



Adaptation

Climate Change
Adaptation
in Africa



Annual Report
2006-2007

The International Development Research Centre (IDRC) is a Canadian Crown corporation that works in close collaboration with researchers from the developing world in their search for the means to build healthier, more equitable, and more prosperous societies.

The Climate Change Adaptation in Africa (CCAA) research and capacity development program was launched in 2006 and is jointly funded by IDRC and the United Kingdom's Department for International Development (DFID). It is hosted and managed by IDRC from headquarters in Ottawa and three regional offices in Africa. Its original mandate is for five years of programming activity, gradually devolving to African institutions, with initial funding of approximately CA \$65 million.

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CONTACTS

Web: www.idrc.ca/ccaa

Email: ccaa@idrc.ca

Enquiries about the CCAA program may also be directed to IDRC's regional offices in Africa or to its headquarters in Canada.

Nairobi

IDRC Regional Office for Eastern
and Southern Africa

Liaison House, 2nd and 3rd floors

State House Avenue

PO Box 62084

Nairobi, Kenya

Phone: (+254+20) 271-3160/61

Fax: (+254+20) 271-1063

Dakar

IDRC Regional Office for West
and Central Africa

Rue de Saint-Louis, angle de l'avenue

Cheikh Anta Diop, Point E

BP 11007 PEYTAVIN

Dakar, Senegal

Phone: (+221) 864-0000

Fax: (+221) 825-3255

Cairo

IDRC Regional Office for the Middle East
and North Africa

8 Ahmed Nessim St., 8th floor, Giza

PO Box 14 Orman, Giza

Dokki, Cairo

Egypt

Phone: (+20+2) 336-7051/52/53/54/57

Fax: (+20+2) 336-7056

Ottawa

IDRC Headquarters

150 Kent Street

PO Box 8500

Ottawa, Ontario

Canada

K1G 3H9

Phone: +(613) 236-6163

Fax: +(613) 567-7749

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IDRC photo: J. Voss



1.



1. Executive summary

This first annual report on the CCAA program reflects the close care and attention that have gone into laying solid foundations for the program in 2006-07.

One year ago, a memorandum of agreement was signed between IDRC and DFID to see a program of research and capacity development launched to address the needs of Africans most vulnerable to climate change. The program has since evolved from a template agreement laying out goals and expectations, to a fully operational initiative that has allocated CA\$ 10.4 million to research projects and research support activity in its first year. The tempo of program development has by necessity been intense and demanding. In this first year, a number of elements contributed to a successful start-up:

- A newly established Advisory Board, balancing donor representation and African expertise in adaptation, gave solid program guidance through its first two meetings.
- A diverse 13-person staff – multicultural, multilingual, and drawn from a range of disciplines – was recruited, oriented, and quickly immersed in the collaborative development and running of the program from IDRC offices in North, eastern, and West Africa, and Canada.
- CCAA's first call for concept notes resulted in some 280 submissions. Ten of these were developed into full proposals for the first allocation of funding. Several more show promise for subsequent development with capacity building.
- An international field of 25 technical experts assisted in the initial review of concept notes.
- Outreach and communication activities – including events at the UN Climate Change Conference in Nairobi, a program Web site and other information tools – have made the program known to key African and international audiences.
- A comprehensive program strategy, extensively reviewed and revised, sets out a road map for achieving the program's goals over five years, and is accompanied by frameworks for capacity development, knowledge sharing and monitoring and evaluation.
- Frequent interaction between DFID and IDRC research management has helped maintain a shared sense of vision as the program has taken shape.
- Staff recruitment, the criteria for proposal selection, the program strategy and program communications have all echoed the shared commitment to keeping the program focus on benefiting the most vulnerable, and on building African capacity and leadership.

While it is yet too early for results to manifest at the outcome or impact level, the articulation of the program strategy and activity frameworks lay the foundations for achieving all four outcome areas. A description of the program's outcome mapping approach to monitoring progress against these outcome areas is found in CCAA's Monitoring and Evaluation framework, which will form the basis for future reports. Progress to date is further elaborated below.



IDRC photo: P. Bennett



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2. First year progress

Four objectives are at the core of CCAA's mission, and central to the foundational logical framework agreed between DFID and IDRC. They are:

1. To strengthen the capacity of African scientists, organizations, decision-makers and others to contribute to adaptation to climate change.
2. To support adaptation by rural and urban people, particularly the most vulnerable, through action research.
3. To generate a better shared understanding of the findings of scientists and research institutes on climate variability and change.
4. To inform policy processes with good quality science-based knowledge.

These objectives were shaped by a number of pre-program launch studies commissioned by DFID, and reviewed by IDRC, that provided guidance on existing research and capacity gaps on adaptation in Africa, to ensure that the program in its design would be demand driven.

CCAA's approach to monitoring and evaluation

CCAA will apply an outcome mapping (OM) approach to the monitoring of partner and program progress, using sets of progress markers consistent with this approach, to report against achievement of each of these four objectives. Outcome mapping, an innovation of IDRC's evaluation unit, is not based on an assumption of linear causality between a given program intervention and a set of corresponding development results. It focuses instead on the multiple linkages between interventions and behavioural changes. OM and CCAA's approach to reconciling OM and the logical framework system are further detailed in the program's monitoring and evaluation framework.

CCAA will apply outcome mapping approaches to program assessment in three focus areas – changes in the behaviour of “boundary partners” (those institutions and stakeholder groups with whom the program directly interacts); the outcomes and outputs of the program's three core activity areas (support for participatory action research; communication and networking; and education and training); and finally, the organizational performance of the CCAA itself.

Statements describing changes observed through outcome mapping, along with references to sources of evidence, will inform subsequent annual reports against the logical framework. A column indicating relevant indicator (OVI) correspondences, cross-referenced to the logframe, is included in the outcome journals for each boundary partner.



IDRC photo: P. Bennett



With first project agreements signed at the end of this first fiscal year, it is premature to report yet on progress in terms of observed changes in boundary partners. Formalized systems for assessing organizational performance and recording activity outputs are to be put into place in the first quarter of 2007-08, pending review and discussion with both Advisory Board and PMU staff, and will constitute the backbone of subsequent reports.

In addition to a first call for concept notes and subsequent development of full proposals for funding, the major undertaking for this year was to see the foundations put into place to meet the CCAA's objectives – the human resources, the governance structure, the communication tools and channels, the programming strategy and frameworks for knowledge sharing and capacity building.

External guidance

For both founding partners of the CCAA, the aim of supporting African leadership in addressing climate change adaptation on the continent was a paramount consideration in the design of the programming and governance structure. Balancing the necessity of donor accountability with the aim of ensuring the program is guided by African expertise and priorities, an advisory body was struck. This body is composed of a minimum of six members, where one member represents each donor agency and the number of donor members does not exceed that of African members. At least four members are citizens of African countries, preferably working for an African institution and active in the field of adaptation to climate change.

Members for this first year included representatives of IDRC and DFID, and from Sudan, Kenya, Senegal, and South Africa. CCAA's program leader also sits as an *ex officio* member. Representatives of other potential donor agencies, and key regional organizations may also, at the discretion of the board, sit as observers.

In its first two meetings, held this year, the Advisory Board gave substantive input on terms of reference for the program management unit (PMU), Advisory Board and technical experts, preliminary program budget and work plan, the program strategy, and the first call for concept notes. Advisors also serve as emissaries for the program, and members have through their networks helped in raising the profile of the program with ministry officials in various countries on the continent, with other organizations working on climate change in Africa, with other donors, and in the African research community.



Climate Change Adaptation in Africa Advisory Board Members for 2006-2007

Chair: Shem O. Wandiga

Shem Wandiga has played a leading role on a number of projects focusing on vulnerability and adaptation to climate change in Africa. A professor of chemistry at the University of Nairobi, Dr Wandiga's research interests include environmental contaminants, the sources and sinks of biogenic gases; and climate change and health. He is a former Chair of Kenya's National Academy of Sciences and national committee of the International Geosphere-Biosphere Program, and has chaired the Pan-African Committee of START (the global change SysTem for Analysis, Research and Training) since 2001.



Dr Wandiga has authored and lectured extensively. He has contributed to the development of science education by chairing several national committees on university education. He has served as a consultant on UNESCO, UNEP, and World Bank projects undertaken in Kenya and eastern Africa. In 2004, Dr Wandiga was cited by Kenya's Ministry of Environment and Natural Resources for outstanding work on hazardous and toxic chemicals and pesticides.

Vice-chair: Balgis M.E. Osman Elasha

Since 2002, **Balgis Osman Elasha** has been principal investigator of the United Nations Environment Program (UNEP) Global Environment Facility-supported project "Environmental Strategies to Increase Human Resilience to Climate Change impacts" in Sudan, working under the umbrella of the global Assessment of Impacts and Adaptation to Climate Change in Multiple Regions and Sectors (AIACC) project. She has experience and expertise related to vulnerability assessment to climate variation and change; adaptation options; use of climate scenarios; information generation and management; and the dissemination of regional seasonal rainfall forecasts for early warning and disaster control.



Dr Osman Elasha has served as a lead author on a number of Inter-governmental Panel on Climate Change (IPCC) initiatives and reports, including the Special Report on Carbon Dioxide Capture and Storage; the Africa chapter of the Fourth Assessment Report of Working Group II (Vulnerability and Adaptation Assessment); and the stationary consumption chapter of the 2006 IPCC National Greenhouse Gas Inventories Guidelines for the energy sector.

IDRC representative: Jean Lebel

Jean Lebel, an environmental health specialist, has been director of IDRC's Environment and Natural Resource Management program area since 2003. He joined IDRC in 1997, and served as team leader of the Centre's Ecosystem Approaches to Human Health program initiative from 2001 to 2003. In April 2001, Dr Lebel received the Université de Québec à Montréal's first Prix Reconnaissance from its Faculty of Sciences for his pioneering work in "helping developing countries preserve the balance of their ecosystems and protect the health of their citizens."

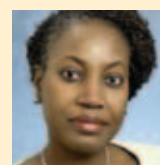


DFID representative: To be replaced

Paul Spray, formerly head of research with the United Kingdom Department for International Development (DFID), chaired the first meeting of the CCAA Advisory Board in May 2006, but has since assumed new responsibilities within DFID. Simon Anderson, Research Manager, Central Research Department, represented DFID at the CCAA's November 2006 Advisory Board meeting.

Ex officio member: Fatima Denton

CCAA program leader **Fatima Denton** joined IDRC in 2006, after working on climate change adaptation, energy policies, and poverty in Africa as a senior energy planner with the United Nations Environment Program (UNEP Risoe Centre) in Denmark. Her expertise and interests include vulnerability studies, water and energy security in the Sahel, governance and institutional issues in West and eastern Africa, and gender dimensions of energy and climate change. Dr Denton has authored and reviewed numerous articles on energy poverty, climate change policy, adaptation, and the interplay among gender, energy, and climate change issues. She holds a Ph.D. in Political Science and Development Studies from Birmingham University.





Mbareck Diop



Between 1994 and 2002, **Mbareck Diop** was technical advisor to the Presidency of the Republic of Senegal, advising on environment, energy, transportation, town planning, mining, industry, and agriculture. During this period, he participated in several climate change conferences and workshops, and played an important role in informing his country's position in international negotiations on environmental issues, including in meetings of the Group of 77 and China.

In 1995, Mr. Diop created the National Committee on Climate Change in Senegal, which engaged experts from national ministries, research institutes, and the private sector to assist in preparing Senegal's positions in meetings and negotiations. Mr. Diop also contributed to the creation of a national sub-committee on carbon sequestration, which he chaired until 2005. Since 2003, he has been the country director of the Institute for Transportation Development Policy (ITDP), a New York-based NGO that promotes sustainable, non-polluting transportation within the United Nations climate change framework. As an advisor to IDRC's West and Central Africa Regional Office since 2001, Mr. Diop provides support to the Centre on a range of environmental issues, including climate change.

Estherine Lisinge Fotabong



Ms Lisinge-Fotabong is an environment adviser to the NEPAD Secretariat, and National Program Coordinator for the United Nations Environment Program's Division of Global Environment Facility Coordination (UNEP-DGEF) in South Africa. She is an environmental lawyer and policy analyst by training and holds Master's degrees in Law (University of Yaounde) and International Policy (The George Washington University Elliott School of International Affairs). A lecturer in Law at the University of Soa in Yaounde, Cameroon, Ms Lisinge-Fotabong was previously Director of Policy and Strategy with the World Wildlife Fund Central African regional program office, and a biodiversity and NEPAD program officer with UNEP.

Ms Lisinge Fotabong has contributed to policy development at national and international levels, serving on several panels and steering committees. She sits on the Convention on Biological Diversity's (CBD) Expert Panel on Access and Benefit Sharing; she is West and Central Africa Regional Vice-Chair for the World Conservation Union's World Commission on Protected Areas; and is a member of the NEPAD African Protected Areas Initiative steering committee, and of the international steering committee of the International Plant Genetic Resources Institute Genetic Resource Policy Initiative.

Noel Oettlé



With a background in social sciences and experience in fruit farming, **Noel Oettlé** left South Africa in 1986 for reasons of conscience to work as a volunteer horticulturalist with a rural development project in Lesotho. Upon his return, he was appointed founding director of the Farmer Support Group, an agricultural development and extension unit of the University of Natal. During his tenure there he studied development economics with London University and played an active role in introducing academics and practitioners to participatory approaches to agricultural development and resource conservation. He now works for the Environmental Monitoring Group, a nongovernmental organization based in Cape Town. Mr. Oettlé's professional interests have progressed through the practice and teaching of participatory extension, to participatory action research (PAR), working most recently with resource poor farmers in the arid west of South Africa, an area already severely affected by climate change.



Putting a team in place

To staff the program management unit, IDRC undertook an international recruitment search, putting in place a multidisciplinary team with expertise in the social, economic and environmental dimensions of climate change in Africa. With the exception of the communications officer, one research officer, and the IDRC program manager giving oversight to the CCAA, all members of the PMU work from IDRC regional offices on the continent, in Dakar, Cairo and Nairobi. (See the map below for details on staffing distribution.)

Interviews for program officers and one research officer took place in June 2006, and the selection process was completed in July. Program Leader Fatima Denton joined the program in August 2006, while four program officers and a Nairobi-based research officer and program administrator started over September and October. Two additional researcher officers and two program assistants were recruited in late fall.

Figure 1: CCAA staffing distribution, 2006-2007





As can be seen in the staff profiles on pages 10-11 the CCAA drew candidates of high caliber, with extensive connection to key regional and international initiatives on climate change adaptation in Africa. Program Leader Fatima Denton and Program Officer Anthony Nyong have worked with the IPCC on its Fourth Assessment Report; Dr Nyong and Program Officer Jabavu Nkomo were contributors to the Africa chapter of the Stern Review; and Research Officer Victor Orindi contributed to the DFID-commissioned study "Mapping Climate Vulnerability and Poverty in Africa" in his previous position with the African Centre for Technology Studies.

The pace of program set up and the sizeable target for first year allocations demanded that new staff "hit the ground running". As confirmed in interviews undertaken on first year learnings (see Section 3 below), existing IDRC staff, particularly in the Rural Poverty and Environment program, and in the Grant Administration Division, provided critical peer support in a number of areas.

Staff and management of the CCAA program also benefited from expertise provided by IDRC Senior Sabbaticant John Stone, co-chair of IPCC Working Group 2 and a former Canadian diplomat and senior official with Environment Canada. Dr Stone brings extensive knowledge of climate science, international frameworks for addressing climate change, and the Canadian environmental policy landscape. In September 2006, Dr Marco Rondon, a Latin American expert in soil sciences and greenhouse gas mitigation in the agricultural sector, joined IDRC's Rural Poverty and Environment program, from which position he also serves as a resource to the CCAA.

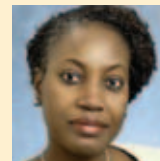
The new CCAA team underwent a two-week orientation, training and strategy development session at IDRC headquarters in Ottawa in September 2006.



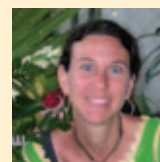
Profile of the CCAA program management unit, 2006-2007

Regional Office for West and Central Africa, Dakar, Senegal:

Program Leader Fatima Denton most recently served as a senior energy planner with the United Nations Environment Program (UNEP Risoe Centre) in Denmark. Her expertise and interests include vulnerability studies, water and energy security in the Sahel, governance and institutional issues in West and eastern Africa, and gender dimensions of energy and climate change. Dr Denton holds a Ph.D. in Political Science and Development Studies from Birmingham University.



Senior Program Officer Nathalie Beaulieu has a background in Civil Engineering and a Ph.D. in Remote Sensing. Prior to joining IDRC, she worked for CIAT for ten years, the last three of which were spent in Dakar. Her areas of expertise and experience include spatial data analysis, flood management, agriculture, participatory planning and local capacity strengthening.



Research Officer Alioune Badara Kaéré graduated from the École Nationale Supérieure d'Agriculture (ENSA) of Sénégal with a diploma in agricultural engineering in 2000. He holds a Master's degree on climatic risk management from the Faculté des Sciences Agronomiques de Gembloux (Belgium), and prior to joining IDRC worked in research development with the Agence Nationale de Conseil Agricole et Rural Sénégal.



Program Assistant Aïda Marie-Jeanne Diouf holds a B.A. in Administration from the Institut Supérieur de Dakar (Sénégal), along with a graduate diploma in Management. Prior to joining IDRC, she served as a program assistant at the Canadian Parliamentary Center.



Regional Office for Eastern and Southern Africa, Nairobi, Kenya:

Senior Program Specialist Jabavu Clifford Nkomo holds a Ph.D. from the London School of Economics. He has held academic posts at the University of Zimbabwe and the University of Venda, and was Principal Research Officer at the Energy Research Centre, University of Cape Town. Dr Nkomo has contributed extensive research and writing to a number of regional and internationally supported initiatives on climate change in Africa, including most recently the Stern Review.



Senior Program Specialist Anthony Nyong holds a Ph.D. in Geography from Canada's McMaster University and a post-graduate Specialist Certificate in Global Information Systems. Before joining IDRC, Dr Nyong was an associate professor of Global Environmental Change and Director of the Centre for Environmental Resources and Hazards Research at the University of Jos, Nigeria. He is a coordinating lead author of the Africa Chapter of the IPCC Fourth Assessment Report and serves as a scientific advisor on adaptation to the UNEP Global Environment Facility.



Research Officer Victor Orindi holds a Bachelor and Master of Environmental Science degrees from Kenyatta University. He taught for one year at the Department of Environmental Science, Kenyatta University, before joining the African Centre for Technology Studies (ACTS), Nairobi, in November 2003, as a research fellow on climate change within the Energy and Water Security Program.



Program Administrator Florence Waiyaki has extensive experience in IDRC's Regional Office for Eastern and Southern Africa. She joined the Centre in 1988 and has served as administrative assistant to a number of programs, including Rural Poverty and Environment, and Peace, Conflict, and Development.





Regional Office for the Middle East and North Africa, Cairo, Egypt:



Senior Program Officer Guy Jobbins holds a Ph.D. in Public Policy from the University of Birmingham. His doctoral research focused on coastal resource management in Morocco and Tunisia. From 2001 to 2003 he was a Post Doctoral Research Fellow in Environmental Informatics and Social Learning at University College London. He has worked in Egypt as an independent consultant and an advisor with DFID's SEAM program in South Sinai.



Program Assistant Dina Latif holds a B.Sc. in Chemical Engineering and has experience in sales and technical engineering, event management, and accounts coordination. She joined IDRC's Regional Office for the Middle East and North Africa in 2005 and has worked with the Centre's Globalization, Growth, and Poverty, and ICT4D programs.

IDRC Headquarters, Ottawa, Canada:



Program Manager Simon Carter holds a B.A. and Ph.D. in Geography from the University of Newcastle-upon-Tyne. He joined IDRC in 1998, with extensive experience in agriculture and environmental change in Latin America and eastern and southern Africa. Dr. Carter led IDRC's Minga program for natural resource management in Latin American for 6 years, and in 2004 was appointed leader of the Centre's Rural Poverty and Environment program. He has played a leading role in the origins and launch of the Climate Change Adaptation in Africa program.



Communications Officer Mary O'Neill joined IDRC in 2004, serving as a writer and strategist in the Centre's Communication Division. Her editorial, strategic planning, and event coordination skills build on considerable experience in the Canadian government, international cooperation NGOs, and in educational book publishing. She holds a B.A. in Political Science and Economics from McGill University.



Research Officer Marjolaine Côté has a B.A. in International Development from McGill University and an M.A. in Environmental Studies from Dalhousie University, focusing on sustainability and landfill gas combustion in Argentina. She joined IDRC as an intern in 2005.



Honing our strategies

While the memorandum of agreement between founding donors defined a skeletal framework on which to launch the program in April 2006, mapping a broad five-year trajectory for the program, the development of a detailed program strategy could not begin until a leader and staff were in place in the fall of 2006. Developing the CCAA program strategy has been a collaborative process of internal reflection on how to practically address the complex challenges of fulfilling the CCAA's broad mandate.

Expanding on the achievement of the program's four core objectives, the strategy articulates a vision and guiding principles for the CCAA. It defines three programming modalities key to reaching the program's objectives (support for PAR, communication and networking, and education and training), identifies priority themes, maps the governance structures, and introduces CCAA's hybrid approach to monitoring and evaluation.

In November 2006, a first complete draft of the program strategy was reviewed by the CCAA's Advisory Board, which made a number of concrete suggestions, most notably, that strategies be developed to ensure vulnerable groups are direct beneficiaries of the program. It also proposed an external final review to strengthen and validate the strategy. External reviewers confirmed the main strategic directions, while offering suggestions to strengthen it in acknowledging uncertainty in climate change, the roles of politics and power in shaping adaptation strategies, and linkages with development and with mitigation. A suggestion to highlight the potential of scenario-based methodologies to improve preparedness through PAR was also integrated in the strategy document.

To further clarify and elaborate on the program's knowledge sharing and capacity development activities and its approach to monitoring and evaluation, additional frameworks were drafted which provide an overview of these activities and how they will be operationally supported.

Both the program strategy and accompanying frameworks are conceived as "living documents" to be reviewed as needed over the life of the program, and revised on the basis of partner input and overall program learning.



First projects – Striking a balance between capacity and potential

A first call for concept notes between May 25 and July 15, 2006 netted some 280 initial concepts, 214 of which met basic eligibility criteria. To assist with the selection of the most promising concepts for development as full proposals for program funding, 25 African and international technical experts from a variety of disciplines had been pre-identified.

An intense process of review and selection took place in Naivasha, Kenya in September 2006, an occasion that also brought the new roster of CCAA programming staff together for the first time. Following a later second stage review by PMU staff, 16 concept notes were selected for first proposal development, with 10 of these approved for first project funding in the final quarter of 2006-2007.

The process of concept review and proposal development revealed considerable interest and strength in adaptation research in Africa's research community, while also revealing regional and sectoral gaps, and a number of specific capacity development needs. The first call was intentionally fairly broad, in order to give the program an initial feel for existing capacity and perceived research needs.

As indicated in Figure 2, there was strong representation of eastern, southern and West Africa in the initial submissions, but few concepts received from North African institutions. Thematically, proposals clustered around overall capacity building, and action research on rural livelihoods (mainly water scarcity and food security). There were few submissions relating to urban adaptation issues, health dimensions of adaptation, or coastal adaptation.

Figure 2: Concept notes by region

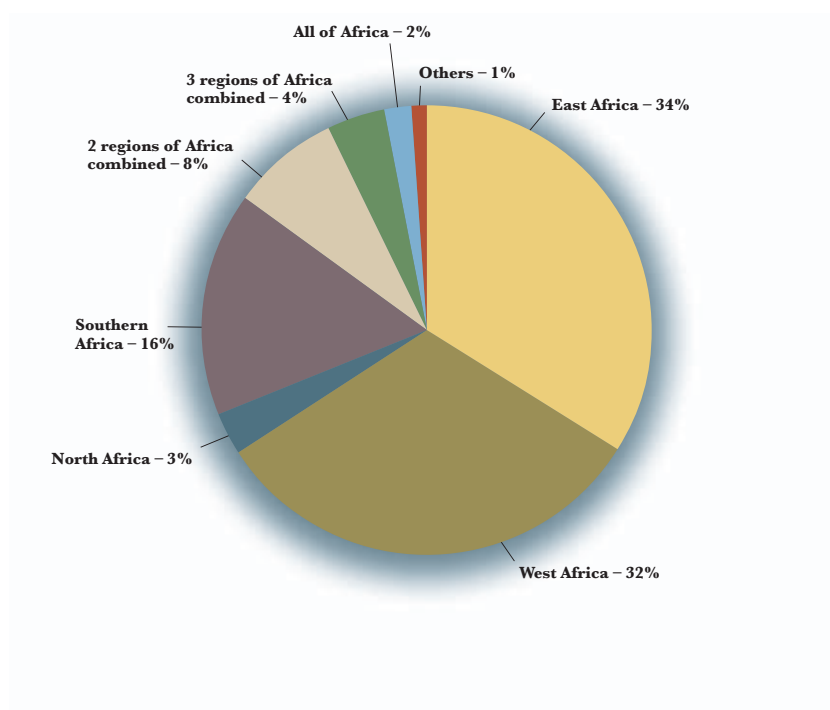
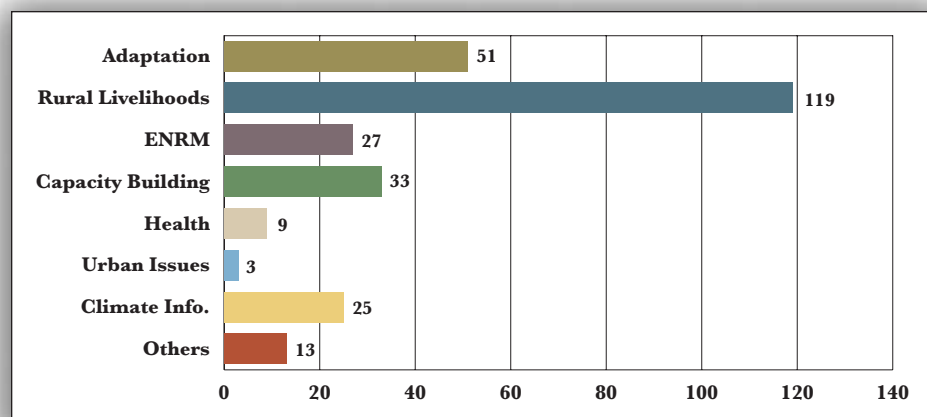




Figure 3: Concept notes by theme



These gaps are being factored into both capacity development and research support plans for 2007.

Bearing in mind the program's dual mandate of supporting high-calibre action research on adaptation while also building the capacity of African institutions, leadership by an African institution was a key eligibility criterion, as was a demonstrated commitment to action research.

In addition to the first proposals developed and approved as CCAA-supported research projects, a number of promising second and third-tier concepts have been retained for potential development for subsequent funding, with proponents encouraged to take part in regional capacity development activities getting under way in 2007.



Investing in research and capacity for adaptation: CCAA's first projects

This year, the Climate Change Adaptation in Africa program approved 10 projects for first-round funding. The projects, listed below, will see research underway in North, West, eastern, and southern Africa. A range of adaptation challenges are reflected in these first projects, which include research to address food security, protect rural livelihoods, strengthen water resource management practices, and help manage coastal resources in the face of sea level rise and extreme weather events. All combine action research and capacity building on adaptation.

Title	Location	Lead institution
Lack of resilience in African smallholder farming: Enhancing adaptive capacity of local communities to pressures of climate change	Malawi, Mozambique, Zambia, Zimbabwe; Kenya, Uganda, Tanzania; Cameroon, Ghana and Mali	University of Zimbabwe
Strengthening the capacity of farmers to reduce the impact of climate change on agricultural productivity to ensure food security and reduce poverty in Benin	Benin	Initiatives pour un Développement Intégré et Durable – ONG
Vulnerability and adaptation of agricultural systems in Madagascar	Madagascar	Université d'Antananarivo – École Supérieure des Sciences Agronomiques
Managing risk, reducing vulnerability and enhancing productivity under a changing climate	Tanzania, Kenya, Ethiopia, Eritrea, Sudan	Sokoine University of Agriculture
Strengthening local agricultural innovation systems in less favored and high potential areas of Tanzania and Malawi	Tanzania and Malawi	Institute of Resource Assessment, University of Dar Es Salaam.
Evaluating the efficacy of radio drama as a means to strengthen the capacity of smallholder farmers to adapt to climate change	Nigeria	Developing Countries Farm Radio Network
Building adaptive capacity to cope with increasing vulnerability due to climatic change	Zambia and Zimbabwe	Midlands State University
Managing climate risks for agriculture and water resources development in South Africa	South Africa	University of the Free State (UOVS).
Climate change adaptation mechanisms for rural communities in two contrasting ecosystems of Morocco – plains and mountains	Morocco	Institut National de la Recherche Agronomique
Enabling stakeholders in Moroccan coastal management to develop sustainable climate change adaptation policies and plans	Morocco	École Nationale Forestière d'Ingénieurs



Tuning into climate change adaptation

By all accounts, smallholder farmers – the majority women – will be among those most vulnerable to the effects of climate change in Africa. Information on expected climate impacts, and on strategies for adapting, may be vital to their survival.

But with low literacy rates and limited technology access, how do these farmers access and process such potentially life-saving information?

Radio is one of the most popular media in rural communities. With CCAA support, Nigeria's African Radio

Drama Association will test the value of radio as a tool for delivering information on adaptation to smallholder farmers. With input from local farmers on their climate information needs and knowledge, and their listening habits, a 26-episode radio drama will be produced in two local languages, and broadcast weekly over a six-month period, in partnership with Nigerian radio stations. Focus groups before, during, and after will define the drama contents and distribution channels, and help in assessing the value of this approach in reaching rural farmers.



Radio listening club, Nigeria

Photo courtesy of the African Radio Drama Association

Capacity development

Limited adaptive capacity is a major factor in Africa's high vulnerability to climate change, and a key rationale for the development of the CCAA program as an initiative to support both research and capacity building. In addition to strengthening adaptive capacity by involving policymakers, researchers, and at-risk groups directly in action research, the program will host a range of mentoring, education, and training activities focusing on specific capacity gaps.

CCAA education and training activities will be delivered through workshops, hands-on training, awards, and fellowships. The training workshops will be conducted in different regions of the continent, in French and English.

The CCAA approach to capacity development will be:

- A continuous process: Capacity building should continue beyond the life of projects funded by CCAA. "Learning by doing" will be integral to CCAA capacity building initiatives.
- Endogenously led: To the extent possible, CCAA will rely on local institutions as partners in capacity building.
- Built on existing initiatives: CCAA initiatives will build on existing national and regional adaptation initiatives to develop African resources and capacity.

Starting in 2007, the program will roll out series of capacity development workshops that will cover knowledge areas and methodologies which the proposal review and development process identified as most essential in addressing gaps among initial and prospective CCAA research proponents.



This first series will cover: research project management; integrated climate risk assessment; research methodologies (emphasizing PAR and gender analysis); and research to policy linkages. A workshop on proposal development will also target proponents of promising concept notes whose submissions were not selected in the first round. These workshops will be held in different regions of Africa, and offered in both French and English.

A second series of workshops on core topics will be demand driven, responding to additional capacity development needs identified by CCAA partner institutions.

Another category of capacity development support will foster strategic North-South and South-South linkages, matching strong international institutions with African organizations that will over a two-year period take on responsibilities for a given area of capacity building.

A series of fellowships, to be administered through an external partnership consortium, will also support capacity building at the individual level.

There is essential overlap between the plans for knowledge management and sharing, and plans for capacity development, in that research communication and knowledge management are among the skill areas to be built through workshops and other capacity development activities. As outlined in its Knowledge Sharing Framework, the program also plans to support continuous learning among partners and other interested stakeholders through a community of practice or alternative form of learning network, to be designed and facilitated in consultation with partners.

Consideration is also given in the capacity development plan to involving members of the African diaspora community in capacity building on adaptation, and whether and how infrastructure support can contribute to institutional strengthening.

Developing tools and channels for communication

Effective communication tools and processes are crucial to achieving all four of the CCAA's objectives, but in particular to the program's aims of seeing policies informed by scientific evidence, and improving understanding of the findings of scientists and research institutes on climate variability and change. Plans to facilitate this knowledge sharing through communications and networking support to partners are summarized in the framework for knowledge sharing.

Introducing the CCAA

In this start up year, basic information tools were developed to introduce the program to key African and international audiences. The IDRC-housed Web site www.idrc.ca/ccaa was launched to provide an overview of the program, issue calls for technical expertise and concept notes, and promote CCAA events. It will eventually serve as the main access point for program-generated research findings, information on research partners, and links to adaptation learning resources.



The UN Climate Change Conference in Nairobi in November 2006 presented an excellent opportunity for the CCAA to introduce itself to researchers, policymakers, and other international institutions actively working on climate change on the continent. In addition to hosting a kiosk at the Conference site, the program hosted three events in Nairobi – an official side event panel discussion, a roundtable and a reception.

In advance of events planned for COP 12 in Nairobi, and for subsequent use, a program brochure, and visual display panels were prepared, with a common visual identity. These basic program information tools were made available to offices in Nairobi, Cairo, and Dakar, in English, French, and Arabic.

Ongoing outreach through media

Mass media is an important conduit to key stakeholder groups, as noted in CCAA's knowledge sharing framework. Media relations efforts by the PMU, and eventually by research partners, will significantly add to the reach of the program in highlighting the adaptation imperative and sharing adaptation and climate change knowledge to benefit at-risk communities.

A joint IDRC-DFID press release generated media coverage of the CCAA on BBC Radio Five Live, Radio Canada International shows *Le Canada en direct – Afrique subsaharienne* and *Today to Africa*, *SciDev.Net*, the South Africa Broadcasting Corporation online edition, *Green Consumer Guide*, and *African News Dimension* online. The program's first call for concept notes was highlighted in the first issue of *Research Africa*.

Media relations efforts during the United Nations Climate Change Conference in November 2006 produced considerable regional coverage, including articles in the *Egypt Star*, *Egypt Gazette*, *Islam Online*, *Development Gateway Online*, *Nigeria News Agency*, *Tide Online* and *Lagos Daily Independent*. An interview with Program Officer Anthony Nyong was taped for later broadcast on German national radio station Deutschlandfunk.

An interview with Program Officer Nathalie Beaulieu featured in a special issue of the West African science magazine, *Sciences Sahel* after Dr Beaulieu spoke for the CCAA at a regional conference on reducing vulnerability to climate change hosted by the West African bureau of the United Nations Economic Commission for Africa.

Recognizing the vast geographic reach of the CCAA program, and the need to have several spokespersons who can represent the program and speak to the adaptation challenges Africa faces, a media relations training course was held in Nairobi on November 6 for CCAA programming staff and the Advisory Board Chair.



Interacting with key stakeholders

All CCAA program officers, the program leader, program manager and communications officer have interacted extensively with other key stakeholders in climate change adaptation.

There has been sustained interaction between IDRC program management and DFID's Central Research Division (CRD) program management, supported by a number of reciprocal visits between Ottawa and London. Beyond its core relationship with DFID-CRD, CCAA has also engaged other British officials, including High Commission and British Council staff in Ottawa, and the British High Commission in Kenya. Program Officer Jabavu Nkomo and Communications Officer Mary O'Neill also presented on the program, and met with various UK government officials, during a special DFID-hosted "Climate Change Week" held in London, January 31 – February 2. Contact was made with DFID research communications staff members in East Kilbride and London, to explore possibilities for collaboration in profiling the program.

Important connections with Canadian government officials – primarily within the Department for Foreign Affairs and International Trade – were fostered in advance of program launch, and CCAA events at COP 12. Program Manager Simon Carter and Senior Sabbaticant John Stone presented a progress report on CCAA to IDRC's Board of Governors in November 2006. IDRC Board Chair Gordon Smith emphasized the urgency of the challenges around climate change and the timeliness of IDRC's partnership with DFID.

An IDRC-hosted roundtable on the potential for North-South collaboration in climate change adaptation research which took place in February 2007 made CCAA and other international adaptation research efforts better known to representatives of a range of Canadian government departments and Canadian funding councils. It should be noted that linkages with other IDRC programs are being fostered, including with the Centre's Ecohealth program. CCAA and Ecohealth are collaborating on a planned symposium and other activities on climate change and health at the 19th Conference of the International Society for Environmental Epidemiology (ISEE) in September 2007. There will also be a joint call for research proposals on health dimensions of climate change adaptation in Africa in 2007-08.

Some CCAA PMU members have maintained their prior involvement in a number of important international initiatives related to climate change. Their ongoing contributions have increased overall awareness of the CCAA program in these international forums, while keeping the unit abreast of key developments with possible repercussions or opportunities for adaptation in Africa.

Both Program Leader Fatima Denton and Program Officer Anthony Nyong serve as resource persons to the UNEP Global Environment Facility Scientific and Technical Advisory Panel (GEF-STAP). This involvement provides an opportunity to engage with eminent scientists across a wide thematic spectrum and access to critical thinking on environmental governance and how this can be shaped within an international context. Participation offers the opportunity for learning and linkages that may enrich CCAA's collaboration with partners.

CCAA at the UN Climate Change Conference

In November 2006, the 12th Conference of Parties to the UN Framework Convention on Climate Change and Second Meeting of Parties to the Kyoto Protocol took place in Nairobi.

The conference location in Kenya drew many African officials and institutions and brought much needed attention to the issue of climate change in Africa.

IDRC introduced the CCAA program through three events during the Conference:

Side event: Program leader Fatima Denton, Program Officer Anthony Nyong, Jessica Troni of the UK Department for International Development, and CCAA Advisory Board Chair Shem Wandiga introduced the program's aims and start up priorities in the panel discussion, "Introducing Climate Change Adaptation in Africa." The discussion was featured in ENB on the Side conference reporting and Web broadcast by the UNFCCC.

Roundtable: Researchers, policymakers and community activists concerned with climate change in Africa took part in the CCAA-hosted roundtable, "Sustaining African leadership on climate change adaptation: the role of research," which invited input on how to ensure research on adaptation is in tune with the needs of research users, and involves the continent's most vulnerable populations.

Reception: Following the roundtable, a reception was held to mark the African launch of the program. Speakers included the British High Commissioner to Kenya, H.E. Adam Woods, Keith Christie of Foreign Affairs Canada, co-head of the Canadian delegation to the COP 12, and Dr A. M. Mwinzi of Kenya's Natural Environment Management Agency, representing the Government of Kenya.

The COP 12 side event "Introducing Climate Change Adaptation in Africa" drew a near capacity crowd and was web cast by the UNFCCC.



A CCAA program banner greets participants attending the roundtable dialogue.



May Sengendo, ENERGIA regional network coordinator, and Fatima Denton at the CCAA roundtable dialogue.



Dr A. M. Mwinzi of Kenya's Natural Environment Management Agency addresses a reception marking the African launch of the CCAA program.



H. E. Adam Woods, British High Commissioner to Kenya.



CCAA's Anthony Nyong and Fatima Denton address a media workshop hosted by the World Federation of Science Journalists during COP 12.



CCAA's efforts at fostering partnerships in its immediate constituency in Africa and beyond help the program to embrace emerging issues and trends. Knowledge gained from these initiatives help to inform strategic directions for the program.

On the continent, connections have been established with key organizations such as the United Nations Economic Commission for Africa (ECA) and the Permanent Interstate Committee for Drought Control in the Sahel. A meeting with the Chairman of the African Union will be sought by the end of the 2007 in order to present CCAA's strategy document and to announce its interest of working closely with regional institutions on the continent.

Initial contact with the African Union (AU) and ECA were made through a visit to Addis in November by Program Officer Jabavu Nkomo, who met with Dr Strike Mkandla, United Nations Environment Program representative to the AU, ECA and Ethiopia, who is based at UNECA. Dr Mkandla was briefed on the CCAA purpose, strategy, outcomes, activities, accomplishments to date, and capacity development plans. Dr Nkomo also took part in the Stern Review presentations to the African Union in November, in his capacity as a co-author of the Africa Chapter, along with CCAA colleague Anthony Nyong. Whilst CCAA was not formally on the agenda for these meetings, information on the program was distributed to the country representatives present.

A joint CCAA-ECA regional workshop planned for April 2007 will bring together first CCAA project partners with representatives of key regional organizations. The workshop, "Towards a Regional Strategy in Climate Change Adaptation: Sharing Knowledge on Climate Risks and Adaptation Options," will help in building alliances with regional and continental partners and may identify potential initiatives in the region that could boost local-level adaptation in terms of implementation and good practice. The workshop will bring staff of CCAA and the ClimDev Africa initiative (Climate Information for Development Needs: An Action Plan for Africa) together to identify potential areas of collaboration in terms of knowledge generation and transfer.

These regional connections are an important strategic element of CCAA's knowledge sharing plans, which will provide support for networking and a community of practice on adaptation.

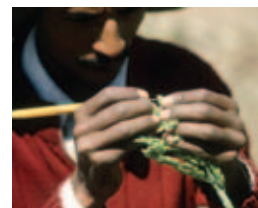
In sum, significant progress was made in this first year in establishing a basic identity for the program, developing initial tools for basic program information, connecting with international and regional media, and in establishing relations with African, UK and Canadian officials, and key African institutions.





3. Lessons learned

Consistent with the “learning by doing” philosophy at the heart of CCAA’s action research orientation, the program itself has been learning continuously in this foundational year; in particular from its first call for concepts and the subsequent process of proposal development. Much of this learning is already being applied in the planning of CCAA’s first capacity development workshops, and reflects also in the plans for more targeted niche calls for concept notes in the next fiscal year.



IDRC photo: C. Sanger

Given the focus in this first year on laying programming foundations, establishing and orienting a new team, and getting first supported research proposals developed and launched, CCAA undertook an internal assessment of lessons learned in the start-up phase. The interviews, conducted in March 2007 with the program leader, program manager, program officers and research officers focused on examples of practice that a) have been successful and should be built upon, and b) need refinement in:

- The overall program structure and management
- Our work with partners
- Internal communications
- External communications

PMU members were also asked for their thoughts on progress towards the program’s four outcome areas to date, but most felt it was too early for any solid reflection on these yet.

Program structure and management

Responses focused on overall program architecture; the hiring and orientation of new staff; the support provided by managers, advisors and mentors; and work planning procedures.

The basic structure of the CCAA – the housing of the PMU within IDRC; the establishment of an advisory body with both African adaptation expertise and donor representation; and the establishment of a body of technical experts to support the program – was generally noted as having worked well for the program’s objectives. Both management and staff noted the concrete and constructive feedback the Advisory Board has provided on initial program directions, specifically on the program strategy. Those who have worked directly with the Advisory Board noted the high calibre of their contributions so far, the effectiveness of the Chair, and the overall quality of the support they have provided.

The input of the technical experts on the first call for concept notes was seen as essential to getting the selection process underway so that newly recruited staff were able to build on a foundation of expertise.



As the majority of CCAA staff members are new to IDRC, and began work in the fall as the selection process for the first funded projects was underway, respondents almost unanimously underlined how crucial they found various forms of mentoring and mutual support to have been in achieving programming objectives for the first year. A number observed that being housed in IDRC regional offices gave them access to a wealth of experience in programming and grant administration, and that this served them well in the proposal development process. Some regretted not having taken earlier advantage of this experience, particularly in the project approval stage. It was noted also and that while training was provided in advance on these and other administrative procedures, the skills had to be learned in a more experiential, hands-on way, and that future training should reflect this need.

While recognising that frequent team gatherings were not feasible over the long term, the face-to-face meetings that took place in the fall of 2006, (concept note review, team training and orientation, and at the UN Climate Change Conference in Nairobi) were important opportunities for staff to develop a cohesive vision and shared sense of direction, and were essential to the development of the program strategy. Two team retreats are planned for 2007-08, one in April and one in November.

New program staff also benefited from extensive mentoring support from the program manager and program leader. Several noted that they had had extensive one-on-one discussions with these leaders in the course of problem solving on given issues.

The pressures of getting a new program off the ground pitted an almost entirely new team against ambitious targets for proposal development, while fleshing out operational frameworks for capacity development, knowledge sharing, monitoring and evaluation. This demanded great flexibility and commitment from these new recruits. Team members noted the support they received from each other, and the value of the complementary skill set in the hiring choices made.

The pressures of start up were recognized as leaving too little time for effective work planning. Team members stressed the need for improved forward planning, more lead time on given tasks, and a better understanding of how their day-to-day work relates to the team effort and CCAA vision as a whole. These issues are being addressed at a team retreat planned for April 2007.



Work with partners

Reflection here focused on the interactions with partners from the call for concept notes, through the selection process, to the development of final proposals.

The early call for concept notes, undertaken by staff of IDRC's Rural Poverty and Environment (RPE) program before most CCAA staff members were in place, was seen as an essential calculated risk that permitted the program to meet first year allocation targets. The wide response gave the CCAA good insight into a range of strengths and weaknesses in African adaptation research capacity, and helped to establish the priorities for the first round of capacity building workshops planned for late spring and early summer of 2007.

The first review by technical experts permitted newly recruited CCAA program officers to step into the review process mid-stream. Subsequent staff review identified a number of promising concept notes to develop, outside the initial cull by reviewers, some of which were incorporated into development for first year allocations, others of which are being actively reviewed for support in the next fiscal year.

While the open call made the program known to a wide range of African institutions, processing and reviewing some 280 concept notes was resource intensive, and generated demand for detailed feedback from unsuccessful proponents. Some felt that providing this feedback, though appreciated by proponents and consistent with CCAA's capacity development mandate, took time away from other urgent tasks.

Among the conclusions on the call and selection process are the need for improved criteria and guidance for technical experts, and that the next call(s) should be strategically limited; both of these reflections will factor into more targeted calls next year under a "Challenge Fund" and "Innovation Fund".

Staff became most closely acquainted with partners through the proposal development process undertaken with successful CN proponents. Program officers noted the speed with which proponents responded to feedback, noting in some cases institutional weaknesses (financial and administrative) that merit focus in capacity building activities. They observed the difficulties of managing the expectations of proponents, making clear that the process of proposal development did not constitute a *de facto* commitment, if standards were not met.

There was also recognition of the need for further reflection and refinement of the balance between investing in strong institutions – those capable of delivering high-calibre research findings, with limited risk – and in committing research funds to weaker institutions that need opportunities to build capacity not just through learning support activities, but through carrying out action-research.



Internal communication

Responses on internal communications focused on the interaction between program staff and managers, and across the team. Members see effective internal communication as essential yet challenging in a “virtual” and geographically dispersed team. Program staff cited a high level of commitment to information sharing and discussion, and frequent, regular team contact as the greatest strengths in the program’s internal communications. Web based dialling and SMS via Skype and voice over Internet protocol (VOIP) greatly facilitated contact among African offices and with Ottawa, but capacity limits and interruption of Internet services in some regions, Nairobi in particular, remain a source of frustration, difficult to resolve.

Team members credit a number of face-to-face meetings in the start up phase, together with regular teleconferences, in helping greatly with basic orientation and the development of team cohesion and a shared vision and strategy.

There was a general consensus that horizontal team communication could be improved. Given the start up imperatives, internal communication tended to fracture into task-focused clusters, with the result that some team members felt uninformed on tasks they were not directly involved with. Several credited the program manager and program leader with devoting considerable time to one-on-one discussion, but some noted a related tendency for information and occasionally decisions to bottleneck. At the same time, team members cited their own lack of time to absorb updates on other task areas as a barrier to effective horizontal communication. The question of how to ensure sufficient and essential information is shared, while not overloading team members is one that will likely need to be regularly revisited.

The importance of accommodating language differences within a multilingual, multicultural and multidisciplinary team was also pointed out, together with a need for the plainest possible language given the range of specializations within the CCAA.

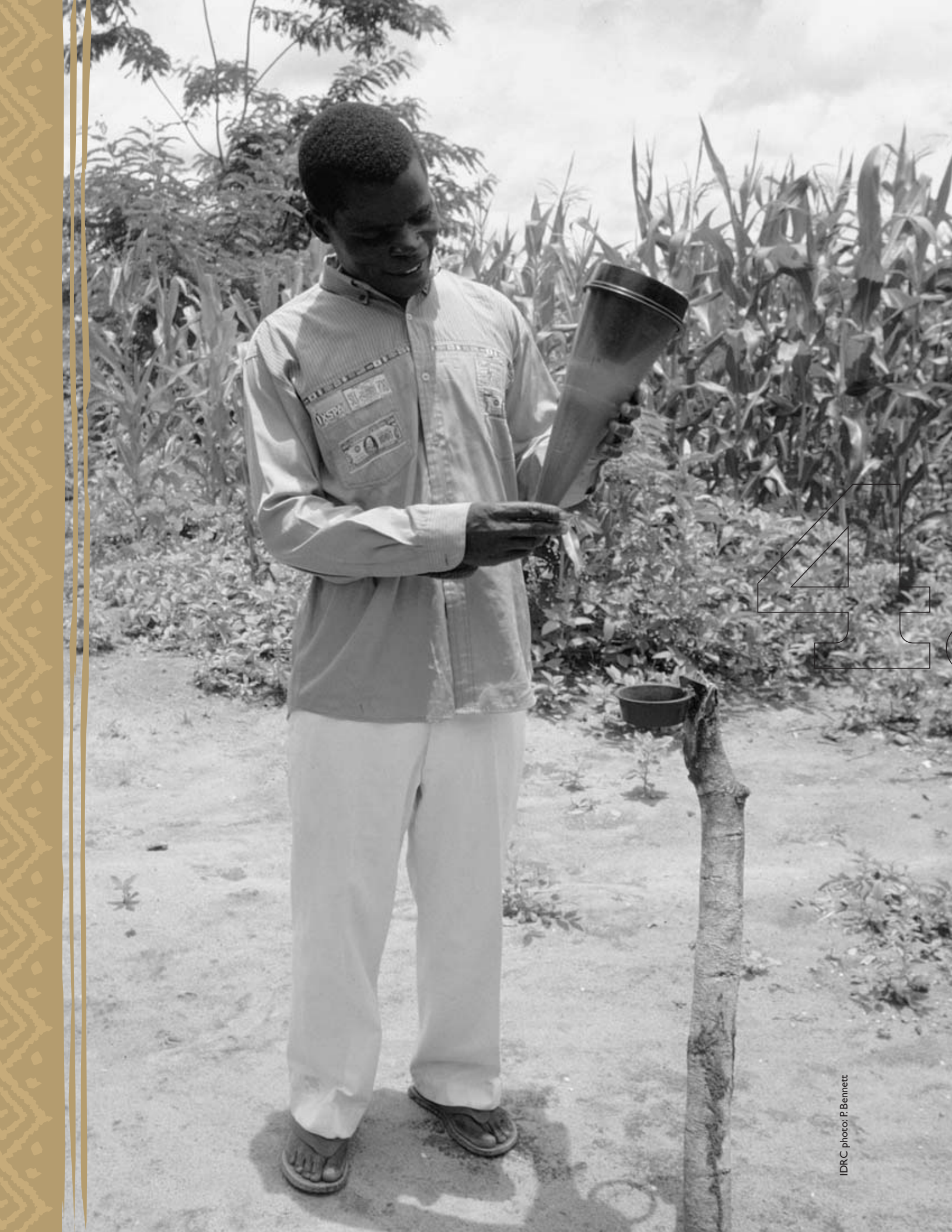
A number of specific recommendations on improving team communications were put forward for discussion at the team’s spring retreat.



Communication with external stakeholders

External communication, including team and individual outreach activities with the range of stakeholders discussed above, was seen as strong from launch through to the hosting of events at the UN Climate Change Conference in Nairobi in November 2006. Staff subsequently found it difficult to devote time to external communication, as proposal development and finalization of the program strategy were urgent priorities in the last two quarters.

Basic information and identity tools (the CCAA web site, program brochure, display banners) were seen as effective in introducing the program. Together with these, several staff credited events hosted by the CCAA at COP 12 in Nairobi with generating follow up contact by regional and international organizations, and by media. Some respondents felt CCAA is yet better known to international organizations working in and on Africa, and that there is work to be done on connecting more systematically with African decision makers, national institutions, and in strengthening research partners' ability to engage with regional institutions and policymakers.





4. Conclusions

As CCAA concludes its first year of operation, an exciting first round of research projects are getting underway throughout Africa, addressing some of the most critical areas of climate change impacts the continent is expected to endure. The program's challenges shift now, from seeing the program off the ground, to nurturing these first and subsequent projects through capacity development and knowledge sharing supports in year two.

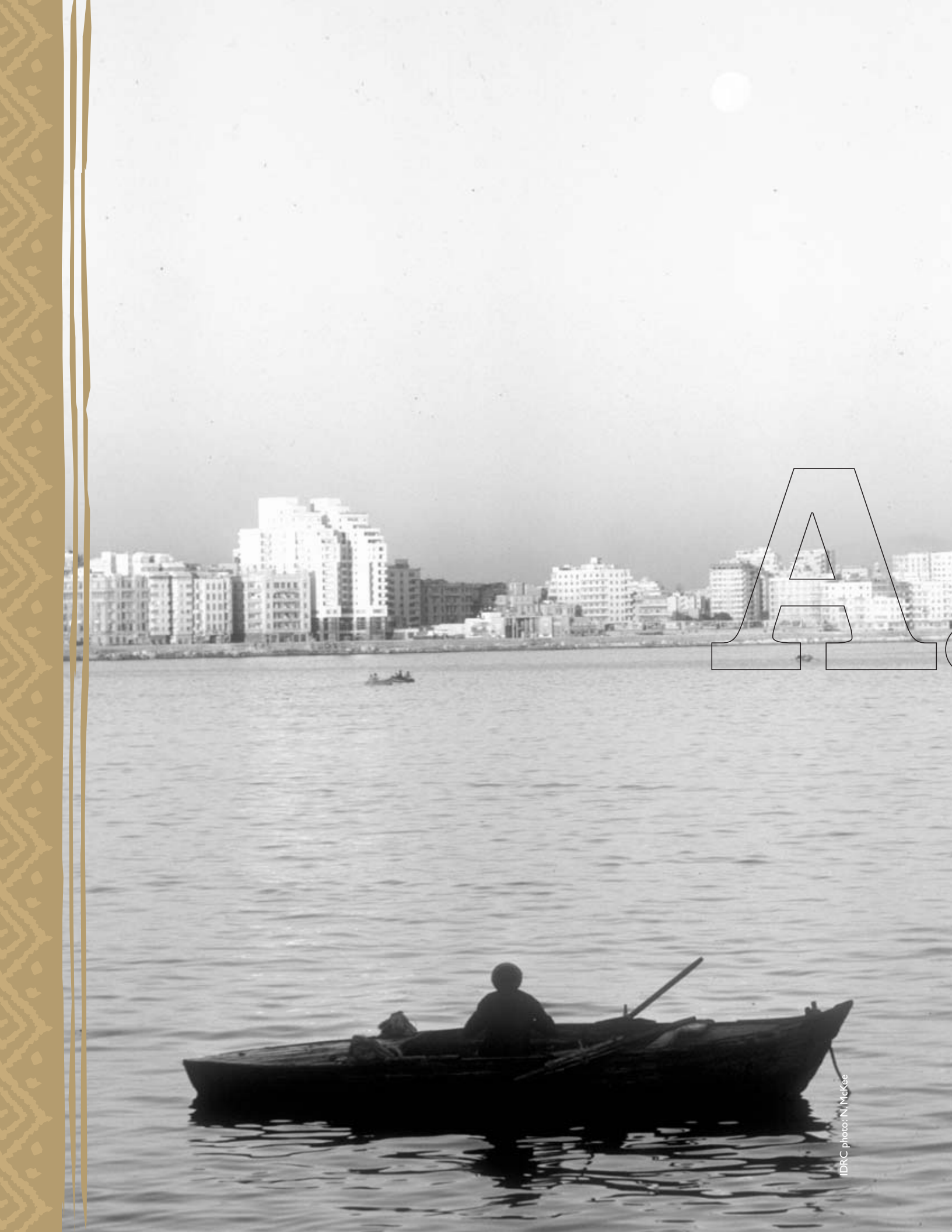
The program achieved solid accomplishments against the vision for the program first formulated between DFID and IDRC in 2005. The CCAA enters 2007 with a clear road map, shared vision, clear operating procedures, strong leadership and guidance from its Advisory Board, and a strong portfolio of new projects on the ground.

The response to the program's first call for concept notes identified both strengths and weaknesses in the research community and highlighted the need for a suite of complementary support activities. Implementation of these program-level support activities is now commencing.

Solid teamwork across IDRC allowed the team to appropriate a record amount to fund ten high-quality projects and associated support activities. Lessons are being internalised across the centre to enable regional office and headquarter staff to adjust to the needs of CCAA.



IDRC photo: G.K. Danso





Annex 1: CCAA logical framework

Narrative summary	Objectively verifiable indicators (OVIs)	Means of verification (MOVs)	Risks and assumptions
Goal			
The poor across Africa are resilient to climate volatility and change.	Indices of the vulnerability of the poor to climate related stressors are minimized	Changes in Human Development Index and other vulnerability/ poverty related indices over time	
Purpose			
Significantly improve the pro-poor adaptive capacity of African societies	The poorest people and communities gain effective adaptation strategies.	<ul style="list-style-type: none"> ■ National and regional adaptation plans and progress reports for identified vulnerable groups and/or regions from government organizations and independent sources ■ Evidence that the adaptation strategies work ■ Evidence that the poor have decision-making power over development and investment projects concerning adaptation to climate change 	<ul style="list-style-type: none"> ■ Strategies are able to deal with the full extent of climate related stressors. ■ Reaction times are adequate. ■ The poor can find ways to access these processes.
Outcomes and outputs			
1. Research institutions are better able to assess climate-related vulnerabilities and to evaluate and develop adaptation options.	1.1 African researchers do assess vulnerability to impacts of climate volatility and change. 1.2 African researchers do develop options for enhancing adaptive capacity. 1.3 African researchers do engage with the poor, their ideas and suggestions are taken up, and they take account of the concerns/ needs of others in their work.	1.1.1 Documentation by African research organizations assessing vulnerability and adaptive capacity; impact assessments; and examinations of options for adaptation 1.1.2 Appropriate research products are produced and used by stakeholders.	Functional linkages and co-ordination between organizations are established.
2. At risk groups, policy makers and researchers share learning and expertise on climate vulnerability and poverty.	2.1 Climate-related and other information on vulnerability is used by diverse groups of people (CBOs, NGOs, planners, researchers, policy makers) to support adaptation that benefits the poor.	2.1.1 Assessments of short, medium, and long term vulnerability to increased climatic volatility and climate change and implications for poverty reduction	Political development agendas take on board constraints presented by climate volatility and change and the need for pro-poor adaptation.



Narrative summary	Objectively verifiable indicators (OVIs)	Means of verification (MOVs)	Risks and assumptions
Outcomes and outputs <i>(continued)</i>			
2. At risk groups, policy makers and researchers share learning and expertise on climate vulnerability and poverty. <i>(continued)</i>	<p>2.2 Governments, regional authorities, development sectors and vulnerable sectors of society articulate and communicate vulnerability issues in ways that enhance their capacity for effective collaboration on adaptation.</p> <p>2.3 Local end-users are able to use climate forecasts and other assessment results in planning their adaptation.</p> <p>2.4 Experiments in adaptation take place whereby researchers, the poor, decision makers and others are active participants.</p>	<p>2.2.1 Dialogues between researchers, policy makers, and the poor take place.</p> <p>2.2.2 Government, civil society organization, and donor documents incorporate research outputs to plan for and to support adaptation by the poor.</p> <p>2.3.1 The poor use new concepts, data, and knowledge to articulate their positions in dialogues on adaptation.</p>	
3. The poor in rural and urban environments apply their experience of adaptation with the knowledge and technologies generated by research to implement improved and effective adaptation strategies.	<p>3.1 Tested adaptation options are taken up by poorest.</p> <p>3.2 Cases of increased resilience to climate volatility by the poor</p> <p>3.3 Adaptive learning and adaptive management processes are put in place.</p>	<p>3.1.1 Documentation on the effectiveness of adaptation options</p> <p>3.2.1 Records of losses due to climate-related events</p> <p>3.3.1 Records of adaptive learning and adaptive management outcomes</p>	The severity of the plight of the poor does not preclude their joining collective action on climate adaptation.
4. Policy processes are informed by good quality science-based work on vulnerability and adaptation, and by the experiences of the rural and urban poor.	<p>4.1 African researchers carry out research activities in support of adaptation projects and programs such as the National Adaptation Programs of Action (NAPAs).</p> <p>4.2 African researchers feed the results of their research into the policy-making process.</p> <p>4.3 All stakeholders understand better how policy affects adaptive capacity.</p>	<p>4.1.1 Documentation of NAPA etc. processes</p> <p>4.1.2 Changes in policy instruments to facilitate adaptive capacity</p> <p>4.2.1 Records of dialogue</p> <p>4.2.2 Citation of research outputs in policy statements.</p>	The wider political environment is conducive to inclusive policy-making processes.



Annex 2: CCAA financial summary 2006-2007

Budget vs Actual Allocations
April 1, 2006 to March 31, 2007
Final figures, as of May 17, 2007

	2006-07			2007-08 Budget	2008-09 Budget	2009-10 Budget	2010-11 Budget	TOTAL
	Budget	Actual Allocations	Variance					
Operations:								
PMU Staff	\$622,669	\$627,041	-\$4,372					
Technical Support	492,050	160,675	331,375					
Advisory Board	80,000	57,071	22,929					
Other	828,710	734,691	94,019					
Dissemination	0	0	0					
	2,023,429	1,579,479	443,950	3,212,873	3,277,139	3,130,532	3,484,385	15,128,35
Programming:								
Expert Network	225,000	225,000	0	1,000,000				
Monitoring and Evaluation	0	0	0	2,000,000				
Research & Capacity Development	12,791,500	10,206,804	2,584,696	16,084,696				
	13,016,500	10,431,804	2,584,696	19,084,696	13,500,000	491,505	0	43,508,005
TOTAL (CAD)	\$15,039,929	\$12,011,283	\$3,028,646	\$22,297,569	\$16,777,139	\$3,622,037	\$3,484,385	\$58,636,363