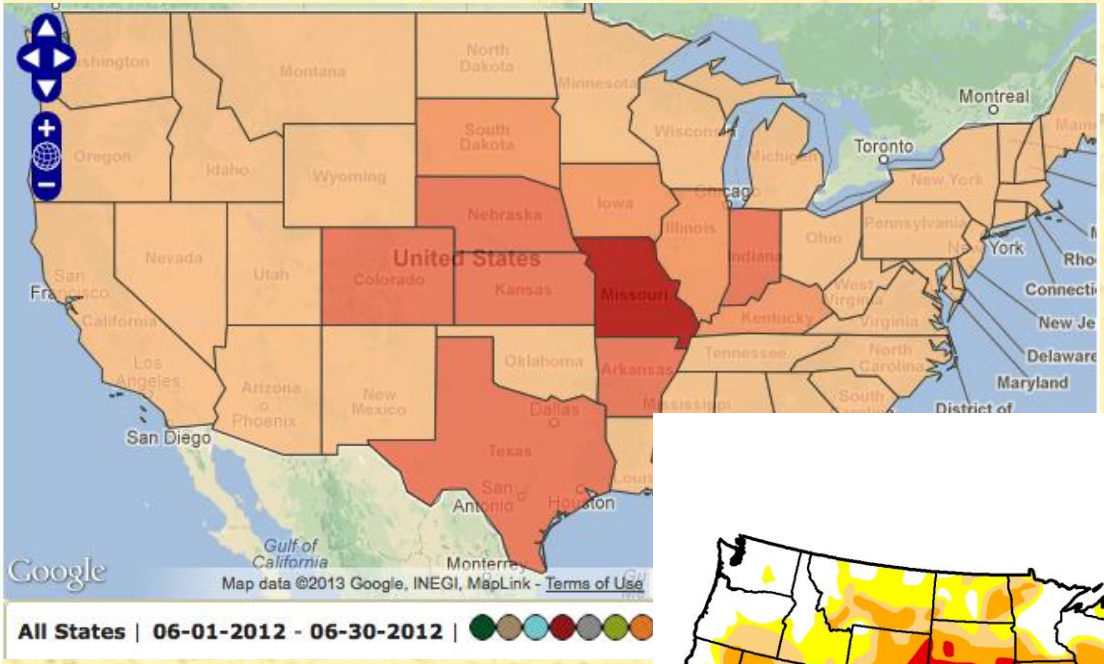
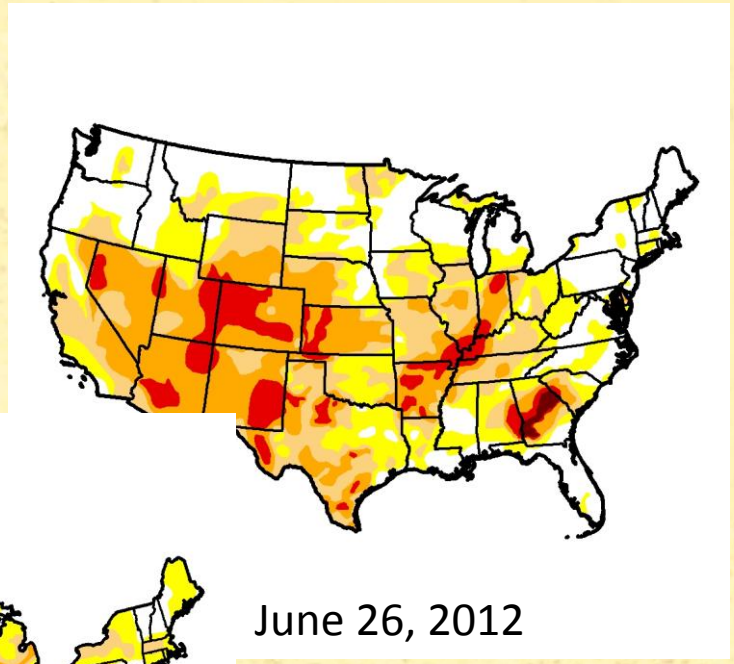
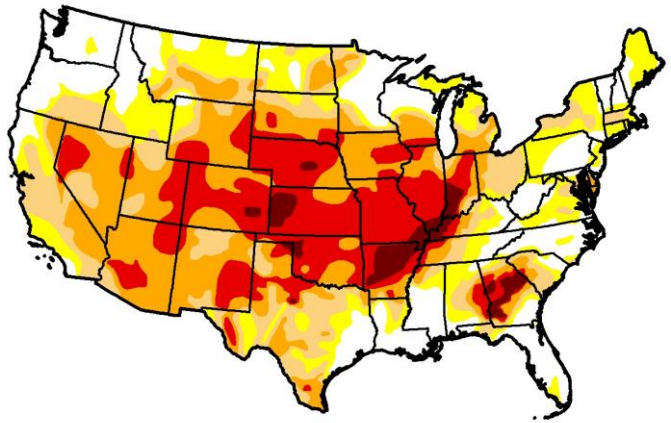
The Tucson Project

Impacts: Leading or Lagging?





June 26, 2012



July 31, 2012

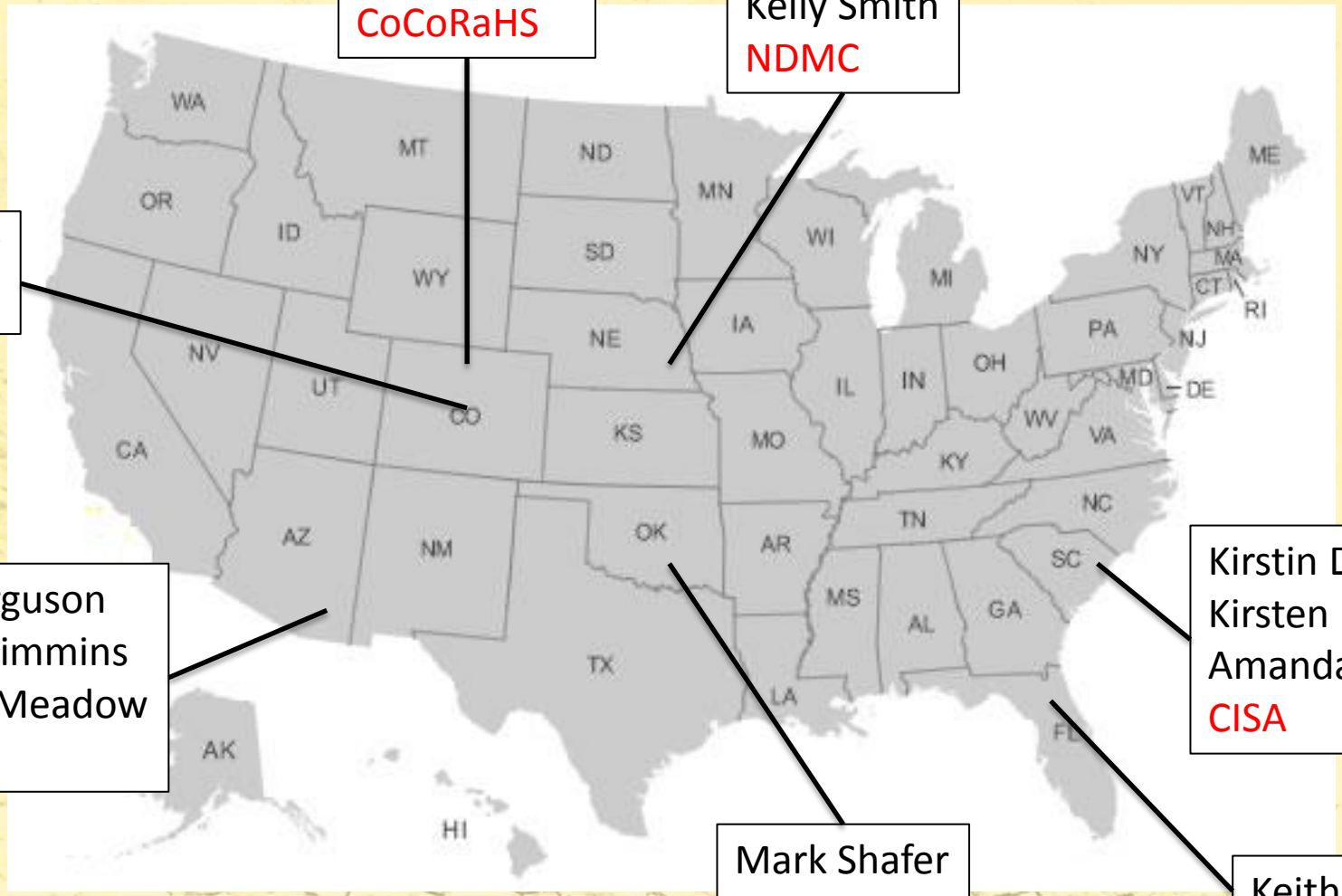
Meeting Objectives

- Share information and integrate activities related to drought impacts research and reporting
- Form a Community of practice to build a body of knowledge that can be used to inform existing and future RISA projects and other efforts
- Discuss barriers associated with drought impact reporting
- Recommend best practices for implementing a reporting system

Meeting Outputs and Outcomes

- Produce a workshop report that includes key lessons learned, barriers, best practices, strategies to move forward
- Develop an action plan for next steps for the “community of practice”

Who Participated?



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Theme #1: Fragmented Reporting

- The drought impact reporting system is fragmented across scales, sectors and regions
  - Information collected by different agencies for different purposes
  - Not systematically synthesized & communicated
- Example: Information collected by NASS should be available to DM Authors

Theme #2: Impacts Differ From Indicators

- Crops responding to high ET which is not well-represented in DM indices (e.g., fringes of drought areas)
- Ecosystems may need “drought-buster” events to recover (e.g., Southeast Florida)
- Limited data availability (e.g., 4-corners region)
- Ecological responses may be influenced by things not measured in the DM (e.g., salinity in the Carolinas)

Theme #3: Barriers

- Barriers to drought impact reporting limit development of adaptive capacity
  - Reliance on volunteers: overworked, difficult to sustain, different motivations, lack of clear guidance,
  - Sectors where value of data collected is clear is more reliable (agriculture, wildfire, some water supply)
  - Some areas not monitored well: coastal ecosystems, public health, marginal populations, rural communities
  - Less effective at capturing secondary and higher-order impacts, including economic dynamics

Theme #4: Trained Observers

- Onset, escalation and end of drought impacts require trained observers
  - Changes often emerge slowly
  - Differ according to time and place
  - There may be substantial lags (tree health, susceptibility to disease, fuel for wildfires)
  - Impacts may reflect other stresses (poor land management decisions, effects of over-pumping)
  - Collection techniques may be subjective (e.g., kicking the dirt to determine soil moisture)

Theme #5: Community of Practice

- Need a community of practice tied to vulnerability, decision makers, and consumers of information
  - Limited opportunities for mutual learning
  - Lack of coordination for dealing with drought impacts
  - Lack of integration into decision and policy making process

Recommendation #1: Build Capacity

- Collect, assess, synthesize, and interpret drought impacts data
- Integrate that data and information into decision making
- Characterize regional differences in drought and its impacts (especially ag)
- develop/provide incentives or systems that encourage impact reporting and use of reports
- need more consistent, baseline reports - not just "spot" reports when conditions are severe or extreme

Recommendation #1: Build Capacity

- develop cadre of trained observers and "translators" who have impact reporting as part of their job responsibilities, can serve as bridge between impact observers and those who might use that information for management and planning decisions
- develop and provide clearer guidance about reporting drought impacts ("what is a drought impact”)

Recommendation #2: Research Needs

- Research on individual, institutional, and organizational barriers and incentives to drought impact reporting for levels, sectors, and regions
- Vulnerability research to aid interpretation of patterns of impacts (e.g., risk management)
- Motivations behind why some people participate and others do not
- Systematic analysis of drought impact reporting networks and flows of information
- How to separate drought from other stressors

Recommendation #2: Research Needs

- Guidance on how to report the interconnections and linkages among indicators and impacts (e.g., upstream/downstream; scales and sectors; short, medium and long term)
- Ongoing evaluation of existing efforts, including the use of the USDM as a trigger
- Expertise on interpreting volunteered information in the local context; requires more personnel than presently available
- How to characterize lingering impacts

Recommendation #3: Streamline Reporting

- Better use of existing data sets
- How to interpret, display and communicate drought impacts reports on an aggregated level
- Clearly link data to decisions and the users of the information
- Will require observer training and new or integrated IT support systems
- Cannot be an unfunded mandate

Recommendation #4: Working With USDA

- Work with the NDMC to increase staff working on impact assessment and synthesis
- Share data, deploy staff for monitoring and reporting – more systematic reporting
- Improve economic valuation methods
- Consider impacts of drought on marginal, rural, and poor populations (including tribes)
  - Issues such as food security, water quality, water availability

Questions & Discussion