



Grenada Farmer's Forum

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I. INTRODUCTION

The Grenada Farmers' Forum took place at Bain's Hall, Grenville on June 16th 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

Attendees included farmers, two staff members of the Caribbean Institute for Meteorology and Hydrology (CIMH) as well as representatives from the Ministry of Agriculture.

A list of participants is attached at Annex 1

III. WELCOME

The day's events started off with a welcome address by Mr. John Peters of the Grenada Meteorological Services.

Another introductory greeting was given by Mr. Randolph Shears, Extension Officer from the Ministry of agriculture; he too briefly outlined the significance of the meeting before the main activity of the forum began.

IV. PRESENTATIONS

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

The Caribbean Agrometeorological Initiative project (CAMI) is funded by the European Union's ACP Science and Technology programme, in partnership with CIMH, WMO, CARDI and ten regional 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 first year activities of the three year project included stakeholder meetings, training in rainfall analysis, climatic data rescuing and digitising. During this, the second year, training workshops

which were geared towards (i) the production of user- friendly weather and climate information newsletters for the farming community, and (ii) the development of a Pests and Disease forecasting system; have been developed. For the final year of the project, there will be training in (i) crop simulation models for yield estimation and (ii) General Agrometeorology with emphasis on irrigation requirements and scheduling in time for the second round of farmer's forum meetings and final stakeholder conference.

Weather and Climate of Grenada - John Peters – The National Met Service

In Mr. Peter's presentation, he noted rainfall in the interior is much greater than that in the south of the island, thus affecting cropping activities. This variation in rainfall amounts occurs as a result of different weather patterns affecting different parts of the island at different times. Some of the weather features responsible for Grenada's weather and climate are tropical waves, cyclones and the Inter Tropical Convergence Zone. In 2009 Grenada experienced a drought situation much like the rest of the Eastern Caribbean; it was found that the month of October, which normally records the greatest amount, had an abnormally low total. On the other hand, higher rainfall was recorded so far for this year (2011), even in the months which are normally dry. El Nino and la Nina played a role in the occurrence of these extreme conditions.

One concern voiced by a participant was the lack of attention paid to the farmers by the extension field officers, and that there needs to be more of a connection between the met service and the farming community.

An explanation of Public Forecast Terms – By John Peters - The National Met Service

In his presentation some of the meteorological terms such as precipitation, scattered, isolated, localized and widespread showers were defined. Also identification of the various cloud types and how all of this information goes into making forecasts, with the use of weather maps from radar and satellite imagery, were mentioned.

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. This research is done with the use of tercile probabilities and the production of a three month outlook, produced by the Caribbean Institute for Meteorology and Hydrology. This outlook is able to provide such information as to the likelihood of a particular region being wetter than normal, drier than normal or normal for those months forecasted.

After this some concerns were raised by the farming audience, with respect to an adequate water supply being distributed to all sectors. Mention was made of incorporating The National Water and

Sewage Authority, NAWASA into the discussion and activities, as farmers are banned from using water during periods of drought.

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

The effects of extreme weather conditions were investigated here; for drought, it was noted that the year 2009 marked the beginning of a period of drought during the rainy season, particularly for the month of October. Most countries recorded their lowest ever February rainfall totals in 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 increasing since May 2011.

After this presentation, farmers requested more meetings with the personnel from the Ministry of Agriculture, claiming that they have been left out too much in the past and that relevant information is not being passed on to aid them in their production.

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

This presentation started mainly with projected changes in rainfall and temperature patterns due to anthropogenic climate change. It was shown that temperatures were predicted to increase over the years, so much so, that for the Caribbean region, temperatures exceeding 35 °C will become a reality - an event which does not normally take place.

The increase in temperature has been estimated to be from about 0.5 to 4.2°C by the end of the century. From the analysis, rainfall on the other hand has been predicted to decrease, yet with an increase in its intensity. As a result of this, a possible shift and reduction in the length of the rainy season is likely, and increase in the frequency drought occurrences.

Analysis of Maurice Bishop's relatively short climate record did not indicate the increasing trends in maximum, minimum and mean temperatures as clearly (i.e. with statistical significance), as stations in the rest of the region. As like the rest of the region however, there is currently no indication of the decreasing rainfall suggested linked to climate change.

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

Mr. Trotman in his presentation looked at how different crops are affected by various pests and diseases which exist in the type of environment of the Caribbean. He presented a summary of the main pests and diseases affecting the major crops in Grenada and other CAMI countries, which included black sigatoka and white fly. The summary was garnered from a meeting held in Grenada in January

2011 to begin to develop a regional approach to weather and climate related pests and diseases modeling.

It was suggested that there may be a need for farmers in Grenada to assist in experimenting on small plots of their land, where they would be monitoring and collecting data to validate the pests and diseases models. They can also have plots which were sprayed as recommended by chemical manufacturers, and those only sprayed as suggested by the models to compare the levels of crop protection.

V. OPEN DISCUSSION – CIMH

Three Short videos from different regions of the world were shown to participants from WMO describing:

- 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 two 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 | j. Plantain | s. Fisheries |
| b. Sweet peppers | k. Pimento | t. Livestock |
| c. Melon | l. Watermelon | u. Aquiculture |
| d. Tomatoes | m. Cucumber | v. Apiculture |
| e. Pumpkin | n. Cabbage | w. Citrus |
| f. Cocoa | o. Bodi | x. Dasheen leaves |
| g. Cassava | p. Sweet potato | y. Pineapple |
| h. Coconut | q. Orcho | |
| i. Banana | r. Pawpaw | |

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 season 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 Met service is information on wind, rainfall, relative humidity. Weather forecasts spanning a three day period are provided, along with daily forecasts.
- Farming activity is planned around the weather; therefore there was a request for training so that proper use of the information can be made.
- Extreme weather conditions such as drought and floods result in destruction and loss of crops and livestock, also prevalence of particular pests and diseases during certain types of weather.
- Concerns about increase cost of production.
- A request for data systems (meteorological stations) to be set up closer to farming areas so information can be accessed.
- An increase in the number of forecasting days (weather forecast lead time) currently provided.
- There should be agro-meteorological bulletins produced for the farming community.
- An agreement for weather and climate information to be sent to the farmers via e-mail, text messaging, phone, loud speakers, radio broadcast pamphlets etc...

Group 2

- The daily information currently provided is daily weather updates of temperature, wind, rainfall, cloud cover and other weather parameters which is of great benefit to farmers as it helps in the decision making process.
- In the case of extreme weather conditions, problems with leaching, erosion and landslides occur.
- Increasing number of pests and diseases attacks.
- Livestock can be greatly affected due to heat related stress, in particular poultry.
- The cost of irrigation in the dry season due to an increase in the length of dry spells
- The provision of evapotranspiration information can also prove to be quite useful and was requested.
- A need for weather information to be sent out to the farming community via radio, TV, internet and bulletins.

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 with certain agreements made.

VI. ANNEXES