



An Extension Guidebook to Help Communities Plan for Drought Using Scenario Exercises

Background

Drought is the second costliest natural disaster in the United States with each event costing the economy approximately 9.7 billion dollars, primarily in the agriculture sector (Smith et al., 2013). While agricultural losses are typically widely publicized during a drought, impacts occur across a variety of sectors. For example, during recent droughts communities in the North Central Region have experienced residential wells running dry, reduced air and water quality, damaged infrastructure (due to dry and/or subsiding land), escalated mental health issues because of increased financial burden, economic distress, and decreased recreational opportunities (NDMC, 2018).

Drought planning can help communities leverage their unique resources and increase sustainability by building resilience to drought. By taking action to prepare for drought, communities can help ensure that critical water needs are met during dry spells, minimize the impacts of a diminished water supply, and increase the efficiency of response actions. Planning for drought can be challenging for rural communities due to lack of resources, lack of public engagement, and potential conflicts among water user groups. Drought scenario exercises are an innovative way to engage community leaders, decision-makers, government staff, and a diverse group of stakeholders, including those that don't usually participate in the decision-making process, in collaborative discussions of planning and policy-oriented issues.

While scenario-based exercises hold a great potential for supporting community drought planning, there are currently limited resources on how these exercises might be used and what outcomes communities might expect from organizing one.

To address this the [National Drought Mitigation Center \(NDMC\)](#) worked with federal, state, and community partners to create a [report outlining research and evaluating scenario exercise design, function, and success in meeting intended outcomes under differing levels of resources](#).

Goals

The drought project team is working to expand and transform the NDMC research report into an interactive Extension guide that can be used as the basis for a future Extension program designed to help communities and organizations understand, explore, and begin planning scenario exercises for developing or updating drought plans.

The team is working to:

1. Engage Extension to provide feedback on the NDMC's existing drought scenario exercises research report.
2. Modify and enhance the existing research report to meet the needs of Extension users, potentially supplementing it with enhanced case studies and

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interactive features such as worksheets, audio, and video.

3. Create an interactive online Extension guide.

The project team includes staff from the National Drought Mitigation Center and Extension educators from throughout the region, including members of the Network's climate team, the [North Central Climate Collaborative](#).

Progress to Date

The team has begun work to make the report into an interactive, website. As part of this process the project team reviews and answers survey questions about each section so the material is put in a useful context for Extension and stakeholders. The team will also host a one-day workshop in Winter of 2020 to help test the draft guidebook and get key input from stakeholders. Extension educators, outreach professionals and community development professionals will be invited to participate in the workshop and provide their insight into developing this interactive guidebook.

Project co-director, Deborah Bathke of the National Drought Mitigation Center, recently spoke about the project and the use of scenario-based exercises in an edition of [The Current Webinar Series](#).

References

National Drought Mitigation Center, NDMC.(2018). Available: <http://droughtmonitor.unl.edu>.

Smith, A.B., and Katz, W. (2013) US billion-dollar weather and climate disasters: data sources, trends, accuracy and biases. *Natural hazards*, 67(2), 387-410.

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