Interdependence, Diffusion and Dissemination of Caribbean Crop Diversity in the Context of Climate Change

David E. Williams
Inter-American Institute for Cooperation on Agriculture (IICA)

CARDI/CTA Climate Change and PGR Policy Workshop
St. John’s, Antigua, West Indies October 13-15, 2012
Caribbean Agriculture

Uniquely endowed
Uniquely challenged

Geography – isolated yet near, a bridge between hemispheres

History and Prehistory – (agri)cultural crossroads for over 2,000 years!

Diversity – of crops, agricultural conditions, and farming cultures

Interdependency – at local, national, regional and global levels

Vulnerability - finite natural resources, emerging economies
  - difficult transportation and communication
  - hurricanes, earthquakes, volcanic eruptions
  - climate change: what will it bring?
Caribbean “Melting Pot”
Fusion Cuisine at its Best
The diverse origins of Caribbean crops
The diverse origins of Caribbean crops

**Antilles** – allspice (pimenta), acerola, lima bean, mammee apple

**Amazonia** – cassava, tannia, yam, arrowroot, peanut, pineapple, guava, cashew, hot pepper, tobacco, cotton

**Mesoamerica** – sweet potato, maize, red bean, pumpkins, cacao, avocado, pawpaw, tomato, sapodilla,

**Africa** – cowpea, okra, yam, coffee, watermelon,

**South Pacific** – coconut, dasheen, breadfruit, jackfruit, ackee,

**South Asia** – rice, sugarcane, banana, citrus, mango, pigeonpea, nutmeg, ginger, neem, sorrel,
Caribbean Crop Diversity

(Where is it?)

**Ex situ**
- Genebanks
- Universities and research institutions
- Development organizations
- Botanical Gardens

**In situ**
- On-farm (“landraces”, local varieties)
- Crop wild relatives
Country Reports

- Cuba
- Dominica
- Dominican Republic
- Grenada
- Guyana
- Jamaica
- Saint Vincent and the Grenadines
- Suriname
- Trinidad and Tobago
Interdependence

- **Global** – international community (ITPGRFA)
- **Regional** – networks of partner nations (CAPGERNet)
- **National** – role of farmers, researchers, extensionists
- **Local** – rural farming communities and families, informal seed systems

Interdependence, at all levels, will *increase* with climate change.
Opportunities for Access and Exchange

**Ex situ**
- Rood & Tuber crops - CIAT, CIP, IITA, Pacific Community
- Vegetable crops - AVRDC, USDA, CARDI
- Fruit crops - CATIE, Bioversity, USDA-Miami/Mayaguez/Hilo, Fairchild Tropical Gardens

**In Situ**
- cassava, tannia, arrowroot
- tree fruits
- pineapple
- leafy vegetables
- hot peppers
Thank you!