Building African expertise on climate change adaptation is central to CCAA’s joint research and capacity building mandate. A number of partners are now making effective contributions to adaptation plans, some at the national level.

In Senegal, the Centre de Suivi Ecologique, which had its first substantive experience working on climate change adaptation through the CCAA-supported Infoclim project, was recently identified as one of the first three National Implementation Entities for the UN’s Adaptation Fund. In Benin, three years into a four-year project of research on enhancing resilience among rural producers, the lead organization has achieved national recognition for its work. Initiatives pour un Développement Intégré Durable (IDID-ONG), a small agricultural extension NGO, is now recognized as a partner in Benin’s National Adaptation Programme of Action (NAPA) and the country’s National Water Partnership.

Below we review our successes and challenges in three areas of CCAA capacity building: participatory action research (PAR) mentoring; the African Climate Change Fellowships Program; and core training workshops delivered since 2007.

**Participatory action research mentoring**

**Lessons learned**

- Researchers have found PAR effective for involving stakeholders in shared decisions and actions to test adaptation options.
- Mentoring for PAR is most effective early in a project, to ensure its application in planning, monitoring and evaluation.
- When diverse partners are included in training and mentoring, improvements are more likely to be implemented.

Participatory action research builds community capacity for adaptation and can achieve sustainable changes by involving all key stakeholders in shared learning and testing. PAR’s continuous cycle of action and reflection, testing and learning allows communities to make adjustments while continuing to address a problem. But building a shared understanding of what to address and how, and developing new attitudes and behaviours for co-learning are essential.

Many CCAA-supported research teams had little prior experience with PAR. So we have reinforced essential skills and knowledge through workshops and, since 2008, through a mentoring project led by the Centre for International Forestry Research (CIFOR).
It has provided hands-on support to seven CCAA teams that have continued a process of learning while conducting their research.

A research team in Benin was recognized as a partner in follow up on the country’s National Adaptation Program of Action and its National Water Partnership.

At year’s end, a synthesis workshop was held to document participants’ and mentors’ experience in applying PAR to adaptation. They confirm that PAR provides an essential means for those at risk from climate change to share experiences with researchers. It allows them to learn from each other, to make choices together on what to test, and to identify resources needed to sustain success. For example, a team led by Madagascar’s University of Antananarivo discussed their work with farmers to find ways to address torrential rains that are coupled with an overall decline in precipitation. Farmers in the rice-growing region of Alaotra-Mangoro identified the need to improve irrigation canals increasingly blocked by sandy soils due to deforestation and flooding. In Marovoay, rice growers experimented with varieties that would allow them to adjust the agricultural calendar because the irrigation dams they depend on tend to run dry at a critical point in the growing season.

PAR requires teams with diverse expertise, not just in disciplines associated with climate change and its impacts on natural resources and livelihoods, but also in facilitating participatory processes. Most CCAA-supported PAR teams draw expertise from a range of research, development and government organizations and include a range of complementary skills. For example, extension agents, private seed and fertilizer suppliers and local authorities not conventionally associated with research played an important role in a project, led by the University of Zimbabwe, which helped small scale farmers to revive a traditional system that fed the most vulnerable in times of scarcity. (See Stories from the field: Protecting smallholders’ food security by improving soils.)

10 teams short-listed for funding for urban vulnerabilities projects attended a ‘crash’ training course on PAR, gender analysis and participatory M&E.

Mentors underlined the benefits of including many such partners in PAR capacity building processes to increase the likelihood that project improvements identified will be implemented. They also noted the value of providing early PAR mentoring, so that core aspects of the approach – such as interaction with important stakeholders in planning, monitoring and adjusting research activities – could be integrated into project plans and budgets.
In 2007, CCAA approved funding for a program of fellowships, led by Global Change SysTem for Analysis and Research (START), with the University of Dar es Salaam’s Institute of Resource Assessment (IRA) and the African Academy of Sciences, to help early- to mid-career African professionals and researchers pursue advanced studies related to climate change and adaptation. In November 2008, following a wide call for applications, 45 African scholars were selected as awardees. By April 2009, 17 had concluded their research, with the remainder to be completed in 2010.

Several fellows have already given input on policy and planning for adaptation and disaster-preparedness.

ACCFP’s first round supported four categories of research – doctoral, post-doctoral, policy and teaching. The contributions of a number of policy fellows have been particularly relevant. In July 2009, a policy fellow based at Cheikh Anta Diop University in Dakar, Senegal, organized a workshop that brought regional climate modellers, hydrologists, satellite data experts, and representatives of the National Meteorological Service together with Red Cross community volunteers who use climate information in emergency response and disaster-preparedness. Another policy fellow, based at South Africa’s University of KwaZulu-Natal, undertook research on the gender and social dimensions of vulnerability within a CCAA-supported project on pastoralism in Northern Kenya. Her findings directly address current strategic plan targets of Kenya’s National Environment Management Authority. (See Stories from the field: Reducing vulnerability among pastoralists in Northern Kenya.)

Shortening the length of fellowships and making the academic requirements more flexible could allow more senior members of policy-making bodies to participate in the fellowship program.

A number of fellows were offered extended scholarships or consultancies in their host countries as a result of their research. While this unexpected outcome represents a loss to home institutions, the new opportunities for the fellows underscore the success of the program in building scientific capacity in Africa to support adaptation.

In 2009, to prepare for a transfer of leadership from START, we supported IRA in carrying out an institutional self-assessment to identify areas for organizational strengthening. IRA has attracted increased funding in recent years because of its expertise in natural resource management in eastern Africa. The assessment identified the need for a growth strategy that clearly presents the ACCFP as a major component and fits within IRA’s mandate.

Lessons learned

- The ACCFP has opened new doors for supported fellows.
- Policy fellowships could be expanded to widen opportunities for senior policy officials.
- A growth strategy will help the Institute of Resource Assessment assume leadership of the program.
Since organizing our first workshop on integrated climate risk assessment in August 2007, CCAA has delivered two rounds of training on topics we consider core to effective research on adaptation. We have also responded to particular needs, such as training staff of the African Development Bank in climate risk assessment in 2008, and helping lusophone researchers improve their proposal writing skills.

CCAA has worked with a number of strong African training organizations, such as the West African Rural Foundation, which has expertise in monitoring and evaluation, and the Department of Women and Gender Studies at Makerere University, which has worked with us on gender analysis and mainstreaming. We work closely with these trainers to modify and update our approaches as we learn what works best from experience and feedback.

Methodological training helped many research teams identify areas where their plans and approaches could be strengthened. We realized after our first round of workshops that such training should be given as early as possible, ideally during proposal development. We applied this learning to a ‘crash’ course we hosted in April 2009 for 10 teams short-listed in our call for research on urban Africa’s vulnerabilities to climate change. Over an intensive three-day period, proponents covered PAR methods, social and gender analysis, and participatory monitoring and evaluation. They were able to integrate these components into their final proposal. This early workshop helped teams overcome weaknesses and strengthened their understanding of key methods and concepts. Participants report that this course has also increased their uptake of knowledge from subsequent workshops.

The quality and complementarity of trainers have been essential to the success of workshops. No single institution has all the expertise needed to handle both content and process for the core topics we present, and our workshops are usually offered in both French and English. Trainers who have not worked together before need adequate time to understand each others’ approaches and to collaborate in developing an agenda and training materials.

Twinning trainers from Nairobi-based IGAD Climate Prediction and Applications Centre (ICPAC) and Dakar’s University of Cheikh Anta Diop to deliver our climate risk assessment and management workshops was a demonstrated success. These trainers had not worked together before, but their skills and expertise blended well. A preparatory meeting brought trainers and CCAA program staff together to work through proposed content and training approaches. Both teams were highly qualified: the anglophone trainers from ICPAC included a former vice-chairman of the International Panel on Climate Change (IPCC), with expertise in climatology and remote sensing, and a leading meteorologist. The lead francophone trainer was an expert in atmospheric physics, specializing in global climate prediction, and a lead author on IPCC’s Fourth Assessment Report.

Researchers visit the semi-arid district of Kajiado, Kenya as part of training in climate risk assessment. Photo courtesy of ICPAC.