Preventing the spread and mitigating the impact of cacao diseases in the Caribbean.

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Cacao in the Caribbean

- Second fine flavor cacao production region
- Important source of revenue for smallholders
  - contributes significantly to GDP of certain countries
  - Employs a significant number of people

- Cacao as a means for sustainable economic growth and development (e.g. T&T, DR, Haiti, Dominica etc.)
Cacao diseases

The big « five » (20-30% loss of potential yield)

- Black pod disease – *Phytophthora* spp.
- Witches’ broom (WB) – *Moniliophthora perniciosa*
- Frosty pod rot (FPR) – *Moniliophthora rorери*
- Cocoa Swollen shoot virus (CSSV) – Badnavirus
- Vascular streak dieback (VSD) – *Ceratobasidium theobromae*

Many others e.g.
- Ceratocystis wilt – *Ceratocystis cacaofunesta*
- Black root rot – *Rosellinia* spp
- Pink disease, thread blight, anthracnose etc etc……

NB Pests: insects, birds, mammals
The Status Quo

- Determine actual status of phytosanitary problems
  - Which diseases, pests – socio-economic impacts
Prevention

- PRAs for selected phytosanitary problems
- Awareness raising in countries at risk as well as in countries where already present
  - Quarantine measures
    - enforcement

Caribbean cocoa quarantine centre, Barbados CCQC,B
Early Detection and Rapid Response

- Train quarantine and survey personnel as well as farmers on early detection
- Epidemio-surveillance
  - hotline-intervention cascade reasonable suspicion

⇒ rapid response!
(days and weeks rather than months)
while confirmation pending (e.g. FPR sporulation very distinctive!)
Impact mitigation

- Breeding for resistance
  - Combining efforts from T&T and CR
- Facilitate the distribution of elite varieties with disease tolerance and good production and quality attributes (Caribbean ↔ Americas)
- GAPs allowing max expression of traits
Collaboration

- Stimulate collaboration between the French, Spanish and English speaking Caribbean and reinforce collaboration with American countries

Impact

Example for other crops!