory messages and information on how to prevent crop loss directly to farmers via mobile phone. More recently, ICICI Lombard have launched further pilot weather insurance schemes to protect groundnut farmers from the risk of insufficient rainfall in drought prone areas and to protect against excess rainfall for rice farmers. The groundnut scheme was implemented through one of India's largest microfinance institutions who after several years of operation plan to offer lower interest rates on its loans to the insured farmers due to the reduced default risk.

Source: PricewaterhouseCoopers (2010) Role of Private Sector in Climate Change Adaptation. p38

2.2.2 Protecting business operations from climate impacts

To effectively build resilience, businesses will need to internalise and institutionalise climate risk management into their decision-making processes and operations. This means building in climate resilience to strategic, business and project planning at every stage and maintaining appropriate insurance to safeguard access to finance. These four key principles serve as a useful checklist for internal climate risk management[xx]:

- **Strategic planning process:** Does the overall vision, mandate and direction of the organisation promote climate risk management, or target communities or markets that are especially vulnerable to climate risk, and/or consider how climate risks will affect their operations?

- **Business planning process:** Does the business plan consider issues such as where to build infrastructure; whether supplies/inputs are reliant on climate-sensitive sectors; and whether demand may be affected by climate risk (e.g. tourism)?

- **Project cycles:** Do projects consider (a) how people conduct and sustain their livelihoods, (b) how their livelihoods are affected by climate risk, and (c) how their livelihoods contribute to or involve climate risk management?

- **Insurance:** Does the organisation have adequate insurance coverage to protect against climate risk and which does not create incentives that might impede adaptation or promote maladaptation?

***Adapting agriculture:* Contract farming and alternative crops**
Karnataka based Ugar Sugar Works in India traditionally processed sugar, but was expanding its malt unit and therefore required a secure supply of barley. Local sugar farmers had a heavy reliance on intensive irrigation and were suffering the problem of acidic soils. Ugar Sugar took this opportunity to begin creating awareness among the farming community about alternative crops suitable for saline soils. Of these, barley was known to give economic yields of good quality in saline soils. Under a contract farming arrangement, the company assured the farmers of a market for their produce as well as the required technical and input support if they agreed to grow barley. They supplied an acid-tolerant variety of barley to the contracted farmers on credit, without interest and the acreage under barley crop increased almost four-fold.

Source: PricewaterhouseCoopers (2010) Role of Private Sector in Climate Change Adaptation. p21

2.3. Business opportunities for adaptation

In addition to acknowledging and internalising climate change adaptation into its own decision-making processes, businesses also need to take advantage of the commercial opportunities presented by helping the wider community to adapt[xxi]. These include:

- **Building economic resilience** by providing economic opportunities[xxii], diversifying the economy[xxiii] and ensuring growth and livelihoods are climate resilient[xxiv].

- **Providing finance and insurance** to help fill the deficit in available funds for adaptation[xxv], and to provide risk transfer mechanisms to promote disaster risk reduction and to access the financial liquidity and resources needed to escape climate-related poverty[xxvi].

- **Innovating** solutions to adaptation challenges[xxvii] such as goods and services that can help reduce the vulnerability of individuals and communities to climate impacts[xxviii].

- **Delivering** and enhancing cost effective[xxix] provision of public service delivery[xxx], adaptation projects[xxxi] and the provision of financial, technical and human resources[xxxii].

- **Collaborating** in well-governed public-private[xxxiii] and multi-sector partnerships[xxxiv]

- **Influencing** government and other businesses where communities alone don't have the political influence to do so[xxxv].

2.4 Constraints to adaptation

Current evidence highlights three main areas where adaptation efforts are restricted or held back. They include:

- **Lack of awareness**[xxxvi] and information[xxxvii] about the need to adapt, along with engagement and pressure[xxxviii] to make it happen.

- **Lack of capacity** in the form of finance[xxxix], skilled labour[xl], institutional services[xli], resources and expertise[xlii], particularly among small businesses[xliii]

- **Lack of incentives** for overt adaptation (legislation/rebates etc.)[xliv] together with an overemphasis on adaptation as a public sector action[xlv], perverse subsidies[xlvi], unaligned government incentives[xlvii] and market failures which prevent effective valuation of risk, resources and externalities[xlviii] and consequently low demand from customers[xlix].

The public sector can help to address these constraints in a number of ways, including:

- **Providing Leadership** by being more proactive in helping to shape the agenda on adaptation[l] and taking advantage of opportunities for mainstreaming adaptation and for public private partnerships[li]

- **Providing Incentives** to encourage companies to take adaptation more seriously[lii] and undertake effective action[liii]

- **Ensuring collaboration and partnership** which incorporates the private sector into adaptation planning at all levels[liv]

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