

The Role of NIDIS in Citizen Science

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National Integrated Drought Information System (NIDIS)

WERA 1012 Virtual Meeting
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Overview

- What is NIDIS?
- What is a Drought Early Warning System (DEWS)?
- NIDIS's interest in citizen science





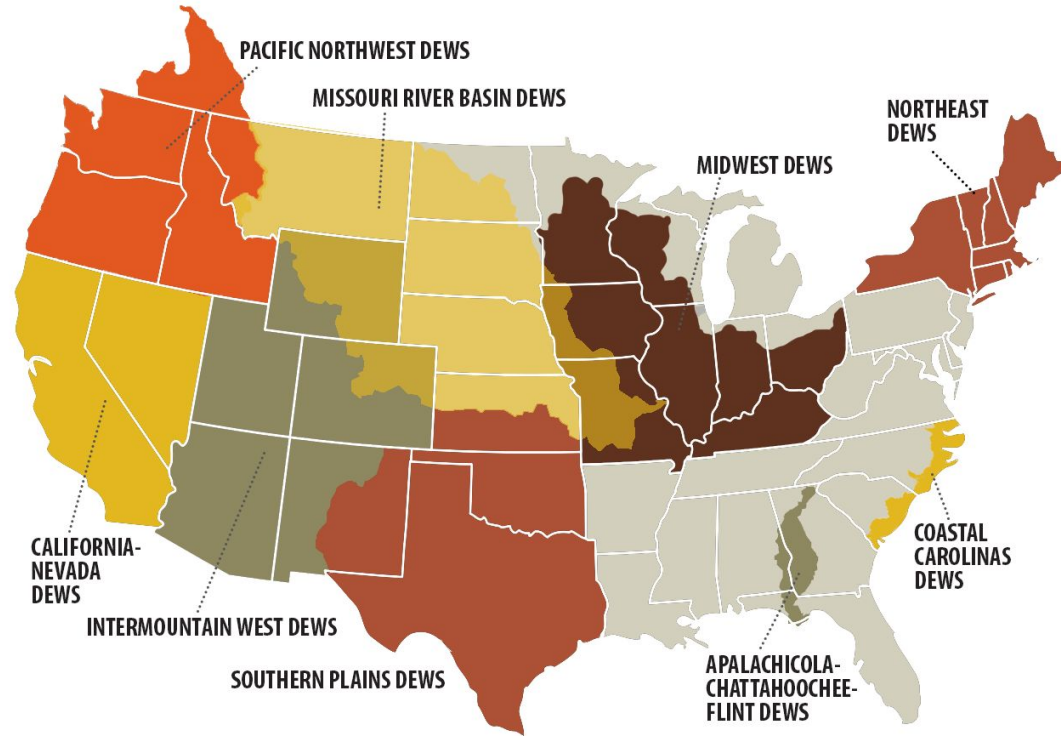
What is NIDIS?

- First authorized by Congress in 2006, and reauthorized in 2014 and 2018.
- Interagency mandate to develop and provide a **national drought early warning information system**.
- Enable the Nation to move **from a reactive to a more proactive** approach to managing drought risks and impacts.
- Authorizes NIDIS to engage in partnerships with federal, state, tribal, and local partners, as well as the private sector, academic institutions, and citizen scientists

REGIONS

Drought Early Warning Systems

A Drought Early Warning System (DEWS) utilizes new and existing networks of federal, tribal, state, local and academic partners to make climate and drought science accessible and useful for decision makers.



APPROACH

Drought Early Warning

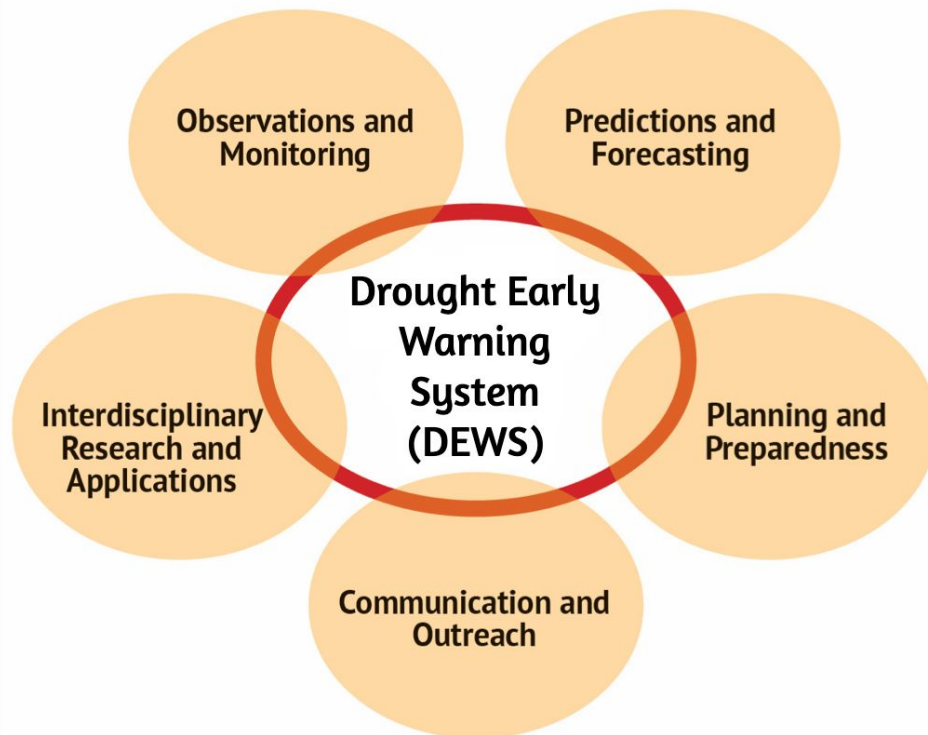
“A system that collects and integrates information on the key indicators of drought in order to make usable, reliable, and timely drought forecasts and assessments of drought...

...and communicates drought forecasts, conditions, and impacts on an ongoing basis to decision makers, the private sector, and the public.”

NIDIS Public Law 109-430

“NIDIS may...utilize and support monitoring by citizen scientists, including by developing best practices to facilitate maximum integration of data.”

Public Law No: 115-423 (01/07/2019)



Strategize Effective Ways to Approach Complex Topics Across Regions

**Citizen science
can probably
help here**



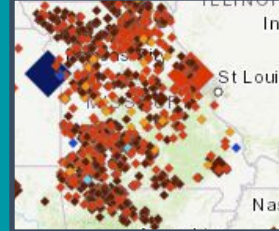
**Drought &
Public Health**

**Citizen science
can probably
help here**



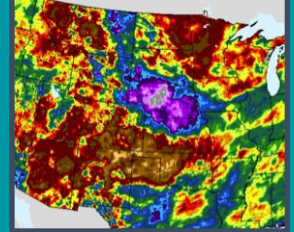
**Drought
and
Wildfire**

**Citizen science
can definitely
help here**



**Drought
Impact
Reporting and
Analysis**

**Citizen science
can help here**



**Drought
Indicators and
Triggers**

What are we doing in the citizen science space?

Soil moisture monitoring

- NIDIS helped launch soil moisture reporting with CoCoRaHS in 2017
- NIDIS is producing a Strategy for the National Coordinated Soil Moisture Monitoring Network (NCSMMN)
 - Peter Goble represents CoCoRaHS on the NCSMMN Executive Committee
 - One of our 9 recommendations in the new Strategy is to continue collaborations and partnerships with CoCoRaHS



Source: wikiHow.com
3 ways to measure soil moisture. License: Creative Commons

What we plan to do in the citizen science space

Set standards that inform best practice for drought information

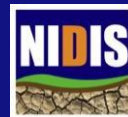
What does “Citizen Science” mean for drought monitoring?

- Crowd sourced data?
- Anecdotal* event/impact reports?
- Both? Neither? Something else?

How do we ensure the data is both useable and trustworthy?

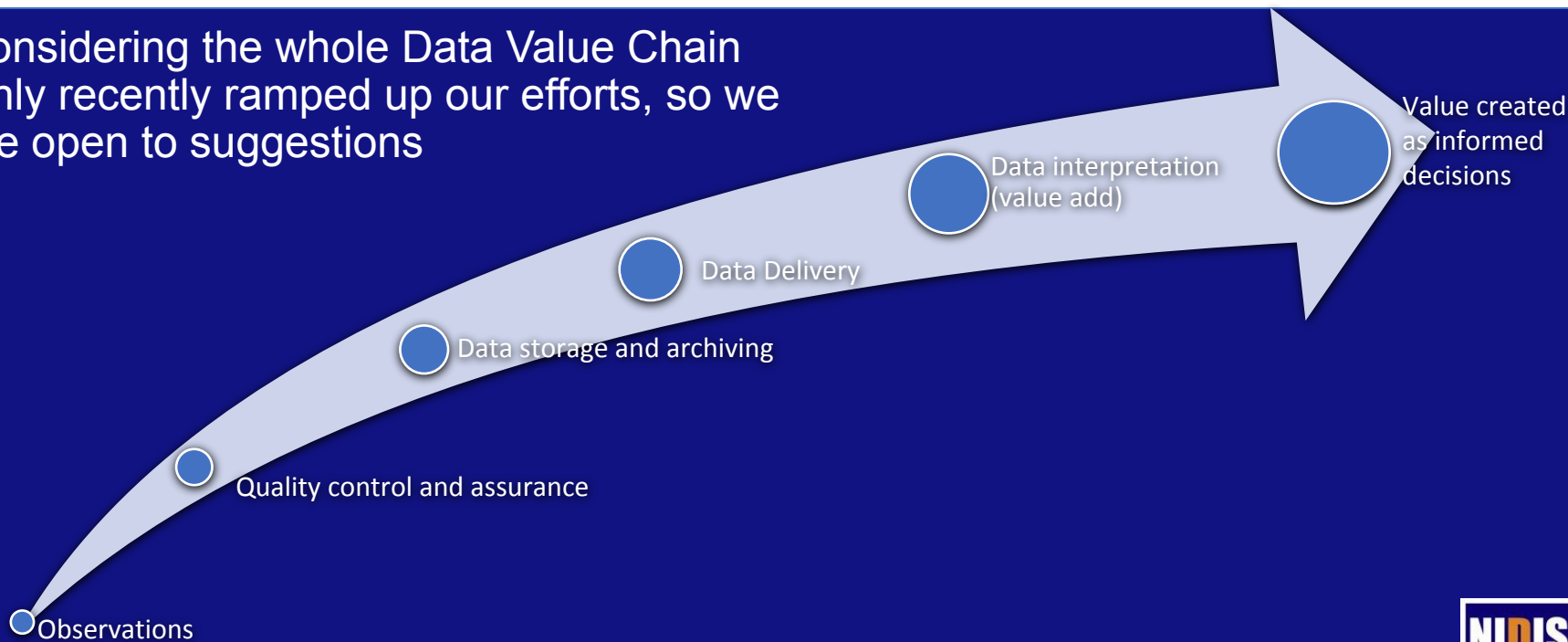


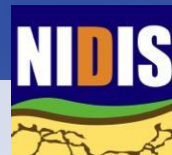
*Anecdotal: based on someone's personal experience or information rather than on facts that can be checked (MacMillan Dictionary)



What else should we consider in the citizen science space?

- Considering the whole Data Value Chain
- Only recently ramped up our efforts, so we are open to suggestions





Thank you.

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