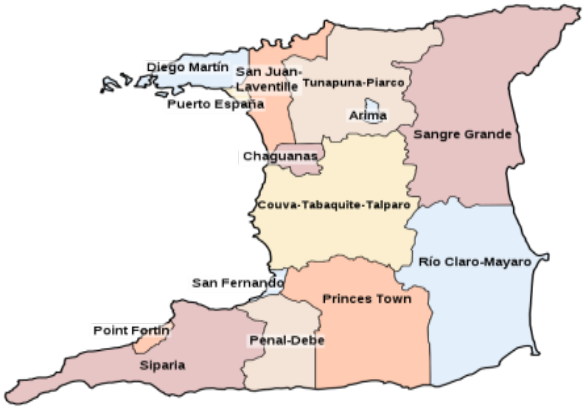
Working in partnership with CABI to Strengthen Barriers to Invasive Alien Species on Small Island States



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Road Map

- *Background*
- *Strengthening barriers to IAS*
  - *Strengthening IAS National Coordination*
  - *Diagnostic service for early detection and rapid response*
  - *Control and Management*
- *Capacity Building*
- *Knowledge Managment*
- *Conclusion*

Introduction – What is an IAS?

- *Invasive Alien Species (IAS) are plants, animals, pathogens and other organisms that are non-native to an ecosystem, and which may cause economic or environmental harm or adversely affect human health.*
- *They may impact adversely upon biodiversity, including decline or elimination of native species - through competition, predation, or transmission of pathogens, and/or the disruption of local ecosystems and ecosystem functions.*

Introduction –How did it get into my country?

- *The actions of people (deliberately or unintentionally), are primarily responsible for the movement of plants, animals and other organisms beyond their natural range.*

- *This movement of IAS is rising sharply, due to increased transport, trade and travel.*

- **Globalization** *facilitates the spread of* **invasive alien species** *(IAS) as regional and international commerce develops new trade routes, new markets, and new products.*

IAS of Regional Importance

- *In the past, this has led to the spread of the Pink Hibiscus Mealy Bug throughout the Caribbean.*
- *It was first identified in Grenada (1996) and within months it had spread throughout the region*

Globalisation and the increase of IAS

- *Recently, TT has experienced a surge in the frequency of introductions of IAS such as:*

IAS recently introduced into Trinidad & Tobago	IAS recently introduced into Trinidad & Tobago
Black Sigatoka Disease	*Sweet Potato Weevil*
Citrus Black Fly *Giant African Snail*	*Citrus Leaf Miner* *Citrus Greening Disease*
Red Palm Mite	*Coconut Moth*

- *This coincides with an increased importation (formal and informal) of agricultural commodities with the greatest potential for the entry of IAS.*

How did we manage the IAS?

- *TT has benefitted from 72 years of collaboration with CABI*
- *This started in 1946 (outpost of Imperial Parasite Service (headquartered) in Canada was established in Trinidad*
- *Associated with the Imperial College of Tropical Agriculture, now The University of the West Indies.*
- *Highlight recent support in managing IAS*

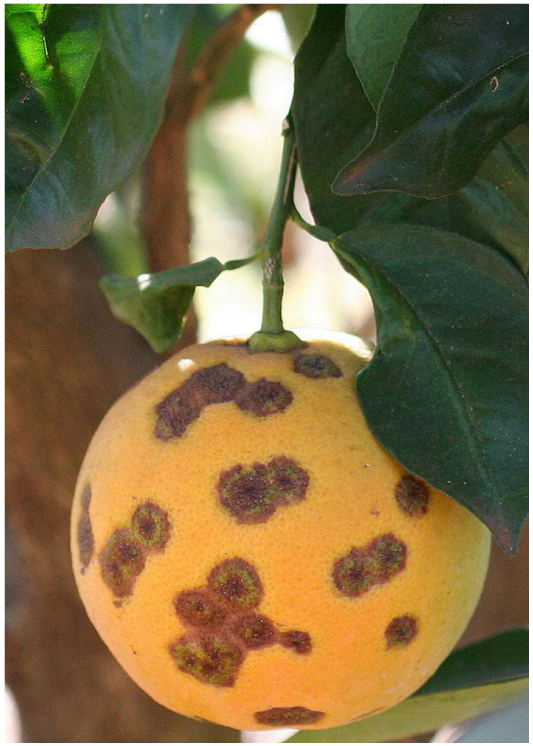
Strengthening Barriers to IAS: National Coordination Mechanism

- *Develop guidelines for the appointment of an inter-ministerial and inter-agency, Cabinet-Appointed Committee on Invasive Alien Species.*
- *Developed National Invasive Species Strategy and Action Plan that focussed on reducing new introductions of IAS*

Strengthening Barriers to IAS: Diagnostic Services

- *Benefitted from the confirmatory diagnoses of:*
  - *Corn stunt spiroplasma, 2014*
  - *Sweet potato weevil, 2015*
  - *Citrus Greening Disease, 2017*
  - *Anthurium bacterial blight*
  - *Currently awaiting diagnostic results of fungal samples*

Strengthening Barriers to IAS: Control and Management



- *Major successes using biological control:*
  - *Sugarcane froghopper*
  - *Red Palm Mite*
  - *Pink Hibiscus Mealybug - T&T became hub for rearing of biological control for distribution in region.*
  - *Many more biological control efforts since 1946 to control pest diseases and weeds in crops*
  - *Pioneered Farmer field schools - reduce high incidence of pesticide use*
  - *Introduction of participatory approaches for integrated pest management*

Capacity Building through CABI

- *Training of Extension and Research Officers to manage pests such as Frosty Pod Rot; White Flies in vegetables; Diamond Black Moth*
- *Training in Europe GAP to encourage trade with Europe*
- *Training in the identification of beneficial insects*
- *Training in safe use of pesticides*
- *Training in Cost Benefit Analyses of managing IAS*

Knowledge Management

- *The Pest Risk Analysis Unit of the Ministry of Agriculture is heavily depend on CABI's information to undertake their routine work*
- *CABI's information are also used to conduct and update horizon scanning exercises*
- *Staff at the Ministry & farmers benefit from CABI publications (online and in 2 Ministry libraries)*

Conclusion

- *TT benefits from having an increased ability to solve agricultural problems through its collaborative work with CABI.*
- *The opportunity to share knowledge and experience with other CARICOM members, and develop joint projects to address common goals.*

THANK YOU