

SPOTTY RAIN Campaign

Pathways, Players, and Partnerships for Drought Resiliency

Engaging Citizen Scientists in the Southern High Plains

Boundary Organizations:

Local Newspaper & Social Media

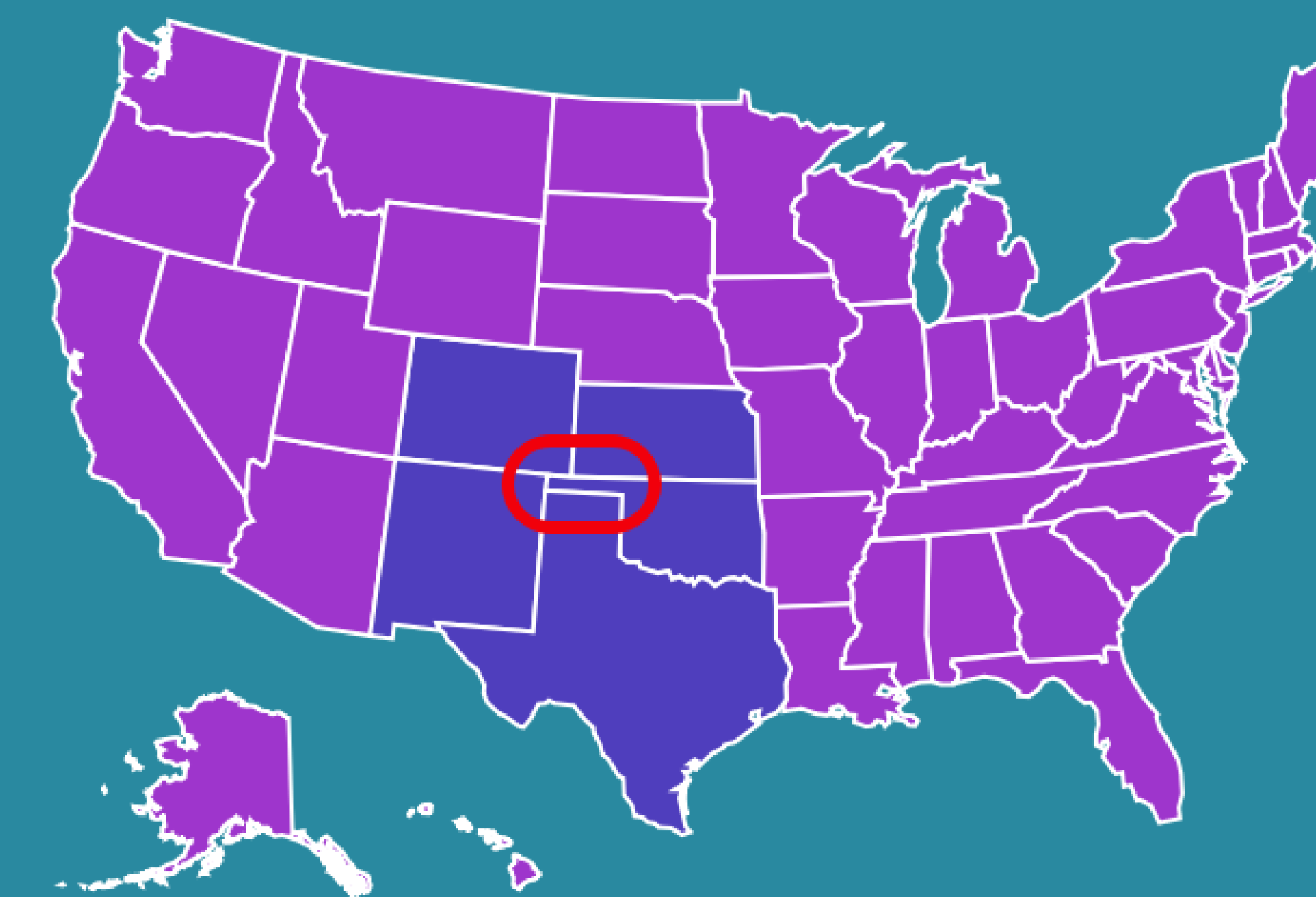
Women's Clubs

Rotary & Chamber of Commerce

County Fairs

Rural Schools

Participatory Science Learning in Rural Agricultural Communities



Study Area

'5-states Area'

Socio-culturally and economically connected

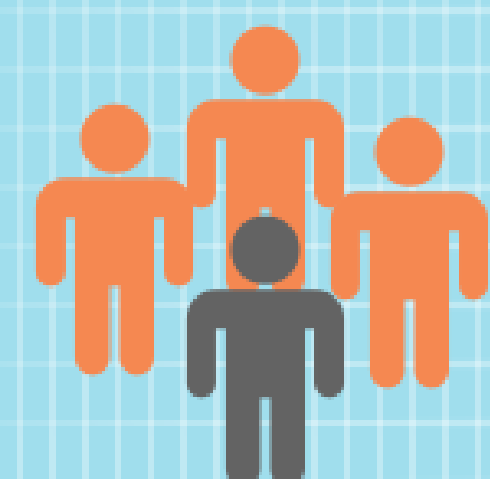
Spanning numerous geopolitical boundaries

5 States (Oklahoma, New Mexico, Texas, Colorado, Kansas)
2 U.S. Climate Regions (South and Southwest)

3 NOAA Regional Climate Centers (Western, High Plains and Southern)
2 National Weather Service Regions (Central and Southern)

4 NWS Forecast Offices (Amarillo, Albuquerque, Dodge City, and Pueblo)

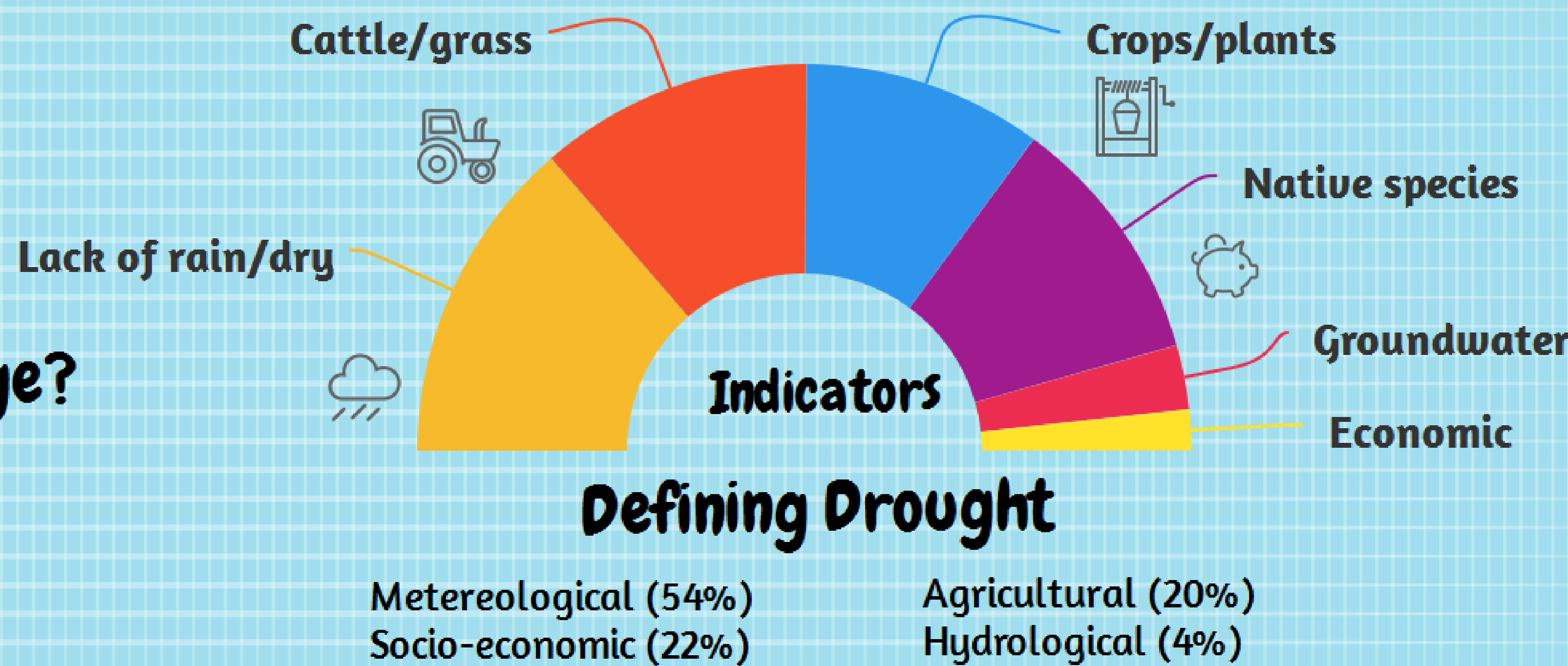
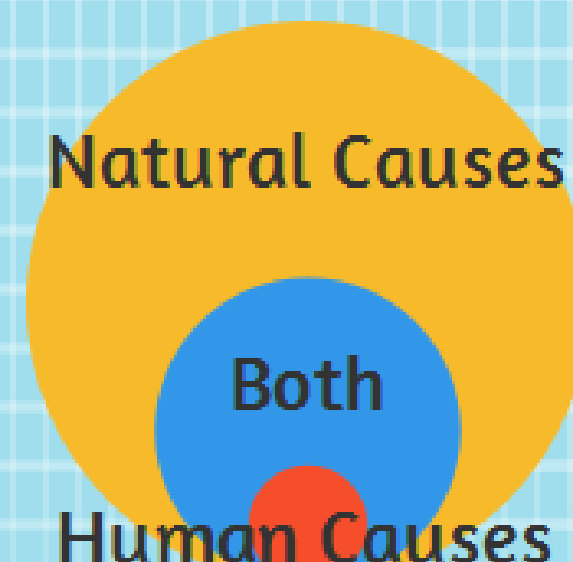
Drought Perceptions



3 out of 4 respondents agree **CURRENT DROUGHT IS WORSE THAN PREVIOUS DROUGHT.**

Is drought linked to climate change?

42 % **AGREE**
46 % **DISAGREE**
12 % **NEUTRAL**



Methods

YEAR 1: Household Surveys & Oral Histories

- 120 households in Cimarron Co., OK and Union Co., NM
- Geographically stratified with 45 rural and 15 urban respondents per county
- In collaboration with NSF CMMI-1266381

Next steps...

YEAR 2: Interviews with Drought Scientists

- Catalog of drought resources
- Successes & challenges to outreach

YEAR 3: Community Drought Monitoring Campaign

- Community meetings
- Pilot strategies for engaging CoCoRaHS drought monitors

Research Questions

What (mis)conceptions about climate change and earth systems science influence perceptions about drought trends and impacts?

How can we design virtual spaces for sustained interaction between scientists and citizens about drought risks and recovery?

How do different presentation styles influence affective/cognitive/behavioral outcomes?

Challenges

- Distrust in science, government, and outsiders
- The 'Hydro-illogical' cycle
- Climate change attitudes range from ambivalence to very strong opinions about the cyclical nature and/or politicized human causes

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