Advancement of Satellite Earth Observations for Drought

Working Across the Basic to Applied Research to Practical Application Continuum

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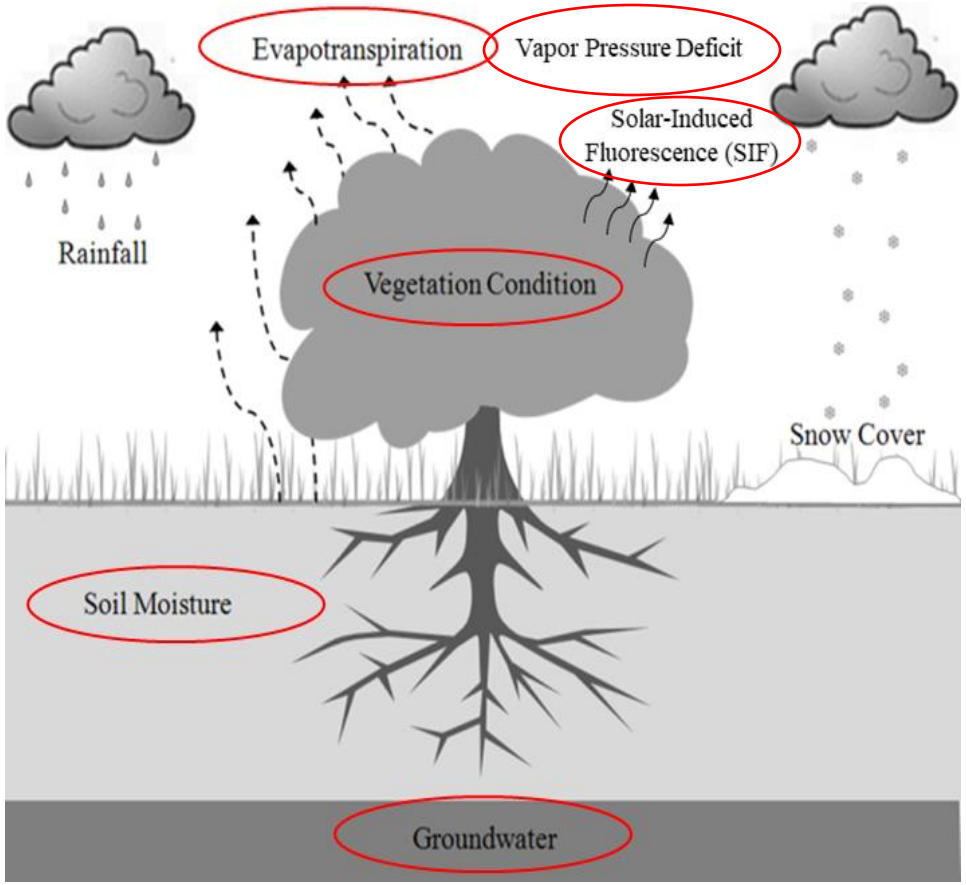
Goals

1. Develop operational drought monitoring tools that provide 'actionable' information to decision makers.
2. Improve our understanding various environmental processes and indicators related to drought to better apply remote sensing-based tools for drought monitoring.

Unique Capabilities

1. Partnerships with U.S. Drought Monitor (USDM) and federal programs (e.g., USDA RFP).
2. Advanced, multi-scale remote sensing infrastructure (airborne and proximal) to calibrate and validate satellite products.
3. Test bed of remote sensing and other *in situ* observations (e.g., eddy covariance, meteorological, soil moisture and biophysical vegetation measurements) over rainfed and irrigated agricultural field sites at UNL.



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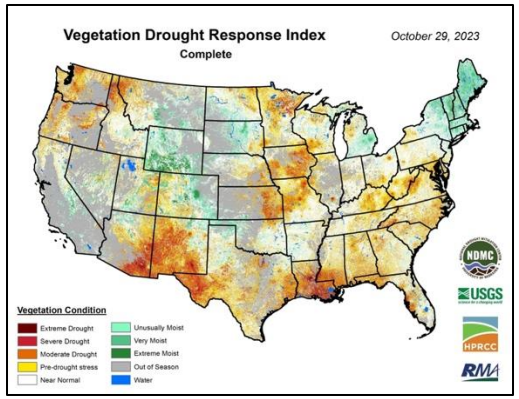
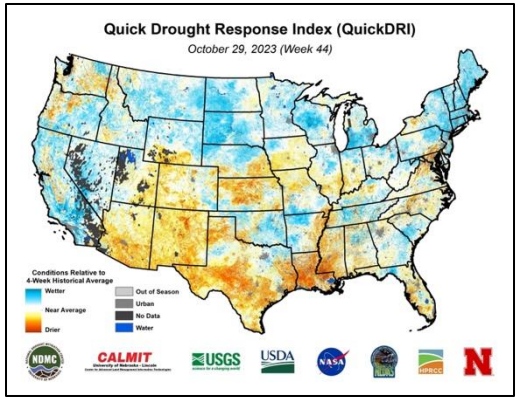
Current Activities and Future Opportunities

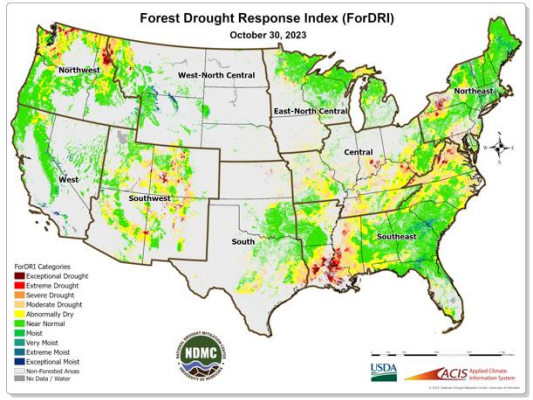
Emerging Topics

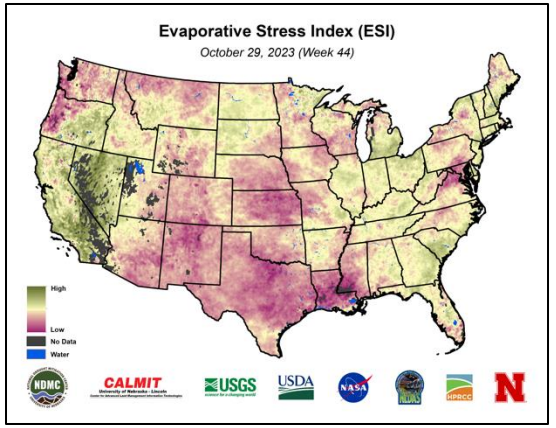
- Ecological dimensions of drought
- Human health impacts of drought
- Multi-scale monitoring and impact assessment (e.g., regional, state and sub-state)
- Integration physical and social indicators for drought monitoring and early warning

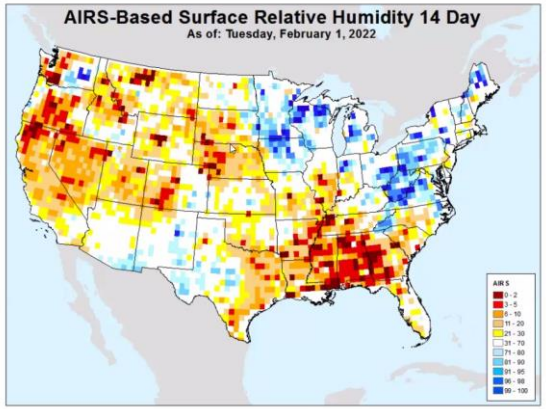
Current Drought Monitoring Tools

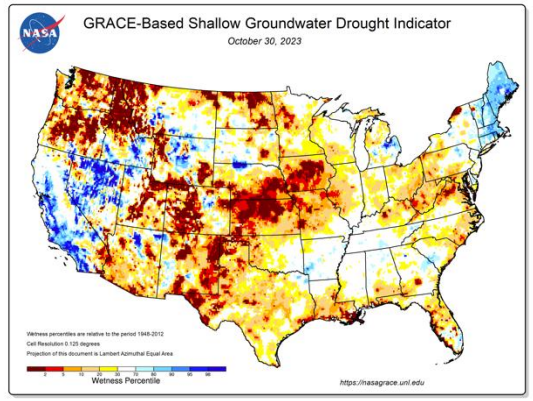












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