

# Understanding how communities are vulnerable to climate change is critical to build toward equity and justice

A destabilized climate is exacerbating the severity of extreme weather events, worsening infectious and chronic diseases, and intensifying social and economic stresses. Some U.S. communities have access to resources that help them prepare, endure, and recover from these impacts. Many do not. Decades of racist housing and infrastructure development, unequal protection of environmental laws, labor market discrimination, and other systemic issues have created disparities and disadvantages across America – making it harder to withstand the devastating effects of climate change.

### Visualizing climate injustice across America

The new Climate Vulnerability Index (CVI) visualizes how drivers of cumulative vulnerability disadvantage communities across the U.S. Better understanding of the intersections between growing climate risks and preexisting, long-term health, social, environmental, and economic conditions is critical to effectively deploying targeted adaptation efforts and building climate resilience for everyone.

The CVI provides a robust, data-driven approach to understanding locally relevant determinants at a neighborhood scale. Combining 184 indicators, this mapping tool integrates the conditions that can shape a community – from quality of housing and access to supermarkets to proximity to toxic waste sites. Equipping policymakers and communities with the data they need to take action, allocate funding, and advocate for changes they want to see in their own communities can limit the growing dangers from climate change.

#### Making investments where they are needed most

Congress recently made a historic level of funding available to improve equity and build resilience in vulnerable communities. But the right investments must flow to the right places for these efforts to be effective.

The CVI empowers communities and policymakers to better prioritize resources and target interventions, providing a template for addressing local-scale climate and environmental justice globally.

The CVI gives planners, local government officials, federal agencies, nonprofit organizations, research teams, and more a means to define where investments are needed most to protect vulnerable communities against climate impacts, including decision-making, policy development, resource allocation, preparedness planning, and community-level environmental action planning and advocacy. It also provides community-based organizations access to actionable data that can help them take advantage of grant opportunities for reducing disparities in their communities and advocate for increased action and funding.

"The Climate Vulnerability Index can empower communities and policymakers to better prioritize resources and target interventions, providing a template for addressing local-scale climate and environmental justice globally." – Grace Tee Lewis, Senior Health Scientist, Environmental Defense Fund

#### Complete, 360° view of U.S. climate impacts

With support from many partners, Environmental Defense Fund and Texas A&M University developed the most thorough and complete compilation of climate impacts at the census-tract level, both historical and projected, direct and indirect – integrating the impacts with environmental, health, infrastructure, and socioeconomic metrics.

From the beginning, community leaders were included in the development of the CVI. Seeking to adopt a broad definition of vulnerability, the team took a systems-based, holistic approach that considers the cumulative impacts of both pre-existing vulnerabilities and future risks from climate change. They identified and evaluated both comprehensive and localized data nationwide. Feedback from community partners at each stage of CVI development ensured the tool included data reflecting their lived experiences, which is crucial for advocacy efforts and helps define where programs and policies can best meet existing needs and promote stronger, more resilient neighborhoods.

Additionally, this extensive evaluation and collation of data sets led to an important recognition where comprehensive data are *lacking*, such as effects of climate on health, data related to tribal lands and populations, water quality, maternal and child health outcomes, and more. The CVI can highlight and elevate these gaps, leading to muchneeded research in these areas.

#### Learn more

Learn more and use the U.S. Climate Vulnerability Index at climatevulnerabilityindex.org. In addition to a comprehensive list of funding opportunities, user-friendly tutorials and real-life examples can be found on the website to show how community advocates can use data from the CVI to help make their communities more resilient in the face of climate change with resources from recent legislation. See the published research paper, Characterizing vulnerabilities to climate change across the United States, or email CVI@edf.org for more information. If you are interested in telling a story using the CVI, please contact Allyn West at awest@edf.org.

## A Climate Vulnerability Index (CVI) for Characterizing Vulnerabilities to Climate Change Across the United States



