Bringing the economics of climate change adaptation to life

The reality of an economic approach to climate adaptation in developing countries

Climate change will hit developing countries first, fastest and hardest. Indeed, with climate change impacts already being felt throughout the developing world, there is an urgent need to work out feasible, affordable and practical plans for adaptation.

Economists are helping develop these plans and have produced a range of pertinent studies, including many cost-benefit analyses. These analyses play a catalytic role in informing policy makers, donors and charities about the cost of climate change by comparing the price of proposed adaptation programmes to the cost of the damage they would avert.

Most economic analyses suffer from a lack of data on the realities and needs of developing countries, making them highly speculative. However, regardless of the data issues, decisions must be made to mobilise and allocate resources and stimulate action so data from developing countries must be sourced in different ways to inform realistic policies and actions. This involves new and innovative economics.

Closing the gaps

Economic analyses are only as good as the quality of the data used. Official data is often limited in what it measures, and what is unmeasured is equally important for citizens and for policy makers. Indeed, direct costs and benefits are not the only factors that determine whether a given project is right for a country, region or community. Where resources are scarce, pressure to address climate change may compete with other needs – from school fees to decent housing. Further, local people often measure the inputs and outcomes of an adaptation programme in ways that reflect the local systems of valuing goods, services and well-being.

Recognising these challenges, IIED and CLACC use scenario exercises that tap into the knowledge of local experts. We engage stakeholders in discussing and debating various social, economic and environmental scenarios in order to incorporate local knowledge with scientific data to identify realistic options. These findings have helped developing countries and donors to plan and prioritise in the face of looming climate change. Three country projects are being undertaken by IIED and CLACC using this approach. The problem and potential scale of the problem are identified alongside how incentives can be realigned to ensure efficient and adequate adaptation.

Bangladesh: Facing floods

Increased flooding and salinity associated with climate change is already affecting agriculture in coastal areas in Bangladesh. This will be exacerbated by a growing population, estimated to hit 40-50 million by 2050. Appropriate shifts in farming practices could stem the damage, but create complications for farmers. Will individual households and communities feel they have strong enough incentives to adopt the changes?

Malawi: Vulnerable investments

The Shire Valley is an area in Malawi highly in danger from future floods and droughts. It's also the site of substantial private and public capital investments, including a multi million dollar sugar industry, a hydro-power station and a new US$6 billion inland port project, in addition to small-scale agriculture and informal businesses. The national economy and community livelihoods depend on these vulnerable enterprises, so how can adaptation investments by all stakeholders – including the responses of both the formal and informal economy – best be channelled to contribute to the valley's resilience?

Sudan: Climate-sensitive conflict

In the state of Kassala, Sudan, 75 per cent of the population depend directly on climate-sensitive activities such as subsistence farming and pastoralism, which have been hit by successive droughts. The conflict between farmers and pastoralists is likely to worsen under climate change. For most proposed measures to build community resilience in Kassala, such as training and support for new techniques and new livelihoods, the benefits are not immediately evident, and they filter through various channels of the local economy. In a continually-shifting context, how will changes by individuals that alter agricultural and livestock markets affect the entire community?

Lessons learned from preliminary work

Working with partners in seven least-developed countries in 2008-09, IIED identified the basics of pragmatic, locally-informed adaptation planning.

- **Developing countries prioritise adaptation activities that address existing problems** – such as food insecurity and health – in addition to future climate change impacts. For the most vulnerable, adaptation to climate change has a higher value when it enables the poor to meet their urgent development needs.

- **Adaptation activities do not operate in isolation**, but within a framework of household and local economies supported by functioning local markets, secure land tenure and up-to-date information. Households will not invest in sustainable land improvement where there is the risk of losing the land, and they will not grow cash crops without access to markets for these crops.

- **Sustainable adaptation needs to go beyond one-off projects that may not be viable without external funding.**

Next steps: putting plans together

To act on these insights, investors behind adaptation projects – local communities, businesses, government and donors – need to know more about specific opportunities on the ground. Economists working with IIED in Bangladesh, Malawi and Sudan are studying proposed and ongoing adaptation activities in the context of local and household economies. Local businesses that install and maintain adaptation technologies could create new jobs and other benefits beyond climate protection, and the three case studies will hone in on such promising projects. By the end of 2010 our researchers will create a tailored adaptation package for each area that is viable at all levels: household, community and local economy.

A network of economists in least-developed countries

In each of the three case study countries, IIED works with partners under the CLACC programme, together with a local economist who implements the research activities. This ensures our research is locally owned and relevant, and is taken up into policy processes.

The Capacity Strengthening in the Least Developed Countries for Adaptation to Climate Change (CLACC) network works on adaptation to climate change in some of the world's most vulnerable nations. CLACC's aim is to strengthen the capacity of organisations in poor countries and to support their initiatives in sustainable development. www.clacc.net

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