

Assessing Drought in a Changing Climate: Establishing a Community of Practice



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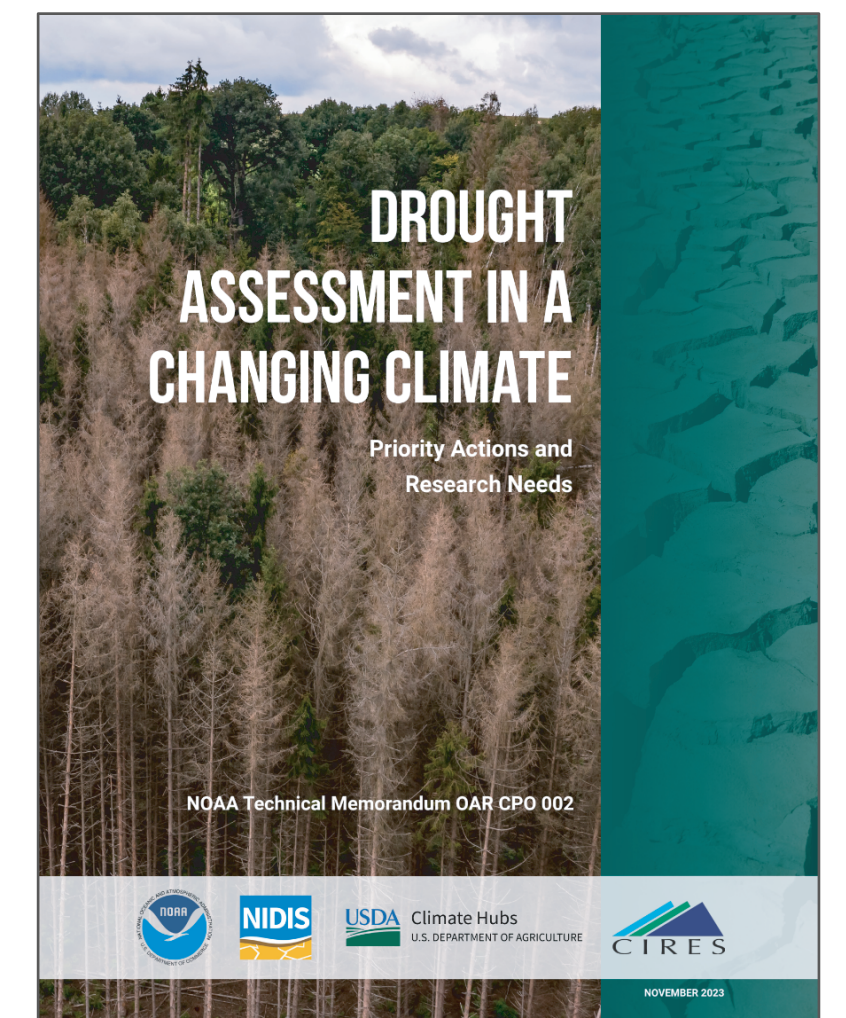
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Bottom line: Drought assessment in a changing climate will require significant adjustments in approaches to address non-stationarity.

The Challenge & Initial Steps

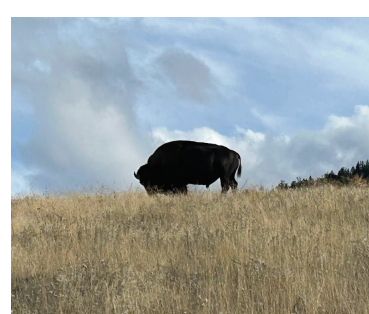
Climate change brings to the surface long-standing challenges in drought monitoring, observation, research, prediction, knowledge-sharing, and communication.

- Workshop held in spring 2023 with 100+ experts from across the drought community including scientists and decision makers
- NOAA Technical Memorandum published in November 2023
- NOAA and partners working on implementation of the report



Focus Areas

15 focus areas describe key research questions and priority actions that will advance drought science in a changing climate.



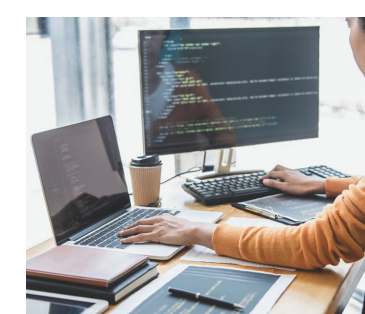
Learning with Indigenous Communities



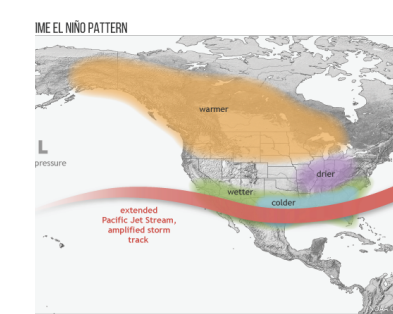
Benchmarking Our Understanding and Assessment of Drought in a Changing Climate



Ensuring Equity in Drought Monitoring and Assessment



Evaluating Data Relevance, Fidelity, Integration, Metadata, and New Technologies



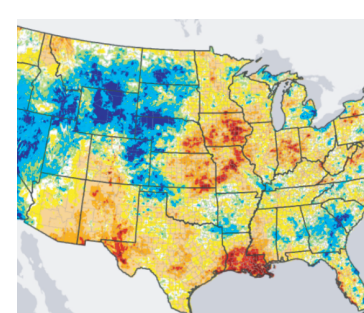
Determining the Physical Drivers of Drought and How They Are Changing



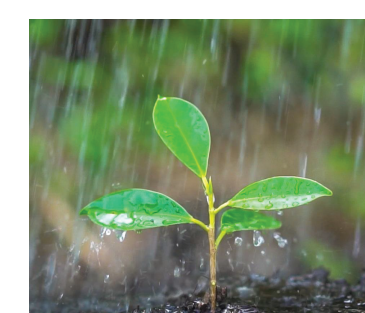
Understanding Drivers of Aridification and Their Interactions with Drought



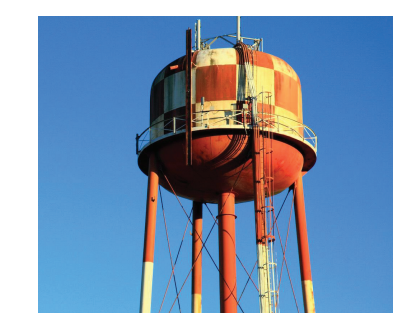
Addressing Regional Differences in Non-Stationarity



Improving Drought Indicator Performance



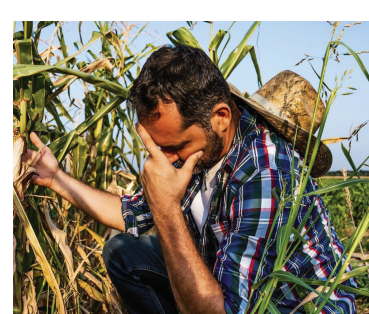
Using Precipitation Effectiveness More Broadly to Capture Rainfall Variability



Quantifying Water Demand in a Changing Climate



Evaluating Drought Impacts and How They Are Changing



Assessing Drought in Terms of Risk



Assessing Policy through the Lens of Non-Stationarity



Strengthening Planning, Management, and Adaptation



Improving Communication and Collaborative Knowledge Exchange

Policy Implications

- Drought assessment methodologies that account for climate change are key to informing both short-term risk management and long-term adaptation and to avoid maladaptive practices across sectors.
- Drought assessment methodologies that do not account for climate change could exacerbate inequities in access to information to inform planning and response as well as access to disaster relief.
- Disaster relief programs based on drought assessments that do not take into account climate change could be taking on unnecessary financial risk.
- A better understanding of drought in a changing climate will allow key economic sectors and industries to better prepare for future conditions.

A Community of Practice

- Sharing learning and best practices for drought assessment in a changing climate through the global drought community could accelerate needed changes.
- Virtual discussions 2-3 times per year with potential for in-person meetings in the future.
- Hosted by NOAA's National Integrated Drought Information System (NIDIS) and partners.



Interest Form for the Drought Assessment in a Changing Climate Community of Practice