

Centering Equity and Justice in Drought and Wildfire Planning in U.S. Southwest

SUMMARY

Existing social inequities lead to unequal impacts to community members when experiencing drought and wildfire in the Southwest. Many of these disparities are not considered or included in the production and distribution of drought data and information. Community Wildfire Protection Plans present an opportunity to address equity and justice issues in wildfire information and planning.

Centering equity and justice in drought information

Drought and increasing aridity across the U.S. Southwest pose a growing challenge for the well-being and health of both people and the environment. Droughts have far-reaching consequences across many different dimensions of society, including impacts on agriculture, household water security, and wildfire frequency, intensity, and extent. Many historically disadvantaged communities are disproportionately impacted due to unequal access to water, land ownership, resources, and social services.

A team at the Climate Assessment for the Southwest (CLIMAS) examined the production of drought information through the lens of equity and justice, drawing from their research experience on drought in the U.S. Southwest and through a review of the scientific literature. In this summary, we outline their findings concerning drought information and wildfire.

KEY MESSAGES

- 1. Integrate physical and social dimensions of information on drought and wildfires:**
 - Social science provides valuable insight into drought by investigating perceptions and decisions made in response to drought and wildfire. It can also identify what social and economic factors increase vulnerability to drought and wildfires.
 - Integrating climate, environmental, and social data such as socioeconomic status, minority status, and the lived experiences of residents impacted by wildfire can inform the decisions based on the needs of different communities.
- 2. Invest in engagement and trust building with diverse communities:**
 - Community engaged science creates opportunities for creating drought and wildfire information that is directly relevant to the community.
 - Working with underrepresented communities requires a commitment to trust-building, humility, respect, and a set of ethical guidelines to ensure communities are not harmed by the collaboration.
- 3. Integrate place-based knowledge into climate information:**
 - Climate and environmental data is often produced at a spatial and temporal scale that does not match the information needs of a community.
 - Producing drought information that both integrates local knowledge of drought and wildfire with scientific data and delivers it at scales useful to communities and can inform decisions that mitigate inequalities.

Equity and justice in drought and wildfire planning

Wildfire is not experienced equally across the Southwest. Access to resources, information, and services plays a crucial role in determining exposure to and recovery from wildfire events. Certain groups—including renters, uninsured homeowners, low-income residents, and undocumented workers—often bear a disproportionate burden of wildfire impacts. For example, outdoor workers face increased vulnerability to the health effects of wildfire smoke.

Community Wildfire Protection Plans

Community Wildfire Protection Plans (CWPPs) provide an opportunity for a more equitable approach. CWPPs entail a community-based wildfire planning process that can address issues such as wildfire hazard mitigation, community preparedness, and wildfire responses. These plans bring together government agencies, emergency managers, land managers, and key local representatives, including faith-based groups and resource conservation districts, to collaboratively develop strategies tailored to the specific needs of the community.

By ensuring the participation of a diverse range of community members, wildfire planning efforts can lead to more equitable outcomes. However, CWPPs across the United States often fail to include at-risk groups, such as communities with high poverty rates or non-English speakers. Therefore, fostering greater community engagement and involvement is crucial to promoting wildfire planning that considers the diverse experiences of different community members and facilitates equitable access to wildfire information and resources.



When planning for wildfire protection, it's important that conversations are inclusive, just and equitable by including all the voices impacted by potential wildland fire.

ABOVE: A community in the wildland urban interface during a prescribed fire. Credit: Annie Elko

BELOW: Houses tucked into the forest. Credit: Catrin Edgeley

READ THE FULL ARTICLE: Greene, C., and D.B. Ferguson. 2024. Equity, Justice, and Drought: Lessons for Climate Services from the U.S. Southwest. *Bulletin of the American Meteorological Society* 105 (1), pages E45-E58. <https://doi.org/10.1175/BAMS-D-22-0185.1>

*The **Southwest Fire Science Consortium (SWFSC)** is a regional organization that facilitates knowledge exchange and disseminates wildland fire research and information across agency, administrative, and state boundaries in the Southwest. The SWFSC is one of 15 Fire Science Exchange Networks funded by the Joint Fire Science Program.*



*The **Arizona Wildfire Initiative (AZWI)** at the Northern Arizona University's School of Forestry supports Arizona's wildland fire needs by enhancing workforce development and education, communicating science, and increasing resilience to Arizona's communities. The AZWI is funded by the state of Arizona.*

