



RADA

Agro-meteorology

Initiative

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Background

- Jamaican agriculture
 - Largely rain-fed (bi-modal)
 - Mostly hill-sides (to ca. 1,000 m > micro-climatic variability)
 - Productivity competitiveness issues
 - Ca. 1,500 farmers/extension officer
 - Post-plantation (geo-politics, land tenure, literacy/technology, capital, infrastructure, age)

Background ct'd

- Jamaican agriculture
 - Agro-met application is largely novel
 - **Small farmer resilience**
 - **Brand Jamaica**
 - **Potential** for modernization, import substitution, export, value addition, livelihood enhancement
 - Threat of Climate change

Background c'td.

- Weather/climate play a huge role
 - Precipitation
 - Temperature
 - Wind
 - Solar radiation
 - Climate change

Background c'td.

- Major weather/climate impacts
 - Population dynamics (pests)
 - Hydro-meteorological disasters
 - Agricultural productivity
 - Socio-economic welfare

Background c'td.

- Institutional framework
 - MoAF/RADA/NIC
 - Island-wide Extension Service (www.rada.gov.jm)
 - Strong ICT base (ABIS farmer register, notebooks, 3G modems, mobile telephony)
 - Training programmes
 - Publications/PR Units
 - Regional R&D/diagnostics facilities
 - Irrigation systems design/installation
 - National ADRRM network

Background c'td.

- Institutional framework ct'd
 - Met service
 - CC Ministry/WRA
 - UWI, NCU, CASE, HEART/NTA, CARDI
 - Education, R&D
 - Multi-stakeholder National ADRRM programme (Wind storm, drought, flood, pest outbreak)
 - CAMI Tripartite committee

Major needs

- Stakeholder competences
 - Weather data collection, interpretation, analysis
 - Weather-based farm decision-making
 - Intervention, siting, timing, species/cv,
 - Water/drought/pest/crop management
 - Weather station operation and maintenance
- Reliable farming area data (weather, agro-ecosystem incl. practices)
- Appropriate Crop models

Major needs ct'd

- Policy/institutional framework
 - Common goal
 - Limitations
 - Structure
 - Strategies
- Personnel
- Budgets

Some Notable Initiatives

- **Agro-meteorology (RADA/FAO/EC – 2009)**
- **Collaboration efforts (2010 - RADA/Met Office; 2011-CAMI)**
- **National ADRRM programme**
(2009 - MoAF/RADA/FAO/sector stakeholders)
- **Tri-partite committee (CAMI - 2012)**
- **Agro-met training proposals (RADA/Tamil Nadu U - 2012; RADA/USAID - 2012)**

Weather stations

- RADA – 16
- Banana Board – 10
- Met office – 13?
- NIC – 6?



RADA Weather Station Network

- 13 (Davis auto Vantage Pro-2 (data logger)
- 1 in major production area of each parish)



Some specific applications

- Determine/schedule irrigation needs
- develop pest/disease management programmes (N.B. EWS)
- forecast agricultural production levels
- determine crop production zone potential
- enhance ADRRM programmes
- develop a database for future historical and trend analyses

Way forward

- Formalized collaboration (Agric, Met, Water, Educ., R&D, media, Reg./Int'l orgs)
- Extension/farmer agromet capacity bldg. (NB FFS)
- Multimedia information dissemination (Radio, Mobile messaging, Print media, DVD, cable channels, internet. **N.B. Schools**)
- Agromet programme > national ADRRM and CC initiatives

Way forward c'td.

- Agromet R&D
 - Crop/soil/water/pest management
 - Performance/production impact assessment (incl. climate change)
 - Modeling, forecast, early warning
- Policy support



GIVE THANKS