PLANTWISE IN JAMAICA

CABI's Americas and Caribbean Member Country Consultation

San Jose, Costa Rica
February 9-12, 2016

Outline

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  - Strategies
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      - Training and Capacity Building
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Outline

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Jamaica's Agriculture Sector

Background

- The Agriculture sector is a key contributor to Jamaica's food security
  - It is largely dominated by small farmers
  - 230,000 registered small farmers
    - Mainly domestic crop production
  - Most farmers are smallholders with fewer than five hectares of land
  - It represents an important source of income for the rural population

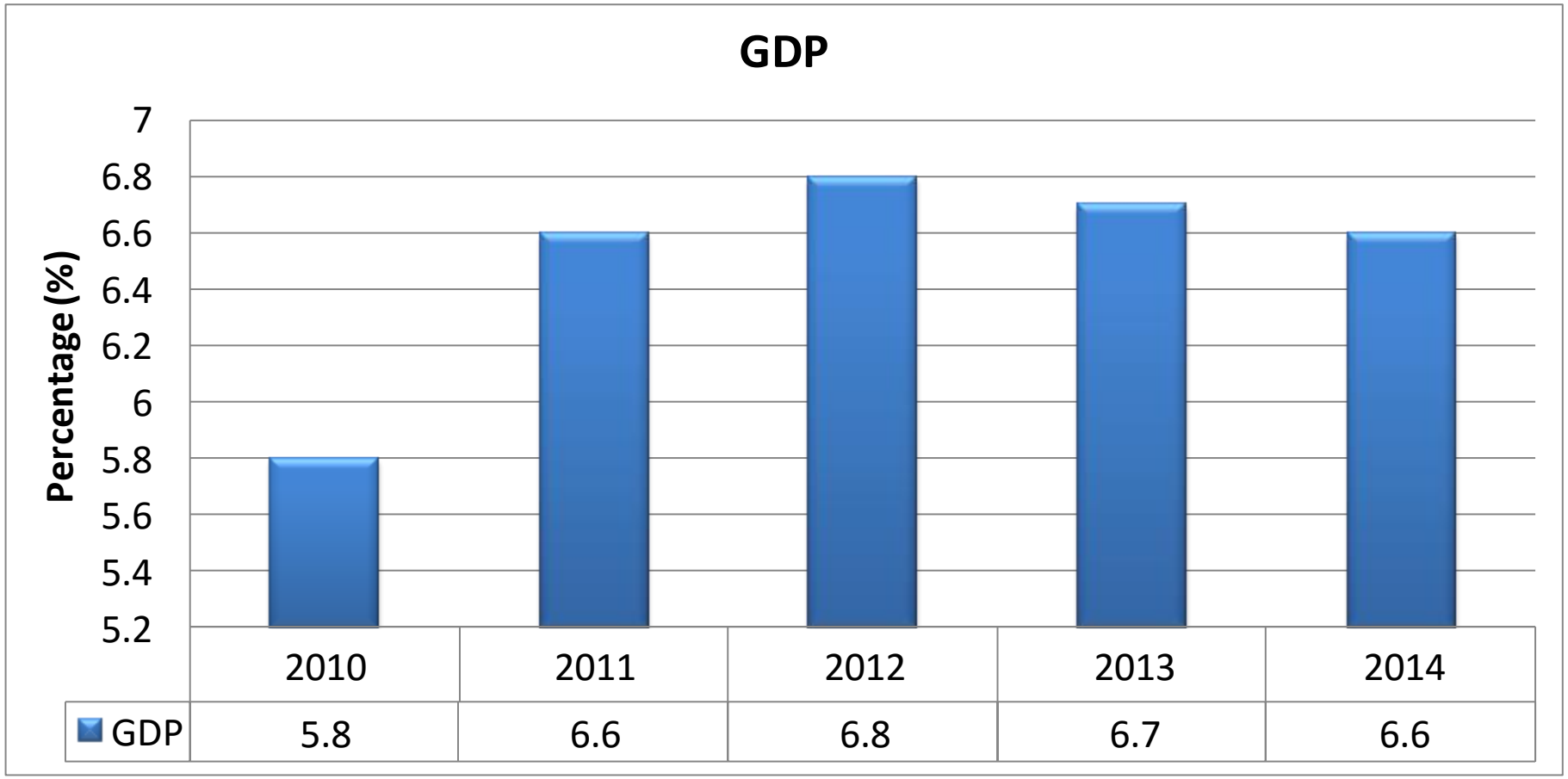
Jamaica's Agriculture Sector

Background

- The sector continues to be the second largest source of employment, involving over 18.2% of the employed labour force in 2013
- In terms of contribution to foreign exchange earnings, the sector earned US$174.8M; 12% of earnings was from total domestic exports
  - This was due mainly to the increase in non-traditional export crops such Yams and Ackee
- The Agriculture sector has seen an increase in its contribution to the country's GDP

Jamaica's Agriculture Sector

Sector contribution to the country's GDP, 2010-2014



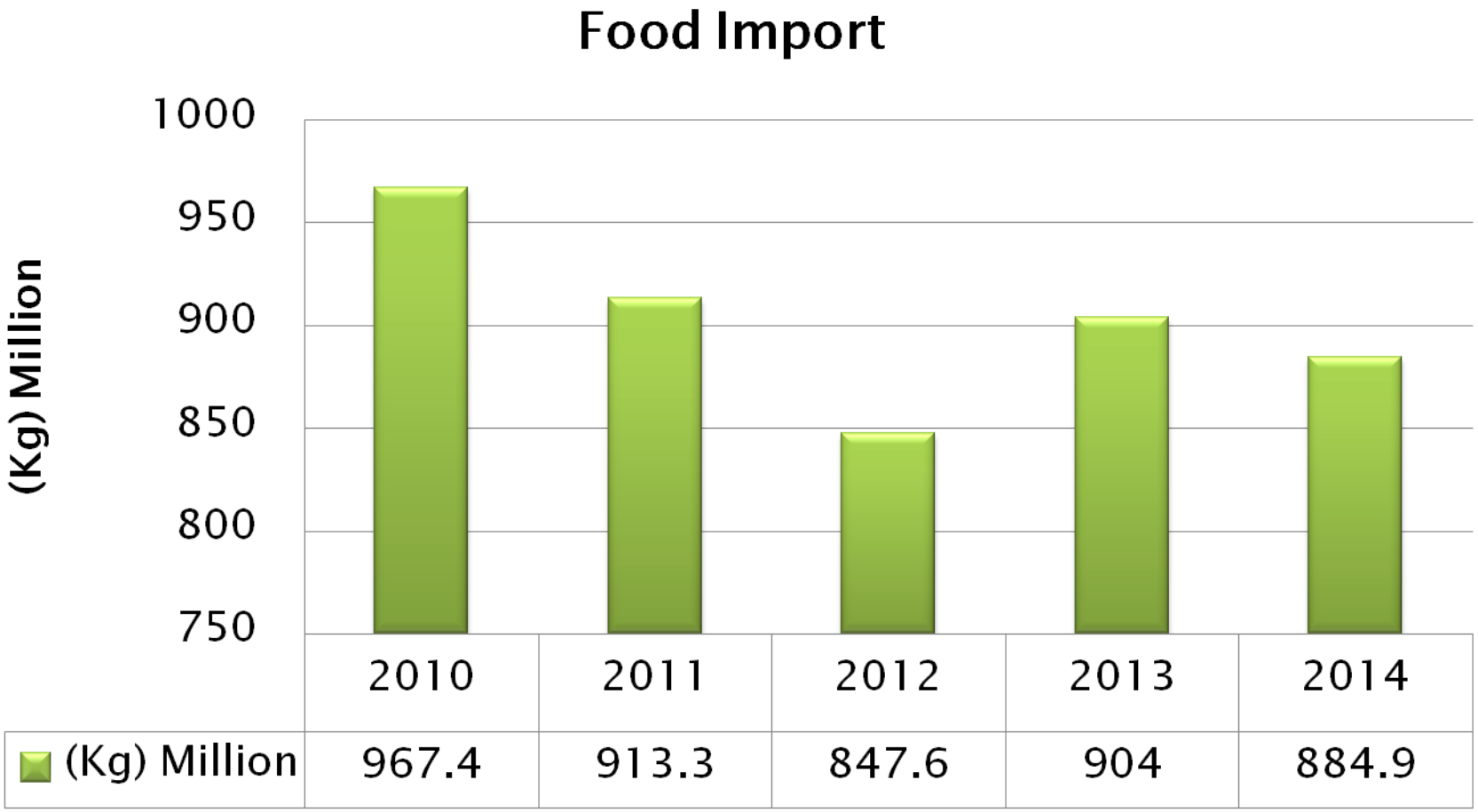
Jamaica's Agriculture Sector

Strategies

- Increased production of select crops (existing agro park model)

- Robust Import substitution and replacement programme
  - Irish Potato
  - Onion
  - Cassava
  - Ginger
  - Small Ruminant
  - Aquaculture

Jamaica's Agriculture Sector



Jamaica's Agriculture Sector

Strategies

- Established nine (9) agro parks
- 19 agro parks to be established over the next 3 years
  - Crops and Livestock/Aquaculture
- Develop strategic partnerships with agricultural institutions at the national, regional and international levels

Working in Partnership with CABI

- Plantwise in Jamaica
- Beet Army Worm (BAW) Programme
- Mitigating the Threats of Invasive Alien Species (IAS) in the Insular Caribbean
- Plant Health

Plantwise in Jamaica

Background

- 2013 – Partnership Agreement signed between the Government of Jamaica and Centre for Agricultural Biosciences International (CABI)

- 2014 – Meeting with CABI representatives and the National Plant Protection Organization (Research & Development, Plant Quarantine and Extension) in Jamaica

- 2015 – Plantwise Programme implemented in Jamaica

Plantwise in Jamaica

Expected Outcomes

- Delivery of pest identifications and advisory services to stakeholders improved and widened
- Improved documentation and analysis of pest advisories to stakeholders
- Wider support for pest diagnostics from stakeholders

Plantwise in Jamaica

Expected Outcomes

- Early detection and response for newly emerging pest problems
- Capacity building for extension staff

Plantwise in Jamaica

Achievements – Developing and Strengthening National Partnerships

- National Steering Committee established to provide coordination and guidance for the Plantwise Programme (PWP)
  - The composition of the Committee represents extension, research, regulatory and private sector stakeholders in the plant health system
- First meeting held in September 2015

Plantwise in Jamaica

Achievements – Developing and Strengthening National Partnerships

- Plantwise Programme is incorporated into the mandate of an existing National Agricultural Health and Food Safety Committee and its' Sub-Committee- Plant Health Food Safety Coordination Committee (PHFSCC)

- Established linkages with other key institutions and sub-sectors

  eg. Inter-American Institute for Cooperation in Agriculture (IICA)

  PROPEL, Canada

  Agro-chemical sub-sector

Plantwise in Jamaica

Achievements – Training and Capacity Building

- One (1) Monitoring/Evaluation Officer Trained in Trinidad
- Two (2) officers observed plant clinic operations in Costa Rica

Plantwise in Jamaica

Achievements – Training and Capacity Building

•15 officers trained as ToT Plant Doctors in Jamaica (R&D, Plant Quarantine and Extension)

Plantwise in Jamaica

Achievements – Training and Capacity Building

- 15 extension officers trained by 5 Plant Doctors TOT – Jamaica

Dr. Phil Taylor, CABI UK, and Mr. Naitram Ramnanan, Regional Rep. and IAS Coordinator, CABI Caribbean and Cantal America, with grandaunts of Plant Doctor training. Junction, St. Elizabeth, Jamaica (September 2015)

Plantwise in Jamaica

Achievements – Establishing a Network of Plant Clinics

- Two (2) plant clinics operational
- Four (4) clinics were held
  - November 2015 and January 2016
- 14 field visits done
- 66 prescriptions were issued to 49 farmers

Plantwise in Jamaica

Achievements – Establishing Network of Plant Clinics

- 8 samples referred to the laboratory
- 23 brochures issued to farmers
- **Non-clinic setting**: 15 extension officers trained as Plant Doctors providing pest IDs and issuing prescriptions as part of their routine service delivery
- 2016- Three other (3) plant clinics to be established

Plantwise in Jamaica

Achievement – Plant Clinic Linkages

- Support for diagnostic and technical services provided by MOAF/Bodles Research Station, RADA, UWI and CARDI

- Engaged agro-input suppliers
  - Secured commitment for the support of programme components and plant doctor clinics

- Established linkage with regulatory agencies
  - Pesticide Control Authority
  - Plant Quarantine/Produce Inspection Branch

Plantwise in Jamaica

Public Awareness

- Plantwise Plant Doctor Clinics are promoted at the Annual Agricultural and Industrial Shows
  - Denbigh, Hague, Montpelier, St. Mary

- Plant Health Clinics are promoted in 98 extension areas across the island

Plantwise in Jamaica

Public Awareness – Launch of the Programme

Minister of State in the Ministry of Agriculture, Labour and Social Security, the Honurable Luther Buchanan (centre), discusses Plantwise programme with (from left) and Dr. Abdillahi Alawy, global director, monitoring and evaluation, CABI; and Naitram Ramnanan, regional representative, CABI

Plantwise in Jamaica

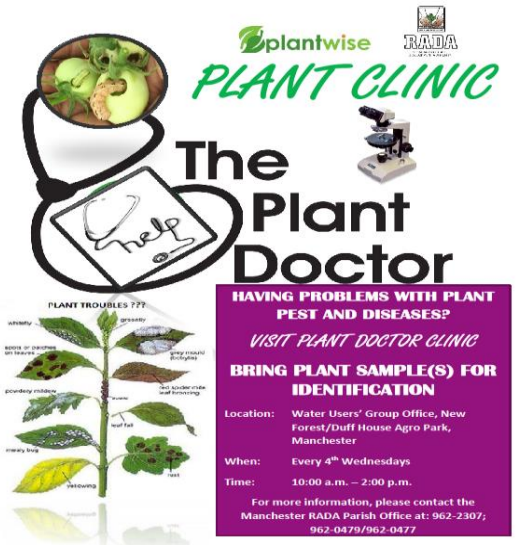
Public Awareness

- Promotion of plantwise programme through various media
  - Pronouncements by the Honourable Ministers
  - Radio broadcast and print publication

Plantwise in Jamaica

Public Awareness – support materials for plant doctors and farmers

- 50 Technical publications such as *brochures, guides and flyers* distributed to stakeholders during the clinics
- Two (2) PW banners and 300 promotional flyers produced
- 20 field diagnostic guides distributed to plant doctors



Plantwise in Jamaica

Way Forward

- Capacity Building
  - Training of extension officers from RADA, Banana Board and Coffee Board
- Use of Plantwise Online Monitoring System (POMS)
- Linking Plantwise Clinics with Famer Field Schools (FFSs) and Climate Services

➢ **Partnership in project development**

➢ **Collaboration in Climate smart agricultural research**

Beet Army Worm Management Programme

Background

- The reported outbreak of BAW was on scallion in the 1990s in St. Elizabeth
- Severe outbreaks were recorded on onion and scallion during 2009-2012



Beet Army Worm Management Programme

Background

- South St. Elizabeth experienced beet armyworm outbreaks and also flare ups since 2009 -2013
- Loss of over J$140M in onion and scallion fields recorded
- Several management strategies were employed; however, were ineffective due to poor adaptation and lack of a coordinated approach

Beet Army Worm Management Programme

Intervention Made

- FAO Technical Cooperation Programme
  - Two Years Oct 2012 to Oct 2014
    - extended to Oct 2015 in order to complete activities
  - Valued at US$ 213,000
  - Implemented: by MOA&F, R&D (Bodles) / Rural Agricultural Development Authority (RADA)
  - Beneficiaries: farmers of St. Elizabeth
  - Partners: ACDI/VOCA (complementary activities)

Beet Army Worm Management Programme

Collaboration with CABI

- Farmer Field School Evaluation
  - Evaluation on the Farmer Field School (FFS) methodology for BAW was conducted by CABI consultants, Dr. Richard Musebe and Martin Kimani from Nairobi,Kenya
  - CABI consultants had impactful interactions with farmers affected by BAW
  - The team recommended that this approach be continued, not only for BAW but as a policy direction for Jamaica

Beet Army Worm Management Programme

Areas for Further Support

- Biological Control Programme
- Biological Studies (lab and field)
- Research
  - Area wide Mating disruption
- Crop Suitability model
- Testing and introduction of more tolerant crop varieties

Beet Army Worm Management Programme

Areas for Further Support

- Technical support for development of practical applications for community-based agro meteorology advisories for farmers to improve decision making

- Continued validation of Pest Forecasting system for BAW and expend Open Data Tool for other pests

Mitigating the Threats of Invasive Alien Species (IAS) in the Insular Caribbean

Mitigating the Threats of Invasive Alien Species (IAS) in the Insular Caribbean

Collaboration with CABI

- Mitigating the Threats of Invasive Alien Species (IAS) in the Insular Caribbean Project
  - Implemented by CABI and National Environment and Planning Agency (NEPA)
  - September 2009 to August 2013
  - Project was funded in the amount of US$1.7 M

Mitigating the Threats of Invasive Alien Species (IAS) in the Insular Caribbean

Collaboration with CABI

- Outcomes
  - Increased national capacity to address potential risks posed to biodiversity of global significance
  - Access to data and best practice established
  - Increased capacity to respond, control and manage IAS

Mitigating the Threats of Invasive Alien Species (IAS) in the Insular Caribbean

Areas for Further Support

- Increased capacity to strengthen prevention of new IAS introductions
- Technical Cooperation to address the *Red Sargassum Seaweed*

Plant Health

Plant Health

Background

- Jamaica has a well coordinated and sustainable national plant health system that enhances Jamaica's plant health status thus fostering consumer, plant and environmental health, food security and a plant sector in a state of readiness and compliance with the requirements of national standards, international trade and regional biosafety

Plant Health

Initiatives

- Developed Pest Response Systems
  - Red Palm Mite (*Raoiella indica*)
  - Pink Hibiscus Mealybug (PHMB) (*Maconellicoccus hirsutus*)
  - Citrus Greening
  - Swallowtail Butterfly
- Integrated Pest Management Programmes
  - Black Sigatoca
  - Green Onion

Plant Health

Collaboration with CABI

- Provision and access to information on select pest and disease
  - Journals and other publications
  - Technical guides
  - Fact sheets
  - Access to a global database

Plant Health

Areas for Further Support

- Technical Assistance (Pest & Disease Management)
  - Weevil (Sweet Potato)
  - Taro Plant Hopper (Dasheen)
  - Late Blight; Tuber Moth (Irish Potato)
  - Black Spot (Citrus)
  - Leaf Rust (Coffee)
  - Lace Bug (Avocado)

Plant Health

Areas for Further Support

- Improving Diagnostic Tools
- Capacity Building
  - Crop Loss Assessment
  - Rearing natural enemies for key pests in Jamaica
- Microbial beneficial pathogens and provision of low cost pesticides


THANK YOU