

# Tools & Resources for Integrating Climate and Resilience with Equity

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Use Webinar

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## CLIMATE ASSESSMENTS & AUTHORITATIVE SCIENCE-BASED SOURCES

Online climate assessments and authoritative science-based resources for understanding the causes and effects of global warming and resultant climatic changes.

- 1.0 **5th National Climate Assessment** (<https://nca2023.globalchange.gov>) — The U.S. government’s preeminent report on climate change impacts, risks, and responses. A Congressionally mandated quadrennial report offering a synthesis of peer-reviewed research on how climate change impacts U.S. regions and economic sectors.
  - 1.1 **NCA5 Interactive Atlas** (<https://atlas.globalchange.gov>) — The first interactive atlas published as a companion to the NCA, offering access to the 15 different variables featured in the report at four different global warming levels.
  - 1.2 **State Climate Summaries** (<https://statesummaries.ncics.org>) — U.S. state- and island-territory-specific climate assessments, as a complement to the NCA.
  - 1.3 **Climate Mapping for Resilience & Adaptation** (<https://resilience.climate.gov>) — Downscaled climate projections in decision-relevant variables for every U.S. county to help people explore their exposure to six different climate-related hazards.
- 2.0 **NOAA Climate.gov** (<https://climate.gov>) — NOAA’s and the nation’s “front door” to the online landscape of climate science and services via four audience-focused sections:
  - 2.1 **News & Features** — a popular science magazine offering timely & topical articles, explainers, and experts’ blogs for the climate-interested public. Reporters are encouraged to tune in to the section’s “[Event Tracker](#)”. All are encouraged to take and use N&F visuals in their own articles, posters, presentations & websites.
  - 2.2 **Maps & Data** — an easy on-ramp to NOAA’s climate-related maps and datasets for people who are new to climate data. Check out our Global Climate Dashboard for a data-driven readout on the state of the climate system, and Data Snapshots for reusable image maps of climate conditions in the U.S. and globally.
  - 2.3 **Teaching Climate** — offers hundreds of learning activities, curriculum materials, multimedia resources, and professional development opportunities for formal and informal educators. Our 3rd Edition *Climate Literacy Guide* was just published.
- 3.0 **U.S. Climate Resilience Toolkit** (<https://toolkit.climate.gov>) — A website designed to help planners and policy leaders understand and manage their climate-related risks and

opportunities as well as find and use Federal tools, information, and expertise to help them build climate resilience.

- 3.1 [Steps to Resilience](#) — a framework for developing & implementing a resilience plan; serves as the “backbone” of the site.
- 3.2 [Case Studies](#) — a library of roughly 300 stories about people in communities, governments, and businesses across the nation taking action.
- 3.3 [Options Database](#) — a database of over 1,000 climate adaptation & resilience-building solutions that different communities have developed and implemented.
- 3.4 [Find an Expert](#) — locate regional and local climate science experts and national extension networks from various U.S. federal agencies.
- 3.5 [Tools](#) — an online compendium of almost 600 free federal agencies’ and grantees’ science- and data-driven tools to help support climate adaptation and resilience planning.

## HAZARD-FOCUSED PORTALS

- 1.0 **AirNow** (<https://www.airnow.gov>) — real-time air quality and wildfire maps and data from multiple federal science agencies, including EPA, CDC, NASA, NOAA, and Nat’l Park Service.
- 2.0 **Drought.gov** (<https://www.drought.gov>) — portal for the National Integrated Drought Information System (NIDIS), offering maps, data, and information about drought conditions in the U.S. — historical, present-day, and future predictions.
- 2.0 **Heat.gov** (<https://www.heat.gov>) — portal for the National Integrated Heat-Health Information System (NIHHIS), offering maps, data, and information about extreme heat conditions in the U.S. Sponsors citizen science-led urban heat island mapping campaigns in U.S. and international cities every summer.
- 3.0 **U.S. Sea Level Change** (<https://sealevel.globalchange.gov>) — a federal interagency portal offering maps, data, and information about sea level rise and changing coastal environments along the U.S. coastline.

## COMMUNITY RESILIENCE AND EQUITY: US Census Bureau

- **Community Resilience Estimate (CRE) Datasets**  
2022: <https://www.census.gov/programs-surveys/community-resilience-estimates/data/datasets.html>
- **CRE Equity Supplement (to provide context to the estimates and add to the discussion of equity):** <https://www.census.gov/programs-surveys/community-resilience-estimates/data/supplement.html>

- **CRE for Equity Profiles Tool** (How vulnerable is your neighborhood?): <https://www.census.gov/library/visualizations/interactive/community-resilience-estimates-for-equity.html>

### **FUNDING INTEGRATION TOOL FOR SOURCE WATER (FITS):**

This tool is intended for States, Tribes and Territories; Federal agencies; watershed stakeholders; drinking water utilities; and users who are engaged with activities that protect sources of drinking water.

- **FITS Tool:** <https://ordspub.epa.gov/WFCfiles/FITSFinal/index.html>
- **Link to main webpage (Build a plan that FITS!):** <https://www.epa.gov/sourcewaterprotection/fits>
- **Fact Sheet:** [https://www.epa.gov/system/files/documents/2022-04/fits\\_factsheet\\_3.pdf](https://www.epa.gov/system/files/documents/2022-04/fits_factsheet_3.pdf)
- **Source Water Protection Funding:** <https://www.epa.gov/sourcewaterprotection/source-water-protection-funding>

### **ARTICLE: Modifying Social Vulnerability Indices to Complement Physical Exposure Risk Analyses, Authors: Lisa Wainger, Matthew Weber, Elizabeth Price**

This recently-published research identifies the social vulnerability metrics with the clearest evidence that they represent residual social risk, or intensified harms beyond physical risk factors (such as flood depth). This article proposes a streamlined method of equity index construction to address some identified concerns with SoVI and SVI methods and provides an estimate of the magnitude of risk to vulnerable populations. The preliminary finding is that, on average, a single social vulnerability factor approximately doubles flood harm for the most vulnerable. Open access link - <https://ascelibrary.org/doi/10.1061/NHREFO.NHENG-2237>