

April 30, 2025

**Subject:** Climate Change Research Program - Program Closeout  
**Reporting Period:** Oct. 2017 through March 2025  
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## Summary

The California Strategic Growth Council's (SGC or the Council) Climate Change Research Program (CCR) officially closed out on March 31. This program, developed through legislation in 2017, has awarded more than \$32 million in grant funds to support California research institutions conducting policy-driven, actionable research; focused on reducing carbon emissions and advancing climate adaptation and resiliency. The program prioritized partnerships between community organizations, research institutions, and the state, building equitable and science-based research and proof of concepts for more effective and equitable policy implementation. This report discusses the efforts and accomplishments of this program.

## Background

The California State Legislature passed Assembly Bill 109 (AB 109) as part of the Budget Act of 2017, creating CCR within SGC. The Legislature appropriated \$34 million of Greenhouse Gas Reduction (GHG) Fund revenues to support three rounds of CCR research grants. The CCR Program supported “research on reducing carbon emissions, including clean energy, adaptation and resiliency, with an emphasis on California.”<sup>1</sup> Per statute, the program’s [Research Investment Plan](#), adopted by the Council in Sept. 2018, guided the development and implementation of the program’s three grant cycles, and provided the foundation for all of the Council’s research investments.

Actionable research outcomes are achieved when projects integrate community research partners – including local, tribal and regional governments, community-based organizations, associations, and industry representatives – into the process from the beginning as funded partners, co-leads, or collaborators. CCR required research teams to collaborate with community experts who serve the research project areas, ensuring that local communities validate all research supported by the Program. Community experts advised the research teams, and the research teams provided community experts technical assistance and capacity building to advance community priorities. Robust, meaningful, partner engagement was central to the success of the Program.

The Program synthesized the successes of these collaborations to create SGC’s [Participatory Research to Policy Model](#). The model re-evaluates and overhauls the canonical scientific method to enhance the co-production of knowledge. This process provides communities ownership of this knowledge to build capacity and better advocate for themselves. At the core, and throughout the model, are three key elements: Capacity Building, Accountability and Coordination between

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<sup>1</sup> [Assembly Bill 109](#), SEC. 2. Item 0650-001-3228 of Section 2.00 of the Budget Act of 2017.

the Community, research institutions, and the State. The model enhances the scientific process by incorporating three new principles: Equitable Partnership, Meaningful Engagement, and Advancing Community Solutions.

The program produced:

- Two iterations of the program's [Research Investment Plan](#) providing general information about what sort of research the Council will authorize with Research Grant program funding.
- Three grant solicitation cycles awarding \$32 million of research funding.
- 20 [research grant awards](#) to California universities and not-for-profit research institutions.
- Hosted a number of engagement events, including statewide research symposium, [Science to Action: Engagement in Research](#), that brought together a mix of scientists, community leaders, and State of California staff.
- The [Participatory Research to Policy Model](#) (PRP model), a framework for community-based participatory research framework to inform policy that other State funders of climate change research can adopt.
- An ongoing relationship with the University of California Office of the President (UCOP) and the California State University's (CSU) Chancellor's Office discussing how to advance the principles of the PRP model.
- Three partnership projects with UCOP/CSU to identify support university researchers who are refining and scaling the PRP model by supporting ongoing institutional efforts that are creating tools, metrics networks for fostering researcher/community partnerships.

## Program Components

### CCR Grant Program

CCR brought together researchers with communities and policymakers to provide opportunities to identify, ground truth and analyze best practices before scaling policies at the state level. Three rounds of the program resulted in grant awards to 20 research projects focused on the following climate related research areas:

- [Agriculture and Carbon Capture](#): Climate-smart farmland transitions in the San Joaquin Valley due to climate change and the Sustainable Groundwater Management Act; Mobile biochar production for methane emission reduction; and soil amendment and Working Lands Innovation Center - catalyzing negative carbon emissions.
- [Climate Equity and Environmental Justice](#): Facilitating equitable energy transitions; Unintended effects of climate change mitigation; Predicting investment-related displacement; Supporting climate resilient ecosystems and local communities to integrate land use planning for fire, water and biodiversity; Evaluating trade-offs in local development under climate change - carbon emissions, water sustainability and

affordable housing; Sea Level Rise, hazardous sites and environmental justice in California.

- Extreme Heat: CAL-THRIVES toolkit for heat resiliency in California's vulnerable environments; Innovative low-GHG residential space conditioning technologies for low-income residents; Measuring the impacts of climate change on vulnerable communities to design and target protective policies; and Micro-climate zones - designing effective outdoor cooling interventions.
- Resilient Infrastructure and Transportation: Climate smart transportation consortium; Increasing data accessibility and climate resilience planning support through Cal-Adapt; and a statewide and case-based assessment of solar + storage potential at schools and community centers.
- Wildfire and Natural Lands Management: Innovation center for advancing ecosystem climate solutions – managing California's natural lands for climate change; Integrating land use and climate change on California's Central Coast - impacts and adaptations for local communities; Advancing resilience with Tribal nations in Southern California, and ; Smoke, air, fire and energy infrastructure in rural California for climate-smart communities.

### **Participatory Research to Policy (PRP) Model**

[The PRP model](#) was the first of six SGC Catalyst Models. It overhauls the canonical scientific method to enhance the co-production of knowledge, giving communities ownership of the knowledge so they can better advocate for themselves. In this Model, partnerships between the community, research institutions, and the State fostered capacity building, accountability, and coordination by incorporating equitable partnerships, meaningful engagement, and advancing community solutions.

### **Engagement Events**

Over the Program's seven-year existence, staff have participated in numerous engagement events including research roundtables, listening sessions, external meetings and conferences, and webinars disseminating project outcomes (available on the [SGC YouTube channel](#)). Some examples of engagement efforts include:

- SGC hosted a two-part series on Community-based Participatory Research at [the American Geophysical Union 2023 Fall Meeting](#). A hybrid town hall discussed SGC's Research to Policy Model with three panelists. An eLightning session showcased researchers who embarked on this type of research in California, the US, and other parts of the world.
- The CCR program collaborated with American Geophysical Union's (AGU) Thriving Earth Exchange on their [2020 California Community Science Cohort](#), enabling under-resourced California communities most vulnerable to climate change the opportunity to work with leading Earth scientists to make their communities healthier, more resilient, and more sustainable in the face of accelerating climate impacts. Under the collaboration, SGC helped to identify eight California communities and AGU paired these communities with scientists to participate in the Thriving Earth Exchange program.

- SGC hosted the [2019 Climate Change Research Symposium](#) on Nov. 5, 2019, in Sacramento. This event focused on actionable science – research informed by meaningful community engagement, or “Science to Action.” The event highlighted SGC’s vision for climate change research and what it can achieve in California. More than 200 people participated in this symposium, a balanced mix of scientists, community leaders (including representatives of local and regional governments, tribal governments, community-based organizations, non-profits, and other organizations that partner – or seek to partner – on research projects), and State of California staff. SGC assigned seating at round tables to facilitate discussion among representatives from all sectors. Participants remained with the same tablemates throughout the day to support building trust and robust cross-sector dialogues.
- [2017 Research Investment Plan engagement](#) – In Oct. and Nov. of 2017 CCR staff hosted five research roundtables and four public information workshops as part of the development of CCR’s [Research Investment Plan](#).

### University Partnerships

CCR Staff started coordinating with leadership from the University of California (UC) and the CSU systems in 2023 to learn from each other and collaborate on climate action research to share information, coordinate efforts and develop project to advance the PRP model. These conversations resulted in three projects:

UCOP – Advancing Community Engagement in Climate Research: The UC Office of Research & Innovation administered \$80 million of climate action research and innovation funds through their California Climate Action Seed and Matching Grants program. Grantees were selected for funding based on a rigorous competitive peer review process. SGC’s Climate Change Research Program provided UCOP with \$200,000 to award ten additional [S/HerO supplements](#) of \$20,000 to California Climate Action Seed and Matching Grant awardees. These stipends supply researchers with funding to enhance community-engagement efforts that support collaborative approaches that ensure genuine multi-institution and community/end-user engagement.

UC Davis Center for Regional Change: Directed a project that focused on connecting with academic and community-based researchers and practitioners throughout the state and across both the UC and CSU systems. Researchers worked closely with priority communities to support the development of the PRP model and shared information throughout their networks. Key objectives of this projects included exploring ways to address the numerous institutional barriers academic, government and community-based partners face in doing community-based research; amplifying this model to academic researchers and the government agencies that support them; and, exploring and developing capacity building initiatives emphasizing community based research to better engage community organizations within the climate change research arena and strengthen community-university partnerships.

CSU-WATER (Water Advocacy Towards Education and Research): The research team conducted an initial scoping of tools and resources that can inform SGC grant and contract guidelines for the UC and CSU systems. Products from this work include an overview of relevant scientific literature and tools, case studies with examples of best practices, and an initial toolset for use by state staff and academic researchers.

## Next Steps

While the program officially ended on March 31, the tenets of this effort continue through the work of California's Fifth Climate Change Assessment (Fifth Assessment). CCR staff are leading the engagement efforts for this multi-agency initiative, using the PRP model to develop actionable research and tools that strengthen our understanding of climate vulnerability of communities across the state and support environmental professionals, decision-makers, and the communities they serve, to implement climate adaptation solutions based on the best available science.

CCR staff arranged a Participatory Research to Policy training series for Fifth Assessment Regional Author Teams. These training opportunities to equip teams with best practices and resources to fulfill the Assessment's expectations related to the PRP model and collaboration on Indigenous Knowledges on emerging internal team structures and roles. This series of training opportunities featured one-on-one engagement plan coaching and technical assistance support.

CCR also worked with university partners to foster ongoing training and support for academics interested in applying the PRP model to their research. Examples of partner efforts include:

- UCOP Community-Engaged S/HERO Awards Workshops. In addition to funding supplements to ten UCOP California Climate Action Seed Grant projects, CCR funded a series of ten workshops for academics focused on identifying best practices for engaging communities around climate risks and to provide leadership, resources, and counsel to all climate award teams on community engagement.
- Community-Academic Partnership to Advance Equity-Focused Climate Action (CAPECA) year-long training. [CAPECA](#) is piloting a 15-month training program with 11 place-based teams of community leaders and university researchers from the UC and CSU. These teams are being supported to draw on participatory methods and ask and answer key research questions that inform climate planning and action in their place. The training program is rooted in the principles and practices of participatory action research, popular education, and social equity.

## Attachments

Attachment A: CCR Project List

Attachment B: CCR Partnership Organizations

Attachment C: CCR Project Examples

Attachment D: CCR Engagement Events