

USDA **USDA Regional Climate Hubs: Caribbean** **Regional Vulnerability Assessment Summary**

Climate Vulnerabilities in the Caribbean

Regional Description:

The USDA Caribbean Climate Sub Hub is located in San Juan Puerto Rico and focused on tropical agriculture and forestry. Agriculture and forestry in the U.S. Caribbean includes products like coffee, tropical fruits, ornamentals, beans, root crops, livestock, dairy and wood products. Historically, the people of the U.S. Caribbean have depended on these products for subsistence and export as valuable cash crops. Currently, Puerto Rico and the U.S. Virgin Islands import the vast majority of their agricultural products and local production is well below its full potential. Increasing production capacity can improve food security, standards of living and public health, economic vitality, reduce GHG emissions and provide opportunities to increase human well-being in rural communities.

Climate Related Hazards and Vulnerabilities:

- **Food security is reliant on local productivity** – however, climate change and extreme weather events in other regions impact global markets and maritime shipping which can affect U.S. Caribbean food security and agriculture production
- **Climate change and weather variability are likely to make prices more volatile**, which influence landowner decisions and farming success
- **The arrival and proliferation of new and existing pests** may adversely affect humans, livestock, wildlife and crops
- **Sea level rise and salt water intrusion** are affecting coastal populations, aquifers, and prime agricultural lands
- **Conflicting demands on a limited land base** highlight the need for multi-sector adaptation planning
- **Unemployment and poverty** levels are among the highest in the United States
- **High production costs, labor issues, and competition** from external producers hampers expansion of local production.

Adaptation and Mitigation Strategies:

- Reducing tillage intensity, and increasing inter-cropping and the use of cover crops
- Site specific nutrient and irrigation management tools and strategies
- Increasing exploration and use of drought and heat stress resistant varieties
- Increasing agroforestry practices, and improved local forage production and grazing practices.
- Better use of existing agricultural and silvicultural knowledge; and improved marketing strategies for new and existing agricultural and wood products.

Regional Priorities:

- Understanding our stakeholder network – from scientists to advisors, farmers and ranchers
- Developing communication mechanisms and strategies that foster collaboration in the development and the dissemination of best agricultural practices for adapting to climate change
- Developing science linking global change projections to users in agriculture and forestry
- Promoting cooperation by providing open venues and forums to address climate vulnerability

To learn more about the USDA Climate Hubs visit: www.usda.gov/climatehubs

To read the full Vulnerability Assessment visit: <http://go.usa.gov/3eVXJ>