Stage I & II Application for GFDRR Track II Support

Proposal Stage 1 Information

Title: Climate modeling and risk management

Fiscal Year: 2008

A1. Proponent

Non-Bank Proponent:

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A2. Geographic Focus of Proposed Activity

Region: Africa

Country(s): Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania, Uganda

Justification for multi-country activity

The countries in the GHA region share pronounced climatic trends and variability and are vulnerable to extreme climatic conditions. Global climate models indicate that changes in climate in the region are expected in a global warming scenario. These are likely to include changes in the intensity, duration, and frequency of droughts and floods, heat waves, etc., and will have serious implications for agriculture, human health, and many other human activities. The proposed programme is intended to help the concerned communities in GHA countries assemble the necessary climate observations and to understand and use a powerful tool--regional climate modelling--that can help GHA countries design adaptation policies and reduce climate-associated risks. The programme will i) assess regional climate trends and the adequacy of global and regional climate observations for adaptation purposes, ii) assess the adequacy and reliability of available model-based climate projections for adaptation needs, and iii) provide qualified indications of expected climate change for assistance in developing effective adaptation and climate risk management strategies. The programme is inherently regional in nature since, to be useful, regional climate models need observational support from as wide a region as possible. Climate does not recognize national boundaries, so in order to analyze and validate models, it is necessary to take a regional approach.

A3. Sector Focus of Proposed Activity

Sector focus: Other

Rationale for intervention in the sector selected above:

n/a

A4. Summary of Proposed Activity and implementation strategy

Briefly describe [in 5000 characters or less] the activity proposed for GFDRR funding. The proposed activity should clearly link with the country Poverty Reduction Strategy, its Country Assistance Strategy, UNDAF, NAPAs, etc.)

The outcome of the programme for the participating countries and the region as a whole will be an improved ability to use regional modeling techniques to assist in the development of adaptation and climate risk management strategies. Hence, individual countries and the region will be better prepared to manage risks associated with climate change. This will be achieved in a linked series of workshops: From first workshop: 1) using available climate observations, an assessment will be provided of current trends in the region and of the adequacy of available observation records to support such assessment. The assessment will contain a clear statement of the observational evidence of climate change in the region; 2) a strategy will be formulated on how to assemble the global and regional data needed to evaluate the performance of regional climate models in the IGAD region. This result will set up the second workshop. From the second workshop: regional models will be tested to determine how reliable they were in the region for projecting future climate change. Better understanding of the reliability of regional climate models will be the result, and, with this knowledge, the models will then be used to project likely future climate changes in the region (e.g., regional changes in rainfall, drought, etc.) From the third workshop: Using the outcome of the second workshop, representatives of the 10 IGAD countries will be trained in the proper use of regional models and in using model outputs to develop climate information products for effective adaptation and climate risk management strategies. At least 2 people from each IGAD country, including those involved in policy formulation, will be trained.

A5. Activity Objectives and Impact Assessment

Summarize the primary objective of the proposed activity and the key indicators against which the success of the activity might be judged. Include here how to meet HFA established benchmarks These may include for example: legislation or regulations to be drafted; institutions to be established or enhanced; specific policies to be developed; licenses, contracts or concessions to be drafted; likely or intended transactions to be conducted; and/or the estimated number of government officials or regulators to be trained, etc. Where possible, indicate the expected timing of the event or level of impact. This should include information on investments anticipated to be generated that directly address risk mitigation.

n/a

A6. Financing Plan

Once the activity is approved to proceed to Stage 2, a detailed budget will be requested. Present here a summary of the financing plan by major components. If co-financing is not yet approved, indicate the status of the request and any relevant timing (it is particularly important to indicate any estimates of government cash or in-kind contributions).

Major Components	GFDRR Request(US$)	Co-financing		Total Cost (US$)
		US$	**Source** (e.g., government cash or in-kind contributions; proponent own resources, donor funds)	
Consulting Services (fees, travel, per diem)	100000.0	10800.0	Proponent (GCOS)	$ **110,800.00**
Task Team Supervision Cost (fees, travel, per diem)	30000.0	56400.0	In kind (GCOS, WCRP, WCP)	$**86,400.00**
Dissemination Costs (Translation, editing, publication, etc.)	8500.0	0.0		$**8,500.00**
Logistics (Training, workshops, conference facilities, stakeholder consultation, etc.)	196500.0	6000.0		$**202,500.00**
Pilot Works (please specify and provide rationale for use)	45000.0	0.0		$**45,000.00**
Other (please specify)	19800.0	0.0		$**19,800.00**
Total Financing/Costs	$**399,800.00**	$**73,200.00**		$**473,000.00**

Rationale for use of Pilot Works or other:
n/a

Proposal Stage 2 Information

Government Endorsement of Country-Specific Activities Please indicate the name of responsible official and corresponding details for the government authority endorsing this proposal.

First Name	Maurice
Last Name	Shiramanga
Position	Permanent Representative of Burundi
Ministry/Agency	WMO
Country	Switzerland
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Baseline Information

Policy - *Does the government have a national policy on disaster risk reduction? How does this policy support risk reducing development in all sectors? Does this policy promote climate change adaptation? Include sources of information for assessing how the national government pursues disaster risk reduction policies in national and sub-national development processes. Identify challenges encountered.*

A policy on DRR does not exist. In 1998 a National Directorate of Civil Protection was created with the mission of preventing the negative impacts of disasters of all types. However, this Directorate only intervenes after emergencies, due to lack of resources. Resources and institutional capacities are the major challenges.

Strategy - *Describe how disaster risk reduction is integrated into the country development strategies, e.g., PRSPs, Socio-economic Development Plans, Country Assistance Strategies, UNDAF, National Adaptation Plans of Action, etc. Identify sources of information to support this assessment, including challenges encountered in implementing these strategies.*

The National Action Plan to combat drought and land degradation under the ministry of Environment and Territorial Management integrates appropriate land use and mitigation of the effects of drought. Other interventions at ministerial level include erosion control by the ministry of Agriculture and management of river banks by the ministry of Public Works. There is no formal integration of DRR in development strategies

Institutional, legal and regulatory framework - *Is there a national coordinating agency for disaster risk reduction? Describe briefly the institutional and regulatory frameworks facilitating the coordination mechanism.*

The Directorate of Civil Protection under the ministry of Public Security. Coordination is rather weak, as this Directorate has no means to operate. The country does not have means to implement preparedness and prevention measures. Action comes with response when an emergency has occurred. Response is often undertaken by NGOs.

Country Programming and Financing - *How do national programs and projects assess hazards vulnerabilities, capacities, and manage risks in different parts of the country? Describe briefly how the country national budget support disaster risk reduction and define the national government direct budgetary support mechanism[s]. What % of GDP is currently planned for risk reduction, relief and recovery? Who are the major donors supporting risk reduction programs through budgetary support to government?*

There is no practice of systematic risk assessment, prevention and preparedness in the country. The major source of risk information is the Early Warning System for Food Security supported by FAO.

Proponent Organization Project Cycle Management - *Describe how disaster risk reduction is integrated into your organization project planning, project implementation; project evaluation and/or project re-design processes. Describe challenges faced and plans to overcome these in different sectors, particularly the sector in which this proposal is being made.*

Disaster Risk Reduction has been endorsed by the 15th WMO Congress (May 2007) as one of its highest priority areas. WMO has established a Disaster Risk Reduction (DRR) Programme, founded to assist implementation of the Hyogo Framework for Action at national, regional, and international levels. WMO's strategic priorities in DRR are defined by the document WMO Strategic and Operational Strategies 2008-2011. It has concrete initiatives underway at national and regional levels that are coordinated by the ten WMO scientific and technical programmes. These programmes leverage international expertise, resources, and capacity as well as build partnerships with ISDR System Partners. WMO operates in the context of a 5-phase Results-Based Management Framework, which includes project identification, planning, implementation, monitoring, and reporting). Financial management is linked to the WMO four-year financial cycle and includes stringent oversight and accounting practices. Proposed projects are developed on the basis of national needs and priorities and in close collaboration with national and regional partners. The WMO approach is to develop strong capacity through working directly with national institutions. GCOS, WCRP, and WMO/WCP identify disaster risk reduction as a key factor driving their work. In the case of GCOS, the focus is on improving observations of the climate system for a variety of user needs including disaster risk reduction. WCRP provides leadership on world-class research into climate variability and climate change to meet end-user requirements and policy needs, including climate analysis and prediction for improved risk management. WMO/WCP has sub-programmes dealing with climate data and monitoring and climate applications and services, including its Climate Information and Prediction Services (CLIPS) Project. As for ICPAC, one of its principal missions is to foster regional and national capacity building for using climate information and prediction products and services, and for undertaking early warning and other applications related to sustainable development in the IGAD Greater Horn of Africa Region. ICPAC closely works with the NMHSs of the GHA region, providing a strong basis for its climate activities.

Nature of Proposed Activity

Primary Nature:	• Institutional Capacity and Consensus Building (Includes Advocacy and Training)
Secondary Nature:	• Emergency Management
Expected Outcomes:	• Dedicated and adequate resources are available to implement disaster risk reduction plans at all administrative levels.
Result Indicators:	• Future Staff and Resources for Function • Plan for Sustainability of Effort • Provision for Application/Enforcement
Output Indicators:	• Analysis Completed • Conclusions Developed with Relevant Host Agencies • Data Collection Completed • Training of Local Capability
Other Indicators:	
Primary Deliverable:	• Analytical Publications, incl. formal ESW and AAA

Primary Type of Outcome and Results

Briefly describe results anticipated from this proposed activity, e.g., % annual increase in investments in hazard prevention and mitigation, % annual decrease in mortality and economic losses, compliance with the HFA, etc. Define which natural hazard is being addressed by such results.

The outcome of the programme for the participating countries and the region as a whole will be an improved ability to use regional modeling techniques to assist in the development of adaptation and climate risk management strategies. Hence, individual countries and the region will be better prepared to manage risks associated with climate change. This will be achieved in a linked series of workshops: From first workshop: 1) using available climate observations, an assessment will be provided of current trends in the region and of the adequacy of available observation records to support such assessment. The assessment will contain a clear statement of the observational evidence of climate change in the region; 2) a strategy will be formulated on how to assemble the global and regional data needed to evaluate the performance of regional climate models in the IGAD region. This result will set up the second workshop. From the second workshop: regional models will be tested to determine how reliable they were in the region for projecting future climate change. Better understanding of the reliability of regional climate models will be the result, and, with this knowledge, the models will then be used to project likely future climate changes in the region (e.g., regional changes in rainfall, drought, etc.) From the third workshop: Using the outcome of the second workshop, representatives of the 10 IGAD countries will be trained in the proper use of regional models and in using model outputs to develop climate information products for effective adaptation and climate risk management strategies. At least 2 people from each IGAD country, including those involved in policy formulation, will be trained.

Consistency with GFDRR Mission

Describe briefly how this specific activity would contribute to GFDRR overarching objective of reducing vulnerabilities to hazard and help eliminate poverty and achieve sustainable development

Poverty reduction and national development in much of Africa, and certainly in the IGAD region, are being held back by the variability and extremes of climate. The livelihoods of millions of Africans are dependent on a climate that is not only highly variable and unreliable in the short term but is also expected to change in the longer-term. Effective management of climate variability and change to reduce vulnerability requires that climate information be available, that it be used effectively in planning, and that climate risk be incorporated routinely in development decisions. To accomplish these ends, adequate high-quality observations of a number of climate-related variables are essential. Good observations acquired over extended periods make possible an understanding of both average climate conditions and the frequency of occurrence of significant extreme events. They thus contribute to better planning and decision making related to agriculture and food security, coastal zone management, water resources management, human health and well-being, disaster risk management, tourism, etc. Observations provide a factual basis for current climate change and an indication of shorter term future change. For their part, global climate models provide large-scale projections which are applied to regional scales using "nested" regional models or other "downscaling" techniques. Each of these regional approaches depends on verification with observations to assess their reliability, but regional approaches can potentially provide a basis for improved guidance and an ability to assess probable climate change over longer time scales. As such, if verification of models can be achieved and their strengths and weaknesses better understood, then climate models should be able to provide the best available projections of future climate and therefore be extremely useful tools in adaptation planning, including disaster risk reduction. Integrating the latest scientific advances into regional and national climate information delivery systems through capacity building, technology transfer and consensus approaches will help in establishing effective climate inputs into disaster risk reduction strategies in a sustained manner.

Coordination Issues

Describe how the proposed activity is related to recently completed, ongoing or proposed activities funded by international financial institutions or official donors, and list these activities and their sponsoring agency. What measures have been taken to ensure that the activity is not in conflict with programs or activities of donors, including the World Bank? Also include here coordination with other development partners in terms of project preparation.

In December 2004, the Conference of the Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC requested) its Subsidiary Body for Scientific and Technological Advice (SBSTA) to develop a structured programme of work on impacts, vulnerability, and adaptation to climate change (Decision 1/CP.10). This programme was adopted at COP-12 in November 2006 and named the Nairobi Work Programme (NWP). Within the NWP, the SBSTA has identified 9 areas of work. Three of these are data and observations (which is the priority concern of GCOS); climate modeling, scenarios, and downscaling (which is a priority interest of WCRP); and climate related risks and extreme events (an area of activity for WMO/WCP). Furthermore, WMO and GCOS were specifically asked to provide their views to SBSTA on how their work could contribute to the NWP. Given the important linkages between climate observations, climate models, and the uses of both good observations and reliable models for assisting sustainable development in multiple socioeconomic sectors, GCOS and WCRP decided to provide an integrated response to SBSTA, with inputs from WMO/WCP. Thus, two separate but harmonized submissions to SBSTA will soon propose a joint programme of activities in ten or more separate developing regions of the world to address the need for observations for adaptation purposes, to assess the adequacy and reliability of regional models for adaptation needs, and to provide indications of expected climate change to assist regions in developing effective adaptation and climate risk management strategies. The WMO's WCP is also fully integrated into the jointly proposed programme but is not submitting a separate paper to SBSTA. This current proposal for the three programmes to partner with the ICPAC to develop and implement a series of workshops on observations and modelling for the IGAD countries is consistent with the recommendations and proposals of GCOS and WCRP in their SBSTA submissions. This programme for the IGAD region, if funded, could be seen as a pilot activity for the series of workshops to be proposed in other regions of the world for which we eventually hope to secure funding. While the activities proposed encompass obvious needs in developing regions, they have not been undertaken in depth in any region. We thus believe that similar programmes will be important to undertake in other developing regions. We would, of course, be pleased if the World Bank would eventually consider supporting our broader proposed programme (see, for example, the GCOS submission to SBSTA, attached as supporting information), but in any case, GCOS, WCRP, and WMO/WCP will be seeking contributions from multiple donors to support the other regions included in the broader programme. The proposed activities also follow on naturally from the GCOS Regional Workshop Programme, funded partly by the Global Environment Facility and completed in 2006. This programme resulted in the drafting of Regional Action Plans that focused on addressing the highest priority observing system needs in each of ten developing regions. One of the first regions in which GCOS provided assistance in developing an Action Plan was Eastern and Southern Africa (ESA). As a result, GCOS already has worked with institutions in this region, including especially ICPAC. The proposed workshop programme would assist fewer countries than those included in the ESA workshop (10 rather than 23); however, for a first attempt at organizing a complex series of workshops, this number is considered more manageable. WCP liaises directly with the NMHSs in the IGAD counties to improve their climate data management and monitoring, climate applications and services, climate coordination, regional networking, and user liaison. Moreover, WCP also has a strong and continuing relationship with ICPAC. Technical coordination of the 3-workshop programme will also be enhanced by the establishment of an advisory committee consisting of international and regional technical experts. This committee will hold a preparatory meeting (see Section C1) prior to the first workshop to advise on programme implementation details. Selected members of the technical committee will also participate in one or more workshops.

Implementation and Financing Plan

Implementation Approach and Schedule - *Briefly describe each element of the implementation approach (a) the implementing entity (e.g. consultants, government officials, etc); (b) for country-specific activities, key counterpart institutions; (c) measures to involve key stakeholders; and (d) how the output of the activity is proposed to be disseminated, including its target audience. Indicate a beginning and end date, as well as major milestones. If a multi- phased approach is proposed, include indicative timing for all major activity phases.*

Structure: The proposed programme would consist of a preparatory meeting and then a phased set of three workshops. The preparatory meeting would bring together approximately 15 people to plan the specific content of the three-workshop series. Most would be likely contributors to the content of the workshops, and these would include international experts (for example, modeling experts from organizations such as the UK's Hadley Center and the U.S. National Climatic Data Center); key people from within the region; and all proponents. This preparatory activity would be very important to ensure the smooth implementation of the three workshops and to devise a practical structure to ensure success. The agendas for the three workshops would be considered, and the materials required for each workshop would be determined. This meeting, as well as the first two workshops, would be held at ICPAC facilities in Nairobi, Kenya. The first regional workshop, which GCOS would lead along with WMO/WCP's World Climate Data and Monitoring Programme (WCDMP), would: 1. Use available national and international records to provide an assessment of current regional climate changes in the IGAD region; 2. Assist the IGAD countries to assemble other available regional climate records required for the verification and use of regional climate models (this would include regional meteorological data for the past few decades and relevant satellite data, including information on aerosols, sea surface temperature, sea ice, land cover, and albedo; 3. Establish priorities for IGAD counties for the assembly of other available regional meteorological climate records required for the verification and use of regional models, especially by encouraging the recovery of available historical data that are not in a form useable by global and regional models; and 4. Assess data deficiencies and the difficulties and weaknesses of the region to provide the required regional and global data, thus following up the GCOS Regional Workshop Programme to secure initiation of needed observations and data records. This first regional workshop would convene approximately 20 experts. These would include one person from each of the IGAD countries engaged in examining and analyzing meteorological data. It would also include several regional experts in the use of oceanic and/or terrestrial data. And, finally, several experts would represent the modeling community, including at least two of those who had attended the preparatory meeting. The second regional workshop, to be led by WCRP with support from WMO/WCP's World Climate Applications and Services Programme (WCASP), would: 5. Use the assembled climate records from the first workshop and work with regional experts in all regions to assess the capability of regional models (including, but not limited to, the Hadley Center's PRECIS model) to simulate the climate record to the present day; and 6. Use available regional models (and, implicitly, results from global models) to undertake projections of climate change in each region and use the evidence of model performance over past decades to qualify the reliability of these projections. 7. Facilitate the application of regionalization techniques within the IGAD countries and regional activities such as the Greater Horn of Africa Climate Outlook Forum (GHACOF). The second regional workshop would include a mix of international modeling experts and representatives from organizations in the region involved in modeling. Fifteen to 20 people would be invited to participate. Organization for the third and final workshop needs wider representation and could be shared by GCOS, WCRP, WMO/WCP, and others such as SBSTA. The workshop would be policy oriented and would bring together representatives of the user community and IPCC Working Group II experts to: 8. Consider how these global and regional climate projections and their qualifications could best be used to develop effective adaptation strategies; and 9. Build regional capacity to use climate model projections in the design of adaptation and climate risk management policies. This last workshop would be the largest of the three. Participants would include at least two people from each of the IGAD countries, at least one of whom would be involved in policy formulation (this person could be the national climate change coordinator of each country and/or someone involved in the preparation of the country's National Adaptation Plan of Action (NAPA)); several regional modelers; several international modelers; and several experts who have participated in IPCC Working Group II (which covers impacts, adaptation, and vulnerability to climate change). To launch workshop discussions, an international speaker would underscore both the importance and limitations of regional models, and a regional speaker could introduce the likely types of adaptation and risk management options available in the region. In all, about 30 people would be invited. This meeting need not necessarily take place in Nairobi, but could be held in another convenient location with appropriate facilities within the region, perhaps Arusha, Tanzania. Timing of Activities & Key Milestones: Assuming the workshop programme is approved (month 0) the preparatory meeting would be scheduled to be held approximately 5 months later (month 5). Thus, if the programme is approved and funds released on 1 January 2008, the preparatory meeting could be held before the end of May. The first workshop, focusing on observational needs, would be planned for month 11; the second, focusing on testing model reliability and model outputs, for month 19; and the third, focusing on the use of model outputs in adaptation planning, for month 27. A final report would be delivered by month 30. Thus, in all, the duration of the programme would be 2.5 years. The proponents anticipate that well before the third workshop in this "pilot project" is terminated, funds will be secured for the broader programme of regional workshops and thus that planning for the next region to be addressed will already have commenced. (This could be for the Southern Africa region, for example). Use of consultants and of GCOS, WCRP, and WCP staff: Selected GCOS, WCRP, and WCP staff would undertake overall management of the activity and participate in planning and implementing the workshop programme, with GCOS taking the lead in planning the observation workshop, WCRP taking the lead in planning the modeling workshop, and all three having an equal role in planning the adaptation workshop. A contractor with appropriate experience would also be needed to assist in bringing together all the needed participants and handling the logistical arrangements for participants. This contractor would also have the lead responsibility to ensure the success of the programme as a whole. It is proposed that this person be under the lead supervision of the GCOS Secretariat and that he or she would take the lead in planning the preparatory meeting and the first workshop; assist in planning the second and third workshops; provide the crucial link between all activities; interact with WCRP, WCP, ICPAC, and other partners; and prepare the final programme report. These responsibilities would require 9 months of salary and benefits support over the course of the 2.5-year programme, valued at US$115,000. The Role of ICPAC: The IGAD Climate Prediction and Applications Center would be the host institution and regional organizing partner for the first two workshops and the regional organizing partner for the third workshop. ICPAC has contacts with all National Meteorological and Hydrological Services in the IGAD region and also with other relevant government ministries in these countries. ICPAC also has the appropriate facilities with which to host the first two (smaller) workshops. Some of its staff have skills in regional modeling, and other staff would be available to assist with local organizing needs. ICPAC would require some local support for its role in assisting the organization and implementation of the workshops and to hire someone to monitor model simulations, which may take up to four months to complete, between the first and second workshops. (Technical assistance for the model simulations at ICPAC would be provided by WCRP, WCP, and the concerned modeling groups). Measures to involve key stakeholders: The ultimate stakeholders who need to benefit from this exercise are those practitioners in the various user communities (agriculture, health, coastal zone management, water resources management, disaster risk reduction, etc.) that use knowledge about current and projected future climate in planning. It is, of course, impossible to reach directly all such stakeholders through a limited set of workshops. Hence, the programme is designed to include representatives of the key stakeholders in the third policy-oriented workshop, which is intended to have a context that would attract the interest of the key people. As noted above, these will include either national climate change coordinators or those involved in the preparation of NAPAs. Dissemination of Outputs: For the workshop programme to have lasting value, it will be important that results are widely disseminated and that some follow up activities are encouraged.

It is expected that this will be done, in the first instance, by the policy-level participants, who will return to their respective ministries following the third workshop and begin to put what they have learned into practice, in part by helping to educate others in their ministries. Each of the participants will be asked to prepare a short report on what they have learned and on how their new skills could be employed in their respective countries. The results of the series of workshops, and in particular, the outcomes of the third workshop will be documented in a final report. This report will be disseminated to appropriate institutions and government ministries throughout the IGAD countries. Five hundred copies (50 per country) of the report will be printed and will be distributed by ICPAC.

Detailed Budget -
Please attach a detailed budget clearly indicating sources and uses of fund, including co-funding sources.

Please refer to attached document.

Quality Assurance Mechanisms, Replication, Scaling Up, Monitoring and Evaluation- *Describe the measures that will be in place to ensure the activity is subject to independent quality review (e.g., external peer reviewer or advisory groups. Briefly describe how experience and lessons learned in proposed activity will be scaled up, disseminated.)Describe specific performance indicators and how these will be monitored during project implementation.*

Independent Quality Review: The participants in the preparatory meeting will serve as an informal advisory panel for designing and implementing the 3-workshop programme. Most of these people will be skilled experts in modeling and/or climate observing issues, and their principal task at the meeting will be to help design a programme that can effectively reach its goals. Quality will be further assured because several of those involved in the preparatory meeting/advisory panel will be invited to participate in each of the three workshops. Scaling Up Lessons Learned: As noted in Section B6, although the present proposal seeks funding only for a set of regional workshops in the IGAD region, it is intended by the principal proponents that the programme eventually be scaled up to include all developing regions. These regions could include the same regions that were included in the GCOS Regional Workshop Programme, that is, the Pacific Islands, Eastern and Southern Africa, Central America and the Caribbean, East and Southeast Asia, Western and Central Africa, South America, Central Asia, South and Southwest Asia, Eastern and Central Europe, and the Mediterranean Basin. In this first workshop series, a conscious decision was made to focus on a smaller number of countries (i.e., the 10 IGAD countries) than were included in the GCOS Regional Workshop for Eastern and Southern Africa. This was done with the expectation that such a number would be more manageable in the first set of workshops and that experience would be gained that would allow more efficient implementation in other regions. One of the sections of the final report will cover lessons learned for use in organizing subsequent regional workshops. Performance indicators: The first workshop will be successful if the representatives of each of the participating countries obtain accurate information about the adequacy of available observation records and if they understand what data are needed to implement the second workshop. A key performance indicator will be data subsequently assembled and brought to the second workshop for use in the modeling exercise. The second workshop will be successful if an assessment of the reliability of available regional climate models can be made from their use in projecting the current climate of the region and then, with a better understanding of the degree of reliability, the models are used to project future climate. The key performance indicators are the assessment of reliability and the model outputs projecting future climate. The third workshop, and hence the programme as a whole, will be successful if capabilities within the region to use regional models in developing strategies for adaptation and climate risk management are improved. Thus, one of the early performance indicators will be the number of representatives of the IGAD countries trained both to use regional models and to recognize their limitations. In the longer term, the key performance indicator will be the instances in which regional models subsequently are used to help design adaptation strategies and to inform decision makers involved in ensuring sustainable development. ICPAC, with its continuing interaction with the IGAD countries, will be able to keep track of these instances.