



Jamaica Farmers' Forum Report

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I. INTRODUCTION

The second Jamaica Farmers' Forum meeting was held on 8th November at Port Maria in St. Mary, Jamaica.

II. REPRESENTATION

Attendees included farmers, extension officers, other agricultural officers and officials; and a representative from Caribbean Agricultural Research and Development Institute (CARDI).

(See full list of attendees at Annex 1).

Welcome

The forum began with a prayer and an official greeting by Ms Jacqueline Spence of the Jamaican Meteorological Service, she extended a warm welcome to all participants including farmers, extension officers and to CIMH, also giving a brief outline as to what the project CAMI is all about.

IV. PRESENTATIONS

The CAMI Project - Mrs. 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 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.

The first year of the three year project comprised of stakeholder meetings, training workshops in rainfall analysis, coupled with data rescue operations. Some analyses were also done for rainy season prediction, with the use of long term climatic data.

In the second year, training which was 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.

In the final year of the project the focus was primarily on the utilisation of crop simulation models. Workshops were held in this regard and two models DSSAT and AquaCrop were used in the simulation of crop yields, irrigation amounts and requirement times for two selected crops.

Hurricane Sandy: Landfall on Jamaica - Adrian Shaw, Jamaica Meteorological Service

Mr. Shaw began his presentation by asking his audience some questions in relation to Hurricane Sandy; questions such as, “How strong was Sandy when it affected Jamaica?”, “Was the Jamaican population properly informed about the possible effects of Sandy before, during and after impacting Jamaica?”, “Did Sandy affect Jamaica uniformly with respect to wind, rainfall and storm surge?”

With respect to the strength of Sandy, he informed the participants that Sandy was a category 1 hurricane with maximum winds of 130 km/hr, and higher gusts. In terms of whether or not the people of Jamaica were properly informed, the audience gave their varying views, also requesting an explanation of the difference between a hurricane watch and warning, as certain meteorological terms commonly used in forecasting and to inform the public, are not properly understood.

With regards to the uniformity of the hurricane in Jamaica when it made landfall, it was noted that the winds were stronger over eastern areas, including St. Catherine, St. Thomas, Portland and higher elevations of other parishes. However, rainfall was highly variable in the mountainous regions and in some areas, coastlines were affected by storm surges.

Participants also questioned the forecasting information which was aired on television and radio stations in Jamaica with regards to Sandy.

Seasonal forecasts, Extremes and Agriculture – Adrian Trotman, CAMI Project Coordinator

Mr. Trotman introduced the audience to CariCOF, the Caribbean Climate Outlook Forum, which is the mechanism by which seasonal forecast information is produced. He then introduced the Climate Predictability Tool, which aids in producing the regional rainfall forecasts. This tool provides tercile probabilities, which give an indication as to whether or not conditions in the specified region are likely to be wetter than normal, drier than normal or normal for those months forecasted.

Mr. Trotman then spoke about the importance of Meteorological Services personnel to farmers in terms of provision of the relevant rainfall information which is very important to crops, as different crops have different requirements, hence knowledge of an upcoming extreme event, whether excessive rainfall or a deficit, is essential.

Attention was then drawn to the drought experienced throughout the Caribbean in 2009- 2010, which raised certain questions by the audience with respect to the availability of warnings to farmers in case of these unlikely events, also mentioned was the fact that most farmers now possess cell phones, hence communication, when it comes to receiving these alerts for severe weather events, would not be a problem. Suggestions were also made to these farmers, encouraging them to adopt a more flexible cropping policy, by simply planting the type of crops according to the season; this is one way in which they can make adjustments for themselves, in times of extreme occurrences.

Climate change and Agriculture –By Mrs. Lisa Kirton-Reed Technical officer (CIMH)

At the beginning of the presentation, the term climate change was defined, highlighting the specific human activities which have over the years contributed to changes, albeit on various time scales.

The focus was then turned towards anthropogenic climate change and what is predicted for the future. In the case of temperatures, it has been observed that an overall increase in global temperature has been taking place. More specifically, in the Caribbean, projections are for an increase in the number of very hot days and warm nights experienced, i.e. days with maximum temperatures, and minimum (night time) exceeding 35 and 25 °C respectively. It was also noted that the minimum temperatures will increase at a much faster rate than the maximum temperatures. Research conducted in CAMI and by other research groups have corroborated these projections with current trends. Mean, maximum and minimum temperatures at almost all stations, during all months have been shown, with statistical significance, to be already increasing.

In the case of rainfall on the other hand, a general tendency for drying by the end of the century has been projected, but with an increase in its intensity. However, current trends do not support these projections for the most part, particularly because the variability of rainfall is very great, and depending on the time of the year and the part of the region and country, trends may often oppose. Since temperature is changing, it is quite likely that in the future rainfall will also change, and likely in the direction projected.

The next part of the presentation focused on simulated yields of maize and tomato using the DSSAT software. The intention was to determine how present and future climate, based on the current and projected trends may influence the production of these two important crops. Data used for the future was to assume an increase in temperatures, from present, of 2 °C and a decrease in rainfall of 25 %.

Current trends suggest that the yields of these two crops should decline and the declines would be even greater in the future with the ‘projected’ changes in temperature and rainfall used.

The AquaCrop software, developed by the Food and Agricultural organization of the United Nations, for simulating the irrigation requirements was also used. Results suggest that irrigation needs will increase for these two crops in the future – increased irrigation needs in an environment where available irrigation water is likely to decline. Hence for the future, farmers and government would have to put appropriate measures in place to deal with these circumstances.

Information Dissemination

Mr. Trotman spoke briefly about the weather situation throughout the region as a whole, as well as the problems which are encountered with analyses in certain locations when there is missing weather information, compounded by an inadequacy in the density of weather instruments. Another issue is that of unavailable (whether non-existing or inaccessible) biological data, which has hampered the CAMI work on pests and diseases modeling. Mr. Trotman also stressed the importance of the production of regional and national monthly bulletins and effectiveness of dissemination to the farming and wider agricultural community.

Weather summary for September in Jamaica - By Ms Jacqueline Spence

Ms. Spence gave an outline with respect to rainfall and drought analyses for the different stations across Jamaica for the month of September. She also spoke about the provision of short and long term rainfall monitoring products, which are produced, utilizing the month Standardised Precipitation Index.

Questions with regards to moon phases arose from the farmers, as it is a common practice amongst them to include it in their on-farm decision making.

Identified gaps for the future

Some gaps have been identified that in the opinion of the Project Coordinator need to be addressed in order to respond to the changing climate. One of these is the reality that extension officers are unable to understand and interpret weather and climate information which limit their advice to the farming community. It was recommended that training for these officers be provided to bridge the gap.

Other areas to be considered for bridging include (i) lack of dedicated staff in agrometeorology at meteorological services, (ii) data collection and availability (both meteorological and biological), and with the appropriate density, (iii) the dissemination and communication of information to farmers.

Groups Discussion Points

Group 1

1. Have the regional or national CAMI Bulletins been available to you? How useful was it?

- No

2. What else would you like to see in the bulletin?

- Information on how to contact the met office
- Information on sea temperatures for fishermen
- Provide precautionary measures

3. How do you propose to go about having alerts by cell phone for times of bad weather?

4. How about a cell APP that provides alerts?

- It is a good idea; however the majority would not be informed as not all farmers have access to that particular type of phone.

5. Would you like to have farmers' forum with your met service at the beginning of dry and wet/hurricane seasons?

- Yes, in order to receive meteorological information with regards to crop properties.

6. How about a radio/TV programme?

- To receive meteorological information

7. Web access portal

- used as a checkpoint for farmers

8. Anything else you think should be raised?

- More specific bulletins
- Less conflicting information between the media and the meteorological services
- More frequent weather updates even during times when there are no upcoming disastrous events

Group 2

Information, Communication and Dissemination

1. Have the regional or national CAMI Bulletins been available to you? How useful was it?

-The regional and CAMI bulletin are not available

2. What else would you like to see in the bulletin?

- Historical rainfall patterns for specific areas.
- One month forecasting periods for bad weather
- The provision of weather information at the start of the planting season
- A request for current wind speed, temperature and rainfall information

3. How do you propose to go about having alerts by cell phone for times of bad weather?

- Messages sent via text messaging

4. How about a cell APP that provides alerts?

5. Would you like to have farmers' forum with your met service at the beginning of dry and wet/hurricane seasons?

- A request for farmers forum meetings to be held at the beginning of the dry and wet season

6. How about a radio/TV programme?

- Radio / TV programmes would have been essential in collaboration with JIS or during weather reports, nightly news
- More frequent forecasts, at least 3 per day-
- Six hour weatherly updates

7. Web access portal

8. Anything else you think should be raised?

- A request for a met station to be placed in such a way to forecast for the eastern parishes
- Posting of a 3 month forecast at the post office and library etc...
- A request for a weather forecast specifically for farmers
- The sharing of knowledge with regards to traditional weather forecasting

Group 3

Introduction

The group discussion was very spirited and diverse because the makeup of the group encompassed persons from various backgrounds, experience and educational levels.

Some of the discussion topics actually took some time to come to a consensus and brought across; however we prevailed.

Here is breakdown of our analyses, observations and suggestions:

1. Have the regional or national CAMI Bulletins been available to you? How useful was it?

Neither the regional nor national reports were available to us, nor did we even have the knowledge that such an exceptional and very informative initiative was available to disseminate information to us as Farmers.

Yes, we found the information given and presented to us today to be very eye opening and informative. The report revealed to us the projected and estimated weather and climatic conditions that are prevailing and that we as Farmers need to execute an intensive S.W.O.T. Analysis of all aspects of our farm operations, adjust accordingly to ensure and minimize the negative impacts that can occur.

2. What else would you like to see in the bulletin?

✓ There has to be collaboration with all the necessary State agencies, especially the Ministry of Agriculture and Jamaica Agricultural Society to discuss and post certain specifics as depending on the severity and intensity of the weather condition, what necessary preventative measures and actions to take and what will be the likely impact on specific crops, range of crops and livestock.

Ensure that the report contains more diagrams, colour codes and artistic impressions to present the message effectively to the Farmers who are not very literate.

Include a glossary of the Meteorological Terminology and break it down to layman language.

Include Humidity and Lunar Information.

3. The importance of the Cell Phone and how it should be utilized.

Yes, the cell phone is very important and relevant as it is actually more used and accessible to most Farmers and our Cellular Network covers most of the island. The cellular phone can be utilized in various ways. Starting with the simplest – Texting, which is more widely used and understood by most persons. Next is **Voice Blasting**, where with the use of software a recorded Message Bulletin can be sent out instantly to all Farmers with RADA's Database all at the same time. The **Voice Blaster** Softwares range from free, pay per use or monthly payment, however affordable. With the advent of Smartphones, emails can be used to communicate the message effectively by using **Email Marketing System with built-in Autoresponders**, also range from free to monthly paid service and still quite affordable.

4. Should there be periodical Farmer's Forums?

Yes, this is most important and should be implemented in short order. The necessary agencies that can organize quarterly meetings in various regions and the community Farmers Groups must take the initiative to ensure that when they are having their weekly, forth-nightly or monthly meetings, that Weather and Climatic Issues get a rightful place on the agenda.

When the quarterly meetings are held they can be recorded, edited and given to The Jamaica Information Service for them to put into their regular daily programming and post on their website to make it accessible to those who have internet access.

5. The use of Radio & TV?

The use of Radio and TV is very important in the scheme of things; however we think that the time that the programs are broadcasted, the frequency and how they are broadcasted is actually defeating the purpose it serves. Next, we have to be careful that when the message is delivered, it can be clearly understood by the masses.

6. Name suggestions for the service.

✓ **National ArgoMet Bulletin**

✓ **Farm Weather Alert**

7. Anything else?

✓ Install Community Weather Alert Systems in vulnerable areas and host drills with community members on what they must do when these alerts are activated.

Quarterly Climate Forecasts broken down Parish by Parish. These quarterly bulletins can be distributed via (as inserts) in all major printed media, farm stores, post offices, JAS Farmers Groups, Internet, etc...

Personal Observation by Group Leader

Many times we as concerned citizens and parties who are most affected by situations, often sit and wait for the necessary agencies to do things and not be proactive and be part of the change and thrust forward.

I understand that a lot of the ways that will be implemented to get the message out to Farmers, many may say will not work because of many variables and that the systems will fail, however I think who really wants the information will ensure that they get the necessary tools and make themselves accessible to get the information. **“Systems never fail people; it is the people who fail to utilize the systems”**

I am willing to make myself, my faculties and skills available to actually see that this project works. As I believe that it has a very important place in how we as Farmers can responsibly carry out our daily lives, plan ahead and do business.

Thank you for the opportunity for being a part of the forum and wish the initiative all the success.

V. CONCLUSION

The discussions between the farmers, Meteorological and Agricultural staff in the group sessions proved to be quite useful, as all of the underlying concerns which are still posing a problem were raised.

We saw a passionate leader of one of the groups that even offered his own suggestions and positions for the record (group 3). It was clear that the forum provided much clarity to some of the meteorological jargon often heard, that would improve their interpretations of the information.

It was also clear that mechanisms need to be put in place for training of Extension Officers, as well as a need for a continuation of such forums held with farmers. Apart from enhancing the knowledge of the agriculturists, it also lends for greater dialogue between the meteorologists and agriculturists, particularly farmers.