

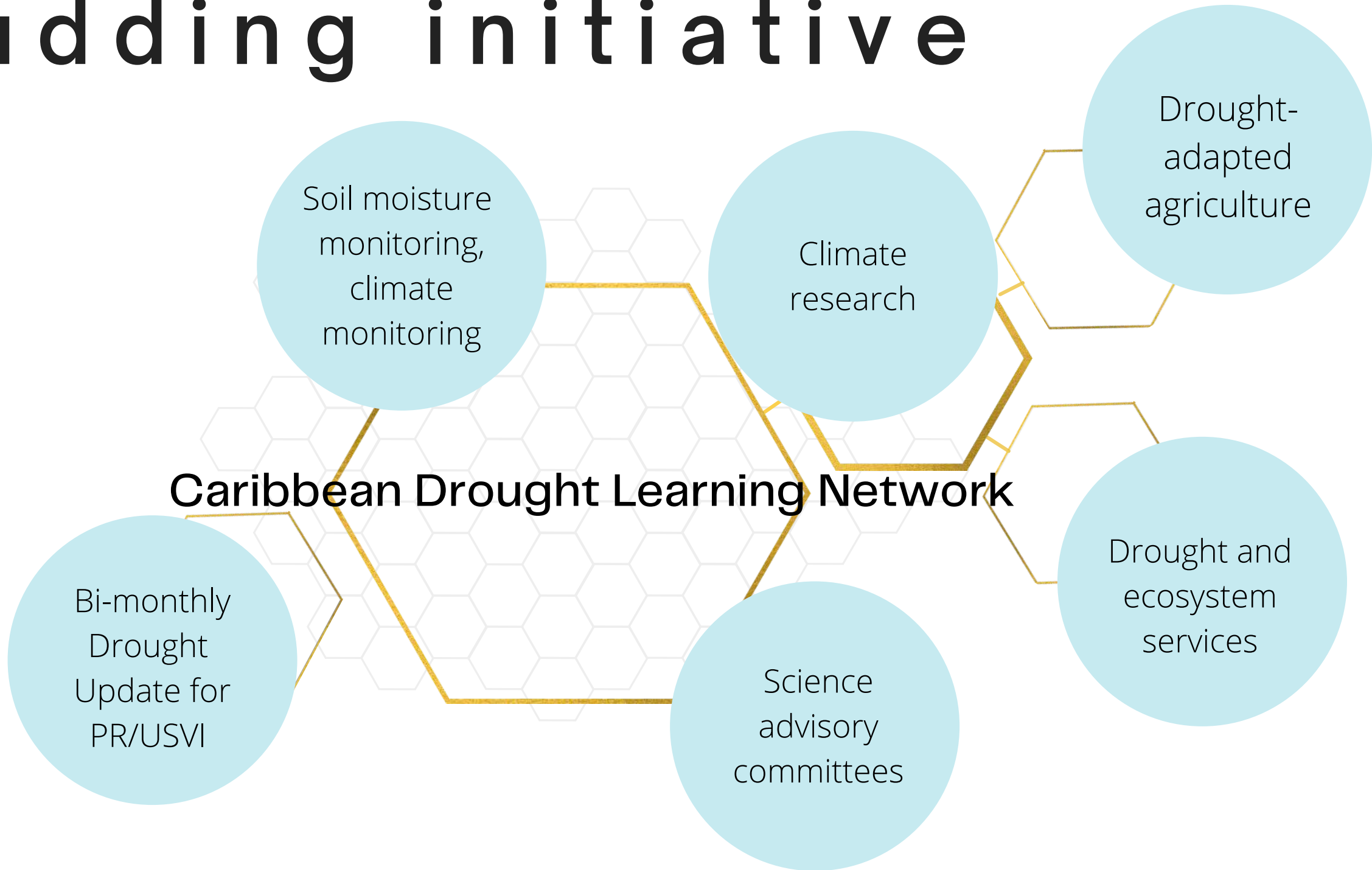
# The Caribbean Drought Learning Network: Developing Peer-to-Peer Learning to Better Leverage Drought Knowledge and Initiatives in Puerto Rico and the US Virgin Islands

Eva Holupchinski, Nora Álvarez-Berríos, William A. Gould  
US Forest Service International Institute of Tropical Forestry; USDA Caribbean Climate Hub



## Caribbean Drought Learning Network

### A budding initiative



Network to connect and share among drought-related initiatives

### ABSTRACT

Drought poses a significant challenge to resource managers in the Caribbean. In Puerto Rico and the Virgin Islands, limited water storage capacity, aging water infrastructure and primarily rain-dependant agriculture make the territories particularly vulnerable to drought. While many entities work to monitor, research and communicate about drought, no overarching framework previously existed to facilitate knowledge-sharing between them, and drought-related initiatives tended to be siloed by entity, with little synergy among efforts. To better leverage existing knowledge and initiatives in the region, the USDA Caribbean Climate Hub worked with partners from the National Drought Mitigation Center, NOAA National Integrated Drought Information System, NOAA National Weather Service and other local partners to initiate the Caribbean Drought Learning Network (CDLN). The recently established CDLN links climate researchers, service providers, advisors, managers, and producers in a peer-to-peer network to strengthen collaboration and communication in drought research and management. The goal of the CDLN is to reduce the vulnerability and costs of drought, improve resilience in agricultural and forestry operations, and enhance USDA effectiveness by producing and sharing information, experiences, and needs in preparing for, responding to, and recovering from drought on farms, forests, and rural communities. Launched in late 2021, the CDLN has about 50 initial members with representation from universities and local and federal government agencies in Puerto Rico, US Virgin Islands, and the continental US. Four preliminary teams were created to focus on the following areas: 1) Drought Impact Reporting / Citizen Science, 2) Drought Prediction, Monitoring and Research, 3) Drought Communication and Outreach, and 4) Drought Resilience in Agriculture and Forestry. In this poster, we present examples of the collaborative initiatives emerging in the initial stages of Network activities, including approaches to 1) Increase on-the-ground drought impact reporting; 2) Create spaces for drought research communication 2) Improve drought communication and outreach, and 3) Improve awareness of agricultural and livestock assistance.

### WHAT IS A DROUGHT LEARNING NETWORK AND WHAT ARE THE BENEFITS?

- DLNs link climate researchers, climate service providers, advisors and land managers in a peer-to-peer network to strengthen collaboration and communication in drought research and management. DLNs:
  - Utilize "peer-to-peer" learning to address current and future issues and learn from current and past experiences.
  - Identify natural "themes" for working groups.
  - Increase communication and collaboration between people and agencies who are already doing similar tasks. Create new relationships.
  - Not "reinventing the wheel" each time drought becomes an issue.
  - Not prescribed! The DLN will evolve as those participating provide direction.

Source: Brian Fuchs presentation CDLN meeting

### WHY A DROUGHT LEARNING NETWORK IN THE CARIBBEAN?



Caribbean drought-related research and management efforts are currently isolated and disconnected. A learning network helps facilitate communication, knowledge-sharing, collaboration and better leverages existing efforts.

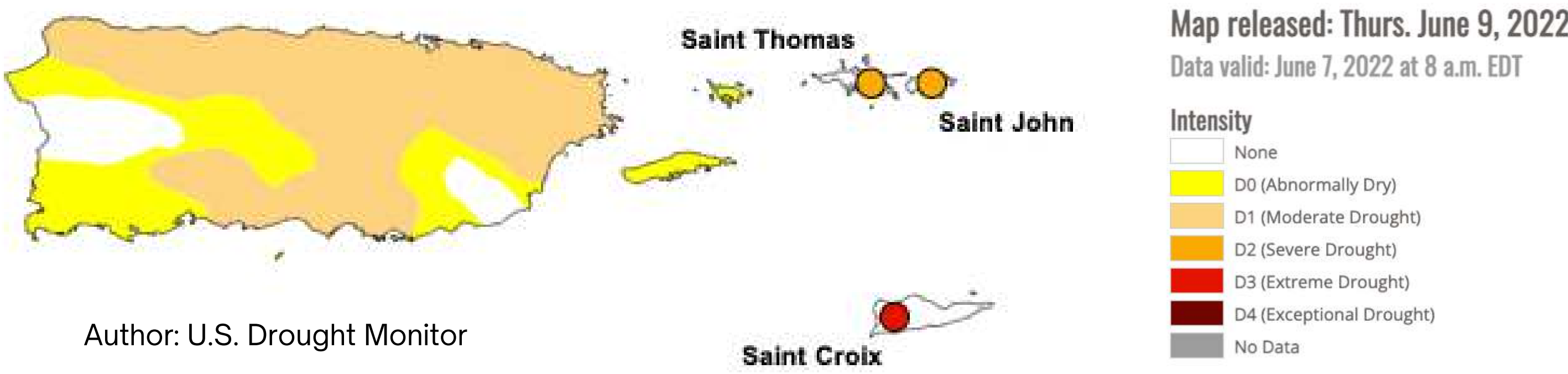
Our network was established in 2021 and includes representatives from 50 organizations in Puerto Rico and the United States Virgin Islands (USVI).

### PRIORITIES FOR THE CARIBBEAN DLN

- Increase drought condition observation and reporting.
- Facilitate exchange of tools, information and input (inc shared communication of scientific information).
- Facilitate access to drought information and materials.
- Educate and communicate drought adaptation strategies, incorporate public policies.
- Evaluate where bilingual information is necessary.
- Encourage citizens engagement to feel part of the process by reporting conditions over time.
- Build trust in Puerto Rico and USVI (distrust of gov’t officials).
- Help guide agencies and entities to tailor their work to better meet local needs:
  - Help NRCS determine where funds could be allocated, utilize their direct connection to farmers.
  - Network input could help tailor USGS hydrologic monitoring network to meet needs.
  - Guide the type of metrics and time scales included in climate outlooks.

### DROUGHTS IN US CARIBBEAN

- Due to climate change, droughts in the US Caribbean are projected to become more frequent and more intense.
- Droughts have significant socioeconomic, agricultural and ecological effects in Puerto Rico and the US Virgin Islands.
- An estimated 90% of agriculture in the US Caribbean is rain-fed, making local production especially vulnerable to drought conditions.

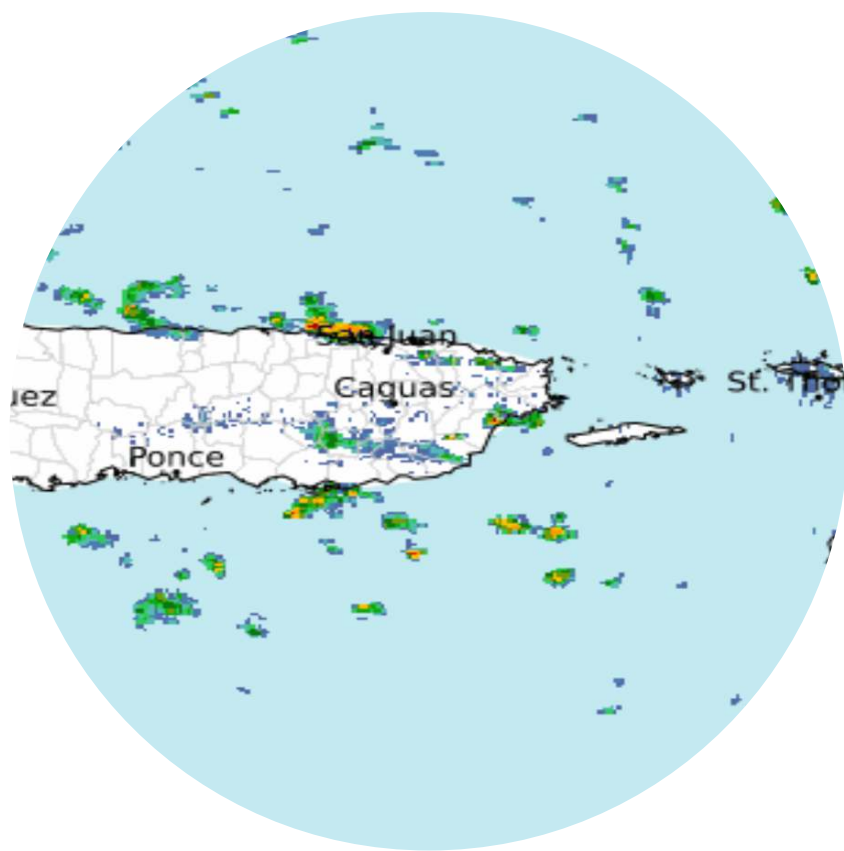


### CDLN WORKING GROUPS

- **Team 1:** Drought Impact Reporting/Citizen Science
- **Team 2:** Drought Prediction, Monitoring and Reseach
- **Team 3:** Drought Communication, Awareness and Outreach
- **Team 4:** Drought Resilience in Agriculture and Forestry



Citizen Science



Drought Research

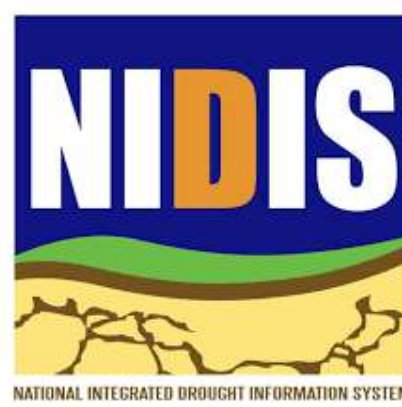


Drought Communication



Drought Resilience

### PARTNERS



United States Department of Agriculture  
Caribbean Climate Hub



### FOR MORE INFORMATION:

<https://caribbeanclimatehub.org/projects/caribbean-drought-learning-network/>