

REPORT OF THE FIRST CARIBBEAN AGROMETEOROLOGICAL INIATIVE (CAMI) STAKEHOLDERS MEETING

11 February, 2010

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INTRODUCTION

The first Caribbean Agrometeorological Initiative (CAMI) Stakeholders Meeting, hosted at the offices of the Caribbean Institute for Meteorology and Hydrology on Thursday 11th February 2010, marked the launch of the activities of the project.

REPRESENTATION

Attendees included meteorological and agricultural personnel from the national meteorological services of the ten participating countries (Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago,). The only exception to this was the absence of the Hydrometeorological Services of Guyana. (See full list of attendees at **Annex 1**).

Also represented were other CAMI partner institutions, namely the Caribbean Agricultural Research and Development Institute (CARDI) and the World Meteorological Organization (WMO). Other invited non-partner institutions included the Caribbean Community Climate Change Centre (CCCCC), the Caribbean Disaster Emergency Management Agency (CDEMA), the Caribbean Meteorological Organization (CMO) Headquarters Unit, the Inter-American Institute for Cooperation in Agriculture (IICA), the United States Department of Agriculture and the European Commission Delegation in Barbados and the Eastern Caribbean.

PRESENTATIONS

The session commenced with the welcoming of participants to the meeting by the Principal of the CIMH, Dr. David Farrell, followed by an address by the European Commission delegate Mr. Robert Baldwin. (See full Agenda at **Annex 2**) Mr. Baldwin took delegates through some of the other funded ACP Science and Technology awarded projects in the Caribbean, as well as other EU funded initiatives with potential links to CAMI.

Keynote Address – Dr. Raymond Motha

During the morning session, Dr. Raymond Motha, Chief Meteorologist of the United States Department of Agriculture, delivered the keynote address.

It was thought fitting to invite the USDA because of its wealth of experience in providing agrometeorological information to the agricultural - in particular farming – community, to deliver this address. The USDA's mission statement reads: "Keep the Nation's growers, USDA commodity analysts, as well as the Secretary and top staff informed of worldwide weather related developments and their effects on crops and livestock".

Dr. Motha guided the participants through the routine operational work of the agrometeorology department, some of which is done with other agencies and includes daily highlights of agricultural development, the preparation of weekly weather and crop bulletins and special

reports, Secretary Briefings and drought monitoring. He also highlighted the importance of monitoring and aftermath assessments from natural hazards such as hurricanes. Dr. Motha emphasised the importance of having a feedback mechanism involving the clientele (in this case farmers groups). This is important in modifying the type and way information is disseminated such that it maintains the interest of clients. Dr. Motha went on to make specific comments on the role of CAMI in the region. He noted the importance of understanding, from early, the weather and climate parameters that most affect agricultural economies of the region. In order for CAMI to be successful, it must also be established, from the beginning that this must be a group effort and the commitment must be for the long term.

Dr. Motha then commented specifically on the weather bulletins to be prepared in the Caribbean.

The following recommendations were made:

- A standardised approach and format.
- Each country prepares its own bulletin and disseminates it in a timely fashion, with a standardised version sent to regional host server for display, archiving and backup.
- There should be a coordinated effort between scientists and experts among different nations; thereby pooling resources for the best products for all involved.

WMO and Agremeteorology – Mr. Robert Stefanski

Another important presentation from outside the region was made by Mr. Robert Stefanski of the World Meteorological Organization (WMO), a partner of the CAMI project. Mr. Stefanski presented an overview of the WMO and its Agrometeorology Division. He highlighted the WMO Inter-Regional Workshop on Improving Agrometeorological Bulletins, which was held in Barbados in 2001 as an exercise relevant to CAMI.

The workshop proceedings documented guidance as to the approach, content and means of dissemination for CAMI bulletins.

One of the major outcomes of this workshop is the web-based international agrometeorological bulletin, WAMIS (World Agrometeorological Information System). WAMIS hosts tools and resources aimed at helping members improve the quality and presentation of their agrometeorological bulletins. Another WMO initiative with synergies with CAMI is the METAGRI project, which facilitated Roving Seminars on Weather, Climate and Farmers in West Africa. It was recommended that CAMI's farmers' forums could follow, where appropriate, the approach of these seminars.

Finally, Mr. Stefanski presented a programme being developed to concentrate on drought impacts and management; another initiative with links to CAMI.

The second session featured the regional presentations. These included:

Agrometeorology and National Hydrometeorological Services – Mr. Tyrone Sutherland

Mr. Tyrone Sutherland, Director of the Caribbean Meteorological Organization spoke on Agrometeorology in the Member States of the CMO. He highlighted the output from the region's meteorological services that can be used in agriculture, including radar outputs. He particularly highlighted the agrometeorological information emanating from Belize.

Agriculture and Climate in the Caribbean – Dr. Leslie Simpson

The next presentation on Farmers'Adaptation to Climatic Variability in the Caribbean was given by Dr. Leslie Simpson, Natural Resources Management Specialist, CARDI. He particularly identified rainfall extremes, tropical cyclones and the difficulty in planning for weather and climate systems that, in his opinion, are increasingly unpredictable.

He then outlined farming practices that can reduce the impacts of some of these weather and climate impacts including:

- 1) mulching, water harvesting, construction of ferro water tanks, drip irrigation to combat drought.
- o 2) the use of raised beds, adjusting planting dates to combat excessive rainfall.
- o 3) the planting of specific crops to combat hurricanes.
- 4) exclusion cages to reduce pest damage that are collapsible with the approach of a hurricane.

Mainstreaming Climate Change in Agriculture – Mr. Carlos Fuller

Mr. Carlos Fuller, Deputy Director of the Caribbean Community Climate Change presented on CentreClimate Change and Agriculture Activities in the Caribbean. Mr. Fuller gave an overview of the Centre. He also identified some of the key results from the Vulnerability Assessment of Agriculture in Belize, which focused on yield fallout of dry beans, rice and maize from climate change. He noted the capacity building exercises on use of biophysical models in climate change impact assessment, where the DSSAT software was a major focus.

The Caribbean Agrometeorological Initiative – Mr. Adrian Trotman

Another key presentation of the workshop was 'From Strategic Plan to Implementation', which introduced the CAMI project itself. This was presented by the CAMI Coordinator Mr. Adrian Trotman.

Mr. Trotman provided a background of the development of the CAMI through a strategic plan for agrometeorology, developed for CIMH and WMO/FAO Seminar on the Application of Climate Data for Desertification Control, Drought Preparedness and Management of Sustainable Agriculture in the Caribbean Region held in 2004 in Antigua. CAMI was presented as one of the three initiatives satisfying the CIMH Strategic Plan for Agrometeorology, the other two being the Caribbean Drought and Precipitation Monitoring Network and the Caribbean Agrometeorology Network.

Mr. Trotman emphasised the overarching object of the CAMI, which 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.

The partners of this EU funded project include CIMH (the applicant), WMO, CARDI and the governments of ten CMO territories (Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Vincent and the Grenadines and Trinidad and Tobago,) as represented by their Meteorological Services. The project runs for three years until November 2012.

Mr. Trotman proceeded to highlight the specific activities within the project for the next three years:

- 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 near-real 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.
- 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.
- Data Rescue.

To facilitate the expected outputs, the approach towards achieving these outputs including working toward the overarching goal was outlined. This included:

- 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 AgrometBulletins and other forms of weather and climatic information for farming and wider agricultural communities.

Some of the expected outcomes from CAMI as outlined by Mr. Trotman include:

• Improved ability of policy makers and extension agencies in exploiting the rainy season potential fully through strategic decisions and better preparedness strategies.

- Better informed farming community regarding the climate situation before and during the crop growing season.
- Improved capabilities in the farming community to make strategic and tactical decisions for soil and crop management and more efficient irrigation scheduling.
- Conservation-effective soil and crop management practices to reduce land degradation and improved long-term crop productivity.
- Greater farm incomes for small farmers due to improved crop quality and reduced use of insecticides through more effective pest and disease management.
- Enhanced incomes at the farm level for the small farmer through better applications of weather and climate information in soil and crop management.
- Enhanced linkages between meteorological services and agricultural research and extension agencies.
- Enhanced capacity of the farming community to understand and apply weather and climate information in their operational decisions.
- Enhanced capacity of Meteorological and Agricultural Services, CARDI and CIMH to perform the tasks relevant to the goals of the action.
- Increased interactions between the meteorological services, agricultural extension agencies and the farming community, resulting in the provision of better services to farmers.
- Availability of regular feedback to the meteorological services on the nature of services and products needed by farmers, resulting in the preparation of user-friendly products from the meteorological services.

Links with other Projects - CARIWIN National Water Information Systems - Mr. Trevor Thompson

A very useful aspect of the day was the recognition that other initiatives/projects in the region can provide important links to and information that can feed into CAMI. The Caribbean Water Initiative (CARIWIN), jointly implemented by the Brace Centre for Water Resources Management of McGill University, CIMH, and the partner countries of Grenada, Guyana and Jamaica, is the example presented at the workshop. Two activities of CARIWIN were presented; the National Water Information System (NWIS) of Grenada and the Caribbean Drought and Precipitation Monitoring Network (CDPMN).

Mr. Thompson of the Ministry of Agriculture, Grenada provided a background to the NWIS. Its significant contributions to water management in Grenada are:

- 1) the organizing of water data
- 2) providing easier access to data and
- 3) assesses the country's water resource.

The stakeholders of the NWIS include the Ministry of Agriculture, the Meteorological Services of Grenada, the national Water and Sewerage Authority and the St. George's University. He presented the many layers of variables within NWIS, but admitted that currently, mainly rainfall data is inserted. These can also overlay google earth.

Mr. Thompson also presented the different presentation formats of the information: tables of data and information, charts, ACSII files and maps. He emphasised that the system is very cheap, CAD30,000.00, which included the cost of the software, the consultation fee, training of staff and the collection and input of data.

Other advantages of the NWIS articulated were

- 1) that is uses open source software
- 2) there is one system for all agencies, data entry in any format
- 3) data extracted in many formats
- 4) can extract selected variables
- 5) reduced chance of transcribing errors.

Links with Other Projects – Rainfall Monitoring – Mr. Adrian Trotman

Caribbean Drought and Precipitation Monitoring Network presented by Mr. Adrian Trotman, Coordinator of the CDPMN. The vision of the CDPMN was articulated as "creating a culture of rainfall monitoring to combat the negative impacts of climate extremes and any future climate change".

Mr. Trotman noted that CDPMN was there to provide information on both extremes but was particularly developed with drought in mind. The indices and indicators often provide information on both sides of the rainfall scale. He indicated that the intention is to monitor rainfall on a regional scale (using rainfall indices only) and the national scale (where other indices/indicators such as soil moisture, vegetation information, stream flow and groundwater status can be used). He articulated that the rainfall status would be determined by consensus by a diverse community with interest in drought. He also indicated that the current precipitation outlook will be used along with the monitoring information to provide index outlook with a three month lead time.

In addition to monitoring trends, implementing early warning systems, and networking, the CDPMN will define knowledge gaps and uncover the needs to address extreme events and coping mechanisms.

WORKING GROUPS

For the final session, the participants were divided into working groups by country.

Each working group was asked the following six questions.

- 1. What information does the Meteorological Service in your country currently/normally provide?
- 2. What are the key crops in your country?
- **3.** What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?
- 4. Should the project focus on large or small scale farmers?
- 5. What additional products would you like to see from your meteorological service?
- 6. Which of 5 above do you think can be provided by your meteorological service?

A summary of responses from the individual countries is recorded below.

ANTIGUA AND BARBUDA

1. What information does the Meteorological Service in your country currently/normally provide?

- Met services in Antigua cater to Aviation, Tourism, and Agriculture etc. Agriculture
- Data bank reflects on a fair picture of climatology for many years over forty (40) years for rainfall.
- Hourly data collected including
- Temperature (daily Min and Max mean and extremes can be determined.
- Rainfall data collected from 13 stations on island.
- Airport rain station is most keenly monitored on a daily basis (4 readings every 24 hours)
- Cloud cover.
- Relative humidity
- Rainfall estimates (using models)
- Rainfall forecast (every four days)
- Evaporation (as it pertains to transpiration and key economic crops).
- Imports over \$30 million of fresh vegetables and plants, annually. North America and Central America, Caribbean (medium term weather outlook for these countries).

ANTIGUA

2. What are the key crops in your country?

- Onions
- Carrots
- Sweet Pepper
- Tomato
- Cabbage
- Pineapple

- Sea Island Cotton
- Mango
- **3.** What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?
 - Frequent imports
 - Drought, floods hurricane, seasonal pests and diseases

4. Should the project focus on large or small scale farmers?

• All farmers

5. What additional products would you like to see from your meteorological service?

- Rainfall information (short and medium range forecast)
- For land preparation, planting
- Module in the daily television presentation, to focus on agricultural weather report.
- Forecast for ash fall from Montserrat.
- Medium term weather outlook for north and Central America.
- Ministry of Agriculture establish a focal point to indicate to the meteorological station the relevant needs for agri-weather reports on a regular basis.

BARBADOS

1. What information does the Meteorological Service in your country currently/normally provide?

- Rainfall from at least 2 stations in each parish (St. Andrew 7/8 in the parish).
- Evaporation/ Evapo-transpiration at airport (Penman-Montieth)
- Sunshine Hours
- No UV index , Heat
- Temperature (max and min), humidity, wind speed, wind direction, cloud cover, low and high tides.
- Forecasting- 3 times daily, 4 day forecast (updated every day/week).
- Prepare information for weather news at night.
- Major events- get requests from insurance companies for a client/claim.
- Forecasting for aviation.

2. What are the key crops in your country?

- Sugar cane
- Sweet potatoes
- Yams
- Tomatoes
- Onions
- Carrots
- Cucumbers
- Cabbage
- Lettuce
- Sweet Peppers
- Beans
- Cassava

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Droughts (Dry Season)- Costly
- Cane Fires (in dry season) Costly, Frequent
- Wind Damage (in early months of the year) Frequent
- Pest and Disease (all year round e.g. powdery mildew in dry season, downy mildew in wet season).

4. Should the project focus on large or small scale farmers?

• We have emerging small scale vegetable farmers (more devastating on small scale), and we are committed to growing sugar cane for several other uses.

5. What additional products would you like to see from your meteorological service?

- Newsletter/ Bulletin
- Evapotranspiration data for Irrigation Scheduling
- Education on how Agro- Meteorology can influence production and improve yields.
- UV index data
- Solar Radiation Data
- Forecasting for agriculture.
- Meteorological data for use in developing crop insurance plans or policies.
- Yearly climate projections based on past climate data and worldwide climate patterns.
- GIS and remote sensing

6. Which of 5 above do you think can be provided by your meteorological service?

- Meteorological data for use in developing crop insurance plans and policies.
- Evapo-transpiration data for irrigation scheduling (if government or farmers are willing to provide a secure property).

BELIZE

1. What information does the Meteorological Service in your country currently/normally provide?

- 3- Day weather outlook
- Monthly rainfall

2. What are the key crops in your country?

- Traditional : sugar, banana and citrus
- Non-traditional: cereal crops, beans, peppers and vegetables

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Rainfall (too much; too little)
- Temperature becoming more relevant for new production systems
- Wind

4. Should the project focus on large or small scale farmers?

• Ministry of Agriculture and Fisheries mandate is service to small and medium farmers.

5. What additional products would you like to see from your meteorological service?

- Rain/dry season onset or cessation
- Almanac- moon phases etc.
- Day length information
- Evaporation

DOMINICA

1. What information does the Meteorological Service in your country currently/normally provide?

• The meteorological service presently provides daily weather forecasts and information to aviation.

2. What are the key crops in your country?

- Economic crops in order of importance.
- Banana/ Plantain
- Root crops (yams, sweet potatoes, dasheen, tannia)
- Passion fruit, pineapple
- Vegetable production
- Peppers (hot, seasoning)

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Weather related impacts.
- Pest and diseases
- Irrigation Planning (droughts/floods)
- Wind damage

4. Should the project focus on large or small scale farmers?

• Focus should be on small scale farmers.

5. What additional products would you like to see from your meteorological service?

• Quarterly/ Weekly forecast

6. Which of 5 above do you think can be provided by your meteorological service?

• Quarterly Forecast Online (CIMH)

GRENADA

1. What information does the Meteorological Service in your country currently/normally provide?

- Early warning
- Forecasting
- Rainfall
- Temperatures
- Relative humidity
- Wind
- Pressure
- Cloud Cover limited capability to do Evapo-transpiration Analysis and presentation.

2. What are the key crops in your country?

- Cocoa
- Nutmeg
- Bananas
- Vegetables
- Citrus
- Food Crops.

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Damages/loss of crops.
- Soil/Gully Erosion
- Pest/Diseases
- Financial Loss because of inability to harvest in areas where roads are not properly surfaced.

4. Should the project focus on large or small scale farmers?

• Both. In many areas the farms are small but add up to one large farming Area/Community.

5. What additional products would you like to see from your meteorological service?

- More detailed forecasting, early warning for dry or wet spells.
- Agricultural Weather Bulletin/Briefing on a weekly or monthly basis.
- Evapo-transpiration analysis/data.

6. Which of 5 above do you think can be provided by your meteorological service?

- Limited evapo-transpiration information.
- Agric Weather Bulletins

GUYANA

1. What information does the Meteorological Service in your country currently/normally provide?

- Information such as climate (3 monthly rainfall outlook) and weather forecasts (12 hour, 1 to 7 days).
- Data in weather and climate and water resources.
- Low and high tide alerts, etc. are disseminated via radio, television, through newspapers, bulletins and facsimile to various stakeholders.

2. What are the key crops in your country?

- Rice
- Sugar

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Drought
- Flood
- Pest and Disease outbreaks
- Saline Intrusion
- Breach in Sea Defences

4. Should the project focus on large or small scale farmers?

• The project should focus on all farmers

5. What additional products would you like to see from your meteorological service?

- Agro-Advisory Services
- Short and Medium Term Forecast 7 days

- Rainfall (intensity)
- Temperature
- Humidity
- Wind Direction
- Agro-advisory
 - Crop specific
 - Livestock
- Crop Status Projection

6. Which of 5 above do you think can be provided by your meteorological service?

• Specific information on Agriculture Meteorology is not done, due to inadequate human resources skills in Agro Meteorology. This area in Hydromet needs needs to be strengthened and it my hope that via the CAMI project it can be done.

JAMAICA

1. What information does the Meteorological Service in your country currently/normally provide?

- Daily weather forecasts and outlooks for towns and cities e.g. severe weather warnings.
- Give synopsis 3-4 times per day (Outlook)
- Provision of monthly rainfall summary and drought analysis to specific clients, also available on the website.
- Provision of added information at clients request e.g. evapotranspiration, rainfall data etc.
- Offer technical assistance to agencies in siting zones for potential met stations.

2. What are the key crops in your country?

- Sugar cane
- banana
- citrus
- coffee
- root tubers
- ginger
- condiments

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Drought
- Bush fire
- Floods
- Hurricane
- Landslides.

4. Should the project focus on large or small scale farmers?

• Both, however delivery of the information may differ considering the majority who are small farmers may not be privy to technology of readily receiving the information and may require group meetings as opposed to accessing via email for example.

5. What additional products would you like to see from your meteorological service?

- Better pest and disease forecasting.
- Improvement of rainwater harvesting infrastructure.
- Improve livelihood of farmers.
- Increase yield and consistency in production.

6. Which of 5 above do you think can be provided by your meteorological service?

• Considering the available resources and workforce, not much more can be done at this point.

ST. LUCIA

1. What information does the Meteorological Service in your country currently/normally provide?

Raw data:

- Temperature, Evaporation
- Relative Humidity
- Sunshine, Wind speed

Other:

- Climatological analyse
- Rainfall projection
- Summary
- Report

2. What are the key crops in your country?

- Bananas
- Cocoa
- Vegetables
- Root crops
- Citrus Fruits

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Droughts
- Floods
- Tropical cyclones
- Humidity diseases

4. Should the project focus on large or small scale farmers?

• Small scale agricultural farmers

5. What additional products would you like to see from your meteorological service?

- Medium to long term forecast in agriculture
- Integrated database for the Caribbean (Agro-met data)
- Bulletin/ Newsletter
- Estimate for agriculture

6. Which of 5 above do you think can be provided by your meteorological service?

• Forecast projections for agriculture

ST. VINCENT & THE GRENADINES

1. What information does the Meteorological Service in your country currently/normally provide?

• Daily forecasts in collaboration with the Barbados Meteorological Office. This includes tide information and weather forecasts are distributed to radio and television and other agencies.

2. What are the key crops in your country?

- Bananas
- Plantains
- Root crops (e.g. dasheen, eddoes and tannias)
- Vegetables for local market
- Arrowroot
- Ginger

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Wind
- Drought and heavy rains
- Pests and Diseases
- Soil erosion and landslides
- Leaching of fertilizers

4. Should the project focus on large or small scale farmers?

• Small farmers – These represent over 95% of the total farming population with over 70% of their farms being less than 5 acres in size. This group has few resources to address their issues on their own. There is a greater social impact on the country when there is a stable small farmer community.

5. What additional products would you like to see from your meteorological service?

- Longer term weather forecasts 3 days to 1 week
- Drought forecasts
- Rainfall intensity forecasts
- Information to help in obtaining risk information.
- Also needed Greater collaboration and networking between meteorological services, agricultural, water and electricity, guiratini services, as well as farmers' organisation, and agricultural agencies both locally and regionally, and other entities which are involved in weather data collection.

6. Which of 5 above do you think can be provided by your meteorological service?

• Yes, three day weather forecasts. Some of these could be done through regional networking.

TRINIDAD & TOBAGO

1. What information does the Meteorological Service in your country currently/normally provide?

- Provide public weather forecast, includes rainfall, temperature, sunrise/sunset, sea conditions, wind.
- Specialised reports, either on requests or what is continuously produced i.e. monthly precipitation and seasonal forecast.
- Provide data for clients' usage.
- Bulletins

2. What are the key crops in your country?

- Tree crops cocoa, assorted fruits, coffee, coconut, citrus, forestry (wood)
- Vegetable crops pumpkin, peppers, lettuce, okra, bandenia for local and international consumption.
- Root crops- recently within 3 to 4 years, mainly local consumption, cassava, yam, dasheen, eddoes to replace dependency on cereals.

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?

- Flooding Primary lost of entire crop.
- Ministry provide extension officers to process flood damage reports
- Dry season incentive to persons who construct ponds impact on pest and diseases,
- Weather oriented:
 - Dry season increase in insects; mites, thrips in vegetables.
 - Wet Season bacteria and fungi increase
 - splash borne disease
 - Wind Airborne diseases, fungal pathogens

4. Should the project focus on large or small scale farmers?

- Small scale farmers in majority and tend to be greater affected.
- Prefer to look at agricultural zones to ensure there is a capture of the microclimate of the agricultural community, so both large and small scales are looked at.

5. What additional products would you like to see from your meteorological service?

- Weather information across all agricultural zones, rainfall, temperature, humidity, wind etc.
- Farmer perspective, what to expect over short term period.
- A weekly advisory with a day to day distribution for short term planning.

6. Which of 5 above do you think can be provided by your meteorological service?

- Tailor made precipitation forecast for agriculture.
- Increase in data availability to cover agricultural zones which would improve a precipitation forecast geared towards agriculture.

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Caribbean Agrometeorological Initiative (CAMI)

Stakeholders Meeting

11 February, 2010

AGENDA

Time	Торіс	Speaker/Leader					
8:45 - 9:15	Registration						
9:15 - 9:25	Welcome	David Farrell, CIMH					
9:25 - 9:35	Remarks	European Commission Representative					
9:35 - 9:55	WMO and Agrometeorology	Robert Stefanski, WMO					
9:55 - 10:25	Key Note Address	Ray Motha, USDA					
10:25 - 10:40 Break							
	Chairperson: Mr. Chester Layne, Barbados Meteorological Services						
10:40-11:00	Agrometeorology and National Hydrometeorological Services	Tyrone Sutherland, CMO					
11:00-11:20	Agriculture and Climate in the Caribbean	Leslie Simpson, CARDI					
11:20-11:40	Mainstreaming Climate Change in Agriculture	Carlos Fuller, CCCCC					
11:40-12:20	The Caribbean Agrometeorological Initiative	Adrian Trotman, CIMH					
12:20-1:30 Lunch							
Chaiı	rperson: Mrs. Sheryl Etienne-LeBlanc,	Meteorological Services of Dominica					
1:30-1:50	Links With Other Projects- CARIWIN	Trevor Thompson, Grenada					
	National Water Information Systems						
1:50-2:10	Links With Other Projects	Adrian Trotman, CIMH					
	Rainfall Monitoring						
2:10-3:00	Working Groups According to Countries						
3:00 – 3:15 Break							
	Chairperson: Mr. Adrian Trotman, CIMH						
3:15-4:05	Reports from Working Groups						
4:05-4:30	Summary and Close of Meeting						