

Southeast and Caribbean Climate Community of Practice

Climate change and extreme weather: Drought

CENECCA



Main goal:

Development of actions, programs, activities and adaptation policies related to Climate Change including, Natural Hazards, Sea Level Rise and Extreme weather in order to minimize potentially adverse social and environmental impacts

Drought concepts:

- Deficiency in precipitation over an extended period.
 - **Meteorological drought:** based on the degree of dryness and the length of dry period.
 - **Hydrological drought:** based on the impact of rainfall deficits on the water supply (stream flow, reservoir and lake levels, and ground water decline).
 - **Agricultural drought:** based on the impacts to agriculture (rainfall deficits, soil water deficits, reduced ground water or reservoir levels needed for irrigation).
 - **Socioeconomic drought:** based on the impact of drought conditions of supply and demand of some economic goods.

Importance

- Vulnerability: slow moving hazard, which causes people to underestimate the damage it can do.
- Losses are substantial as those from hurricanes.
- Worsening issues: reservoir sedimentation, salt water intrusion in the aquifers, water wasting, among others.
- Challenges: water for ecosystems and food safety.



History of drought in Puerto Rico

- 1923
- 1930
- 1947
- 1957
- 1964-1967
- 1973-1976
- 1994-1997
- 2015

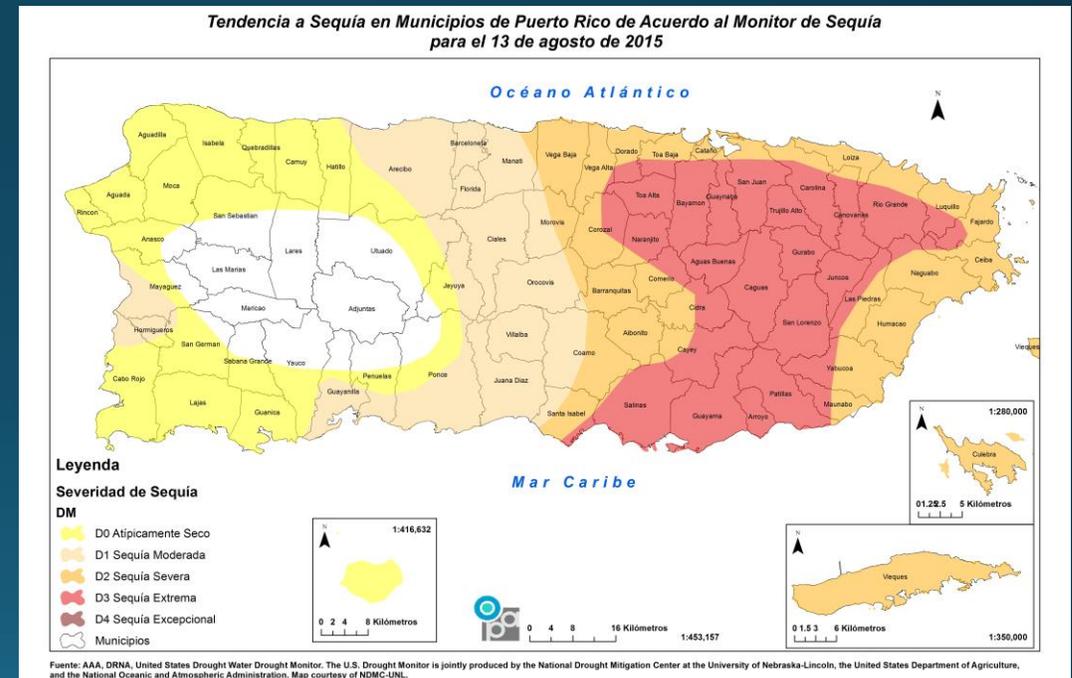
Water management protocol.



<http://www.acueductospr.com/PLANDERACIONAMIENTO/index.html>

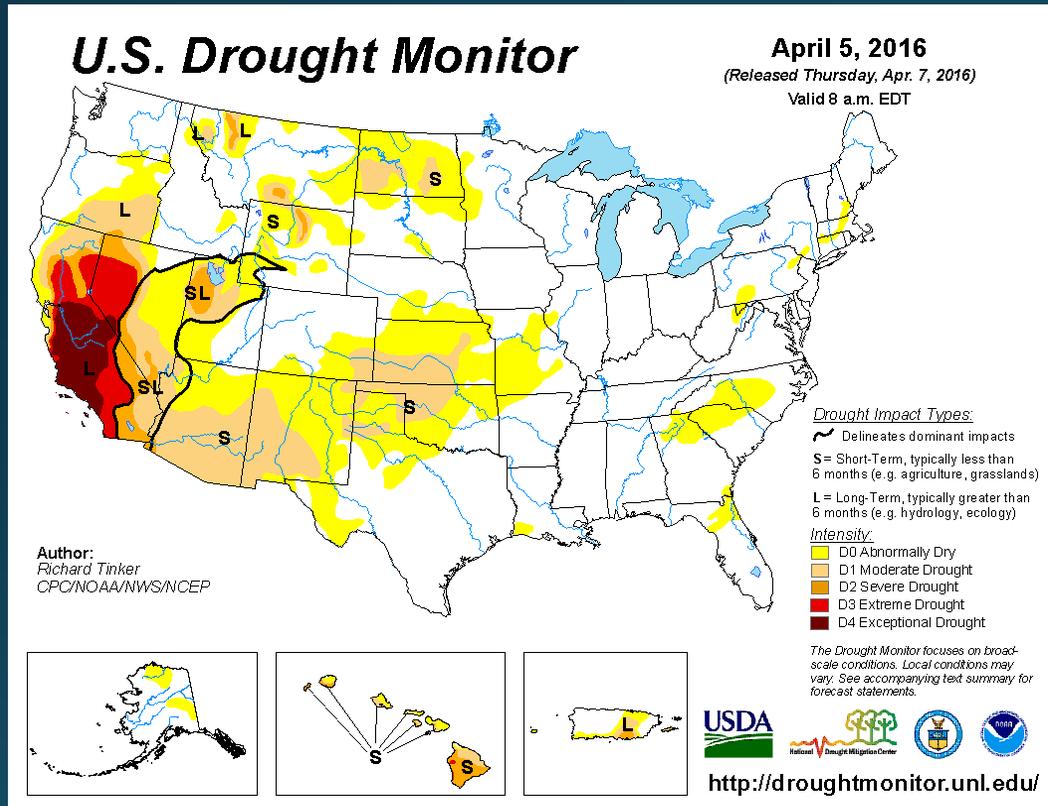
Drought of 2015: Costs in Puerto Rico

Entity/Agency	Costs (millions)
Puerto Rico Water and Sewage Authority	\$75
Agricultural sector	\$50
Industrial sector	\$70
Civil society	\$800
Total	\$995



National Drought Monitor

- <http://droughtmonitor.unl.edu/MapsAndData/Animations/DynamicAnimations.aspx>



Resiliency

- Reduce loss distribution



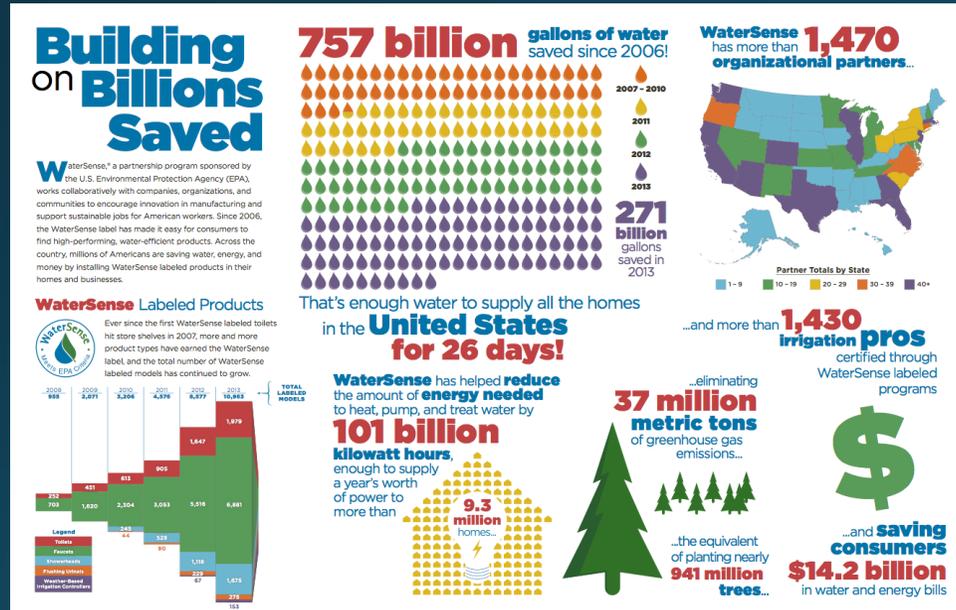
- Dredge of reservoirs



Resiliency

- Promote EPA Watersense

- Reuse of treated wastewater



Resiliency

- Rainwater collectors



- Conservation practices



Questions???

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<http://seagrantpr.org/v2/>

