

The Economic Impacts of Climate Change in Kenya

“The cruel irony of climate change is that the countries least responsible for it will be worst affected. Greater variations of rainfall, combined with rising sea levels, will lead to more extreme weather, particularly in parts of Asia, sub-Saharan Africa and Latin America” (Douglas Alexander, July 2007)



Increased vulnerability under climate change...

Economic impacts of weather related extremes - and the costs of these to the growth and development in Kenya - are already significant.

- Extreme flood and drought events are estimated to reduce long-term growth in Kenya by about 2.4% of GDP per annum (see box).
- Future climate change may lead to a change in the frequency or severity of such extreme weather events, potentially worsening impacts.
- Increased average temperatures and changes in annual and seasonal rainfall will be felt across key economic sectors, possibly affecting agricultural production, health status, water availability, energy use, infrastructure, biodiversity and ecosystem services (including forestry and tourism).
- Impacts are likely to have disproportionately strong effects on the poor as such vulnerable groups have fewer resources to adapt to climatic change.

...and rising costs of climate risks.

The total costs arising from 1997/98 **floods**, from damage to infrastructure and communications, public health hazard, and loss of crops, have been estimated at Ksh 70 billion (~USD 1.0 billion) by the World Bank. The recent 1999/2000 La Niña-related **drought** particularly affected the agriculture, livestock, energy, industrial production, and tourism sectors, with costs estimated at Ksh 220 billion (~USD 3.2 billion) by the World Bank. The repeated pattern of periodic droughts and floods leads to longer lasting effects. On average, every seven years Kenya experiences a flood that costs about 5.5 percent of GDP (Ksh 37 billion; ~USD 0.5 billion), and every five years experiences a drought that costs about 8 percent of GDP (Ksh 53 billion; ~USD 0.8 billion). This translates to a direct long-term fiscal liability of about 2.4 percent GDP (Ksh 16 billion; ~USD 0.23 billion) per annum.

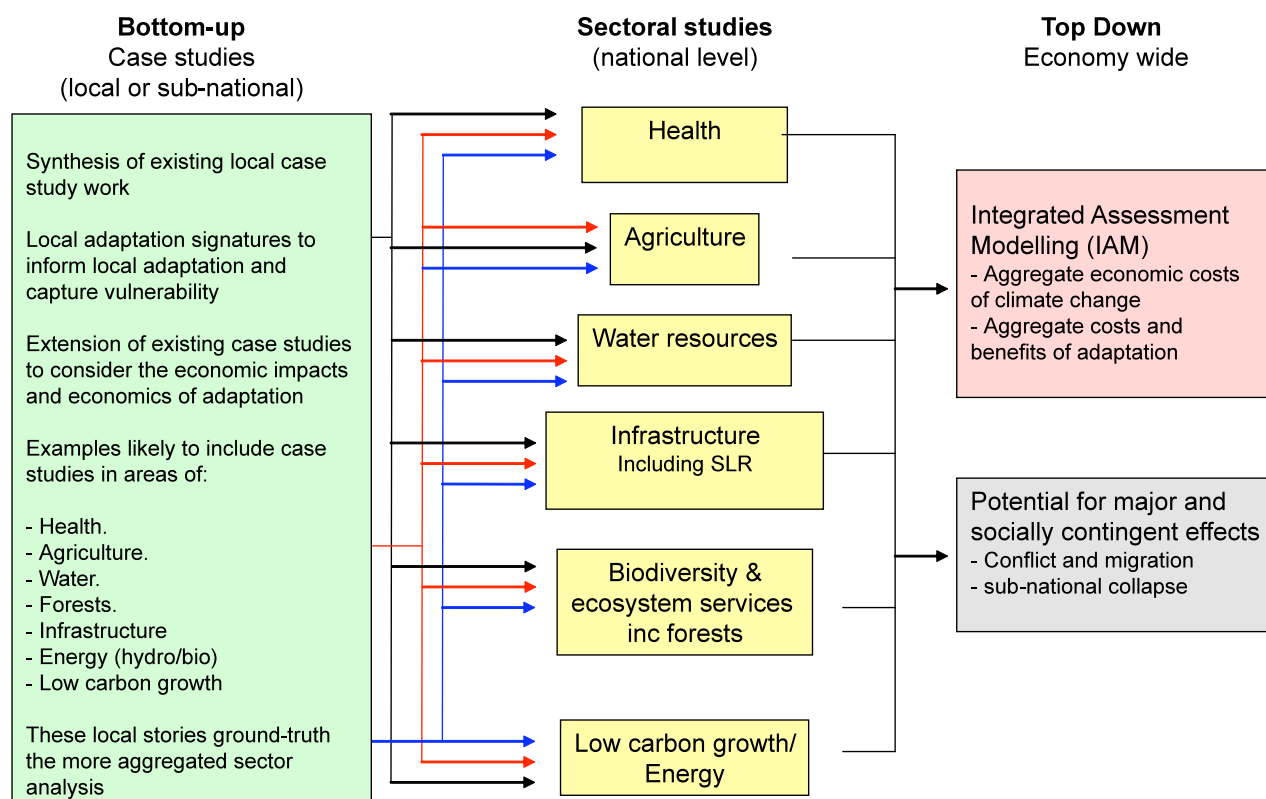
What are donors and Kenya doing?

To better understand the economic impacts of present and future climate change in Kenya, the UK (DFID) and Danish (DANIDA) Government donors are funding a study by the Stockholm Environment Institute (SEI) to analyze economic impacts of climate change in Kenya and three other East African countries over the next year (ready for August 2009). The key aims of this study will be:

- Assess climate change impacts and their economic costs for Kenya.
- Analyse the costs and benefits of adapting to these effects over different timescales.
- Assess the potential for low carbon growth, including development benefits and finance opportunities.
- Build national capacity and take advantage of local knowledge.
- Use results to inform decision-making at domestic, regional and international policy (COP 15 Copenhagen in 2009) recommendations on adaptation for Kenya, and the region as a whole.

Study Overview

The study will use a multi-level approach that builds-up several lines of evidence on impacts and adaptation. It combines top-down sectoral economic assessment with bottom-up case studies on vulnerability and adaptation. These local studies allow consideration of livelihoods, development and poverty alleviation, which would otherwise be missed by a high level economic assessment. By doing so, local 'stories' are combined with more aggregated economic estimates, building a coherent message for policy makers.



The combined evidence across the framework provides the economic costs of climate change and the costs and benefits of adaptation, to provide information for national priority setting and as input to international negotiations

National Oversight by NCCACC

The methodology emphasises national ownership and long-term sustainability through the inclusion of national and regional bodies, and a collaborative partnership approach with local teams. The national co-ordination of the study is being led through the National Climate Change Activities Coordinating Committee (NCCACC), acting in the role of a National Advisory Committee to the study. A series of events will ensure that stakeholders are identified, consulted and informed, with the dual objectives of building national capacity and taking advantage of local knowledge. Communications products and events will be used to disseminate findings.

Next Steps

- Identify local stakeholders and institutions as study collaborators.
- Build in-country capacity through expert workshop on the economics of climate change (Mid-February, Nairobi).
- Support the Government of Kenya in preparations for the Conference of the Parties (COP) 15 of the United Nations Convention on Climate Change (UNFCCC) in Copenhagen, Denmark (December). Particularly negotiations on climate Adaptation Funds.

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