



St. Lucia Farmers' Forum

09th August 2011

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Caribbean Institute for Meteorology and Hydrology
Husbands
St. James
BARBADOS

I. INTRODUCTION

The St. Lucia Farmers' Forum, coordinated by the Caribbean Agrometeorological Initiative, was held at Tissue Culture Lab" at Union, Castries on August 09th, 2011.

The purpose of the forum was to help farmers become more self-reliant in dealing with weather and climate issues that affect agricultural production on their farms. The overall goal of the farmers' forums is to secure farmer self reliance, through helping them to be better informed about effective weather and climate risk management by sustainable use of natural resources for agricultural production.

(Link to generic agenda)

II. REPRESENTATION

Mr. Descartes, from the National Met Service in St. Lucia, welcomed attendees which included; vegetable and poultry farmers, two staff members of the Caribbean Institute for Meteorology and Hydrology (CIMH), Met services staff, as well as representatives from the Ministry of Agriculture.

(See full list of attendees at **Annex 1**).

III. WELCOME

The day's events started off with an address by Mr. Eden Compton, Director of Agricultural Services, Ministry of Agriculture, St. Lucia. In his remarks, a brief mention was made about the present agricultural situation, noting in particular, that there had been a decline in the production of bananas in St. Lucia.

After th. Director's remarks, participants introduced themselves.

IV. PRESENTATIONS

CAMI : The Project by Lisa Kirton-Reed – Technical Officer (CIMH)

The Caribbean Agrometeorological Initiative (CAMI) project is funded by the European Union's African, Caribbean and Pacific Group of Countries (ACP) Science and Technology programme, in partnership with CIMH, the World Meteorological Organization (WMO), the Caribbean Agricultural Research and Development Institute (CARDI) and ten Caribbean Meteorological Services.

The main objective of the project 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.

Some of the activities of the three year project apart from the stakeholder meetings and training in rainfall analysis workshops include some data rescuing, which started in the first year, along with rainy season prediction, with the use of long term climatic data. In the second year, training which geared towards the production of user- friendly weather and climate information newsletters for the farming community, has been completed, as well as the development of a Pests and Disease forecasting system. For the final year of the project, some crop simulation models for yield generation will be used and some emphasis on irrigation requirements and scheduling will be looked into, in time for the second round of farmers' forums and the final stakeholder conference.

Presentations

Weather and Climate of St. Lucia - Mr. Venantius Descartes, Meteorological Services of St. Lucia

In his presentation, Mr. Descartes first reviewed the history of St. Lucia's Meteorological Services, which began operation in 1979, taking us back to the type of instruments initially used for meteorological observations. Pictures were shown of the conventional instruments, such as the Stevenson screen, evaporation pan, and were compared with the modern Automatic Weather Station (AWS).

Definitions of the terms weather and climate were provided, after which Mr. Descartes went on to indicate the two seasons of St. Lucia - the wet season from June to November and the dry season from February to May. Some of the weather features responsible for St. Lucia's weather and climate apart from daily heating and cooling are El Niño, North East trade winds, fronts and tropical waves. With respect to rainfall, as much as 4000 mm of rain had been recorded in the mountainous south central part of the island, indicating the orographic influence on the island's rainfall. The rainfall trends for St. Lucia showed a steady increase from the 1970's to the 1980's.

From September of 2009, the island was affected by severe drought which ended in April 2010. However, later in that year conditions went from that of extreme drought to excessive rainfall with flooding episodes as occurred during Tropical Storm Tomas, .

Temperatures in St. Lucia show very little seasonal variation, ranging from 21° C to 28° C along the coast, but at the highest point can drop to around 18° C. It has been shown that the maximum

temperatures are increasing at about 0.2° C per decade. One participant wanted to know why there is this increase temperature.

An explanation of Public forecast terms – By Mr. Frederick - The National Met Service

In his presentation, Mr. Fredericks explained the various meteorological terms used; terms such as troughs, cyclones, tropical waves, hurricane watches and warnings, trying as much as possible to define them in such a manner that persons who are not too familiar with the science could understand.

At the end of this presentation one of the participants wanted to know why is it that one can stand in a dry area and watch the rain falling in another area. It is at this point that the subject of scattered and localized showers was raised in an effort to explain this.

The impacts of Tropical Storm Tomas on the island and the fact that there was very little warning of its severity, was also discussed.

Seasonal forecasts – By Adrian Trotman, CAMI Project Coordinator

Mr. Trotman focused on the normality of the Caribbean region in his presentation, whether or not conditions for the region would be normal, above or below normal. Mr. Trotman explained the use of tercile probabilities in this three-month rainfall outlook produced by the Caribbean Institute for Meteorology and Hydrology. This outlook is able to provide such information as to whether or not a particular region is expected to be wetter than normal, drier than normal or normal, for those months forecasted.

The main questions which were raised as a result of this presentation were whether or not temperatures and rainfall are increasing or decreasing. As the farmers in particular, wanted to get an idea as to how to organize themselves in the future, especially with respect to water storage in the case of drought.

Extreme Rainfall – Droughts and Floods – Adrian Trotman, CAMI Project Coordinator

The effects of extreme rainfall conditions were discussed here. For drought, it was noted that the year 2009 marked the beginning of a period of below-normal rainfall across the Caribbean, particularly from about the month of October, with most countries recording their lowest ever value in February 2010.

On the other hand, for the effects of flooding, above normal rainfall was predicted for the latter half of 2010, and it has been noted that rainfall totals have been above normal since May 2010.

These periods of above normal rainfall since the drought were indicated in the precipitation outlooks.

Climate Trends and Climate Change –By Lisa Kirton-Reed, Technical officer (CIMH)

This presentation dealt mainly with anthropogenic climate changes, whether or not they were any expected changes in rainfall and temperature and if the current trends support such future changes. Climate modelers suggest that temperatures will increase in the Caribbean, so much so that for the eastern Caribbean, temperatures exceeding 35 °C are expected to be a common feature, an event that is not normally experienced. The increase has been estimated to be from about 0.5 to 4.2°C any where from 2010 to 2099. Temperature trends in St. Lucia suggest that this increase is already taking place.

Rainfall is expected to decline during the century. However, the rainfall analysis, on the other hand does not currently show any statistically significant decreases. There is also suggestion from climate modelers that the reduced rain will fall with greater intensity, but there are still no definite statistically significant evidence on which this conclusion can be based thus far. However, if a decrease were to occur, this would result in a possible shift and reduction in the length of the rainy season, and an increase in drought episodes.

Weather, Climate and Pests and Diseases - Adrian Trotman, CAMI Project Coordinator

Mr. Trotman in his presentation looked at the effects of weather and climate on insect pests and diseases, and how different crops are affected by these various pests and diseases which exist in this type of environment. In particular, Mr. Trotman presented a summary of the pest and diseases meetings held in CAMI territories earlier in the year. Black sigatoka and Whitefly are of concern to the region

Some concerns which were raised after this presentation was the fact that not all of the pests that are affecting certain crops pertaining to the St. Lucia region were being addressed and a request for them to be looked into was made.

V. OPEN DISCUSSION – CIMH

Three Short videos were shown to participants from WMO showing:

- How agricultural information was disseminated via text messaging,
- Crop insurance
- The direct relationship between meteorological personnel and farmers

Farmers Working Groups

Participants were divided into three groups and several questions were asked to obtain information from the farming community, as well as the preferred means of communication and any other requirements needed.

1. What information does the Meteorological Service in your country currently/normally provide?
 - a. Daily forecasts
 - b. Aviation
 - c. For farmers upon request
 - d. Climate reports
 - e. Seasonal reports
 - f. Seasonal outlooks to industries
2. What are the key crops in your country?
 - a. Hot peppers
 - b. Sweet peppers
 - c. Melon
 - d. Tomatoes
 - e. Pumpkin
 - f. Cocoa
 - g. Cassava
 - h. Coconut
 - i. Banana
 - j. Plantain
 - k. Pimento
 - l. Watermelon
 - m. Cucumber
 - n. Cabbage
 - o. Bodi
 - p. Sweet potato
 - q. Orcho
 - r. Pawpaw
 - s. Fisheries
 - t. Livestock
 - u. Aquiculture
 - v. Apiculture
 - w. Citrus
 - x. Dasheen leaves
 - y. Pineapple

3. What do you see as frequent /costly impacts related to weather and climate that we have within our farming system?
 - a. Floods – erosion
 - b. High winds
 - c. Dry weather/drought
 - d. Bush fires
 - e. High humidity – costly due to specific disease and insect
 - f. Heavy showers – large droplets damages flowers and fruits. Also affects apiculture.
 - g. Excessive rainfall – fungicides
 - h. High temperatures – flowers and fruit drop, cracks, increase in insect population, leaf spots
4. Should the project focus on large or small scale farmers?
 - a. All farmers
5. What additional products would you like to see from your meteorological service?
 - a. Segment targeting agriculture – drought conditions, abnormal rainfall etc.
 - b. Specific seasonal forecast for agriculture
 - c. Quarterly outlook geared to the farming community for planning purposes
 - d. Bill boards with information on weather
 - e. Liaise with water resources to know how much water is available.
6. Which of 5 above do you think can be provided by your meteorological service?
 - a. All of above
 - b. Segment targeting agriculture
 - c. Specific season forecast for agriculture
7. Preferred means of communication
 - a. Ministry website
 - b. SMS
 - c. Farmer groups
 - d. Media

- e. Access to meteorological website
- f. Electronic billboards
- g. Extension advisory service to distribute information
- h. Morning and evening news
- i. Newspapers
- j. Radio

Discussion

Group 1

- The information currently provided by the Meteorological Service, are 24 and 72 hour forecasts and 3 month seasonal forecasts, however a 7 day is now being requested
- Most information data is provided for people on request who are doing research, as well as to farmers, fishermen etc...
- Meteorological information is useful in that it helps the farmers to prepare for extreme weather conditions such as drought, by putting mechanisms in place for water storage.
- A request for severe weather information to be provided to the farmers via cell phones, whereas, the other weather forecasts, such as seasonal forecasts can be sent out by radio, T.V and newspapers.

Group 2

- The Meteorological Service is currently providing information on precipitation, sea conditions, degree of visibility, temperatures, rainfall, cloud cover and relative humidity in daily forecasts. Also weekly and 3 day forecast.
- A request for soil temperatures and evaporation data was mentioned
- A request for the provision of special bulletins for farmers
- The use of cell phones, radio and television for receiving meteorological information
- An improvement in the manner in which information is disseminated during severe weather by the Meteorological Office and the media is needed.
- More focus must be placed on problems with pests and diseases which affect crops as well as problems with land slippage, as these are seen as frequent costly impacts in St.Lucia.

Group 3

- The information normally provided by the Met services are values for wind, rainfall, temperature, sunshine hours, tides, soil temperatures, cloud cover and humidity. Also aviation forecasts, advisories, bulletins, and warnings for severe weather such as tropical cyclones. A 5 day forecast has been requested.
- Data is also provided to the farming community, fishermen and Insurance services as required.
- Some of the costly impacts related to weather and climate in St. Lucia are excessive rainfall, high winds, drought, soil movements (landslides, erosion etc...)
- An influx of locusts were observed in the area after the passage of tropical storm Tomas, hence pests and disease can also be another problem for farmers financially.
- A request for weather information to be sent via e-mail, agromet bulletins, as cell phone texts have now been provided by the service.

Summary

In general the discussions between the farmers, Meteorological and Agricultural staff in the group sessions, proved to be quite useful, as all of the concerns raised were addressed by the relative personnel, and certain agreements were made in order to help the farming community increase production for the future.

VI. ANNEXES