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Report to USAID
First Annual Report on the RCPA Project:
“Capacity Building in Regional Climate Prediction and Applications
for the Greater Horn of Africa”
AID AOTG 00990017900

September, 2000

1. Introduction

This report summarizes progress made during the first year on the USAID-funded project entitled Capacity Building in Regional Climate Prediction and Applications for the Greater Horn of Africa (AID AOTG 0099001790). Activities which took place prior to February 2000 were covered in detail in the first semi-annual report (February 23, 2000), and will only be referred to here for clarity.

2. Coordination meetings

Following on the project meeting at the 5th GHACOF in Arusha, Tanzania in February of 2000, the IRI's project manager, Dr. Jennifer Phillips, drafted a project implementation plan and timetable for activities. In April, Prof. Ogallo and the DMC's Applications specialist, Simon Gathara, came to New York to attend an International Forum on Climate Prediction, Agriculture and Development being held at the IRI. At that time, project activity plans and computer requirements were agreed upon.

On July 10th, Reid Basher, Jennifer Phillips, and Neil Ward, an IRI expert on climate and forecasting in Africa, traveled to Washington, D.C. for a meeting with Harry Proctor, Daniel Evans, and other USAID representatives to give a presentation updating progress on the project.

Representatives from DMC, IRI, USAID and WMO attended the 6th GHACOF, held in Kisumu, Kenya, from August 14th to 18th. During that time both formal and informal meetings were held, updating on project activities. It was agreed at that time that a formal revision in the project agreement between the IRI and USAID will be submitted to reflect the changes between the original agreement and the workplan detailed in April of this year. In particular, the change from a single workshop to a series of targeted workshops, and the need for a no-cost time extension on the project will be reflected in the revised documentation.

3. Implementation progress

Responsibilities and timetable for implementing project objectives I through IV are detailed in the attached table (RCPA Gantt.xls)

3.1 Objective 1: Implementation of the Regional Seasonal Climate Prediction System (RSCPS)

3.1.1 Acquire Equipment: Falling prices allowed for identical computer systems to be purchased for installation at the DMC and, during training, at the IRI, so that the training period would be accomplished in a computing environment identical to that which would be used operationally. Both computers have been ordered and delivery is now expected at the end of September. At the end of the project period, the computer installed at the IRI will be delivered to the DMC. In addition to the main IBM computer purchased for the DMC, four powerful IBM PCs and a large-format color printer were ordered for post processing of model output at the DMC.

Systems Training completed: The IRI proposed that the computer systems administrator from the DMC attend a one-week course offered by IBM on the specific system being purchased for the DMC. This was deemed important in order to ensure sustainability of computing capacity at the DMC. Under funding from the project, Ben Owuor from the DMC participated in the appropriate IBM course in New York between July 24 and July 28. During his stay, he visited with IRI staff for one day to review system requirements, meet IRI staff with whom he will need to communicate for systems support, and learn more about application approaches.

3.1.2 Prepare and Implement Software: Considerable preparation by our regional modeling specialist, Liqiang Sun, is being conducted, including adaptation of model code and updating of simulation output routines, in advance of the computer arrival.

3.2 Objective 2: Extended Training of DMCN personnel at the IRI

3.2.1 Train DMC personnel and develop forecasting system: Two regional climate scientists have been selected by the DMC for in-depth training during October and November 2000 at the IRI. Housing arrangements have been made for trainees.

3.2.2 Host the DMC Applications specialist: An agenda for the visit in November 2000 by the applications specialist from the DMC, Simon Gathara, to the IRI is being discussed, based on needs identified during the visit of the project manager, Jennifer Phillips, to the Greater Horn Region in July and August 2000. Housing arrangements have been made.

3.3 Objective 3: Workshops for Applications of Climate Forecasts

The four workshops themes detailed in the RCPA Work Plan: Improving Communications Skills at the Met Services; National-level Climate Forum; the Role of the Media; and Downscaling of Seasonal Forecasts.

3.3.1 WS Theme I - Improving Communications Skills at the National Met Services:

Further discussions were held with DMC representatives regarding the nature of a communications skills module to be included in the DMC capacity building course for the National Met Services that will be carried out in January 2001 prior to the development of the consensus forecast for COF VII. Based on these discussions and the recommendations made by both users and Met Service representatives at the GHACOF VI, materials will be developed by Simon Gathara and the IRI during Mr. Gathara's visit to the IRI in November of 2000. The IRI project manager will then arrive in Nairobi in advance of the next COF to assist Mr. Gathara in implementing and evaluating this module.

3.3.2 WS Theme II – National-level Climate Forum: Prototype for a Meeting between Users and Producers of Climate Forecast Products: Based on a proposal from the Rwandan Meteorological Service, Rwanda, partnering with Burundi, will be the site of one of the two prototype National Climate Forums to be developed and tested under the Workshop component of this project. In August, the IRI project manager met with representatives from these two countries and agreed to coordinate on a user-focused Climate Workshop to be held early in 2001. Since the two countries are small and share a common national language, they have agreed to collaborate in this effort. A draft scope and agenda are expected by the end of September. A European Union-funded NGO working in Rwanda has agreed to provide logistical and possibly financial support. The target date for the workshop is immediately following the GHACOF VII to be held in Uganda in February 2001.

Interactive exercises intended for use at such National forums have been designed to assist in improving comprehension and interpretation of climate forecast products among the user community. Concepts regarding climatology, mean versus median seasonal rainfall, rainfall distribution, and probabilities will be explored in a decision-making context. A parallel exercise is being developed for internet display for users who have internet access. These products are being developed under the guidance of a specialist in cognitive perceptions of risk at Columbia University and have been partially tested by university students. The prototype of one of these products was tested at the 6th GHACOF this August in Kisumu, and will be revised based on comments made by users participating in the exercise. Exercises and guidance materials will be standardized into a formal training package to be distributed within the Greater Horn, for use by Met Services and others who are assisting in communication of forecasts to a user audience.

3.3.3 WS Theme III: The Role of the Media in disseminating forecast information: This workshop is scheduled to be held in Kenya in July 2001. Initial materials will be tested

in Tanzania at a workshop being conducted by the Tanzanian School of Journalism, in collaboration with the Tanzanian Met Service, with funds from the DMC Pilot Projects.

3.3.4 WS Theme IV – Methods in Downscaling Seasonal Climate Forecasts: The target date for the workshop on downscaling seasonal forecasts at the IRI has been moved from September 2000 to January 2001. This workshop will be global in scope, and is funded under other sources but will involve two representatives from the GHA. Feedback from the GHACOF VI on the methods currently employed by the National Met Services to downscale regional climate forecast products will be used in formulating the agenda. Materials tested here will be used in improving the capacity building workshops conducted at the DMC in Nairobi.

3.4 Objective 4: Applications Projects

The two primary applications activities will serve to assess climate information product needs among a) institutional level users, and b) households in agricultural and pastoral communities in the Greater Horn. We have sub-contracted a researcher in the Department of Range Management, Dr. Ngugi, at the University of Nairobi, who has extensive experience with surveys to assist in both these assessments.

3.4.1 Institutional survey: Kenny Broad, an anthropologist at the IRI, is leading the institutional survey, the questionnaire for which has been drafted and is currently being tested in Nairobi by Dr. Ngugi. This draft was tested in interviews and through distribution at the GHACOF IV, and is currently under revision. Additional assistance in the final format and in distribution will be obtained from the FEWSNET regional office in Nairobi, under the guidance of Nick Maunder, the regional coordinator. The FEWSNET regional office is interested in collaborating in the analysis of the survey, and in incorporating results into improved DMC bulletins. Linkages to FEWSNET monthly products will be explored. Our contact at the EU food security unit in Rwanda has also agreed provide assistance in distribution and collection of the survey.

3.4.2 Household-level survey: A household survey has been drafted for implementation in Machakos District in Kenya, an agropastoral area of Kenya, and initial visit made by Robinson Ngugi, Simon Gathara, and Jennifer Phillips to the District Agricultural Commissioner for logistical support to conduct the work.

In addition to the survey in Machakos to be conducted by Dr. Ngugi, we have formed a formal Network of household surveys, Climate Applications in Rural Africa, or CARA. The purpose of CARA is to coordinate externally-funded survey activities to the benefit of the RCPA effort and extend the geographical range of information gathered. During late July and August, our team traveled to meet with the P.I.s of two survey projects, one in central Uganda and the other in Kwale District on the coast of Kenya, to discuss survey questionnaires and methods. Contact was also made with a group based at ILRI, the International Livestock Research Institute, that is studying pastoral communities in northern Kenya/southern Ethiopia. We will work closely with CARA Network collaborators to coordinate survey methods, analysis, and reporting of results. This

information will assist in the development of communications pathways, and targeting of information needs to improve the use of climate information in rural areas.

Project Title: Capacity Building in RCPA for the Greater Horn of Africa
 Client Project Number:

Project Leader: J. Phillips
 Project Director: R. Basher

Gantt Chart Version no.: 2.1
 Updated August 31, 2000

Objectives And Tasks			Personnel Time Units: Hours									Scheduling of Tasks Time Units: Quarters																					
Objective #	Task #	Objective And Task Description:	Phillips	Broad	Sun	Gathara	Ngugi	Basher	IRI staff	Rosen	DMCN staff	Ogallo	Total Hours	Mar-Apr-May 00	Jun-Jul-Aug 00	Sep-Oct-Nov 00	Dec-Jan-Feb 01	Mar-Apr-May 01	Jun-Jul-Aug 01	Sep-Oct-Nov 01	Dec-Jan-Feb 02												
1		Implementation of RSCPS																															
	1.1	<i>Acquire Computer Equipment</i>																															
	1.1.1	Develop proposals for computer systems	x							x		x		TC																			
	1.1.2	Select and order computer system	x					x				x		TC																			
	1.1.3	Oversee computer installation at IRI			x			x							x	x																	
	1.1.4	Oversee computer installation at DMC										x				x																	
	1.1.5	Arrange for Systems training at IBM	x								x				TC																		
	1.2	<i>Prepare and Implement Software</i>																															
	1.2.1	Install RSM software at IRI			x			x							x	x																	
	1.2.2	Develop pre- and post processing software			x			x							x	x																	
	1.2.3	Install completed RSM software at the DMC									x	x					x																
	1.2.4	Run Model Climatologies			x						x	x					x																
	1.2.5	Test regional forecasts			x						x	x							x	x	x	x											

Task Planned or In Progress:
 Task Complete: TC

Project Leader Sign-off:

IRI Project Management System
 Project Plan, P. 1

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5		Project Coordination																											
	5.1.1	Mid-project coordination meeting	x	x				x				x				x													
	5.1.2	Attend COFs VI, VII, VIII	x												TC		x			x									
	5.1.3	Final Project Coordinators Meeting	x	x		x	x														x								

Task Planned or In Progress:
Task Complete: TC

Project Leader Sign-off: _____