

A Pilot Project to Develop Resilience Blueprints for California Communities

An initiative by the Climate Resilient California and Californians (CRC2) Project

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CRC2 is conducted and governed by a transdisciplinary team of researchers, state and city government officials, and civil society including NGOs. Sponsored by the Vatican's Pontifical Academy of Sciences (PAS) and Social Sciences (PASS), CRC2 is part of a global effort to achieve universal climate resilience. Its primary goal is to protect Californians, especially low income, vulnerable, or front-line workers, while also safeguarding the state's infrastructure and natural systems from both acute weather disasters and chronic, long term climate-related risks.

California Context

California is facing frequent and severe climate events like wildfires, drought, and extreme heat, which disproportionately impact vulnerable communities. Addressing these challenges requires solutions that not only respond to the immediate needs but also promote long-term equity. The State's comprehensive, coordinated, and science-based approach includes the [California Climate Change Assessments](#), the [Climate Adaptation Strategy](#), the [Adaptation Planning Guide](#), the [Integrated Climate Adaptation and Resilience Program](#), and significant investments from state and federal budgets. In addition, over half of California local governments have completed climate-informed General Plans specifically focused on wildfire, drought, extreme heat, ocean acidification, and sea level rise.

We will follow the Mitigation, Adaptation, and Societal Transformation (MAST) strategy to design and develop the Resilience Blueprints. The MAST strategy equally emphasizes mitigation efforts to reduce emissions of heat-trapping pollutants, adaptation measures to protect all communities from the effects of climate and weather disasters and systemic risks of 1.5C to 2C warming, and societal transformation to ensure that we thrive through the crisis by adopting sustainable ways of living. The MAST strategy was part of a Call to Action for Climate Resilience ([Ramanathan et al., 2024](#)), a document signed by Pope Francis and global city and state leaders, including the Governor of California. In what follows, we focus specifically on the Adaptation and Societal Transformation aspects of the MAST strategy.

The costs of climate change are substantial, impacting infrastructure, industry operations, insurance and financial markets, healthcare systems, and labor productivity. Local governments are at the front line of climate resilience. While climate change is a global issue, its effects are experienced locally and local governments lead many of the preparation and response activities. This response and preparation requires coordination across sectors and significant investment to maximize the impact of these efforts. Many California jurisdictions lack the resources, tools, and guidance for adequate adaptation, particularly those already facing socioeconomic and environmental inequities. Vulnerable communities, disproportionately affected by climate change, stand to benefit significantly from investments in adaptation strategies. These efforts are crucial for building climate resilience and ensuring equity across the state.

Goals and Objectives for Resilience Blueprints

A Resilience Blueprint is a detailed, practical community-designed roadmap to help communities adapt to climate change and build long-term resilience. A Blueprint outlines specific projects and strategies, focusing on prioritizing and implementing effective climate adaptation measures. The ultimate goal is to create an actionable plan that addresses immediate climate impacts and promotes long-term resilience, equity, and sustainability. In the pilot phase of this project, we will deliver Resilience Blueprints for eight California cities and counties that identify and prioritize key adaptation projects with accompanying funding strategies.

Resilience Blueprints will provide a detailed and practical roadmap to identify and develop climate adaptation and resilience projects and the local level. The Blueprints will:

- **Leverage Existing and Ongoing Work:** The Blueprints will distill existing State, local, and regional planning documents, assessments, and build on the expertise from State, local, and regional efforts to inform the development, ensuring that the plan is comprehensive and avoids redundancy
- **Adopt an Inclusive and Holistic Approach:** The Blueprints will be developed through an inclusive and holistic planning process that addresses the full spectrum of climate risks and community needs, both short-term (next 5-10 years) and long-term (beyond 2035) needs. This process will vary across communities, reflecting the distinct risk profiles, needs, and resources of each.
- **Identify, Prioritize, and Develop Impactful Projects:** Projects will be prioritized based on their potential to enhance resilience and equity, particularly those that significantly benefit vulnerable and underserved communities. Through the individual Blueprints and analysis of the pilots, we will also identify possible pathways to streamline implementation.
- **Center Collaborative Governance and Partnerships:** A thoughtful approach to governance will be crucial, as these Blueprints may involve multiple jurisdictions and agencies in producing resilient infrastructure and programs.

The success of the blueprints hinges on clear strategies for securing funding and ensuring successful project implementation. These strategies will be designed to be sustainable and equitable, enabling long-term resilience and support for communities in need. The Blueprints will also prioritize the potential for existing partnerships and governance structures to advance the work rather than starting from scratch to ensure practicality and scalability.

In the pilot phase of this project, we will partner with four to six local governments to produce actionable Resilience Blueprints in California. Individual Blueprints will be designed and developed at a local scale and reflect local priorities, values, and knowledge. To facilitate shared learning and leverage expertise, Blueprint development will include partnership between universities, civic society, private sector, NGOs, state government, and city/county governments. The work in California will occur alongside similar efforts in jurisdictions across the globe. Synthesis of the international Blueprint efforts will result in a global call to action to accelerate local resilience efforts.

The Blueprint development process for Adaptation will be coordinated by the [Center for Law, Energy, and the Environment](#) (CLEE) at UC Berkeley in partnership with the [Integrated Climate](#)

[Adaptation and Resiliency Program \(ICARP\)](#) in the [Governor's Office of Land Use and Climate Innovation](#). The partnership will leverage CLEE's experience in engaged research and governance and ICARP's deep knowledge and engagement with local governments to advance climate resilience. Building resilience requires integrated action across built, natural, and social systems. To support this, Blueprint development will work in close coordination with NGOs, Civil Society, and community partners to support societal transformation.

Blueprints: Pilot Phase

We will identify potential pilot jurisdictions using data on adaptation progress at local level and recent engagement with State resilience funding programs. Pilots will likely include jurisdictions that are climate exemplars (i.e., at an advanced stage in the adaptation process), including the Central Coast, Los Angeles County and San Diego. In addition, we will partner with inland, rural, and tribal areas to partner with jurisdictions that have engaged in the adaptation process, but have fewer resources, lower capacity, and/or high concentrations of priority populations. Promising partners include Siskiyou County, Butte County, City of Riverside, and the Central Valley (described below). By working with communities at different scales of readiness and resources, we will strive to develop a comprehensive and inclusive approach. To achieve these outcomes, the pilot phase will include jurisdictions that reflect:

- Geographic and resource diversity,
- A range of climate risks and experience with extreme events and other climate impacts,
- A jurisdiction's readiness to develop and prioritize adaptation project lists, and
- The presence of some level of prior adaptation work, including adaptation plans and vulnerability assessments.

In the pilot phase, we will partner with eight jurisdictions to develop Resilience Blueprints. We will share the progress on the pilot Blueprints at a California Summit planned for early 2025 and use them to inform future scaling to additional jurisdictions.

Funding Request for Blueprint Pilots

In the pilot phase, we are seeking a total of \$3,000,000, to collaborate with eight jurisdictions to develop Resilience Blueprints. Each pilot area will receive targeted funding to address its unique needs and challenges effectively.

- **Central Coast:** \$250,000 for community driven comprehensive resilience assessments and adaptation project prioritization. This funding will focus on protecting coastal ecosystems and communities from rising sea levels and increased storm intensity, with specific attention to preserving biodiversity and enhancing coastal infrastructure.
- **Los Angeles County:** \$250,000 for developing and implementing high-impact climate resilience projects. This allocation will address the needs of underserved neighborhoods by improving access to green spaces, developing cooling centers for vulnerable populations, and integrating water-saving technologies. The focus will be on ensuring equitable access to climate resilience resources and reducing disparities in urban heat impacts among diverse communities.
- **Siskiyou County:** \$250,000 for foundational adaptation planning and community-based projects. The funding will support wildfire risk reduction and water management projects with direct involvement from local communities, particularly those in rural and tribal

areas. Initiatives will include community fire preparedness programs, educational workshops, and sustainable land use practices designed to enhance resilience and safety for residents most at risk.

- **City of Riverside:** \$250,000 for comprehensive climate adaptation planning and project implementation. This funding will be used to create community cooling centers, improve air quality, and implement sustainable transportation solutions with a focus on the needs of vulnerable populations, including low-income and senior residents. The goal is to enhance public health and safety while fostering inclusive participation in climate adaptation efforts.
- **Butte County:** \$250,000 for wildfire resilience and community recovery efforts. This funding will be dedicated to supporting wildfire mitigation and enhancing disaster preparedness in areas particularly affected by recent fires. The goal is to strengthen community resilience, reduce future wildfire risks, and promote long-term recovery and sustainability in Butte County.
- **San Diego:** \$250,000 for advancing coastal resilience and wildfire mitigation efforts. This funding will focus on strengthening community preparedness and response to coastal erosion, sea level rise, and increasing wildfire risks. The aim is to safeguard both urban and natural environments while supporting community-driven resilience strategies.
- **San Francisco Bay Area:** \$250,000 for integrated climate adaptation and equity-focused projects. This allocation will address the unique vulnerabilities of the Bay Area, including rising sea levels, urban heat islands, and other risks. Projects will focus on enhancing the resilience of low-income communities and communities of color by improving access to cooling centers, disaster preparedness resources, and sustainable transportation options. The goal is to build a climate-resilient region that promotes social equity and environmental sustainability.
- **Central Valley:** \$250,000 for climate adaptation and resilience projects targeting agricultural communities. This funding will focus on building resilience to extreme heat, prolonged drought, and flooding, which increasingly threaten the region. The goal is to strengthen the adaptive capacity of the Central Valley's diverse communities, ensuring long-term sustainability and resilience against climate impacts.

We are also requesting \$1,000,000 for project management, blueprint support, and scaling. Specifically, this will provide resources for technical assistance support for pilot communities (e.g., consultants, local resource development, etc); review, publication, and dissemination of Blueprints; facilitation of peer to peer learning opportunities to develop communities of practice to support local resilience; communications to disseminate lessons learned and ongoing opportunities to philanthropy and funding agencies; and analysis and evaluation of the pilot phase to inform a strategy to scale up from the pilot phase to develop Blueprints in a larger number of jurisdictions.

Scaling Up

Following the pilot phase, we plan to expand our efforts by partnering with additional eight jurisdictions requiring an additional \$3,000,000. In this phase, we will broaden to include jurisdictions that may need assistance with development of foundational vulnerability assessments and adaptation plans to guide project list development. This phase will involve

developing prioritized project lists and accompanying funding strategies to access public and private project funding, further enhancing the capacity of less-resourced areas to ensure equitable adaptation planning.

Partners and Partner Institutions

CRC2 Leadership:

Ram Ramanathan (UC San Diego; Co-Chair)

Sam Assefa, Director, Governor's Office of Land Use and Climate Innovation (formerly the Governor's Office of Planning and Research) (Co-Chair)

Debra Gore-Mann, CEO, Greenlining Institute (Co-Chair)

Universities:

Louise Bedsworth (UC Berkeley), Chair of Blueprints Committee

Fonna Forman (UC San Diego)

Jyoti Mishra (UC San Diego)

Sheri Weiser (UC San Francisco)

State Government:

Abby Edwards, Deputy Director of Climate and Planning Programs, Governor's Office of Land Use and Climate Innovation

Wade Crowfoot, Secretary, CA's Natural Resources Agency

Local Government:

Joe La Cava, Chair, San Diego City Council

Rita Kampalath, Chief Sustainability Officer, Los Angeles County

Additional cities to be added.

NGOs & Civic Society

Nicole Capretz, CEO, Climate Action Campaign

Ellie Cohen, CEO, The Climate Center

Andra Yegohian, Chief Innovation Officer, Ten Strands

Karen Cowe, CEO, Ten Strands

Jonathan Parfrey, CEO, Climate Resolve, Los Angeles

Sigrid Wright, Community Environmental Council, Santa Barbara