



## Approaching climate change adaptation as a means to reduce poverty

Within the developing world, where immediate needs are so pressing, it is difficult to implement adaptation to deal with future risks if it does not also support development. Since development generally focuses on reducing poverty, those aiming to help the vulnerable adapt to a changing climate must consider whether adaptation actions also help reduce poverty.



Involving farmers and others at risk from climate change in research increases the chance that adaptation strategies can be sustained and meet local needs. Photo: IDRC / Nathalie Beaulieu



### Lessons learned

- Poverty is more likely to be reduced when adaptation choices are made through participatory processes that encourage local ownership and contribute to sustainability.
- Involving relevant institutions that can help sustain community-based adaptation further increases the likelihood of reducing poverty.
- Working with policy actors improves the chances of developing supportive frameworks that enhance adaptation and reduce poverty.

To study how adaptation contributes to reducing poverty, the Climate Change Adaptation in Africa (CCAA) program organized a Learning Forum in October 2010, bringing together researchers from 13 projects working with poor and marginalized communities in 11 countries. The following observations on the relationship between adaptation and poverty emerged.

### Mechanisms and conditions that promote the likelihood that adaptation will help reduce poverty



*Participatory approaches used in adaptation research strengthen collective action in communities, which reduces vulnerability to climate change and contributes to sustainable development and poverty reduction.*



Morocco's new agricultural policy supports the provision of seeds and irrigation to farmers in water-scarce regions.

Photo: IDRC and DFID / Izabella Koziell

Participation encourages beneficiaries to take ownership of the interventions and contribute to their socio-cultural appropriateness and sustainability. Introducing spirulina in Morocco<sup>1</sup> and new mango seedlings in Kenya,<sup>2</sup> for example, was successful partly because communities had identified these strategies and were willing to embrace them.



**Partnership with appropriate institutions improves the sustainability of community-based adaptation and therefore can better support poverty reduction.**

Many projects involved collaborations with other academic institutions, research institutes, and government departments. In the Community-Based Adaptation in Africa project in Kenya, the Kenya Agricultural Research Institute was involved in grafting mango trees and in farmer field schools that trained farmers to cultivate the trees. In an urban-rural interdependence project in Malawi and Tanzania, researchers involved the Ministries of Agriculture and extension officers at the district level to ensure sustainability. In introducing

communities to the value of non-timber forest products, the Congo Basin Forests and Climate Change Adaptation (CoFCCA) project in Central Africa engaged research centres, the International Centre for development oriented Research in Agriculture (ICRA), the Ministry of Water and Forests, and institutions already working in the communities (which, critically, were identified through participatory action research).

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In northern Kenya, researchers working with pastoralists built the capacity of the Ministry of Agriculture, and specifically the Department of Livestock, to implement community plans and advise communities on appropriate stocking rates under climate change. This extended the reach of the project beyond the initial target communities.

<sup>1</sup> Adaptation to Climate Change in the Plains and Mountains of Morocco.

<sup>2</sup> Community Based Adaptation to Climate Change in Africa.





**This Tanzanian farmer credits these drought-tolerant lablab beans with helping her pay school fees for her children.**

*Photo: IDRC / Thomas Omondi*



***Policy involvement helps ensure the success of adaptation and assists poverty reduction.***

For example, the team implementing the Support Fund for Local Adaptation Strategies in Senegal has increased awareness of the need to support adaptation within the rural council, which subsequently pledged support for reforestation and revegetation. Similarly, in the plains and mountains of Morocco, the current agricultural policy (Plan Maroc Vert) now supports providing seeds and drip irrigation. These practices contribute to both poverty reduction and adaptation by encouraging diversification and use of more efficient

**Table 1. Projects that contributed to the CCAA learning forum on poverty and adaptation**

Project title	Participating institution
Adaptation to the impacts of sea level rise in the Nile Delta coastal zone	University of Alexandria
Community-based adaptation to climate change in Africa (Case studies presented from Kenya and Zimbabwe)	African Centre for Technology Studies
Managing risk, reducing vulnerability, and enhancing agricultural productivity under a changing climate in the Greater Horn of Africa	Ethiopian Institute of Agricultural Research
Enhancing adaptive capacity of pastoralists to climate change–induced vulnerability in Northern Kenya	Practical Action Kenya
Urban-rural interdependence and the impact of climate change in Malawi and Tanzania	Institute of Resource Assessment, University of Dar es Salaam, and Bvumbwe Research Station, Malawi Ministry of Agriculture
New land, new life west of Lake Nasser, Aswan	Near East Foundation
Adapting fishing policy to climate change in West Africa	Environment and Development Action in the Third World, Réseau sur les politiques de pêche en Afrique de l'Ouest
Support fund for local adaptation strategies	IED-Afrique
Altering the Climate of Poverty under Climate Change: The Forests of Congo Basin	Université de Bangui, Central African Republic, and Center for International Forestry Research
Partnership for adapting Vulnerable Populations to Soil Salinization resulting from Climate Change in Senegal	Institut sénégalais de recherches agricoles
Adaptation to climate change in Morocco's plains and mountains	Institut national de la recherche agronomique
Infoclim: Participatory platform to inform adaptation	Centre de suivi écologique
Vulnerability and adaptation of agrarian systems to climate change in Madagascar	University of Antananarivo



Supported by research, district environment committee members in Turkana and Mandera gave input to Kenya's climate change policy on the adaptation needs of pastoralists. Photo: NEMA/Ayub Macharia

production technologies. Partly because of this enabling framework, the regions are more willing to listen to communities and embrace climate change within their development plans.

### Constraints and risks that may impede adaptation from contributing to poverty reduction

A lack of access to available natural resources is often an important cause as well as result of poverty. Access to resources is subject to several external risks, such as the dominant gender relations, status of cultural change, migration, policy frameworks, and conflict. Political crises or changes of leadership (and sometimes even outright conflict) lead to an uncertain environment with changing goalposts and sometimes to contradictory policies that encourage unsustainable and maladaptive practices. These, in turn, contribute to poverty in the immediate and medium term.

The Practical Action pastoralist project in Kenya, for example, showed that working with migrant populations can be challenging due to potential conflicts between herders.

Migration can also lead to a low sense of community, impeding the motivation for collective action. Poor government capacity often means that national policies and commitments are not implemented or readily available in all communities. For example, limited agricultural extension blocks information flow on new technologies. Remote rural areas often have limited access to information and communication tools. Finally, small land-holding sizes can limit opportunities for diversification that would be good strategies for reducing vulnerability to both a changing climate and poverty.

### In summary

Enabling factors for adaptation and poverty reduction include effective participation, partnerships with appropriate institutions, appropriate legal frameworks, the involvement of policymakers, and political will. They also include inputs from governments and donors, formal training and capacity building, and access to information. Opportunities for diversifying livelihoods also depend on local populations' willingness to modify their lifestyles and consume or sell new products, and the availability of markets.

***A lack of access to available natural resources is often an important cause as well as result of poverty.***

Constraints and risks include lack of access to available natural resources. This is often an important cause and consequence of poverty. Small land-holding sizes can limit opportunities for diversification. Political crises, changes of leadership and conflict, low sense of community, poor government capacity, and limited access to information and communication tools can also seriously constrain both adaptation and poverty reduction.



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