# Caribbean Agrometeorological Initiative

# CAMI

- Funded by the European Union's ACP Science and Technology Programme
- Partnership between CIMH (Applicant), WMO, CARDI, Ten Meteorological Services
- The total cost of the Action is estimated at 1,112,714.40 EURO
- The Contracting Authority undertakes to finance a maximum of 720,388.20 EURO, equivalent to 64.74% of the estimated total eligible cost of the action

### **Ten National Meteorological Services**

- Guyana
- Trinidad and Tobago
- Grenada
- St. Vincent and the Grenadines
- Barbados
- St. Lucia
- Dominica
- Antigua and Barbuda
- Jamaica
- Belize

The overarching objective of the Action is to increase and sustain agricultural productivity at the farm level in the Caribbean region through improved applications of weather and climate information using an integrated and coordinated approach.

## Specific Activities of the Action

- Development of predictors of the rainy season potential characteristics through analysis of long-term climatic data and use of seasonal to inter-annual climate prediction models
- Interpretation of the climate predictor and nearreal time weather information to support management decisions, especially irrigation scheduling
- Working with the agricultural research and extension agencies in developing an effective pest and disease forecasting system

## Specific Activities of the Action

- Preparation and wide diffusion of a user-friendly weather and climate information newsletter for the farming community
- Organization of regular forums with the farming community and agricultural extension agencies to promote a better understanding of the applications of weather and climate information
- Building capacity of the Meteorological and Agricultural Services and research institutions

# **Technical Approaches**

- Training workshops for National Met Service and Agricultural Extension Service Personnel
- Attachments to the region of experts on (i) DSS for pest management (ii) Crop-weather models and Irrigation Models
- Attachment of CIMH and CARDI staff at international research institutes (mainly to finish/improve upon work begun at regional training workshop
- Publication and Dissemination of Agromet Bulletins and other forms of weather and climatic information for farming and wider agricultural communities

### Activity – Year 1 (completed) Project Launch and Stakeholder Meeting

- CIMH, CARDI, WMO and meteorological services and agricultural ministries from the 10 countries, CCCCC, CAFAN...
- To begin much needed dialogue – Agriculture/Met
- Needs of agriculture from meteorology
- Capabilities of National Meteorological Services



#### Activity – Year 1 Data Rescue

- Using photographic imagery and data entry by 2 clerks at CIMH
- Some electronic data also collected
- Countries in which data has been already rescued – Guyana, Grenada, St. Vincent, St. Lucia, Antigua, Barbados, Trinidad and Tobago
- Focus on Jamaica and Dominica
- Proposal being developed to expand this activity beyond CAMI

### Activity – Year 1 (completed) Rainfall Analysis Workshop

- Rainfall (and temperature) analysis including data quality (checking, and gap filling); INSTAT, CAST, GENSTAT
- Present were Met Service Personnel and CARDI
- Joined by Agriculture Extension Officers for last two days
- Rainfall analysis training attachment for CIMH staff
- The desire for futher training for Met Services led to discussions between CIMH, CCCCC, University of Reading, UK Met Office
- Proposed training programme in Statistics in Applied Climatology – e-SIAC, f-SIAC January beginning 2011





### Activity – Year 1 (near completion) Current Analyses

- Since attachment at University of Reading development of rainfall and temperature analyses using stations in Belize, Barbados, Guyana, Trinidad and Dominica by CIMH/CAMI staff as demonstration
- http://www.cimh.edu.bb/c ami/rainwork.html



Rainfall Return Period (Years)	Barbados (CIMH)		
	Level	Confidence Limits	
		Lower	Upper
2	82.1	69.0	95.1
5	111.1	89.1	133.2
10	133.5	98.4	168.6
20	157.6	101.0	214.1
50	193.1	92.5	293.7
100	223.4	75.2	371.5

### Activity – Year Two

- Second Steering Committee Meeting and Seminar Belize December, 2010 (completed)
- Pest and Disease Modelling meetings (this meeting) and workshop (the current meeting)
- Training in developing bulletins, newsletters and other information publications (the workshop in 2 days time)
- Farmers Fora

### Activity – Year Two Training in Information Provision

- Key aspect of Action for Meteorological Services
- Particularly for type of information and layout of newsletters, bulletins

   key messages in a farmer friendly way
- Discuss a Communication Strategy for the agriculture and farming communities – CTA
- Strategy what media preferred (radio, cellular phone, internet)?



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## Activity – Year Two (Current) Farmers Fora 1

One-day duration and bring together farmers from a group of villages to a centralized location in any given region. Interactive and promote a good dialogue with farmers.

# Part I – Weather and Climate of the Farming Region, Climate Change and Farming Risks

The first half of the day is devoted to providing information on aspects of weather and climate in the region:

a) Weather - Short term weather forecasts, weather maps, weather forecasting terms

b) Climate - Seasonal climate patterns, climate forecasting, drought monitoring and alerts, using rainfall records

- c) Climate change in their region and implications
- d) Climatic risk in production of different crops in their region
- e) Better risk management

### Activity – Year Two (Current) Farmers Fora 2

#### Part II – Farmer Perception of Weather and Climate Information Provision and Feedback

The second half of the day is devoted to obtaining feedback from the farmers on the weather and climate issues in their farming operations and the nature of assistance they need.

Primary emphasis here is placed on free and frank exchange of ideas and information. This part of the Seminar will be designed in such a way as to engage all the participants in discussions and obtain full information from the farmers on their needs for weather and climate information and the ways and means to improve future communication of weather and climate information to them to facilitate effective operational decision making.

### Activity –Year 3

- Crop Simulation Models DSSAT, APSIM
- General agrometeorology with some emphasis on irrigation requirements and scheduling
- Second round of farmers fora more information than during the first series
- Final Stakeholder Conference