




Making Justice40 a Reality for Frontline Communities

Lessons From State Approaches to Climate and Clean Energy Investments

UCLA Luskin Center for Innovation

JUSTICE 40

PEOPLE POWER PROSPERITY





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EXECUTIVE SUMMARY

Within a week of his inauguration in January 2021, President Biden established by executive order the Justice40 Initiative, a governmentwide effort to target 40% of the benefits of climate and clean infrastructure investments to "disadvantaged communities."[1] The Justice40 Initiative is a critical part of the administration's whole-of-government approach to advancing environmental, racial, and economic justice for all, with a focus on front-line communities impacted by poverty, pollution, disinvestment, and other inequities.

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[1] House, T. W. (2021, January 27). *FACT SHEET: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government.* The White House. https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/

The Need

The Biden-Harris administration recognizes the historic opportunity and pressing need to address long-standing inequities that people of color[2] continue to face from systemic racism, economic barriers, and environmental health injustices. Climate change is here and threatens to exacerbate inequalities for people of color and low-income households. These are the same populations and communities that for decades have been disproportionately and systematically harmed by pollution.[3]

The urgency of climate action cannot be understated. A mountain of studies — including from the International Panel on Climate Change[4] and the National Academies of Sciences, Engineering, and Medicine[5] — clearly outline goals for rapid decarbonization of all economic sectors in order to avert a climate catastrophe. As unprecedented environmental catastrophes such as Hurricane Ida and other climate change disasters impact the nation, the time is now to prioritize, resource, empower, and protect the most the most impacted rural, urban, and historically neglected communities.

The Challenge and Opportunity

The objective of this report is to help the Biden-Harris team and other federal decision-makers improve upon state approaches to maximize the benefits of Justice40 effectively and equitably. To do so, the report addresses two fundamental tensions.

First, there is no perfect policy model: No state has taken all of the necessary steps for climate, environmental, economic, and racial justice. But experiences of states across the country provide lessons, both do's and don'ts, from which the federal government can improve upon for transformational design and accountable implementation of Justice40.

Carbon-trading programs provide funding for state-level climate and clean energy investments. These programs are designed to reduce greenhouse gas emissions but without guarantees of reduced toxins or other local emissions in communities overburdened by pollution.[6] In addition, such market mechanisms create a paradoxical financial reliance on polluters and make long-term budget planning difficult because of uncertain annual revenues. By not relying on such funding mechanisms, the federal government can do more than any state has done with their investments.

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[2] People of color refers to Black, Indigenous, Latino/a/x, Asian, Middle Eastern, immigrants, and other populations descended outside Europe.

[3] Tessum, C., Paolella, D., Chambliss, S., Apte, J., Hill, J., & Marshall, J. (2021). $PM_{2.5}$ polluters disproportionately and systemically affect people of color in the United States. *Science Advances,* 7(18). https://www.science.org/doi/10.1126/sciadv.abf4491

[4] United Nations. (2021, August 9). IPCC report: *'Code red' for human driven global heating, warns UN chief.* UN News. https://news.un.org/en/story/2021/08/1097362

[5] National Academies of Sciences, Engineering, and Medicine. 2021. *Accelerating Decarbonization of the U.S. Energy System.* Washington, DC: The National Academies Press. https://doi.org/10.17226/25932.

[6] See: Lara Cushing, Dan Blaustein-Rejto, Madeline Wander, Manuel Pastor, James Sadd, Allen Zhu, Rachel Morello-Frosch (2018). Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011-2015). *PLoS Med* 15(7): e1002604. DOI: https://doi.org/10.1371/journal.pmed.1002604
And
Sheats, N. (2016). Achieving emissions reductions for environmental justice communities through climate change mitigation policy. *Wm. & Mary Envtl. L. & Pol'y Rev.,* 41, 377.

Second, the Justice40 Initiative alone will not be able to remedy systemic racism. To truly achieve justice, the Initiative must be coupled with regulations and other targeted actions. Some inequities will be best addressed through statutory and regulatory reform to explicitly design and sustainably fund the implementation and enforcement of federal policies to eliminate environmental disparities and the procedural inequities that contribute to them. **But Justice40 does have the following opportunity pathways:**

Justice-driven

Resource front-line communities. Justice40 should help correct a long history of uneven resources and benefits of federal funding in communities of color and low-income areas. Rooting out inequality will require eliminating racial biases and disparities in funding so that race no longer predicts the distribution of resources. To ensure under-resourced communities can access funding opportunities for physical infrastructure, such as for clean water systems, investments must also be made in human infrastructure. This includes **resourcing technical assistance, capacity building and partnership development** plus removing funding barriers.

Community-powered

Achieve transformational change. There is an opportunity to go beyond resourcing to empowering front-line communities. Besides targeting investments, federal agencies must **ensure front-line communities have power and agency, both in Justice40 policy-level and local investment decision-making**. The knowledge and lived experiences of impacted communities should shape the Justice40 Initiative and its targeted investments to effectively and equitably meet the needs of front-line rural, urban, and historically under-resourced communities. Importantly, Justice40 can be used to pilot and scale best practices and new standards around community-driven investments.

Accountable change

Institutionalize justice. To achieve the goal of empowering communities, the federal government will have to invest in new approaches that intentionally push back on existing practices, traditions, and rules that uphold inequities in government. **Accountability mechanisms** will be necessary to ensure equitable, effective, and efficient investments. The opportunity exists to use Justice40 as a catalyst to help institutionalize environmental, climate, racial, and economic justice not only into certain funding approaches but also into federal practices, policies, and systems more broadly.

Using This Report to Improve Upon Past and Current Efforts

Rising to the challenge means establishing an equity-centered Justice40 guiding framework and tools; strong accountability mechanisms and other administrative processes; and community-empowering programs to build local resilience, capacity, and agency. This report provides guidance to federal agencies on steps to design and implement Justice40 to be transformational and accountable.

We recommend guiding principles for how Justice40 can target and seek to eliminate five types of disparities that hinder a clean, just economy and society. We also identify lessons, both the good and the bad, from state and community-level experiences. While no state has taken all necessary steps to achieve climate action along with environmental, economic, and racial justice, many have made progress from which federal decision-makers can derive policy lessons and political momentum.

South Carolina and Delaware are examples that have taken action to utilize Justice40 federal investments to reap benefits in a way accountable and transparent to their state and local needs. Washington, Virginia, New York, Maryland, Illinois, and California are more robust examples because they are considering or already have a state-level Justice40 equivalent. While imperfect, their initiatives demonstrate that residents, workers, and businesses can benefit across a range of sectors, including agriculture, health, housing, energy, transportation, water, and workforce development.

A theme among the examples we spotlight is a history of grassroots organizing by historically disinvested communities. Those prepared to build upon past work to reap the benefits of future federal investments tend to have a history of mobilization by communities affected by pollution. For example, in large part because of the Climate Equity Coalition, California has funded climate investments that now empower disadvantaged communities to identify and achieve their investment goals.

Despite the opportunity and need for targeted investments, there are significant hurdles to actualize and operationalize Justice40 to ensure justice. It will require action by the following decision-makers on the five steps outlined below. The table below summarizes our recommendations for those five steps.

Table ES-1: Summary of recommendations to achieve justice through Justice40

Decision Step	Decision-Makers/ Key Entities	Do	Don't
Establish a Justice40 framework with clear objectives	Office of Management and Budget, Domestic Policy Council, and the Council on Environmental Quality	» Use Justice40 to help institutionalize environmental, climate, racial, and economic justice into federal decision-making, process, and practices. » Establish an investment framework with objectives to target disparities in cumulative pollution exposure, climate impacts, occupational impacts, community capacity, and costs and benefits of environmental programs.	Expect investments alone to achieve climate, racial, economic, and environmental justice.
Identify for whom and where to target investments	CEQ, leading development of the Climate and Economic Justice Screening Tool Administering agencies that may add other screening methods to determine eligibility for their programs	» Define and identify "disadvantaged communities" to invest in those under-resourced and impacted by disparities and injustices. » Allow for multiple tools and methods as needed to target specific disparities that agencies seek to address, in a fit-for-purpose fashion. » Develop next-generation tools to identify and track absolute magnitudes of disparities within communities over time to support robust evaluation and accountability.	Rely on one screening tool to do it all.
Establish funding guidelines, requirements, and accountability mechanisms	OMB, CEQ, and National Climate Advisor Congress can also set requirements	» Strengthen the 40% goal by requiring an investment minimum (a floor not a ceiling) for direct investments (rather than trickle down benefits) in disadvantaged communities. » Establish strong guardrails that include justice-oriented funding criteria, implementation requirements, transparent reporting of results, objective evaluation, and enforcement mechanisms to ensure Justice40 objectives are achieved across administering agencies and states. » Require agencies to be explicit about how they are changing their practices to advance the goals of Justice40. » Set clear guidelines and processes to give frontline communities agency in local investment decision-making, avoid negative consequences, and allow for multisector approaches that address multiple community priorities in a streamlined way.	Sacrifice accountability for agency-level flexibility.

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Decision Step	Decision-Makers/ Key Entities	Do	Don't
Update and design programs to meet Justice40 goals and funding guidelines	Administering agencies ranging from DOT to USDA	» Invest in programs that build power for front-line communities. Invest in systematic technical assistance and capacity building for front-line communities. » Leverage strengths of community-based organizations to reach eligible households for financial and health benefits. » Update grant application and program requirements to remove barriers for participation from the communities most at need while placing requirements and incentives on contractors to employ under-represented workers and meet other labor and environmental standards.	Ignore lessons from state programs that are equity-oriented and community-centered.
Fund equitably	Congress	» Fund investments from sources aligned with investment goals and that minimize regressive fiscal impacts.	Be constrained by limitations of state-level clean energy and climate investments funded by market-based programs.

> *"We know that we cannot achieve health justice, economic justice, racial justice, or educational justice **without environmental justice.**"*
>
> **— VICE PRESIDENT KAMALA HARRIS**
> in a statement announcing the White House Environmental Justice Advisory Council

1. Why Justice40?

A first step for the federal government is to create a framework for the Justice40 initiative. To ensure equitable outcomes, equity must be baked into the foundational principles and objectives to guide government agencies implementing Justice40. Incorporating the aforementioned opportunities, we propose a framework with **three guiding principles:**

JUSTICE40 DESIGN: Guiding principles toward a just economy and society for all

JUSTICE DRIVEN

Resource and center disadvantaged communities.

COMMUNITY POWERED

Achieve transformational change from the bottom up.

ACCOUNTABLE CHANGE

Institutionalize equity and justice into government agency practices, policies, and systems.

Through these three pathways, and drawing lessons from across the country, we propose **objectives to eliminate five disparities** that harm low-income and communities of color and hinder the transition to a clean, just economy and society for all.

In Sections 1 and 2, we provide examples of how specific states are proactively targeting these disparities through their own climate or clean energy funds.

Table ES-2: States targeting disparities that Justice40 should also target

Disparities That States Are Proactively Addressing	State Examples
Disproportionate, cumulative exposure to pollution and associated health impacts	New York and Washington
Uneven distribution of climate impacts	Virginia and California
Unequal local government resources, community capacity, and opportunities (that results in barriers to applying for green investments, keeping communities most in need in a vicious cycle of resource scarcity)	California
Disproportionate occupational impacts during the transition to a clean economy	Maryland and Illinois
Uneven distribution of the costs and benefits of green investments and environmental programs designed to subsidize access to clean technology (e.g. rooftop solar and electric vehicles)	Washington

Learning from states, we summarize three main recommendations for federal agencies designing the Justice40 framework.

SUMMARY OF RECOMMENDATIONS

DO: Use Justice40 as a catalyst to institutionalize environmental, climate, racial, and economic justice into the federal government.

DO: Establish an investment framework with objectives to target the above five disparities that hinder a clean, equitable economy and society.

DO: Ensure that front-line communities help shape Justice40 Initiative decision-making at all stages, starting with the overall framework.

2. For Whom and Where to Target Equitable Investments?

Another major step for the federal government is to identify for whom and where to target investments to address the above five disparities. The president's executive order establishing the Justice40 Initiative makes it clear that investments should "benefit disadvantaged communities."

The Council on Environmental Quality (CEQ), in partnership with the United States Digital Service, is developing a geospatial Climate and Economic Justice Screening Tool. This new tool will include interactive maps with indicators to assist agencies in defining and identifying disadvantaged communities.

Lessons can be learned from several states considering or using screening tools to determine disadvantaged communities. The most popular type of tool screens geographies using an index of pollution exposure plus health and socioeconomic vulnerability. Examples include Maryland's MD EJScreen tool and the California Communities Environmental Health Screening Tool (CalEnviroScreen, or CES), the latter being the longest-running of its type in the country and which is used to identify disadvantaged communities for the purpose of targeting investments.

Even these most sophisticated tools focus on pollution exposure and/or basic socioeconomic indicators rather than allow for systematic identification and tracking of many types of disparities, such as climate change impacts. However, federal efforts to implement Justice40 show promise in building upon existing screening strategies. The interim guidelines for Justice40 issued in July 2021 articulate the goal of defining and identifying disadvantaged communities using several of the five disparate impacts listed above.

We recommend including all five types of disparities in definitions and screening strategies for the purpose of targeting Justice40 investments to disadvantaged communities and priority populations:

Communities with disproportionately high, cumulative levels of pollution exposure and associated health impacts

Communities with disproportionately high risk of climate change impacts

Communities of color and low-income communities with fewer government resources, community capacity, and political power

Working class households disproportionately impacted by the transition from fossil fuels to a clean, equitable economy

Low-income households that historically have benefited the least from clean technologies and other environmental investments.

SUMMARY OF RECOMMENDATIONS

DO: Define and identify "disadvantaged communities" in order to invest in those historically neglected and impacted by multiple disparities and injustices (see the five above).

DON'T: Expect one screening tool to do it all. In addition to the Climate and Economic Justice Screening Tool, allow for other methods as needed to target specific disparities that specific agencies seek to address, in a fit-for-purpose fashion.

DO: Develop next-generation tools to identify and track the absolute magnitudes of disparities within communities over time to support robust evaluation and accountability.

Photo credit: **Jeffrey Isaac Greenberg**

3. How to Operationalize Effectively and Equitably?

Another major step the federal government must take is to integrate Justice40 objectives into guidelines that agencies will utilize to design, implement, update, and report on a wide suite of investments. Even beyond investment processes, federal agencies should be explicit about how they will change their practices to advance the goals of Justice40.

The president directed the Director of the Office of Management and Budget (OMB), the chair of the CEQ, and the National Climate Advisor, in consultation with the White House Environmental Justice Advisory Council (WHEJAC), to jointly publish guidance on Justice40. In July 2021, the administration published interim guidance for federal agencies.[7] Forthcoming are additional guidelines and requirements.

The interim guidance recognizes that agencies will need discretion and flexibility in how they interpret investment guidelines in order to allow for diverse investments. Yet binding requirements and accountability mechanisms will be critical to guarantee equitable, effective, and efficient implementation across investment types, programs, and beneficiaries.

Here, we identify lessons from the California Climate Investments (CCI) initiative, the nation's longest-running, multisector set of clean energy and other environmental investments benefiting disadvantaged communities and low-income households. The CCI model is centered on investment principles codified in law. Specifically, California requires a 35% investment *minimum* for disadvantaged communities and low-income households. This differs from Justice40, which is currently an aspirational goal.

CCI principles are translated into reporting requirements and accountability mechanisms overseen by a centralized agency**.** The California Air Resources Board (CARB) is the main agency responsible for ensuring compliance with CCI requirements. Led by CARB, the state has developed tools and processes that administering agencies and grantees use to annually report on CCI-funded programs and projects.

The approach has resulted in a long list of quantifiable outcomes for communities and households across the state, including measurable pollution reductions and other environmental, economic, and health benefits. The state publishes an annual report detailing these benefits. The 2020 report highlights that 50% of all implemented climate investments ($4 billion) benefit disadvantaged communities and low-income households.[8]

California has a clear process for CCI administering agencies and grantees to define benefits for disadvantaged communities and low-income communities and households. This process incorporates the priorities and expertise of community organizations, local

[7] Young, S., Mallory, B., & McCarthy, G. (2021, July). *Memorandum For the Heads of Departments and Agencies.* Executive Office of the President Office of Management and Budget. https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf

[8] California Climate Investments. (2021, April). *California Climate Investments Using Cap-and-Trade Auction Proceeds.* https://ww2.arb.ca.gov/sites/default/files/classic//cc/capandtrade/auctionproceeds/2021_cci_annual_report.pdf

governments, and other stakeholders to identify their local needs, investment benefits, and avoid harm/unintended consequences.

Also importantly, California focuses on ***direct investments*** in disadvantaged communities and low-income communities or to low-income households. The state recognizes that "benefits cannot trickle down to communities; they need to go directly to the people in the most impactful ways, while avoiding increasing or creating new burdens."[9] Compared to the more nebulous term "benefits *for* disadvantaged communities" in the executive order authorizing Justice40, the direct approach simplifies the process of assessing compliance while enhancing transparency and accountability. Moreover, direct benefits are most likely to be apparent to beneficiaries and thereby build political support.

Building upon the proposed objectives and state lessons, funding guidelines should prioritize intentional, ***direct investments*** that result in:

» Measurable reductions of pollution in front-line communities and improved health outcomes
» Enhanced community resilience to climate change impacts
» Increased capacity and power to achieve local investment goals and project priorities for historically neglected communities (see program-level recommendations for details)
» Family supporting careers and other support for workers affected by the transition to a clean economy
» Lower utility bills and other costs for low-income consumers while ensuring access to energy efficiency, renewable energy, and other clean technologies.

The funding guidelines should prioritize cross-sector programs that allow communities to efficiently address multiple disparities in a coordinated way. "Programs may be siloed, but problems are not. We need to prioritize investment programs that address multiple issues and sectors at once."[10]

SUMMARY OF RECOMMENDATIONS

DO: Strengthen the 40% goal by requiring an investment minimum (a floor not a ceiling) for direct investments (rather than trickle down benefits) in disadvantaged communities.

DO: Establish strong guardrails that include justice-oriented funding criteria, implementation requirements, transparent reporting of results, objective evaluation, and enforcement mechanisms to ensure Justice40 objectives are achieved across administering agencies and states.

DO: Require agencies to be explicit about how they are changing their practices to advance the goals of Justice40.

DO: Set clear guidelines and processes to give frontline communities agency in local investment decision-making, avoid negative consequences, and allow for multisector approaches that address multiple community priorities in a streamlined way.

DON'T: Sacrifice accountability for agency level flexibility.

[9] Sanchez, A. (2021, January). *How the Biden-Harris Administration Can Fight Climate Change and Structural Racism.* The Greenlining Institute. https://greenlining.org/blog-category/2021/biden-harris-administration-climate-structural-racism/
[10] Ibid.

4. What Are Powerful Program Models?

Once provided with the Justice40 framework and guidelines, administering agencies throughout the federal government should be incentivized to update or expand their programs to best achieve Justice40 objectives.

To illustrate how federal investments could embody Justice40 equity-centered goals, we summarize six programs, their strengths, and challenges with relevance to federal decision-makers:

» Transformative Climate Community Program

» Sustainable Transportation Equity Program

» Climate Investment Technical Assistance Program

» Partners Advancing Climate Equity Program

» Clean Cars 4 All

» EmPOWER Program

These programs incentivize partnership development; empower communities through investment decision-making, self-governance and self-determination; uplift communities through capacity building and technical assistance; and leverage partnerships with organizations rooted in impacted communities to make implementation more effective. Through these three strategies, the model programs address community-level resource and capacity disparities along with other inequities that otherwise would be exacerbated by unequal access to investments in historically under-resourced communities and households. Challenges with these programs underscore the importance of government agencies actively removing barriers for the participation of under-resourced communities most in need.

The strengths and challenges of the example programs provide lessons for how a wide array of federal agencies can update and expand their program portfolios as well as administrative, financial, and reporting processes.

SUMMARY OF RECOMMENDATIONS

DON'T: Ignore lessons from state-level programs that are equity-oriented and community-anchored.

DO: Invest in programs that build power for front-line communities. Community members and organizations should be part of, and ideally lead, every phase of investment projects for their community.

DO: Invest in systematic technical assistance and capacity building, as tools for advancing social and racial equity through increasing access to funding programs and other opportunities for under-resourced and historically under-invested communities.

DO: Leverage the strengths of community-based organizations to reach eligible households for financial (e.g., savings on electric utility bills) and health benefits.

DO: Update grant application and program requirements to remove participation barriers participation and ensure benefits for the communities most at need.

5. How to Fund Equitably?

It is critical that the source of Justice40 funding is aligned with Justice40 goals of economic, social, and environmental justice.

A main critique of climate investment programs at the state level is their financial reliance on regressive market-based mechanisms not designed to mitigate local environmental injustices. While regressive mechanisms burden the least affluent, most vulnerable populations, progressive funding mechanisms raise funds in a manner that does not exacerbate existing patterns of socioeconomic inequality.

We review the equity considerations of five types of revenue-generating mechanisms that fund climate, clean energy, and other environmental investments at the state level:

» Market-based mechanisms that place a cost on carbon and are designed to reduce greenhouse gas emissions

» Consumer-facing fees and surcharges

» Property and sales taxes

» Income taxes

» Bonds, borrowing, and deficit spending.

SUMMARY OF RECOMMENDATIONS

DO: Fund investments from sources aligned with investment goals and that minimize regressive fiscal impacts.

DON'T: Be constrained by the limitations of state-level clean energy and climate investments funded by market-based programs.

1. INTRODUCTION

Justice40

Seeking equitable investments, President Biden has called for a governmentwide Justice40 Initiative. Justice40 is a whole-of-government effort to deliver at least 40% of the overall benefits from federal investments in climate and clean infrastructure to disadvantaged communities.[12]

The Justice40 Initiative is a critical piece of the president's executive order to "make environmental justice a part of the mission of every agency by directing federal agencies to develop programs, policies, and activities to address the disproportionate health, environmental, economic, and climate impacts on disadvantaged communities."[13] The administration recognizes that low-income households and people of color[14] face intersectional, multigenerational, and disproportionate impacts from systemic racism, economic inequities, and environmental health injustices.

[12] Young, S., Mallory, B., & McCarthy, G. (2021, July 20). The Path to Achieving Justice40. The White House. https://www.whitehouse.gov/omb/briefing-room/2021/07/20/the-path-to-achieving-justice40/

[13] House, T. W. (2021, January 27). FACT SHEET: President Biden Takes Executive Actions to Tackle the Climate Crisis at Home and Abroad, Create Jobs, and Restore Scientific Integrity Across Federal Government. The White House. https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/27/fact-sheet-president-biden-takes-executive-actions-to-tackle-the-climate-crisis-at-home-and-abroad-create-jobs-and-restore-scientific-integrity-across-federal-government/

[14] People of color refers to Black, Indigenous, Latino/a/x, Asian, Middle Eastern, and other populations descended outside Europe.

Study Scope

There are significant hurdles to operationalize Justice40 and ensure that justice is achieved. It will require federal agencies to carefully craft processes and tools, update programs, and work with state and local communities to maximize measurable benefits for front-line communities, vulnerable populations, workers, and the country as a whole.

This report provides guidance on steps needed to design and implement the Justice40 initiative to be effective and equitable. We do so by identifying lessons from state approaches, both the good and bad. The objective is to help the Biden-Harris team and advocates improve upon state approaches to maximize the benefits of Justice40 effectively and equitably. Lessons learned through state experiences support the potent opportunity to create millions of good jobs, build a clean energy-driven economic recovery post-COVID19, and remedy historical injustices throughout the nation.

Both Complementary and Different

This report is meant to complement other contributions informing the Justice40 Initiative. Notably, the Equitable and Just National Climate Platform, signed by more than 300 organizations, lays out foundational goals and an agenda for economic, racial, climate, and environmental justice.[15] Also critical to meeting the president's Justice40 goal is the guidance put forth by the White House Environmental Justice Advisory Council (WHEJAC), which includes 26 of the nation's top environmental justice leaders and scholars.[16]

We underscore WHEJAC's guidance to create a transformative and accountable process to ensure fair and just investments in front-line communities. This will require investments in capacity building, technical assistance, and engagement with historically disinvested in communities. The Greenlining Institute has thoughtfully summarized relevant experience from California.[17]

This report is the first to highlight lessons from states across the nation to inform Justice40. The first half of this report features examples from North Carolina, Delaware, Washington, Virginia, New York, Illinois, Maryland, and California. The second half provides an in-depth analysis of implementation approaches and investment programs in California, the state with the longest- running Justice40 equivalent. Seeking to improve upon state experiences, we provide recommendations for how to center equity in all stages of the Justice40 initiative's design, implementation, and adaptive learning processes. While no state has taken all the necessary steps to achieve climate, environmental, economic, and racial justice, many states have made progress from which federal decision-makers can derive policy lessons and political momentum.

The report is organized around the following questions that states have grappled with and for which the federal government will also likely face to operationalize Justice40.

[15] Equitable & Just National Climate Platform. (2021). *A Vision for an Equitable and Just Climate Future*. A Just Climate. https://ajustclimate.org/index.html#platformSign

[16] White House Environmental Justice Advisory Council. (2021, May). *Justice40, Climate and Economic Justice, and Executive Order 12989: Interim Final Recommendations*. https://www.epa.gov/sites/default/files/2021-05/documents/whejac_interim_final_recommendations_0.pdf

[17] Sanchez, A. (2021, January). *How the Biden-Harris Administration Can Fight Climate Change and Structural Racism*. The Greenlining Institute. https://greenlining.org/blog-category/2021/biden-harris-administration-climate-structural-racism/

1. Why Justice40?

A first step for the federal government is to create a framework for the Justice40 initiative. To ensure equitable outcomes, equity must be baked into the foundational objectives and guiding principles that implementing agencies must use to prioritize investments for disadvantaged communities. Section 2 proposes objectives to reduce five identified types of disproportionate impacts that hinder the transition to an equitable and clean economy for all. At a minimum, these five impact areas should lay the foundation for a restorative Justice40 investment framework. Section 2 then highlights states with forward-looking plans that could serve as examples for proactively and systematically addressing environmental injustices and related inequities.

2. For Whom and Where to Target Equitable Investments?

Another major step is to identify for whom and where to target investments to address environmental disparities. Impacted communities across the country should have representation during the development of environmental justice mapping and screening tools. Section 3 describes the strengths and limitations of existing state-level environmental justice screening tools to identify disadvantaged communities and low-income populations for priority investments.

3. How to Operationalize Effectively and Equitably?

Once investment objectives and eligible populations have been identified, the next step is to integrate those objectives into a wide range of agencies and associated policy domains. It will be critical for a central entity to provide funding requirements and guidelines for implementing agencies to ensure investment objectives are met across a wide array of investment types, programs, and beneficiaries. Section 4 provides a case study of how California — the state with the only fully implemented and robust Justice40 equivalent for climate investments — has addressed program design, implementation, reporting, and accountability. This section highlights the strengths and the shortcomings of the state's approach.

4. What Are Powerful Program Models?

Federal and state agencies will need discretion and flexibility in how they interpret Justice40 guidelines in order to allow for a variety of investment types. Yet there should also be conditions and incentives in place for agencies to update or design their investment portfolios to best meet Justice40 objectives and the needs of front-line communities. Section 5 highlights best practices and challenges from climate investment programs in California that engage, empower, and uplift front-line communities in the planning, design, implementation, and co-governance of investments. This includes the state's Transformative Climate Communities Program, one of the nation's most holistic, equity-centered, and community driven climate action programs funded by a government agency.

5. How to Fund Equitably?

Foundationally, it is critical that Justice40 funding sources are aligned with Justice40 goals of economic, social, and environmental justice. A main critique of climate investment programs in California and other states is their financial reliance on market-based mechanisms not designed to mitigate local environmental injustices. However, the less well-known part of the California story is that the state utilizes many different funding mechanisms to support clean energy, infrastructure, and other climate and environmental investments. Section 6 of the report underscores both strengths and weaknesses from an equity perspective of these various funding mechanisms.

Opportunity: States Preparing to Benefit From Justice40

Other reports have tracked environmental justice policies in states taking climate action.[18] We focus here on how states are prepared to benefit from Justice40, either through direct response to the initiative (this subsection) or indirectly but more robustly through state-level Justice40 equivalents in their own climate and clean energy funds (the following subsection highlighting examples of state investments). While beyond the scope of this report to also focus on community-level and municipal case studies, recognizing that so much state action stems from the grassroots, we provide a few important spotlights in the callout box at the end of this section.

States and communities across the nation have a huge opportunity but must be ready to receive Justice40 federal investments. This will take intentional coordination between different levels of government, alongside community voices, to ensure environmental justice and equitable economic opportunity are realized.

Several states, from south to north, are responding to President Biden's Justice40 plan. South Carolina and Delaware are examples that have taken action to use federal investments to reap benefits in a way accountable and transparent to their state and local needs.

South Carolina

Building upon decades of grassroots organizing in Spartanburg and other parts of the state, South Carolina legislators (Cobb-Hunter, et al.) were the first in the country to introduce a bill in response to Justice40. House bill 4322[19] would establish a Justice40 Oversight Committee for transparency and accountability. It would "create a mechanism to locate and help organize disadvantaged communities to ensure the full benefit of Justice40 federal credits, grants, and loans."[20] While this bill did not pass during the 2021 sessions, an ad hoc committee with the same aims is moving forward. In addition, the organizing behind it has spread to other states.

Delaware

Delaware was the first state to pass a law, Resolution 40, intended to seize the opportunities of Justice40. The law establishes a committee to "locate and help organize disadvantaged communities to ensure that these communities derive the full benefit of these credits, grants, and loans to improve the overall quality of life in Delaware.[21] As such, Delaware is taking proactive steps to utilize federal investments in communities most in need of investments.

[18] Ty, A., Kurman-Faber, J., & Wincele, R. (2021, September). *An-Assessment-of-Environmental-Justice-Policy-in-U.S.-Climate-Alliance-States*. ClimateXChange. https://climate-xchange.org/wp-content/uploads/2018/08/An-Assessment-of-Environmental-Justice-Policy-in-U.S.-Climate-Alliance-States-website.pdf

[19] H.B. 4322, South Carolina General Assembly, 124th Session. (S.C. 2021). https://www.scstatehouse.gov/sess124_2021-2022/bills/4322.htm

[20] Cobb-Hunter, G., & Mitchell, H. (2021, August). *We're Fighting for Environmental Justice in a Red State. We Need Congress to Do Its Part*. Morning Consult. https://morningconsult.com/opinions/were-fighting-for-environmental-justice-in-a-red-state-we-need-congress-to-do-its-part/

[21] H.R. Con. Res. 40, 151st General Assembly (2021). (enacted) https://legis.delaware.gov/BillDetail?legislationId=79014

Opportunity: Instructive Examples of State Investments

Several states are already investing in climate action and a just transition to a clean energy economy. Some have defined (or committed to defining) disadvantaged communities for their own climate and clean energy investments, while some have also set investment minimums for these communities. There is no perfect model but lessons relevant to Justice40 can be derived from the leaders.

The Regional Greenhouse Gas Initiative (RGGI), begun in 2009, became the nation's first mandatory cap-and-invest program to reduce carbon dioxide (CO_2). It is an effort among Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, Vermont, and now Virginia (Virginia joined in 2021). The cap on emissions applies to large, fossil fuel power plants. States sell CO_2 allowances through auctions. Proceeds go to the participating states to invest in energy efficiency, renewable energy, and other consumer benefit programs. RGGI does not set an investment minimum for disadvantaged communities, although many RGGI states have focused on using RGGI revenue to benefit low-income energy consumers. This report presents examples from three RGGI states — Virginia, New York, and Maryland — that have taken additional legislative action.

States such as California and Washington have also moved forward with their own climate and clean energy investments. Both have committed at least 35% of investments to directly benefit disadvantaged/burdened communities and households.

We provide examples from six states (Table 1.1) with representative and informative actions that can help guide federal decision-makers. The examples of state action are organized from the most nascent to the most developed approaches on clean energy and climate investments to benefit environmental justice (EJ) communities, other disadvantaged or burdened communities, and low-wage households and workers.

Washington

In 2021, Washington passed the Climate Commitment Act (CCA), a bold slate of climate and energy policies to reach net zero greenhouse gas emissions by 2050 and promote resilience.[22] The CCA includes a carbon cap and investment program that will generate climate investment funds. Washington is the second state, behind California (see below), to place a binding, declining emissions limit across all major sectors of its economy and translate its climate goals into a comprehensive policy framework.[23] An objection to market-based caps is that these programs do not guarantee pollution reductions (See Section 6). The CCA seeks to address this shortcoming by directing the state's Department of Ecology to conduct environmental justice assessments; expand local air-quality monitoring and regulation in overburdened communities; and allows the department to suspend permits if criteria pollutants are not decreasing in an overburdened community and the department or local air authority adopts stricter standards.[24] The state is

[22] http://lawfilesext.leg.wa.gov/biennium/2021-22/Htm/Bills/Senate%20Passed%20Legislature/5126-S2.PL.htm?q=20210428101316

[23] Environmental Defense Fund. (2021). *Washington State's Climate Commitment Act: A model for ambitious climate policy*. https://www.edf.org/sites/default/files/documents/Washington_state_cap_invest_law.pdf

[24] See Section 3: http://lawfilesext.leg.wa.gov/biennium/2021-22/Htm/Bills/Senate%20Passed%20Legislature/5126-S2.PL.htm?q=20210428101316

dedicating specific dollar amounts by target dates to environmental justice communities and projects sponsored by tribal nations, with long-term funds generated from the sale of allowances being directed into a variety of funds. These funds are accompanied by statutory investment minimums, dictating that at least 35% of expenditures directly benefit vulnerable populations in overburdened communities, with a target of 40% and additional 10% to projects sponsored by tribal nations.[25] Additionally, the legislation incorporates a number of provisions to mitigate utility cost increases for ratepayers, with a focus on eliminating new energy cost burdens on low-income consumers through efforts such as weatherization and efficiency upgrades.

Virginia

The Clean Energy and Community Flood Preparedness Act[26] of 2020 authorizes a cap-and-trade program to reduce CO2 emissions from power plants. In 2021, Virginia joined the RGGI, becoming the first southeastern state to enter the collaborative program. RGGI revenue will go to the Virginia Community Flood Prepared ness Fund, which the act also created to enhance flood prevention, protection, and coastal resilience. See Section 2 for details.

Among the many clean energy provisions of the act are requiring utilities in Virginia to be 100% carbon-free by 2045/2050 and establishing energy efficiency standards. It creates a new program to reduce the energy burden for low-income customers, and it requires the state's Department of Social Services and the Department of Housing and Community Development to convene stakeholders to develop recommendations to implement this program.[27]

New York

New York's historic Climate Leadership and Community Protection Act of 2019 is arguably the most equity-centered climate law in the country and the state origin of Justice40. A testament to many years of successful grassroots organizing by climate justice advocates, environmental justice principles and guardrails are integrated into process and program requirements (see section 2 and 3 of this report for examples).

The law goes further than any other RGGI-participating state in committing clean energy and climate investments to benefit disadvantaged communities: a target of 40% and at a minimum, disadvantaged communities must receive no less than 35% of benefits from a comprehensive array of investments including energy efficiency projects, housing, clean transportation, workforce development, and more.[28] RGGI proceeds for the state are accountable to the 35% investment minimum, but implementation has lagged.[29] Other funding sources are still in proposal form (during the writing of this report).

[25] S.B. 5126, 67th Legislature, 2017 Reg. Sess. (WA. 2021). http://lawfilesext.leg.wa.gov/biennium/2021-22/Pdf/Bills/Senate%20Passed%20Legislature/5126-S2.PL.pdf?q=20210723132547

[26] Virginia's Legislative Information System. (2020). HB 981 Clean Energy and Community Flood Preparedness Act; definitions, funds, report. https://lis.virginia.gov/cgi-bin/legp604.exe?201+sum+HB981

[27] Office of the Governor (2020). *Governor Northam Signs Clean Energy Legislation*. Virginia Governor Ralph S. Northam. https://www.governor.virginia.gov/newsroom/all-releases/2020/april/headline-856056-en.html

[28] New York State. (2020). *New York's Climate Leadership and Community Protection Act (CLPCPA)*. https://climate.ny.gov

[29] Hernandez, A., & Keegan, B. (2020, June 5). New York's Front-line Communities Due $20 Million in Climate Funds this Year (So Far). *Environmental Advocates New York*. https://eany.org/press_release/new-yorks-frontline-communities-due-20-million-in-climate-funds-this-year-so-far/

Table 1-1: Examples of state-level climate and clean energy investments

	Washington	Virginia	New York	Maryland	Illinois	California
Year of law or program that authorizes/ establishes climate investment	2021: Climate Commitment Act	2020: Clean Economy Act & Clean Energy and Community Flood Prepared-ness Act	2019: Climate Leadership & Community Protection Act	2019: Clean Energy Jobs Act of 2019	2016: Future Energy Jobs Bill and 2021: Climate and Equitable Jobs Act	2012: SB 535 and later AB 1550 in 2016 set EJ investment minimums for California Climate Investments
Minimum investment percentage for disadvantaged communities	40% target and 35% minimum; 10% earmarked for tribal communities	No	40% target and 35% minimum	Act states intent to prioritize but no specificity.	Carve outs for low-income comm-unities	35% investment minimum for dis-advantaged communities, low-income communities, and low-income households
Equity benefits / strengths	Package of laws to phase out fossil fuels passed with diverse coalition including tribes.	Creates program to reduce energy burden for low-income customers.	Most equity-centered law as a result of justice advocates	Screening tool and just transition/ worker elements	Led by EJ organizations and allies in IL Clean Energy Jobs Coalition now driving even more worker provisions	Over $4 billion invested in and benefiting priority populations as of 2020

Maryland

Another RGGI state, Maryland has focused on decoupling economic growth from climate action.[30] In 2009 the state approved its Greenhouse Gas Reduction Act, which was reauthorized and updated in 2016 and the corresponding 2030 GHG Reduction Act Plan finalized in 2021 to meet the target of 50% reduction in GHGs by 2030. The plan has an environmental justice element but details are limited.

In addition, the state's Clean Energy Jobs Act of 2019 raises Maryland's requirement for renewable energy to 50% by 2030, requires state planning to reach 100% renewable energy by 2040, and increases funding for clean energy workforce development. The

[30] Saha, D., & Jaeger, J. (2020, July 28). *Ranking 41 US States Decoupling Emissions and GDP Growth*. World Resources Institute. https://www.wri.org/insights/ranking-41-us-states-decoupling-emissions-and-gdp-growth

act authorizes several clean energy funds with the intent to prioritize disadvantaged communities, with specificity to follow as policy details are cemented.

Illinois

Illinois lawmakers passed the Future Energy Jobs Act in 2016, a major bipartisan victory with national impacts.[31] It is credited with a rapidly growing clean energy sector in the state. The law directs hundreds of millions of dollars to solar and wind projects, with carve-outs for low-income communities. Specifically, the act is investing more than $750 million in low-income programs, including the Illinois Solar for All Program to prioritize new solar development and job training in economically disadvantaged communities. Specific programs are delivering consumer savings, economic development, and jobs for ex-offenders and former foster children.

Most recently in 2021, Illinois passed the Climate and Equitable Jobs Act (CEJA). In doing so, Illinois became the first state in the Midwest to commit to a zero-emissions power sector by 2045, with significant emissions before then, particularly in front-line communities. Illinois also cements its national leadership in creating an equitable path from fossil fuels for consumers and workers. CEJA will invest $115 million per year to create job training hubs and career pipelines, and foster small clean energy businesses in disadvantaged communities. It also fills tax revenue holes from coal and gas plant closures, increases funding of community solar, greatly expands electric transportation in communities of color, and extends energy efficiency programs to save households on their electric bills.[32]

The Illinois Clean Jobs Coalition was instrumental in both landmark laws. A model of effective organizing in a politically diverse state, the coalition consists of front-line environmental justice groups, environmental organizations, social justice advocates, clean energy businesses, labor unions, and many others.[33] For example, Little Village Environmental Justice Organization, Black in Green, and Clean Power Lake County, among other environmental justice and advocacy groups, were central to the policy design and the legislation's success.

California

California has the nation's most comprehensive and longest-running portfolio of climate investments. The California Global Warming Solutions Act of 2006 (Assembly Bill 32) created the foundation for the state's climate leadership. By requiring a reduction of GHG emissions across economic sectors, California established the first multifaceted, long-term approach to addressing climate change.

California now has a robust strategy to reduce GHG emissions.[34] One element of this strategy is a Cap-and-Trade Program. Revenues from the state's Cap-and-Trade Program go into the Greenhouse Gas Reduction Fund, the source of funding for California Climate Investments (CCI). The second half of this report focuses on

[31] Illinois Clean Jobs Coalition. (2019, April 19). *Future Energy Jobs Act*. https://ilcleanjobs.org/who-we-are/energy-jobs-act/

[32] J.C. Kibbey. (Sept. 2021). Illinois Passes Nation-Leading, Equitable Climate Bill. Natural Resources Defense Council. https://www.nrdc.org/experts/jc-kibbey/illinois-passes-nation-leading-equitable-climate-bill

[33] LVEJO. (2016, December 1). *LVEJO statement on passage of Future Energy Jobs Bill | LVEJO*. http://www.lvejo.org/lvejo-statement-on-passage-of-future-energy-jobs-bill/

[34] California Air Resources Board. (2021). *AB 32 Climate Change Scoping Plan | California Air Resources Board*. https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan

CCI, both the overall framework as well as specific CCI programs. However, it is important to note that the state has other policies and programs to reduce GHGs that are not funded as California Climate Investments.

GHG reductions remains a primary objective for California Climate Investments. Implementing legislation for individual California Climate Investments programs and the portfolio as a whole has placed additional focus on equity over the years. This is testament to the effectiveness of climate justice advocates who shaped that legislation, which has added equity-oriented requirements and guidelines for state agencies carrying out CCI.

California now has the most robust Justice40 equivalent in the nation along with a continued focus on GHG reductions and clean technology innovation. Between 2013 and 2020, California Climate Investments supported the following outcomes:

» **Environment:** The state has estimated that its implemented climate investments are reducing 66 million metric tons of CO_2 equivalent, comparable to taking about 14 million cars off the road. In addition, CCI projects have reduced criteria air pollutants by over 60,000 tons, added over 7,200 new affordable housing units near transit, and saved Californians almost $93 million through water energy efficiency projects, among other benefits.[35]

» **Equity:** More than $4 billion — 50% of all implemented CCI funds — has gone to benefit disadvantaged communities and low-income households and communities.[36]

» **Economy:** California has grown its economy (now fifth largest in the world) and population while reducing GHG emissions. In 2020 alone, the state estimated (using reported data) more than 170,000 full-time equivalent jobs were supported by CCI funding.[37]

The state has a track record that allows for retrospective analysis of its approach. For this reason, this report has a California focus, particularly in its second half. We highlight both the strengths and weaknesses of CCI and other funding programs that bring infrastructure and environmental investments to disadvantaged communities and low-income households.

The federal government has the opportunity to build upon California's strengths and avoid the state's shortcomings when devising its climate, infrastructure, and workforce investments.

[35] California Climate Investments. (2021, April). *California Climate Investments Using Cap-and-Trade Auction Proceeds*. https://ww2.arb.ca.gov/sites/default/files/classic//cc/capandtrade/auctionproceeds/2021_cci_annual_report.pdf

[36] Ibid.

[37] Ibid.

> *"This is a critical moment to define bold and equitable climate solutions that address the legacy of systemic racism and environmental injustice."*
>
> **— FORMER SOUTH CAROLINA STATE REP. HAROLD MITCHELL JR.**
>
> ReGenesis Community Development Corp. founder and executive director, and member of the White House Environmental Justice Advisory Council

Challenge: A flood of action, mostly nascent

One challenge of attempting to learn from states is that a tremendous amount of action is ongoing. We inevitably cannot cover all these efforts in this report. Instead, we highlight examples from six states taking actions representative of the broader picture. The broader picture is quickly evolving, as several states are currently considering clean energy and climate action legislation.

Importantly, many existing state commitments derive from the grassroots and have a strong commitment to resourcing front-line communities. Yet, even most leading states highlighted in this report are in the early stages of making robust climate and clean energy investments in under-resourced communities. Examples of implementation are more limited. More lacking is systematic and institutional change, at all levels, necessary for climate, environmental, economic, and racial justice to meet broader goals of Justice40.

Challenge: Reliance on cap-and-trade

The states' reliance on carbon trading programs to generate investment funds has divided environmentalists. While such market-based mechanisms are the major source of clean energy and climate investments, advocates emphasize inconsistencies with environmental justice goals. A main reason: Carbon trading programs focus on GHG emission reductions broadly rather than focus on, and guaranteeing, local emissions reductions in communities overburdened by pollution. Also fundamental is the opportunity cost that carbon trading programs pose, instead of using more direct regulatory approaches to ensure both climate and local pollution reductions.

See Section 6 for more details plus an overview of other funding sources that California has used for other climate, environmental, and green infrastructure projects.

Community-Level Examples

Like at the state level, communities are preparing for Justice40. The Justice40 Accelerator is provided below as an example of this. Also provided are two important examples of community-driven investments for environmental and climate justice.

Justice40 Accelerator

With support from philanthropy, more than 50 community-based organizations from across the nation have formed a cohort to receive capacity-building resources to prepare to apply for and mold Justice40 investments.[38] These organizations have proposed environmental justice projects that, when fully resourced, would help the Biden-Harris administration reach its goals for the Justice40 Initiative. The federal government could actively support this type of capacity building and planning effort to ensure communities that have least benefited from federal investments and policies in the past will be part of the solution for the future.

ReGenesis: Spartanburg, South Carolina

South Carolina is home to a national model of investments for environmental justice and community revitalization. In the Spartanburg area, the grassroots nonprofit ReGenesis has engaged in a multidecade effort to holistically address interconnected challenges including poverty, lack of economic opportunity, inadequate access to services like health care and transportation, and outsized pollution burdens.[39]

ReGenesis utilized a $20,000 EPA SMALL grant to conduct a community-led planning process for guiding infrastructure investments. Since then, ReGenesis has executed a just transition plan that addresses historical disinvestment and environmental harm through cleanup, community-led economic development, and restorative, regenerative local revitalization. Almost $300 million in federal, state, local, private sector, and foundation EJ investments have been leveraged for community benefits. Now, ReGenesis is launching its second phase to complete the vision the community outlined while helping expand their just transition model nationally through a first-of-its-kind community accelerator, in partnership with Justice Capital.[40]

Portland Clean Energy Community Benefits Fund

The Portland Clean Energy Community Benefits Fund (PCEF) is the nation's first climate fund created and led by communities of color. PCEF centers Black and Indigenous people, and other disadvantaged and marginalized groups, in addressing the climate crisis and advancing racial and social justice.[41]

PCEF was created by a voter-approved local ballot measure in 2018 and has since strived to offer and implement a community-led vision, grounded in justice and equity, that builds citywide resilience and opportunity. The fund is anticipated to bring between $44 million and $61 million in new annual revenue for workforce development, clean energy, green infrastructure, and regenerative agriculture projects resulting in green jobs, healthy homes, and a more climate-friendly Portland.[42]

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[38] The Justice40 Accelerator. (2021). *Meet The Justice40 Accelerator Cohort.* https://www.justice40accelerator.org/cohort-list

[39] MDB, Inc. and ReGenesis Community Development Corporation. (2021). *ReGenesis Partnership Benefits and Leveraging Report (2000–2020): A National Model of Environmental Justice and Community Revitalization Success.* https://static1.squarespace.com/static/606d12dbf7c2c0534a68fa22/t/60a2cb8690b338485b9de280/1621281676084/ReGenesis+Report+021221_final.pdf

[40] The Good Life Pledge. (Accessed Sept. 2021). Equitable Community Development Model Communities. https://www.goodlifepledge.com/modelcommunities

[41] City of Portland. (2021). *About the Portland Clean Energy Community Benefits Fund.* Portland.gov https://www.portland.gov/bps/cleanenergy/about

[42] Ibid.

2. WHY JUSTICE40?

A first step to actualize Justice40 will be to create an organizing framework that articulates specific principles and binding objectives to guide diverse investments made by a wide range of agencies. Unless equity considerations are baked into the foundation of the initiative, there is no guarantee of equity outcomes.

Such a framework should answer:

» **Which specific injustices and inequities must Justice40 investments seek to remedy?**

» **How can Justice40 go beyond investments and be a catalyst to advance broader systems change for environmental, economic, racial, and climate justice?**

> *"Equity and fairness must be at the core of federal investment decisions."*
>
> **— MARK MAGAÑA**
> Founding President and CEO, GreenLatinos

We propose that Justice40 offer the following opportunity pathways:

- **Restorative investments that resource front-line communities.** Justice40 should help correct a long history of uneven resources and benefits of federal funding for communities of color, low-income areas, tribes, and other impacted populations. It is necessary to prioritize social and racial equity in both process and outcome. Equity means not offering the same investments to everyone, but instead prioritizing the most under-resourced communities and populations to systematically fill investment and service gaps. Rooting out inequality also requires eliminating racial biases and disparities in funding so that race no longer predicts the distribution of resources.
- **Transformational change from the bottom up.** There is an opportunity to go beyond resourcing to empowering front-line communities through investment decision-making and agency. The knowledge and lived experiences of impacted communities should shape targeted investments to effectively and equitably meet the needs of front-line rural, urban, and historically under-resourced communities.
- **Institutional and systems change from the inside.** To empower communities, the federal government should invest in new approaches that intentionally push back on existing practices, policies, and systems that uphold racial biases and inequities in government.

Incorporating the aforementioned opportunities, we propose a framework with three guiding principles:

- **Justice driven:** Resource and center front-line communities.
- **Community powered:** Achieve transformational change from the bottom up.
- **Accountable change:** Institutionalize equity and justice into government agency practices, policies, and systems.

These principles seek to align with best practices, including those of the Portland Clean Energy Community Benefits Fund[44] spotlighted in Section 1, and standards for equitable community investment put forth by The Greenlining Institute.[45]

Through the three pathways and drawing lessons from across the country, we propose Justice40 **objectives to eliminate at least five disparities** that harm low-income and communities of color and hinder the transition to a clean, just economy and society for all. This section provides examples of how states have targeted these five disparities through their clean energy and climate investments.

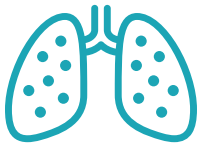
[44] City of Portland. (2021). About the Portland Clean Energy Community Benefits Fund. Portland.gov https://www.portland.gov/bps/cleanenergy/about
[45] Sanchez, A. (2021, January). How the Biden-Harris Administration Can Fight Climate Change and Structural Racism. The Greenlining Institute. https://greenlining.org/blog-category/2021/biden-harris-administration-climate-structural-racism/

Table 2-1: States targeting disparities that Justice40 should also target

Disparities That States Are Proactively Addressing	State Examples
Disproportionate, cumulative exposure to pollution and associated health impacts	New York and Washington
Uneven distribution of climate impacts	Virginia and California
Unequal local government resources, community capacity, and opportunities (that results in barriers to applying for green investments, keeping communities most in need in a vicious cycle of resource scarcity)	California
Disproportionate occupational impacts during the transition to a clean economy	Maryland and Illinois
Uneven distribution of the costs and benefits of green investments and environmental programs designed to subsidize access to clean technology (e.g. rooftop solar and electric vehicles)	Washington

What Should Justice40 Remedy?

▶ Elevated cumulative pollution exposure and associated health outcomes



Unequal and disparate positioning of certain groups within our market economy has led to disproportionate exposure to pollution. For instance, the way our housing markets sort households by their ability to pay routinely results in low-income children being exposed to higher levels of pollution at home and in nearby schools compared to children from wealthier households. Systemic racism operating in housing markets also places the heaviest pollution burdens on people of color and other vulnerable populations. Occupational and workplace exposures compound residential exposures because of similar dynamics in local labor markets.

Over the last decades, researchers have documented pollution disparities in a voluminous body of environmental justice and health outcome research.[46]

Despite four decades of federal rulemaking that includes the Clean Air Act, the Safe Drinking Water Act, and other policies, environmental hazards persist and their concentration in low-income communities of color continues. The nation's critically important bedrock environmental policies lack an explicit focus on equity in their design, implementation, monitoring, enforcement, and evaluation.

Action example: New York and Washington

New York's Climate Leadership and Community Protection attacks the problem of air pollution. The law requires that the state

[46] Ringquist, E. J. (2005). Assessing evidence of environmental inequities: A meta- analysis. Journal of Policy Analysis and Management, 24, 223-24

prioritize projects that both reduce GHG emissions and eliminate criteria pollutants in historically disadvantaged communities. In addition, New York's law creates a community air monitoring program to identify high-risk communities, monitor local air quality, and create and implement a strategy to improve air quality in these impacted communities.

Perhaps most important are process requirements that underlie New York's law. Environmental and climate justice advocates are an integral part of the implementation process, with a seat at the proverbial table. Specifically, the law creates the Climate Justice Working Group to advise and guide the state's Climate Action Council as it establishes GHG reduction targets as well as the criteria for identifying disadvantaged communities based on considerations related to public health, environmental hazards, and socioeconomic factors.[47] Section 4 provides more information about the tool being developed to identify disadvantaged communities.

Washington's Climate Commitment Act (CCA) seeks to target local air pollution and environmental justice through several mechanisms. This includes directing the state's Department of Ecology to conduct environmental justice assessments; expand local air-quality monitoring and regulation in overburdened communities; and allows the department to suspend permits if criteria pollutants are not decreasing in an overburdened community and the department or local air authority adopts stricter standards.

Lessons for the federal government

Eliminating the racial, housing market, income, and labor market inequities that affect pollution disparities would fundamentally require broad structural changes. Additionally, systematically targeting and eliminating disproportionate pollution burdens will require regulatory reform to the nation's environmental laws. Thus, while Justice40 alone will not be able to remedy systemic injustices, investments can help reduce local pollution problems that disproportionately affect low-wealth households and communities of color. Examples of these include investments in clean drinking water infrastructure and investments in zero-emission vehicles to improve local air quality.

To address disparities in pollution exposure, Justice40 investments should be targeted to communities where hazards are greatest. The knowledge and lived experiences in these environmental (in)justice communities should help shape targeted investments through engagement and empowerment processes. In addition, data on local air quality should be one of the metrics for Justice40 evaluation.

Moreover, Justice40 can go beyond investments to be a catalyst for broader institutional and systematic change. The opportunity exists to use Justice40 as a catalyst to help institutionalize environmental, climate, racial and economic justice not just into certain funding approaches but into federal practices, policies, and systems broadly. This will require looking inside but listening and learning externally: Environmental justice leaders should help shape the design and implementation of the Justice40 initiative and broader opportunities for change.

[47] New York State Assembly. (2019, June 18). *Bill Search and Legislative Information | New York State Assembly*. https://nyassembly.gov/leg/?default_fld=&leg_video=&bn=A08429&term=2019&Summary=Y&Actions=Y&Text=Y#

▶ Disproportionate climate impacts

Climate change imposes socially and spatially uneven harms on American communities today and in the future. Heat waves, flooding, wildfires, and storms have the largest impacts on disadvantaged households and communities, and these impacts will only increase as climate change intensifies. While these impacts do not occur only in people of color and low-income communities, such communities are often more vulnerable because they reside in older, lower-quality housing that lacks climate resilient features found in newer homes, such as weatherization to improve thermal comfort, energy efficiency, and indoor air quality. Lower-income and households of color are also more likely to live in areas subject to recurrent geo-hazards, such as in floodplains, near the urban wildfire interface, or areas vulnerable to heat waves where local infrastructure systems (water, energy, and transportations systems) are most vulnerable to disruption.[48]

Action examples: Virginia and California

Virginia's Clean Energy and Community Flood Preparedness Act creates a Virginia Community Flood Preparedness Fund to enhance flood prevention, protection, and coastal resilience. It creates a low-interest loan program to help inland and coastal communities that are subject to recurrent flooding and forgiveness of loans used in low-income areas.[49] The act also called for a cap-and-trade program to reduce GHGs, and in 2021 the state became part of RGGI, providing a revenue source for the Virginia Community Flood Preparedness Fund.

California Climate Investments include programs designed to build resilience to climate change impacts including wildfire and extreme heat. For instance, CCI programs address urban greening; community forestry; forest health; wildfire prevention; and a training and workforce development program in forest health.[50]

In recent years, proposals in California have been put forth to more systematically invest in building the resiliency of the most vulnerable communities to climate impacts such as extreme heat. Some have recently been passed while others await approval. One example is the Partners Advancing Climate Equity (PACE), a new capacity-building program for front-line community leaders from across California. PACE is founded on the principle that "we can nurture equitable climate resilience by nurturing the collective power of front-line communities." PACE and other model programs are discussed further in Section 5.

Lessons for the federal government

To reduce disproportionate climate impacts, federal investments will need to help improve the resiliency of older, low-quality housing and of local utility and infrastructure systems by prioritizing significant investments for disadvantaged communities. To complement infrastructure investments, the federal government should

[48] See work by Benevolenza & DeRigne (2019) and Islam & Winkel (2017) on overarching inequitable impacts of climate change on marginalized populations, as well as studies on how various specific climate impacts weigh most heavily on poor and minority communities by Harlan et al (2006), Hansen et al (2013), and Martinich et al (2012), among others.

[49] Office of the Governor. (2020, April 12). *Governor Northam Signs Clean Energy Legislation*. Virginia Governor Ralph S. Northam. https://www.governor.virginia.gov/newsroom/all-releases/2020/april/headline-856056-en.html

[50] California Climate Investments. (2021, April). *California Climate Investments Using Cap-and-Trade Auction Proceeds*. https://ww2.arb.ca.gov/sites/default/files/classic//cc/capandtrade/auctionproceeds/2021_cci_annual_report.pdf

also invest in building the capacity of disadvantaged communities to prepare for and adapt to climate change.

▶ Disproportionately lower government resources and civil society capacity

Structural racism and income inequality that operates through our economy affect availability of local government resources and community capacity that can be mobilized to address inequities. Local governments supporting low-income communities often generate less public revenue from property and sales taxes than do wealthier communities. With lower revenues, these municipalities often lag in the implementation of environmental health regulations, provision of environmental amenities, and investments in more sustainable and resilient infrastructure. For example, disparities exist in:

- ***Local regulation and enforcement*** **of hazardous land uses, non-point source pollution, waste, and hazardous material management**
- ***Environmental amenities*** **such as parks, tree cover, gardens, and recreational opportunities**
- ***Infrastructure*** **for sustainable transportation, water, and energy systems as well as resiliency planning for natural hazards exacerbated by climate change such as extreme heat, flooding, wildfires, tornadoes, and hurricanes.**

Further compounding lack of local governmental capacity are the participatory barriers that working class, immigrant, and historically disenfranchised households may face when trying to ensure their local government is responsive and accountable to their needs. For example, a resident working two or three jobs is unlikely to attend local government meetings.

More broadly, impacted communities do not benefit from the same opportunities as more privileged communities. As a result, they experience additional barriers to applying for government funding, which often keep the communities that most need funding in a vicious cycle of resource scarcity. For instance, limited capacity within local government and community institutions for both community responsiveness and grant writing results in fewer opportunities to compete successfully with wealthier communities for state and federal grants. This reinforces the cycle of fewer resources and staff capacity for environmental protection, amenities, and infrastructure.[51]

Action example: California

Recognizing inequities in resources and technical capacity to obtain grant funding, California developed the CCI Technical Assistance Program. The program's goal is to prepare communities for success in accessing CCI funding by providing direct application assistance, partnership development and capacity building support, and streamlined technical assistance across CCI programs, especially those designed to benefit disadvantaged communities. Details about this and related programs can be found in Section 5.

Lessons for the federal government

To truly advance justice at the community level, the federal government should invest in technical assistance; capacity, leadership, and power building programs; local planning grants; application

[51] For additional information on challenges related to lack of local institutional capacity, see Dodman and Satterthwaite (2008). For contemporary journalism regarding political disenfranchisement of disadvantaged populations in the United States, see Weeks (2014).

development support; implementation grant assistance; and business development support to community-based organizations and other local entities to reduce disparities in local capacity that exacerbate environmental injustices. See Section 5 for examples of these types of programs.

It will also be critical to recognize and address barriers that front-line communities face when their representative local leaders are unwilling to channel funding to where it is most needed. The federal government should also invest in providing technical assistance and participation incentives to state and municipal governments that might resist equity and redistributive aims of federal funding. Moreover, there must be real guardrails on the money coming into states to ensure that it gets to front-line communities.

▶ Disproportionate occupational impacts during the zero-carbon transition

Market- and policy-driven technological transitions result in some level of economic disruption and have social and equity implications. As markets transition away from fossil fuels and toward zero-carbon and renewable energy systems, some well-paid blue-collar jobs and lower-wage jobs will be lost. Lower-income rural areas will be disproportionately impacted. Acute impacts will be felt by workers in occupations that support gas, oil, and coal sectors as they lose their jobs and require retraining and interim and relocation support.

At the same time, millions of new jobs will be created or shifted to new industries as the nation rebuilds st century.[52] Government policies and investments will determine whether the transition deepens already historically high levels of economic inequality or instead allows for a just transition that does not leave any part of the country behind.

Many states are taking steps to center workers, the creation of high-quality union jobs, and strong labor standards in their climate and clean energy policy agendas. The BlueGreen Alliance's state policy toolkit provides examples of state actions that promote good union jobs in growing clean energy industries.[53] These include:[54]

» **Project labor agreements (PLAs):** collective bargaining agreements covering all of the craft workers, union and nonunion, on a construction project. PLAs are used to help ensure that large projects uphold high standards for workers, high-road firms are not undercut by contractors that pay below-market wages, and costly delays and disruptions due to labor shortages or disruptions are prevented.

» **Community benefits agreements (CBAs):** similar in nature to PLAs but broader and often include community organizations as signatories. CBAs connect building trades unions with the local community through targeted hire provisions and pre-apprenticeship programs that create career pathways to high-wage jobs for workers in under-resourced communities.

[52] The Zero Carbon Consortium. (2020). *America's Zero Carbon Action Plan*. Sustainable Development Solutions Network. https://irp-cdn.multiscreensite.com/6f2c9f57/files/uploaded/zero-carbon-action-plan%20%281%29.pdf

[53] BlueGreen Alliance. (2020, July 24). *BlueGreen Alliance | State-Based Policies To Build A Cleaner, Safer, More Equitable Economy – A Policy Toolkit*. https://www.bluegreenalliance.org/resources/state-based-policies-to-build-a-cleaner-safer-more-equitable-economy-a-policy-toolkit/

[54] Cliffton, R., Wall, M., Ricketts, S., Lee, K., Eckdish, J., & Walter, K. (2021, July 7). *The Clean Economy Revolution Will Be Unionized*. Center for American Progress. https://www.americanprogress.org/issues/green/reports/2021/07/07/501280/clean-economy-revolution-will-unionized/

» **Prevailing wages:** establish a wage floor for each occupation that all contractors on a government-funded project must pay at or above, typically set to reflect the market wage for a given type of work in a given area.

Action examples: Maryland and Illinois

Following the establishment of the Paris Climate Accords, the UN's International Labor Organization (ILO) produced a definition and implementation plan for Just Transition. According to the ILO, Just Transition is a "bridge from where we are today to a future where all jobs are green and decent, poverty is eradicated, and communities are thriving and resilient" (Smith, 2018).[55]

Maryland's 2030 GHG Reduction Plan includes a Just Transition element that seeks to align with the ILO's model and integrate best practices from countries around the world. Two major components called for in the plan are guaranteed clean energy-related jobs for younger workers in affected industries and an expansion of employment opportunities through clean energy investments for individuals and communities that will face the brunt of the transition. More specifically, Maryland's Clean Energy Jobs Act of 2019 amended the state's labor and employment law to establish a Clean Energy Workforce Account that provides grants supporting workforce development programs. To receive funding, programs must initiate a PLA. The law also requires any approved clean energy project to use a CBA and pay workers the prevailing wage rate.[56]

Illinois' proposed Clean Energy Jobs Act (CEJA) would establish the Energy Transition Assistance Fund, a particularly robust way to support workers in fossil fuel industries. If passed, the fund would provide economic development incentives for communities where coal plants have recently closed, help protect workers' benefits in the medium term, and give workers access to higher education and vocational training so they can make their own decisions about long-term career directions. CEJA would also establish processes to give impacted communities and workers a seat at the table to make decisions in a just transition to clean energy and to plan for a deliberate move away from coal between now and 2030.[57]

Lessons for the federal government

Federal lawmakers and agency decision-makers have a tremendous opportunity to uplift American workers through infrastructure, clean energy, and other investments. This includes funding worker training, relocation, and transitional support services to minimize disproportionate occupational impacts. Investments should explicitly advance local economies that seek to put workers formerly employed by fossil fuel industries to work in clean community energy, regional food systems, public transportation, ecosystem restoration, and more. Moreover, to maximize the benefits of climate and infrastructure investments for American workers, the investments should be tied to workforce standards for high-quality American jobs and support complementary policies strengthening the collective organizing power of workers. Moreover, investment incentives could target job development and placement for women, Black, Indigenous, and other underrepresented populations.

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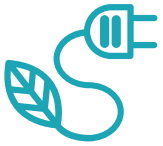
[55] Smith, S. (2017, May). *Just Transition: A Report for the OECD*. Just Transition Centre. https://www.oecd.org/environment/cc/g20-climate/collapsecontents/Just-Transition-Centre-report-just-transition.pdf

[56] Cliffton, R., Wall, M., Ricketts, S., Lee, K., Eckdish, J., & Walter, K. (2021, July 7). *The Clean Economy Revolution Will Be Unionized*. Center for American Progress. https://www.americanprogress.org/issues/green/reports/2021/07/07/501280/clean-economy-revolution-will-unionized/

[57] S.B.1718, 102nd General Assembly. (IL. 2021). https://www.ilga.gov/legislation/102/SB/PDF/10200SB1718.pdf

▶ Unequal distribution of costs and benefits from environmental policies



Two types of environmental policies have disproportionate financial impacts on low-income households. First, climate and environmental regulations can result in increasing the cost of essential commodities such as reliable transportation, electricity, appliances, and housing (Ekins and Dresner, 2004).[58] Lower-income households spend a much larger share of their income on these goods than do wealthier households. As a result, regulations that increase the cost of these goods have regressive financial outcomes on lower-income households. These regressive outcomes and their significant fiscal effects on lower-income households can go unnoticed unless policies are preemptively designed to ameliorate their negative impact.

Second, policymakers have implemented clean technology subsidy policies to reduce costs of adopting energy- and water-efficient appliances, electric vehicles, rooftop solar, and other innovative technologies. However, lower-income households face barriers in accessing and taking advantage of such policies.[59] For example, households will not use incentives targeting the purchase of new clean vehicles when they primarily buy more affordable used vehicles. Sometimes the subsidies are simply not large enough to allow lower-income households to afford the upfront cost of the clean technologies, even if the investment would more than pay off over time.

The joint effect of climate and environmental regulations and clean technologies subsidy policies can result in a disproportionate financial burden borne by lower-income households during the transition to a clean economy, while the subsidized and cost-saving newer technologies remain beyond their reach.

Just as clean technology subsidies have historically benefited affluent households, so too could climate adaptation and recovery policies. Climate change-fueled hurricanes, tornadoes, and fires that destroy private property also drive both news headlines and government funding for adaptation and recovery. The result can be the protection of properties with high real estate values. Heat, on the other hand, kills more people in the United States than all other weather hazards combined, yet historically has received less attention and fewer resources.[60] The victims of heat waves are often the elderly and other lower-income residents who cannot afford to own and/or use air conditioning.

Action example: Washington

Justice40 investments that protect low-income households from cost increases and provide effective access to clean technologies can reduce these unequal policy impacts. Such strategies have been outlined in Washington as part of its legislative climate package. Under Washington law, efforts to minimize cost increases for utility ratepayers — especially for low-income households — are one of three categories of actions for which revenues from auctioned carbon allowances may be used. Although specific pro-

[58] Paul Ekins and Simon Dresner. (2004). Green Taxes and Charges: Reducing their Impact on Low-income Households. Policy Studies Institute. https://westminsterresearch.westminster.ac.uk/download/72ed1143c714165fb3d3cc11a404d7f254fa1d7e03a330239cc94bbf1fe1323e/275934/greentaxesandcharges.pdf

[59] See Bovarnick and Banks (2014), Scavo et al (2016) for more information on barriers to accessing green technologies by lower-income households.

[60] California Office of Environmental Health Hazard Assessment. (2019, February). *Heat-related Mortality and Morbidity*. https://oehha.ca.gov/epic/impacts-biological-systems/heat-related-mortality-and-morbidity

> *Equity is not a special interest. It is a common one.*
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> **— VANESSA CARTER, MANUEL PASTOR, AND MADELINE WANDER**
>
> (2018). Measures Matter: Ensuring Equitable Implementation of Measures M & A. USC Equity Research Institute. https://dornsife.usc.edu/eri/measures-matter/

grams to pursue these goals have not yet been developed, Washington legislators specifically noted potential action areas that include efficiency upgrades, weatherization, and direct bill assistance. The statute requires that 65% or more of no-cost allowances be auctioned for the purpose of eliminating new energy cost burdens for low-income households and to reduce new ratepayer cost burdens generally.

Lessons for the federal government

To protect low-income Americans during the transition to a clean energy economy, Justice40 investments could include measures to minimize utility costs for low-income ratepayers such as through direct bill assistance. In addition, it is important for both equity and emission reduction reasons to provide well-designed financial incentives for the adoption of clean technologies, ranging from energy-efficiency upgrades to electric vehicles, that meet the needs and circumstances of low-income and low-wage households.

How incentive programs are presented to intended recipients can be as important as program design. The barriers for low-income households to access and use incentives for clean technology go beyond the financial and logistical considerations mentioned above. There are also information, capacity, time, and trust barriers that hinder the uptake of incentive programs meant to benefit low-income households. Section 5 provides examples of programs in which community-based organizations with established trust and relationships in targeted communities are effectively connecting to low-income households to a range of financial assistance and clean technology incentive programs a coordinated, streamlined way that removes participation barriers.

Recommendations

▶ Establish a framework with guiding principles to ensure justice

Unless equity and justice considerations are baked into the foundation of the investment initiative, there is no guarantee of justice. As such, the Justice40 framework should include principles that guide government agencies to seize on three big opportunity pathways.

First, ensure restorative investments that resource front-line communities. The federal government should not stop there. There is also the important opportunity to go beyond resourcing historically under-resourced communities to proactively empowering communities. Community power is a critical part of advancing environmental, economic, and racial justice. Equally important is institutional change. Government agencies should be guided to use Justice40 as a catalyst to help institutionalize environmental, climate, racial and economic justice not only into certain funding approaches but also broadly into federal practices, policies, and systems.

▶ Investment objectives should target the five disparities

In light of state experiences, we recommend that the federal government establish a Justice40 framework that includes objectives for investments to target the five categories of disparities that hinder a clean and equitable economy: disproportionate exposure to pollution, uneven distribution of climate impacts, lower levels of local resources and community capacity, disproportionate occupational impacts, and uneven distribution of the costs and benefits of environmental policies. Implementing agencies would then be held accountable to invest in programs and projects that reduce geographic and population-based disparities across these categories.

▶ Complementary action is needed

An important caveat is that climate investments must be coupled with regulations and other actions to address environmental disparities. Some inequities will be best addressed through statutory and regulatory reform to explicitly design and sustainably fund the implementation and enforcement of federal policies to eliminate environmental disparities and the procedural inequities that contribute to them.

In addition to establishing an equity-centered framework that requires agencies to invest in programs and projects that target disparities, the federal government needs the capacity to identify and track over time changes in levels of disparities. This is critical to guide smart investments and identify which are most impactful. Section 3 summarizes state-level tools that guide climate investments for disadvantaged communities and what the federal government can learn from them to develop next-generation tools that possess this capability.

3. FOR WHOM AND WHERE TO TARGET EQUITABLE INVESTMENTS?

Recognizing the need for a tool capable of equitably guiding Justice40 investments, President Biden's executive order on climate calls for the creation of a new climate and environmental screening tool, building on EPA's EJSCREEN. This geospatial Climate and Economic Justice Screening Tool is under development by the Council on Environmental Quality and the U.S. Digital Service, and is planned to include interactive maps with indicators to assist agencies in defining and identifying "disadvantaged communities."

The interim guidelines for Justice40 issued by the Office of Management and Budget in July 2021 represent a positive first step in creating a comprehensive strategy for identifying investment recipients.

The definition of disadvantaged communities provided in these guidelines include several measures of economic vulnerability, occupational vulnerability related to energy decarbonization, racial segregation, and climate risk.[61]

The definition and tool(s) used to identify and target priority populations should answer: Who should be eligible for investment programs that prioritize the most impacted communities and households? Answering this question is a primary purpose of screening tools developed or being developed by a number of states, which offer lessons for their federal counterpart.

Maryland

In Maryland, an academic team from the University of Maryland developed the first iteration of the MD EJScreen tool in 2018 for consideration by the state government. This team has continued to refine the tool, completing version 2 in early 2020. Today MD EJScreen scores communities at the census tract level based on a combination of indicators reflecting environmental burden and socioeconomic vulnerability. While its basic methodology mirrors that of CalEnviroScreen (discussed below), MD EJScreen has tailored its indicators to reflect on-the-ground conditions and issues of concern *in Maryland*, underscoring the importance of aligning screening tools with specific state, regional, and community needs and conditions. For instance, Maryland includes incidence of lead in homes as an indicator, an issue highly relevant in areas with an older housing stock but which has been excluded from CalEnviroScreen thus far (though it should be noted that the draft version of CalEnviroScreen 4.0 does incorporate a new lead indicator).

Although the utility of MD EJScreen is readily evident, formal adoption and application of the tool by the Maryland state government to inform equity-minded investments has yet to occur, and policies governing prioritized spending have yet to be drafted.

New York

New York has also recently taken action to prioritize investments for disadvantaged communities. Its Climate Justice Working Group is in the process of creating criteria for this designation, using interim determinants in the meantime based primarily on demographic and socioeconomic indicators.

California

Among the state-level environmental justice screening tools in use, California has the longest-running and most refined example in place. Unlike other states, California's experience provides years of data that offer lessons regarding program design and implementation. Given this context, we focus in this section primarily on California tools as we discuss lessons relevant for the federal government. We conclude with key recommendations for how to utilize and improve upon California's work.

Background and Definitions

Through multiple laws, California policymakers have determined that at least 35% of CCI monies must benefit "priority populations." This designation comprises targets for three different categories of recipients: 1) disadvantaged communities, 2) low-income communities and households located anywhere in the state, and 3) low-income communities and households located within 0.5 miles of a

[61] Young, S., Mallory, B., & McCarthy, G. (2021, July). *Memorandum For the Heads of Departments and Agencies*. Executive Office of the President Office of Management and Budget. https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf

> *"Health is at the center of climate change, and we're going to double-down on a necessity: fighting climate change in order to help protect public health in our communities."*
>
> **— XAVIER BECERRA**
>
> U.S. Department of Health and Health Services Secretary, in announcing the HHS new Office of Climate Change and Health Equity

disadvantaged community. The latter two are hereafter referred to as low-income communities and low-income households.

In the nascent stages of CCI, the state legislature tasked the California Environmental Protection Agency (CalEPA) with identifying disadvantaged communities, with a specific focus on areas impacted by pollution and with vulnerable populations.[62] This process was initially driven by the development of the Environmental Justice Screening Method (EJSM) by a coalition of academics and community members,[63] and by the CalEPA Environmental Justice Action Plan of 2004.[64] This plan directed the CalEPA Office of Environmental Health Hazard Assessment (OEHHA) to lead the development of a statewide cumulative impacts screening tool.

With the EJSM serving as a foundation, OEHHA created the California Communities Environmental Health Screening Tool (CalEnviroScreen). This process was marked by an interplay between the community groups who supported the EJSM and OEHHA, as the former engaged with OEHHA to make CalEnviroScreen more reflective of on-the-ground concerns. This back-and-forth culminated with EJSM's creators filling an advisory role in CalEnviroScreen's development, underscoring the importance of community partnerships and public trust in such endeavors. California's experience here also provides some insight into what can be expected in an analogous federal process. Meaningful engagement is difficult and likely to produce tension and conflict — but the result is a more refined, accurate, and trusted end product.

CalEnviroScreen identifies and ranks communities disproportionately burdened by multiple sources of pollution and with population and health characteristics that make them more sensitive to pollution. CalEPA has defined disadvantaged communities as the top 25% of census tracts by score, along with other areas with high amounts of pollution and low populations.

Second, the state legislature itself, via Assembly Bill 1550, defined **low-income communities** as census tracts that are either at or below 80% of the statewide median income or with median household income (MHI) at or below the low-income threshold designated by the Department of Housing and Community Development.

[62] California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund, S.B.535. (CA. 2012). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB535

[63] Program for Environmental and Regional Equity (PERE) (n.d.). Environmental Justice Screening Method (EJSM). USC Dornsife. Accessed Sept 14, 2021 at https://dornsife.usc.edu/pere/cumulative-impacts/.

[64] California Environmental Protection Agency (Oct 2004). Environmental Justice Action Plan. Accessible at https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/EnvJustice-ActionPlan-Documents-October2004-ActionPlan.pdf.

This **AB 1550 screen** does not require communities to experience any of the disproportionate impacts identified above nor exhibit other significant population and health vulnerabilities in order to qualify. The most observable impact of this screen is to expand eligibility for CCI programs to many lower-income rural areas of California (discussed further below). However, the AB 1550 screen also applies to many nonrural communities.

Third, the state legislature also identified **low-income households**, regardless of their locations, based either on them being 1) at or below 80% of the statewide median income or 2) at or below the threshold designated as low income by the California Department of Housing and Community Development.

Several agencies outside the California Climate Investment Initiative have also developed program-specific eligibility requirements that direct policy investments to specific locations or households.

Screening for Pollution Burden and Community Vulnerability

CalEnviroScreen represents the largest statewide environmental justice screening effort in the nation, both in geographic scope and level of detail. It was created through an extensive stakeholder and expert consultation process led by the CalEPA Office of Environmental Health Hazard Assessment.

CalEnviroScreen identifies communities that are both disproportionately burdened by pollution and exhibit health and socioeconomic vulnerabilities, incorporating multiple data types. As shown in Figure 3.1, the CalEnviroScreen model includes pollution burden components incorporating indicators of both 1) pollution exposures and 2) proximity to pollution sources ("environmental effects"). Its population characteristics incorporate indicators of both 3) health vulnerabilities ("sensitive populations") and 4) socioeconomic disadvantage.[65]

The tool is designed to weigh and combine indicators to derive a score for all census tracts in California as a proxy measure for cumulative impacts. This system, which assigns a score from 0 to 100 for each census tract, is *relative* in nature. This allows comparisons between communities but not monitoring of overall changes in disparities over time. Census tracts with scores in the top 25% have been designated as disadvantaged communities.

Strength: CalEnviroScreen is effective at identifying recipients for investment

CalEnviroScreen was created to identify disadvantaged communities so that the most burdened, vulnerable, and in-need areas could be prioritized for investment. It accomplishes this well, synthesizing a range of different indicators measuring both pollution burden and population vulnerabilities into a single, cumulative score that can be compared across census tracts. It does so comprehensively, using data that is available for communities across the entire state. The result is that program administrators can unequivocally identify where investments should be made to fulfill their statutory obligations, and they and the served communities can be confident that these areas are those most impacted by the confluence of pollution burdens and socioeconomic vulnerabilities.

[65] Office of Environmental Health Hazard Assessment & California Environmental Protection Agency. (2017, January). *CalEnviroScreen 3.0*. https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf

Figure 3-1: CalEnviroScreen 3.0 indicators and scoring methodology

Pollution Burden

Exposures

Ozone concentrations • $PM_{2.5}$ concentrations • Diesel PM emissions • Drinking water contaminants • Pesticide use • Toxic releases from facilities • Traffic density

Environmental Effects

Cleanup sites • Groundwater threats • Hazardous waste • Impaired water bodies • Solid waste sites and facilities

Population Characteristics

Sensitive Populations

- Asthma emergency department visits
- Cardiovascular disease (Emergency department visits for heart attacks)
- Low birth-weight infants

Socioeconomic factors

Educational attainment • Housing burdened low-income households • Linguistic isolation • Poverty • Unemployment

* The Environmental Effects component is weighted one-half when combined with the Exposures component.

Source: Reproduced from CalEnviroScreen 3.0 Report.[66]

[66] Ibid.

Strength: CalEnviroScreen is a model for collaboration and accountability

Several aspects of CalEnviroScreen's development and accessibility showcase its strength as a model for community collaboration and accountability. These include:

» Was created through an extensive stakeholder and expert consultation process that included community groups with local knowledge.

» Is expanded, updated, and refined with additional information over time.

» Uses a clear, accessible methodology.

» Provides extensive documentation on indicator data sources and how indicators are selected.

» Provides public accessibility of indicator data at both the statewide and community levels, allowing members of the public and stakeholders to understand the factors that resulted in their community being assigned a given score.

Shortcoming: Not designed to measure progress

CalEnviroScreen's scoring method is designed to produce a relative score for each census tract, with each iteration providing a snapshot in time of conditions in the state. Relative, instead of absolute, scoring presents challenges for tracking the effectiveness of climate investment performance. On one hand, worsening conditions among the most burdened communities cannot be identified because no resulting change in scores could be observed. Conversely, systemic improvements across *all* communities would not be observable, as the relative scores would remain the same. Thus, CalEnviroScreen is not designed to measure progress from investments aimed at reducing the disproportionate impacts of pollution burdens.

However, it is worth emphasizing that CalEnviroScreen is not devoid of this utility. The data underlying the individual indicators from which CalEnviroScreen scores are calculated could be compared, pre-scaling, to assess how individual impact measures are changing in communities over time — but such analysis has not been incorporated into CCI evaluation purposes. Further complicating comparisons over time is the fact that indicator methodologies have been refined in subsequent CalEnviroScreen iterations. Thus, tracking changes and measuring progress with CalEnviroScreen would be a highly complex endeavor, strengthening the case for building future screening tools with this capability in mind.

Shortcoming: Does not address cumulative environmental disparities

A second limitation of CalEnviroScreen is that it is focused only on pollution burdens as they interact with socioeconomic and health vulnerabilities and not the other major areas of disparity identified in section 2 (climate impacts, local capacity, occupational impacts, and cost burdens). The dearth of climate-specific indicators (e.g. extreme heat vulnerability, tree canopy, access to air conditioning) is particularly notable, given that CalEnviroScreen is meant to inform the direction of climate investments, and represents an important area where federal tools can fill an acute need. CalEnviroScreen is also not a substitute for a cumulative impacts analysis. Building a truly multifaceted screening tool with methods to quantify and track these factors in both relative and absolute terms is one of the greatest opportunities for the federal government to innovatively guide environmental justice priorities.

Shortcoming: Exclusion of racial and ethnic data

A third limitation is the exclusion of race and ethnicity as socioeconomic factors. Numerous studies have documented the many ways in which systemic racism harms people of color in the United States, among them via elevated exposure to pollution and lower levels of wealth. The unequivocal impact of race in contributing to disparities creates a strong case for its incorporation as an indicator to environmental justice screening processes, independent of other factors that may be correlated. Yet in California, Proposition 209 — enacted in 1996 — prohibits the state from considering race in a number of contexts, although OEHHA does publish supplemental analysis that assesses how CalEnviroScreen scores are associated with demographic traits, including race.[67] Fortunately, this limitation does not extend to all other states or the federal government, allowing for the possibility of race as a screening factor in other contexts.[68]

Screening for Economic Vulnerability

Policymakers recognized that the disparities identified in this report disproportionately affect low-income communities through under-resourced local governments, financial barriers to accessing clean technology, and more.[69] These broad concerns led California to adopt AB 1550, which set additional investment minimums beyond disadvantaged communities.

As aforementioned, AB 1550 identifies low-income households and communities as those with median household incomes (MHI) at or below 80% of statewide MHI, or below the low-income threshold designated by the California Department of Housing and Community Development. As shown in Figure 3.2, AB 1550 renders a larger geographic area of the state of California eligible for priority investments than does CalEnviroScreen, including many rural areas.

California policymakers developed the AB 1550 designation to be used in conjunction with the CalEnviroScreen designation. When dispensing investment monies, CCI programs qualify investments as reaching priority communities or households if they meet the screening criteria for CalEnviroScreen and/or AB 1550. A significant number of programs exclusively use one or the other to determine eligibility. As is discussed in the Appendix, geographic location/income eligibility is only the first in a three-step process to determine whether funding contributes toward investment minimums.

Strength: Income criterion provides simplicity (but perhaps overly so)

AB 1550 allows for additional communities, particularly in more rural areas of the state, to receive prioritization for climate investments in California. It does so in a simple and clear way based on household income. However, it can be argued that income alone is an overly simplistic measure of socioeconomic vulnerability, failing to take into account impactful factors like cost of living and access

[67] Office of Environmental Health Hazard Assessment (June 2018). Analysis of Race/Ethnicity, Age, and CalEnviroScreen 3.0 Scores. California Environmental Protection Agency. Accessible at https://oehha.ca.gov/media/downloads/calenviroscreen/document-calenviroscreen/raceagece s3analysis.pdf.

[68] Spilka, K., DeLeo, R., Rodrigues, M., & Michlewitz, A. (2020, June). *Race as Criterion in Environmental Justice Bills is Crucial and Constitutional*. Conservation Law Foundation. https://www.clf.org/wp-content/uploads/2020/06/Letter-on-Environmental-Justice-Legislation-and-Constitutionality-.pd

[69] Coalition for Clean Air & The Greenlining Institute. (2016). *AB 1550 The Climate Investments for California Communities Act*. Coalition for Clean Air. https://www.ccair.org/wp-content/uploads/2015/12/ab_1550_visual_fact_sheet_by_the_sb_535_coalition.pdf

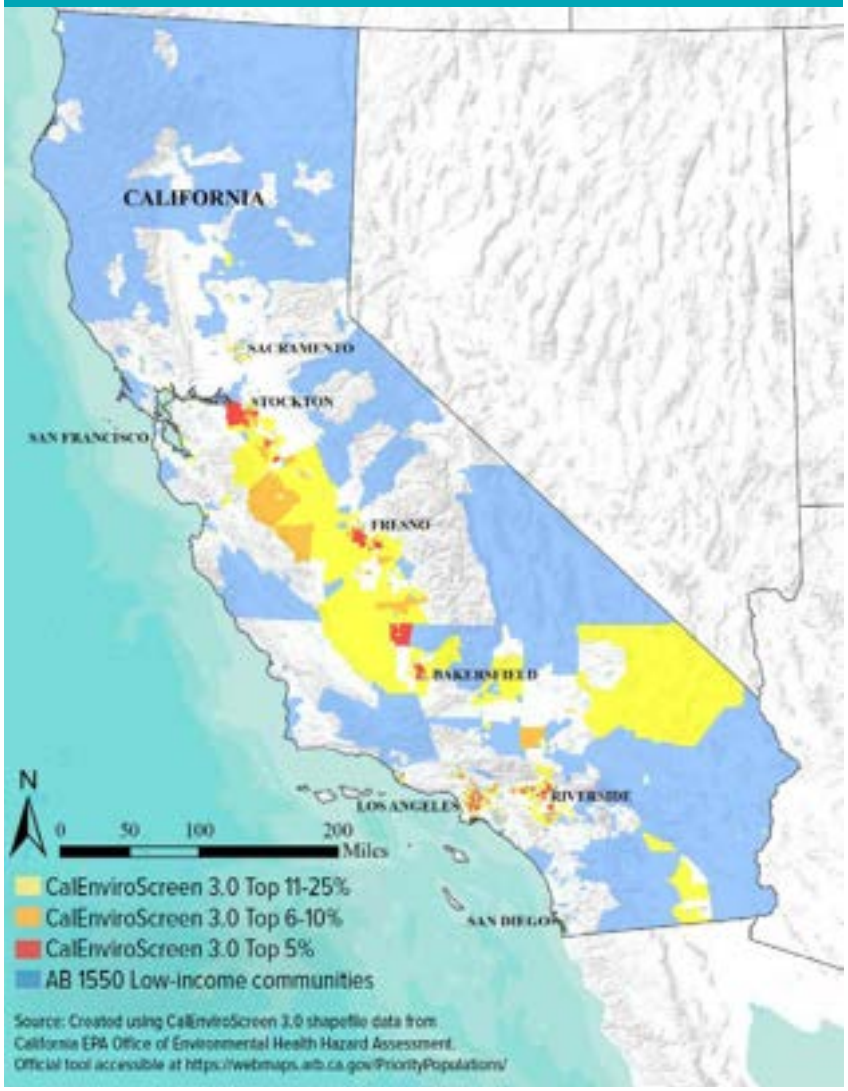
to services like transit and health care. Household income is thus limited in its ability to provide a measure of socioeconomic vulnerabilities that accentuate risks from environmental exposures and climate impact.

Shortcoming: Does not measure and target specific disproportionate impacts

Income is an imperfect proxy to identify economically vulnerable populations, let alone where disproportionate environmental and procedural disparities occur. For instance, while communities with higher median incomes often have greater budgets and capacity at the local municipal government level, a focus on income oversimplifies and ignores factors such as cost of living, access to services, and systematic racism. Future screening efforts will be aided by developing more comprehensive and accurate methods of identifying communities and households facing economic burdens.

Moreover, recall that although CalEnviroScreen measures and targets pollution burdens, it does not explicitly measure or target any of the other four categories of disproportionate impacts. Thus, neither CalEnviroScreen nor AB 1550 measures and targets disparities associated with climate hazards, policy-induced financial impacts, lack of access to clean technology policies, fossil fuel job losses, or low government and civil society capacity. As a result of this deficit in existing screening capabilities, policymakers have neither a way of identifying where these disproportionate impacts are greatest nor the means to track whether investments are resulting in progress toward reducing these impacts.

Figure 3-2: Eligible areas designated by California's CalEnviroScreen and AB 1550 screen tools



Program-Specific and Household-Level Screening Criteria

Strength: Room for program-level customization

Given the scope of the screening tools described above, it is not surprising that some program-specific screens have been developed in California to include additional indicators or determinants of eligibility. These screening methods can complement or build upon an existing screening tool. Both CalEnviroScreen and the AB 1550 screening methods function as a base upon which program-specific criteria can be added to refine approaches to benefit delivery.

Within the CCI portfolio, for instance, the State Water Efficiency and Enhancement Program (SWEEP) uses a more stringent socioeconomic threshold than that set by AB 1550, prioritizing investments to "severely disadvantaged" communities with median household income less than 60% of the state average. In other cases, the administering agencies consider performance factors for potential investments (e.g., cost benefit of proposed projects) or provide investments to specific types of entities or agencies.

An illustrative example from outside CCI is a grant and loan program designed to screen for community water systems facing higher water supply costs in lower-income communities. Under Proposition 1, the California Department of Water Resources targets funds for various water-related programs toward benefiting these communities. Its Economically Distressed Area (EDA) designation is based on three sets of factors: 1) geographic isolation, 2) a median-household income of less than 85% of the statewide median household income and 3) additional measures of economic hardship. A given area must meet criteria across all three of these categories to be designated an EDA, as summarized in Table 3.1.

Shortcoming: Program-specific criteria underutilized

The California approach to funding climate and other environmental and infrastructure investments allows for specific communities to be finely targeted based on the unique elements of this program. However, few agencies that carry out CCI programs have used such a strategy. The limited examples take the form of more

Table 3-1: Designation criteria for Economically Distressed Areas to receive water supply investments from the California Department of Water Resources*

Isolation Criteria (meet 1)	Income	Additional Economic Condition (1 or more)
Municipality, population ≤ 20,000	Area MHI < 85% State MHI	Financial hardship
Rural county		Unemployment 2% or more above state average
Isolated and divisible segment of larger municipality, population ≤ 20,000		Low population density

* Conditions must be met across all three columns to receive the designation.

stringent socioeconomic thresholds, consideration of performance factors, or giving preference to particular types of public agencies, as opposed to innovative use of additional demographic or environmental indicators.

Shortcoming: Approaches to household-level eligibility are simplistic

Many CCI programs deliver benefits intended for households as opposed to communities, necessitating a focus on individual household characteristics rather than geography-based screening for determining eligibility. Examples of the different household criteria utilized by example CCI and federal programs can be seen in Appendix B. Broadly speaking, program criteria reference either a percentage of median state income (ranging from 60% to 80%) or a percentage of the Federal Poverty line (ranging from 150% to 225%) adjusted for household size. Because models for determining household eligibility almost universally focus on household income, their utility in measuring socioeconomic vulnerability suffers from the same limitations as AB 1550's income-based definitions (discussed above).

Recommendations

▶ Next generation tools should identify a range of inequities and disparities

California has made commendable progress with its suite of screening tools to identify disadvantaged communities and low-income communities and households that could be eligible and targeted for certain funding programs. However, the tools do not include data on race or all of the categories of disparities described in Section 2.

We recommend including all five types of disparities in definitions and screening strategies for the purpose of targeting Justice40 investments to disadvantaged communities and priority populations:

» Communities with disproportionately high cumulative levels of pollution exposure and associated health impacts

» Communities with disproportionately high risk of climate change impacts

» Communities of color and low-income communities with fewer government resources, community capacity, and political power

» Working class households disproportionately impacted by the transition from fossil fuels and to a clean, equitable economy

» Low-wealth households that historically have benefited the least from clean technologies and other environmental investments.

▶ Next generation tools should track progress in reducing disparities

In addition to identifying the most impacted areas, a next-generation environmental screening tool should measure and publish data that tracks change over time. This would allow for the tool to support Justice40 evaluation and accountability processes.

Because the five categories of inequity identified in Section 2 vary widely and will therefore likely be addressed by a range of programs and agencies, tracking progress within categories and overall will depend on robust, disaggregated metrics.

▶ Allow for program-specific tools that build upon base environmental justice screening tool

The federal government does not have to rely on one tool to fulfill all its EJ screening needs. Even a sophisticated screening tool need not be fully generalizable across the entire breadth of agencies and programs that will use it, nor should it be treated as a constraint by implementing agencies. Rather, the main screening tool, the Climate and Economic Justice Screening Tool, will likely need to be supplemented by other methods tailored to specific policy areas and agencies. As the examples discussed above illustrate, tailored metrics can be helpful in better aligning program eligibility requirements with the goals of individual programs, providing additional information that may be of limited utility generally but highly pertinent in particular areas.

There is an opportunity to improve upon California's experience by utilizing program-specific and household-level criteria in more innovative ways and to a more robust degree. Doing so will provide additional strategic options for administering agencies, especially in niche cases where a broadly applicable screening tool may not provide sufficient resolution or where data for said tool is unavailable.

As federal actors proceed in the development of these tools, they will deal with many data challenges. Data quality, availability, and geographic levels for the data will vary across states and regions, as will underlying demographics. It will likely be necessary to adopt a flexible approach that is responsive to conditions on a state-by-state or region-by-region basis.

▶ Ensure a collaborative development process

For accuracy, procedural equity, and acceptance, next-generation tools need to embed the knowledge, lived experiences, and needs of front-line environmental justice communities and experts. Screening criteria and mapping tools should be developed through a collaborative process.

Perhaps the best example of such a process is the one used to develop CalEnviroScreen, which engaged community residents, advocacy organizations, academics, government agencies and departments, and other stakeholders as part of the multiyear development process. As aforementioned, community input was crucial in refining the first iteration of the tool. Led by CalEPA's Office of Environmental Health Hazard Assessment, the state held numerous hands-on workshops with small breakout group discussions accessible in multiple languages. The Cumulative Impacts and Precautionary Approaches Workgroup met numerous times to provide input to OEHHA on the development of CalEnviroScreen.

Importantly, the lived experiences of communities on the ground informed the process of building, updating, and refining the screening tool's methods. Procedurally, CalEPA's Environmental Justice Taskforce developed its focus on cumulative pollution burdens that interacted with risk-associated population characteristics. CalEPA's Office of Environmental Health Hazard Assessment then led the formal development and adoption of the tool. Throughout this process, community stakeholders and advocacy organizations were involved to build trust.

4. HOW TO IMPLEMENT EQUITABLE INVESTMENTS?

Once eligible beneficiary populations have been identified, the next step is to integrate justice-oriented investment objectives into a wide range of agencies and associated policy domains. To do this, lawmakers or an overseeing agency must delegate responsibility for making Justice40 investments to the various administering agencies. Each administering agency should be given a clear set of investment objectives and guiding principles (see Section 2), funding criteria (see Section 3), and requirements or guidelines (discussed here). There is also the opportunity to go beyond funding processes to broadly institutionalize environmental, economic, racial, and climate justice in federal practices, policies, and systems.

This section provides a case study of CCI, the nation's longest-serving, multisector set of clean energy and other environmental investments benefiting disadvantaged communities and low-income communities and households. We summarize California's implementation strategy, highlighting strengths and shortcomings that provide relevant lessons to federal decision-makers.

CCI Guiding Investment Principles and Core Requirements

Strength: Investment principles required of administering agencies

The CCI model is centered on investment principles codified in law as legal requirements for the state agencies administering CCI-funded programs. Table 4-1 presents a summary of guiding principles for CCI programs. The investment objectives and principles are codified in several statutes that provide a consistently applied framework within which investments are made.

The state has put forth, and regularly updates, its Funding Guide lines for Agencies Administering California Climate Investments.[70] The goal is to provide flexibility to more than a dozen agencies administering a diverse set of CCI investments while maintaining transparency of outcomes and ensuring meaningful community benefits from these investments. CCI investment principles/ requirements are translated into investment criteria that guide agencies in their program and project-level funding decisions. This framework seeks to ensure that climate investments are addressing both tangible impact areas and broader state and public priorities.

Shortcoming: No requirement to track or eliminate environmental disparities

Thus far, California has focused on environmental, economic, and public health benefits to disadvantaged communities and the state as a whole. This is an important start. But to more systematically advance environmental justice, the fund's principles should also require implementing agencies to target, track, and ultimately strive to eliminate environmental disparities and related inequities. Section 2 proposes a framework for targeting five types of disparities in pollution exposure, climate impacts, occupational impacts, policy benefits and costs, and local capacity.

As such, CCI guiding investment principles can be seen by the federal government as building blocks. The next generation of climate and clean energy job investment guidelines can improve upon these to more explicitly and systematically target environmental inequities and related disparities that negatively affect communities of color, low-income households, and other impacted populations.

Reporting and Accountability

Strength: Clear reporting processes and real guardrails

CCI principles are translated into reporting requirements and accountability mechanisms overseen by a centralized agency**.** California has designated responsibility to the California Air Resources Board (CARB), as the main overseeing agency for CCI, to ensure compliance with the requirements and enhance oversight and transparency (see Appendix A for further detail). Led by CARB, the state has developed a robust set of tools and processes that administering agencies and grantees use to biannually report on CCI-funded programs and projects in order to cumulatively track progress and results. Notably, all reporting is done using the California Climate Investments Reporting and Tracking System — a single, centralized, online tool enabling frequent and consistent updates.

[70] California Air Resources Board. (2021). *California Climate Investments Funding Guidelines for Administering Agencies | California Air Resources Board*. https://ww2.arb.ca.gov/resources/documents/california-climate-investments-funding-guidelines-administering-agencies

Table 4-1: Summary of guiding principles for California Climate Investments

Guiding Principle	Requirement or Recommendation
Facilitate GHG emission reductions.	Requirement
Target investments in and benefiting priority populations, with a focus on maximizing disadvantaged community** benefits.	Requirement
Maximize economic, environmental, and public health co-benefits to the state.	Requirement
Foster job creation and job training, wherever possible.	Requirement
Encourage projects that contribute to other state climate goals.	Recommendation
Coordinate investments and leverage funds where possible to provide multiple benefits and to maximize benefits.	Recommendation
Avoid potential substantial burdens to disadvantaged communities and low-income communities.	Requirement
Ensure transparency and accountability and provide public access to program information.	Requirement
Conduct outreach to help potential applicants access funding, particularly for priority populations.	Recommendation

** Disadvantaged communities are the top 25% scoring census tracts from CalEnviroScreen along with other areas with high amounts of pollution and low populations, as discussed in Section 2.

Source: Funding Guidelines for Agencies that Administer California Climate Investments, California Air Resources Board, August 2018. https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/auctionproceeds/2018-funding-guidelines.pdf?_ga=2.202028567.783742079.1631131869-1453158225.1630531241

This overall approach for implementation and accountability has resulted in a sizable record of quantifiable benefits for communities and households across the state. This includes measurable pollution reductions and a wide array of other local environmental, economic, and health benefits particularly in disadvantaged communities. Each year the state publishes an annual report that details these benefits with a comprehensive overview of investment inputs and outputs.

Shortcoming: No systematic evaluation to measure equity success

CCI reporting requirements focus on how the money is spent (inputs) and associated quantifiable benefits (outputs and outcomes). This is critical information, but these requirements stop short of evaluation. At times, third parties have been contracted by CCI administering agencies to evaluate specific CCI-funded programs.[71] However, there is no CCI initiative wide process or requirements for evaluation.

Evaluation is critical to determine whether investments are achieving intended outcomes or if adjustments are required to achieve success. It can inform policymakers as to what institutional, policy, or bureaucratic obstacles are preventing outcomes that maximize equity.

[71] UCLA Luskin Center for Innovation. (2021, May 10). *Climate Investments*. https://innovation.luskin.ucla.edu/climate/climate-investments/

Evaluation provides a systematic method to study a program or initiative. Evaluations can occur during the planning, design, implementation, and post-implementation periods of a program or initiative — with different objectives to support success or assess whether/to what extent the program is/was successful in achieving its goals. Tools such as theories or changes and logical models can illuminate the steps necessary for success. Evaluations can focus on quantifiable outcomes as well as on process and more qualitative information to help determine what works well and what could be improved in a program or initiative. Thus, evaluation can provide important information for making course corrections and informed decisions during all investment phases.

As The Greenlining Institute underscores "We need to measure for equity so we can have transparency and accountability. The Biden-Harris team should look at two existing evaluations of equity outcomes for inspiration: UCLA Luskin Center for Innovation's "Transformative Climate Communities Evaluation Plan"[72] and USC Equity Research Institute's "Measures Matter: Ensuring Equitable Implementation of Los Angeles County Measure M & A."[73,74] Efforts should also be made not only to expand systematic use of evaluation to assess program efficacy, but to integrate input from served communities and stakeholders into the process.

Investments Benefiting Priority Populations

Strength: Legally binding investment minimum for disadvantaged communities and low-income communities and households

California laws (SB 535, updated under AB 1550) require that a *minimum* of 35% of CCI project dollars reach priority populations. This sets a floor, not a ceiling or merely an aspirational target. AB 1550 minimum allocations are as follows:

- **25% to projects located within the boundaries of, and benefiting individuals living in, disadvantaged communities.**
- **5% to projects that benefit low-income households or to projects located within the boundaries of, and benefiting individuals living in, low-income communities located anywhere in the state.**
- **5% to projects that benefit low-income households that are outside, but within one-half mile of, disadvantaged communities, or to projects located within the boundaries of, and benefiting individuals living in, low-income communities that are outside, but within one-half mile of, disadvantaged communities.**

The AB 1550 percentage requirements apply to the overall appropriation from the Greenhouse Gas Reduction Fund for climate in-

[72] UCLA Luskin Center for Innovation. (2018, November). *Transformative Climate Communities Evaluation Plan*. https://innovation.luskin.ucla.edu/tracking-groundbreaking-climate-action/
[73] Carter, V., Pastor, M., & Wander, M. (2018, January). *Measures Matter: Ensuring Equitable Implementation of Los Angeles County Measures M & A*. USC Dornsife. https://dornsife.usc.edu/eri/measures-matter/
[74] Sanchez, A. (2021, January 14). *How the Biden-Harris Administration Can Fight Climate Change and Structural Racism*. The Greenlining Institute. https://greenlining.org/blog-category/2021/biden-harris-administration-climate-structural-racism/

vestments, rather than to each agency's appropriation. Therefore, CARB, as the CCI overseeing agency, works with administering agencies to establish individual investment targets each fiscal year to help ensure the overall investment minimums are met.

Collectively, the CCI administering agencies have exceeded minimum percentage requirements. More than $4 billion, a full half (50%) of implemented project funding is directly benefiting disadvantaged communities, low-income communities, and low-income households.[75]

Strength: Clear process to define benefits for priority populations

California's approach and the design of individual programs rely on having a clear sense of what constitutes an eligible benefit with regard to statutory investment minimums. Empirical determinants of what benefits can be reported as being directed toward priority populations and consistent procedures are also important to ensure accountability and transparency for usage of climate investment funds. To facilitate this, CARB has created a multistep evaluation process by which all administering agencies can determine whether the benefits a given program delivers are, in fact, eligible to be counted as benefiting priority populations. The three steps of the process (discussed in greater detail in Appendix A) are:

1. **Identification of the priority population(s) the program is intended to benefit**
2. **Identification of a need specific to the community served that the program addresses**
3. **Provision of a "direct, meaningful, and assured" benefit aligning with the program's focus that addresses the identified community need.**

Strength: Focus on intentional, direct benefits

The federal government should not rely on benefits to trickle down to impacted communities. In contrast to the nebulous term of "benefits for disadvantaged communities" stated in President Biden's executive order authorizing Justice40, the California strategy focuses on direct benefits: those delivered via investments, goods, or services and provided directly to eligible households or within eligible communities.

Examples of direct benefits include investments in infrastructure (e.g., public transit facilities) physically located within an eligible community or benefits delivered to eligible households (e.g., residence weatherization). In contrast, indirect benefits are "spillover" resulting from investments made outside priority households and communities. For instance, increasing clean vehicle adoption in communities near disadvantaged ones may marginally improve air quality in the latter.

The direct approach better guarantees benefits for impacted communities and populations while simplifying the process of assessing compliance and goal achievement for administering and overseeing agencies. Additionally, the straightforward nature of a direct benefit strategy enhances transparency and accountability to stakeholders and taxpayers. Quantifying indirect benefits would require creation and use of methodologies that could be complex and unreliable, creating more work for implementing agencies

[75] California Climate Investments. (2021, April). *California Climate Investments Using Cap-and-Trade Auction Proceeds*. https://ww2.arb.ca.gov/sites/default/files/classic//cc/capandtrade/auctionproceeds/2021_cci_annual_report.pdf

while eroding trust among stakeholders. Indeed, the interim guidelines for implementing Justice40 have directed agencies to develop such methodologies[76] — a task that would be almost entirely superfluous were Justice40 to refine its focus to direct benefits.

More information on how agencies and implementing entities report benefits can be found in Appendix A.

Community Engagement and Collaboration

Strength: Process for community participation in investment projects

As described above, California requires that CCI administering agencies align individual program benefits with specific community needs as part of the process for establishing investment eligibility. The recommended approach (seen in the Benefit Criteria Tables made public by the California Air Resources Board[77]) calls on agencies to directly collaborate and engage with served communities to identify specific needs the program will address. In its best form, these collaborative processes promote healthier relationships and increased capacity among historically underserved communities while simultaneously increasing the positive impact of the programs themselves. The programs discussed in Section 5 provide examples of highly effective community engagement in action.

Shortcoming: Inconsistent community engagement by administering agencies

The strength of the California approach is limited because direct engagement with communities to inform program design is not statutorily required, merely recommended. Project proponents could point to a report in which a community need is identified instead of engaging with community stakeholders to define the need and solution. Moreover, community collaboration requires additional time, resources, and expertise from involved parties — a need not all programs are positioned to meet. The result is that robust collaborative processes and their resulting benefits are realized inconsistently across CCI programs. The federal government could improve upon California's strategy in this regard by mandating collaboration with communities across all programs, perhaps allowing for a minimal number of narrow exceptions for programs whose design and delivered benefits are not compatible with this approach.

Additional discussion of program design choices that can promote community collaboration and capacity building are discussed in Appendices D and E.

Program and Geographic Diversity

Strength: Multibenefit and multisector programs benefiting priority populations

CCI provides a "library" of potential models for federal agencies seeking to identify new initiatives or update existing programs in

[76] Young, S., Mallory, B., & McCarthy, G. (2021, July). *Memorandum For the Heads of Departments and Agencies*. Executive Office of the President Office of Management and Budget. https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf

[77] California Air Resources Board (2021). CCI Quantification, Benefits, and Reporting Materials. Accessible at https://ww2.arb.ca.gov/resources/documents/cci-quantification-benefits-and-reporting-materials.

order to achieve the goals of the Justice40 Initiative. Most, if not all, federal agencies engaging in this process will find analogous programs administered by their state counterparts in California.

The CCI initiative currently encompasses over 40 major programs with numerous subprograms. An overview of major programs within CCI by primary policy sector is provided in Appendix C. These funded programs cover a wide variety of sectors, from agricultural development projects to household energy-efficiency upgrades to expansion of transit infrastructure. Figure 4-1 illustrates the major policy sectors within CCI and areas of overlap where multisector programs have been created.

Investment programs offer the opportunity not only for a diverse array of investments but also for a wide range of tangible benefits. Many CCI programs are designed in such a way as to deliver multiple types of benefits. Some go even further by being cross-sector. Programs are typically siloed, but the challenges that front-line communities face are not. Multisector programs allow communities to tackle interconnected problems in a coordinated way. For program examples, see the call-out box, with additional details in Section 5.

Example of Program Design for Multiple Benefits

The Urban & Community Forestry Program works to optimize the many benefits of trees and related vegetation, as specified in the California Urban Forestry Act of 1978.[78] The program is administered by the agency CAL FIRE and is funded by the state's General Fund and CCI to reduce greenhouse gas emissions along with providing environmental services and cost-effective solutions to the needs of urban communities and local agencies.

Funded projects must show they have authentically engaged the local community to develop the proposed project and must have multiple benefits to the community.[79] Aside from its community-based approach, the program also provides one-on-one technical assistance to six regional urban forestry clusters located outside of Sacramento. The program has an organizational culture and mission focused on equitable outcomes, which allows CAL FIRE to identify administrative processes to better meet the needs of their grantees, including advance pay and subgranting, as well as to allow costs sometimes excluded from forestry programs, such as tree maintenance.

One grant type funds programs that educate, train, and/or employ people in urban forestry. Projects must provide knowledge/skills/abilities to assist people in making a career in urban forestry or a related discipline. The program guidelines require a strong emphasis on serving residents of disadvantaged communities and/or unemployed individuals.

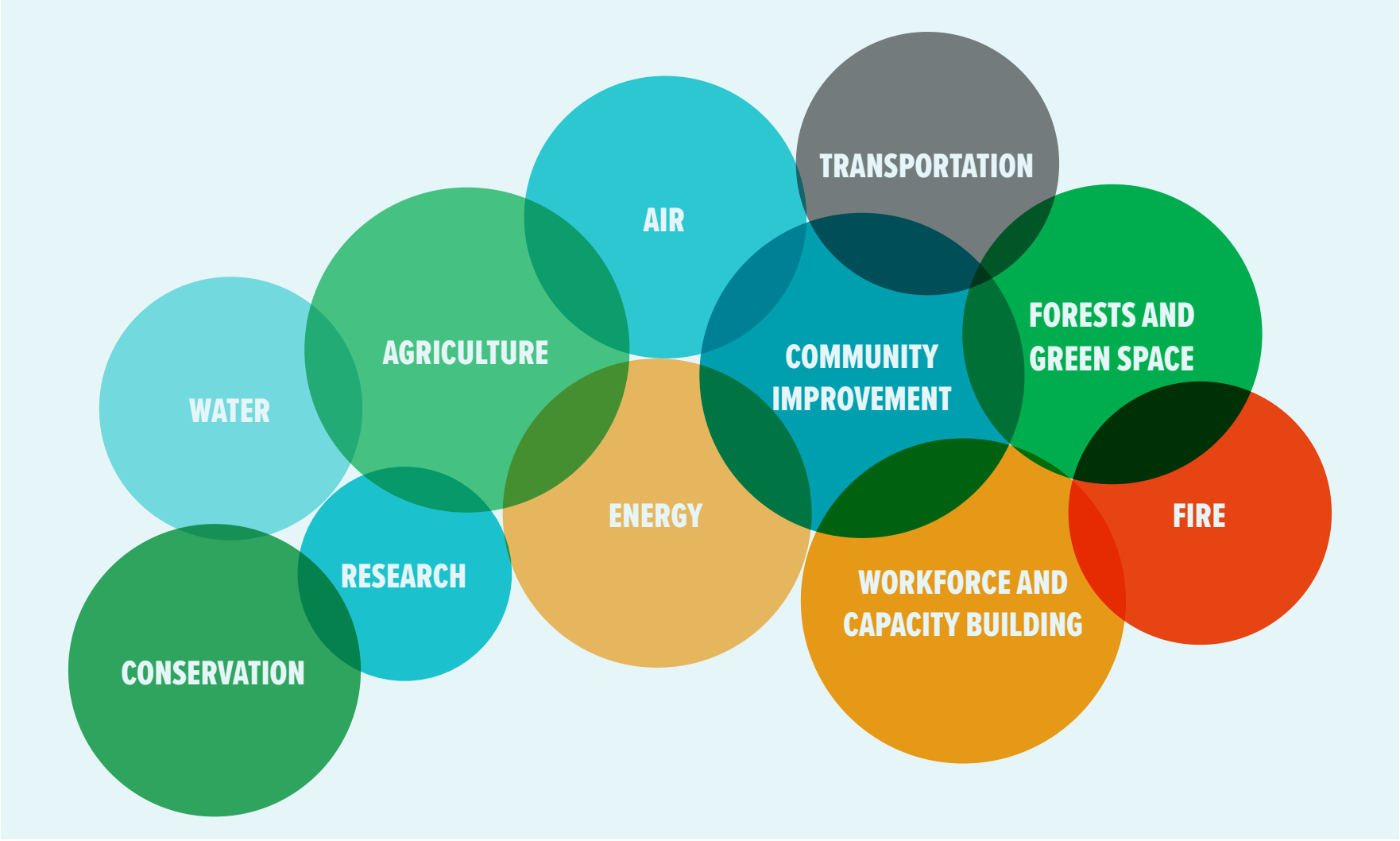
Example of Multisector and Multibenefit Program

The state's Transformative Climate Communities Program is a prime example of a multisector program that allows front-line communities to efficiently address interconnected challenges and achieve multiple benefits in a coordinated way. This is important because typically government programs are siloed, requiring under-resourced communities and households to go through multiple time-consuming application and implementation processes to tackle interconnected problems that cut across housing, energy, transportation, and other programmatic sectors. See Section 5 for more details about the Transformative Climate Communities Program, one of the nation's most community-driven, equity-centered and government-funded climate programs.

[78] California Urban Forestry Act of 1978. https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=PRC&division=4.&title=&part=2.5.&chapter=2.&article

[79] California Department of Forestry and Fire Protection. (2021). *Urban and Community Forestry Program Grant Guidelines, 2021/2022*. https://www.fire.ca.gov/media/ffbh0vax/cal-fire-ucf-2020-21_grant-guidelines_v_5_17_21.pdf

Figure 4-1: CCI Programs represent a variety of policy sectors and multisector approaches.*



*Primary policy sector breakdown qualitatively created by authors based on assessment of major programs' primary recipient type and benefit outcome. Sectoral breakdown not utilized or sanctioned by CARB or any other California agency.

> *"President Biden has made clear that his Administration will chart a new and better course, one that puts environmental and economic justice at the center of all we do."*
>
> **— SHALANDA YOUNG, BRENDA MALLORY, AND GINA MCCARTHY**
> of the Biden administration in their statement introducing Interim Implementation Guidance for the Justice40 Initiative

High levels of investment for priority populations exist across nearly all policy sectors. As Table 4-1 shows, a majority of CCI programs implemented in 2019 met or exceeded the state's 35% overall statutory investment minimum. In nearly every policy sector, at least one program exceeds this target, and numerous programs achieve priority funding levels exceeding 90%. This demonstrates that it is feasible for investments to directly benefit priority communities in a wide variety of policy contexts.

California's administering agencies have utilized a range of strategies to design equitable programs. Strategies have generally focused on setting eligibility criteria or structuring funding processes to ensure that investments and grants are prioritized for disadvantaged and low-income communities and households. Some programs go beyond these measures to create more comprehensive programs; exemplar programs are explored in Section 5.

Program administrators and advisors can also have a profound impact on how programs prioritize funding. Several of the most successful CCI programs (in terms of funding portions directed to priority populations) have been shaped, in part, by invested leadership knowledgeable about CCI operations and metrics. Thoughtful appointments for agency leaders and oversight or advisory boards can be highly beneficial, and should not be overlooked by federal decision-makers.

In order for federal agencies to speed the process of "equity retrofitting" existing programs or creating new programs with the goal of equitable investment at the forefront, it may be useful to replicate the measures California's agencies have implemented to direct funds toward priority populations. Additionally, the breadth of CCI programs and data on implementation of funds allow decision-makers to examine which design choices and policy areas are demonstrably conducive or effective at delivering benefits to priority populations. These two elements are discussed in detail in Appendices D and E, respectively.

CCI programs include previously existing programs brought under the CCI funding umbrella as well as some newer programs designed specifically to benefit disadvantaged communities and low-income households.

Table 4-1: Percentage of California Climate Investments directly benefiting priority populations, Dec 1, 2018 through Nov 30, 2019

Primary Policy Sector	Program	Percentage of Implemented Funds Directly Benefiting Priority Populations**
Agriculture	Dairy Digester Research & Development Program	**100%**
	Funding Agricultural Replacement Measures for Emissions Reductions (FARMER)	**65%**
	Healthy Soils	**43%**
	Renewable Energy for Agriculture	12%
	Alternative Manure Management Program	0%
	Sustainable Agricultural Lands Conservation	0%
Air	Community Air Protection	**86%**
	Woodsmoke Reduction	**78%**
	Fluorinated Gases Emission Reduction Incentives	TBD
Community Improvement	Transformative Climate Communities	**100%**
	Affordable Housing and Sustainable Communities	**92%**
	Climate Resilience Planning	0%
Conservation	Wetlands and Watershed Restoration	**62%**
	Coastal Resilience Planning	34%
	Climate Adaptation and Resiliency	0%
Energy	Low-Income Weatherization Programs*	**100%**
Fire	Fire Prevention	**57%**
	Forest Carbon Plan Implementation	**44%**
	Forest Health Program and Health Research	39.6%
	Fire Prevention Grant Program	33.5%
	Prescribed Fire Smoke Monitoring	0%
	Wildfire Response and Readiness	0%
Food	Food Production Investment	91%

Primary Policy Sector	Program	Percentage of Implemented Funds Directly Benefiting Priority Populations**
Forests and Green Space	Urban and Community Forestry	**100%**
	Urban Greening	**93%**
	Climate Ready Program	**81%**
Research	Climate Change Research	0%
	Transition to a Carbon-Neutral Economy	TBD
Transportation **Transportation**	Low Carbon Transit Operations	**98%**
	Low Carbon Transportation Programs*	**62%**
	Transit and Intercity Rail Capital Program	13%
	Low-Carbon Fuel Production	0%
	Active Transportation	TBD
	High-Speed Rail Project	TBD
Waste	Waste Diversion Programs*	**69%**
Water	Water-Energy Grant	**46%**
	Safe and Affordable Funding for Equity and Resilience (SAFER)	TBD
	State Water Efficiency and Enhancement	TBD
Workforce and Capacity Building	Training and Workforce Development	**92%**
	Technical Assistance	**54%**
	Community Fire Planning and Preparedness	TBD
	Low Carbon Economy Workforce	TBD
	Regional Forest and Fire Capacity	TBD
OVERALL		**70%**

Source: Calculated by authors using data from the 2020 Annual Report to the Legislature on California Climate Investments Using Cap-and-Trade Auction Proceeds, published by the California Air Resources Board. Major programs identified for inclusion by authors, and are not inclusive of all CCI programs and subprograms, nor reflective of any categorization used by CARB or any other California agency.
*Indicates a group of programs with a central policy focus.
**Programs with "—" indicate newly created programs for which no implemented fund data was available or older programs that did not implement GGRF funding in the reported period. Bolded percentages indicate programs that directed 40% or more of funds during period to benefit priority populations.

Strength: Programs are geographically diverse, serving both urban and rural communities

In addition to encompassing a diverse set of policy domains, the CCI initiative has created a suite of programs with broad applicability across geographies. Rural, suburban, and urban communities in California have benefited, and continue to benefit, from investment enabled by CCI. In fact, only a few of CCI's major programs are focused predominantly on urban communities, while a clear majority either focus specifically on issues pertinent to rural settings or address needs in both urban and rural contexts.

In some cases, the degree to which a given program is more pertinent to rural or urban residents depends on its policy domain. For instance, programs focused on agriculture and fire prevention will inherently deliver the greatest benefit to rural communities. In other cases, specific, targeted programs like Rural School Bus Pilot Projects and Farmworker Housing Weatherization have been created to ensure that rural communities' needs can be addressed within the larger domains of transportation and energy. However, rural and urban communities also have overlapping needs for which climate investment can be a vehicle to address, presenting the opportunity for creating a range of programs applicable across geographies. Such broadly applicable programs include those focusing on energy and water efficiency, clean vehicles, and air quality improvements.

Caution: Program proliferation could create adverse fiscal constraints

Sectoral and geographic program diversification is important for impact and political reasons. At the same time, there is a risk of fragmenting the funding pool such that extant programs are not funded at the originally intended levels or commensurate with program scope and need. Some model programs for disadvantaged communities do not have a set-aside amount of appropriated funding and thus are subject to the annual budgeting process by the legislature and governor. Not knowing a program's future budget makes long-term program planning more challenging.

Of course, one desirable solution to this issue is increasing the size and stability of the funding pool. Fortunately, the federal government does not have to worry about these funding issues in the same way that states do as the federal government has more financial tools at its disposal and is not subject to the same fiscal constraints faced by states.

Investment Accessibility, Collaboration, and Capacity-Building

Strength: Many types of beneficiaries and political constituencies

A wide range of people and institutions benefit from CCI programs, from individuals and households to local governments, nonprofit organizations, and companies. Administering agencies solicit applications from households, institutions, or communities in order to execute particular projects. These funding mechanisms fall into two general models: competitive grants and funding disbursed on a formulaic basis.

Shortcoming: Reliance on potential recipients having preexisting knowledge and/or capacity to proactively seek benefits

Competitive grant-reliant programs depend on potential recipients being proactive — a strategy that assumes applicants both possess knowledge of the programs and have the resources and

expertise necessary to participate in the process. Most programs that use a formula for determining eligibility, such as California's Clean Cars 4 All program, also require eligible recipients to take action in order to receive benefits, although many of California's administering agencies and collaborative partners have engaged in outreach and developed resources to increase awareness and lower barriers to action.

For programs providing funding to execute a particular project, both approaches rely on recipients possessing a minimum capacity to implement the funds they receive. As we discussed in Section 2, many local governments and other community institutions lack resources and personnel, thereby preventing them from taking advantage of climate investment programs unassisted. Similarly, many low-income and disadvantaged households face language, technology, trust, and other barriers to utilizing programs.

An effective climate investment strategy must respond to this access gap by actively disseminating information about program opportunities and making resources available to support households and communities in taking advantage of them. California has made good strides in regard to both.

Strength: Using investments to build collaborative community partnerships

A number of CCI programs have developed strong partnerships with trusted community-based organizations to conduct outreach that benefits program participation and project design. Community-based organizations can help inform potential participants that a program exists while also leveraging established relationships with the individuals and communities a program is meant to serve in order to overcome potential trust issues. Community-based organizations tend to be composed of members with personal, cultural, and linguistic ties to the areas in which they work, lowering several barriers to participation. These links to communities also make such groups valuable as facilitators for community outreach and engagement efforts to align project benefits with community needs.

The interim implementation guidelines for Justice40 recognize the value of these practices, directing agencies to develop a stakeholder engagement plan that, among other factors, ensures community participation in defining program benefits.[80]

Best practices for developing such partnerships via community engagement were identified at CCI's 2018 Community Leadership Summit.[81]

Strength: Using investments to provide technical assistance and build capacity

CCI has also made funds available to provide potential program beneficiaries with technical assistance and capacity-building services, bridging the resource and expertise gap to facilitate participation and empower front-line communities. Providing aid on topics like grant planning, partnership development, and application submission helps communities access investment funds in the short term and begin the long-term process of building local capacity, agency, and self-determination.

[80] Ibid.

[81] California Air Resources Board. (2018). B*est Practices for Community Engagement and Building Successful Projects: A Summary from the 2018 Community Leadership Summit*. https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/auctionproceeds/cci-community-leadership-bestpractices.pdf.

The CCI Technical Assistance and Capacity Building Program encompasses many CCI programs and is discussed in Section 5 as a potential model for federal action to promote equitable access to Justice40 investment funds. Also see Section 5 for a list of guiding principles for providing technical assistance to enable equitable government investment.

Summary and Recommendations

The CCI initiative has been demonstrably effective at directing funds toward priority communities. Legally required investment minimums and a focus on direct benefits have strengthened the initiative's effectiveness. The diverse array of programs encompassed has facilitated distribution of benefits across geographies and economic sectors. However, although community-focused collaborative processes are recommended, the lack of statutory requirement for their use has led to inconsistent application.

▶ Set investment principles and requirements for administering agencies to allow flexibility and ensure accountability

Justice40 is thus far a plan with only interim guidelines provided to federal agencies. The federal government could utilize the CCI model centered on investment principles, most of which are legal requirements for the agencies administering CCI funded programs. Binding investment principles should be translated into funding guidelines and reporting requirements for administering agencies. Like in California, the goal should be to provide flexibility across agencies administering a diverse set of investments while maintaining transparency of outcomes and ensuring meaningful community benefits from the investments. Ideally, learning and accountability mechanisms would also include systematic evaluation to help ensure the best use of public funds.

▶ Include a binding investment minimum for direct benefits in, for, and with disadvantaged communities

The core of Justice40 is an aspirational goal of 40% of funds to benefit disadvantaged communities. The federal government

should go further by requiring an investment minimum that is a floor, not a ceiling or an aspirational target. Several states have such a requirement to ensure equitable benefits.

Moreover, there should be a clear process for administering agencies and grantees to define benefits for disadvantaged communities. The California process rightfully has a focus on collaboration, in which community organizations, local governments and other stakeholders collaborate to identify community needs, investment benefits, and avoid harm/unintended consequences.

Finally, the federal government should not rely on benefits to trickle down to the most impacted communities. Ideally, the definition of benefits would be explicitly *direct* benefits — those delivered directly to eligible households or within eligible communities. The phrase "benefits *for* disadvantaged communities," as stated in the president's executive order authorizing Justice40, is more nebulous than the California strategy focused on direct benefits. The direct approach simplifies the process of assessing compliance and goal achievement for administering and overseeing agencies, while also enhancing transparency and accountability to stakeholders and taxpayers. Moreover, direct benefits would most likely be apparent to the intended beneficiaries, thereby building political support for Justice40.

▶ Fund a diverse array of programs for a range of recipients and political constituencies while uplifting front-line communities

Justice40 promises to be a governmentwide approach to a wide array of investments across sectors and federal agencies. In addition to individual programs that collectively span a diverse array of policy sectors — such as energy, transportation, and housing — the federal government should seek to bring cross-sector, multibenefit programs to the most impacted communities. Programs may be siloed, but problems are not. The priority should be on approaches that address multiple issues and sectors at once.[82] Section 5 provides an example of such a holistic investment, the Transformative Climate Communities Program in California.

Diversity of geographic reach and eligible recipients is also important. Effective investment portfolios must reach a wide range of persons and entities, including farmers, other workers, households, nonprofit organizations, local governments, and businesses of various sizes. The investments will also need to reach all regions of the country, from the most rural to urban, and include ways for unincorporated communities to benefit.

Ensuring that the households and communities that need investments the most receive them poses a challenge. Many funding mechanisms necessitate eligible recipients taking action in order to receive benefits and sometimes also rely on recipients possessing a minimum capacity to implement the funds they receive. An effective climate investment strategy must respond to this access gap by actively disseminating information about program opportunities and making resources available to support households and communities in taking advantage of them. Section 5 provides examples of programs that effectively address access and resource disparities through investments that engage, uplift, and empower disadvantaged communities.

[82] Sanchez, A. (2021, January 14). *How the Biden-Harris Administration Can Fight Climate Change and Structural Racism*. The Greenlining Institute. https://greenlining.org/blog-category/2021/biden-harris-administration-climate-structural-racism/

5. WHAT ARE POWERFUL PROGRAM MODELS?

To illustrate how federal programs could be designed, implemented, or updated to embody Justice40 equity-centered goals, this section provides a summary of six California programs that seek to address the five disparities discussed in Section 2. For each of these six programs, we identify strengths and challenges relevant to federal decision-makers.

Specifically, we spotlight programs that empower communities through decision-making, uplift communities through capacity building and technical assistance, and leverage community-based partnerships to connect community members to needed resources. Through these three strategies, these programs address community-level resource and capacity disparities along with other inequities that otherwise would be exacerbated by program access disparities and mistrust in under-resourced communities and households. We also describe three additional programs that center the needs and priorities of impacted communities in their design, framing, or implementation.

Investments Empowering Communities Through Decision-Making

Historically, many public investments and plans have failed to meet the needs and the defined priorities of disadvantaged communities because decisions have been made largely behind closed doors and without community input. This means the voices of vulnerable communities and households are left out of the decision-making process and have top-down solutions imposed on them that are not context, holistically, or culturally sensitive. Here we highlight two particularly robust efforts that empower communities through decision-making: the Transformative Climate Communities (TCC) program and the Sustainable Transportation Equity Project (STEP).

Transformative Climate Communities Program

The Transformative Climate Communities (TCC) Program is one of the world's most comprehensive place-based investments in climate action due to its holistic programming, cross-sector partnerships, self-governance processes, and capacity-building opportunities such as technical assistance and evaluation support.[83] The TCC program empowers the communities most impacted by pollution to choose their own goals, strategies, and projects to reduce greenhouse gas emissions and local air pollution.[84] Enabling legislation was sponsored by justice-centered organizations, The Greenlining Institute and the California Environmental Justice Alliance, and passed in 2016 as Assembly Bill 2722 (Burke).[85] The program is administered by the California Strategic Growth Council (SGC) based in the governor's office, in partnership with the California Department of Conservation (DOC). The TCC Program was developed through a transparent and stakeholder-involved process, including a statewide summit and numerous workshops held throughout California. This process was a response to decades of advocacy actions and impactful evidence from community-driven models to address climate change.

Disadvantaged and low-income communities as identified by CalEnviroScreen and Assembly Bill 1550 (see Section 3) are eligible.[86] The program provides three types of funding: planning grants; implementation grants; and no-cost technical assistance for the application and implementation phases, including evaluation services. Communities awarded implementation grants receive tens of millions of dollars for a wide range of projects and plans selected and implemented by community stakeholders.

Investments must meet three objectives described in AB 2722: 1) demonstrate that it will achieve a reduction in greenhouse gas emissions; 2) maximize and improve public health and environmental benefits; and 3) expand economic opportunity and shared prosperity, while avoiding economic displacement of low-income disadvantaged community residents and businesses. Performance indicators, such as mobility and accessibility enhancements, are defined with grantees and tracked throughout implementation

[83] UCLA Luskin Center for Innovation. (2021, May). *Tracking Groundbreaking Climate Action*. https://innovation.luskin.ucla.edu/tracking-groundbreaking-climate-action/#top

[84] California Strategic Growth Council. (2021). *Transformative Climate Communities (TCC) - Strategic Growth Council*. https://sgc.ca.gov/programs/tcc/

[85] Transformative Climate Communities Program, A.B. 2722 (CA. 2016). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB2722

[86] California Strategic Growth Council. (2019, October). *Transformative Climate Communities Program: Round 3 Final Program Guidelines*. https://sgc.ca.gov/programs/tcc/docs/20191104-TCC_Guidelines_Round_3_Final.pdf

grants to support successful implementation, provide evidence of success, and serve as a model for future evaluation efforts.[87]

Strengths

A signature element of the TCC Program is that it draws lessons from previous planning shortcomings to provide a direct and extensive community-driven approach toward transformation. An equity evaluation by The Greenlining Institute[88] illustrates how TCC offers a blueprint for climate investments that redress historic injustices through community decision-making in all aspects of the program design — from defining program goals and visions, to project selection, implementation, and support for extensive annual measurement, analysis and evaluation to track progress.

TCC is one of the best examples of a government-funded initiative that embeds climate resilience and equity considerations into all phases and elements of physical infrastructure projects. Climate resilience and equity are embedded via three signature transformative plans: Community Engagement Plan, Workforce Development Plan, and Displacement Avoidance Plan. Together, these three plans are designed to ensure that TCC investments reflect the community's vision and goals. The program's emphasis on comprehensive community engagement helps ensure that proposals are based on and implemented around a deep understanding of a community's needs and assets.

The grants also incentivize partnership development, community capacity building, and new models for collaborative governance. For instance, the Green Together coalition in NE Valley Los Angeles has established a collaborative governance model that includes a steering committee comprising project leads, a leadership council that provides input on every aspect of implementation and includes neighborhood residents, and a displacement avoidance plan committee that involves local stakeholders, researchers, and advocates.[89] These processes, which mobilize residents, lift up community-led solutions, and build local decision-making power, help put the historically disadvantaged communities on a path toward transformative change.

Challenges

The TCC Program recognizes and somewhat addresses three systematic challenges. First, obtaining a TCC implementation grant is resource intensive, requiring raising funds beyond the grants (matching or leveraged) and existing civic infrastructure and capacity within communities. Fortunately, SGC provides planning grants and technical assistance to help communities build capacities to obtain a TCC implementation grant, recognizing that under-resourced communities are the least likely to have the capacity and access to capital to successfully compete for these grants because of structural inequalities.

Second, access to capital and other funding exclusionary restrictions limit community-led visions and transformational planning. Constraints include reimbursement as opposed to advance pay

[87] UCLA Luskin Center for Innovation & UC Berkeley Center for Resource Efficient Communities. (2018, November). *Transformative Climate Communities Evaluation Plan: A Road Map for Assessing Progress and Results of the Round 1 Place-based Initiatives*. Strategic Growth Council. https://sgc.ca.gov/programs/tcc/docs/20190213-TCC_Evaluation_Plan_November_2018.pdf

[88] Wang, E. and R. Lu. (Forthcoming). *Fighting Redlining and Climate Change with Transformative Climate Communities.* The Greenlining Institute.

[89] UCLA Luskin Center for Innovation. (2021). *Green Together: A baseline and progress report on early implementation of the Transformative Climate Communities Program grant.* https://innovation.luskin.ucla.edu/wp-content/uploads/2021/05/Green-Together-2021-Progress-Report.pdf

> *"Justice40 can be the catalyst to help shift power structures and uplift under-resourced communities."*
>
> **— CASSIA HERRON**
> Board Member, Kentuckians for The Commonwealth

and exclusion of certain community engagement expenses. While TCC allows for many engagement expenses (and this is seen as a strength of the program), it excludes a few key expenses that address immediate participation barriers (mainly food, child care, participant incentives) but which the state generally does not fund or considers "gift of public funds."

A third challenge is related to capacity to meet TCC's ambitious intersectoral scope. Under-resourced communities are already faced with capacity challenges. TCC adds to the burden due to its extensive application, management, and reporting requirements, and unprecedented collaborative governance and coordination requirements. TCC does invest in technical assistance for program applicants and grantees but could do more, during the implementation process.

Sustainable Transportation Equity Project Pilot

The Sustainable Transportation Equity Project, or STEP, is a new transportation equity pilot that has yet to be evaluated for its equity implications. The program was launched in 2020 and takes a community-based approach to promote low-carbon transportation solutions. STEP aims to address residents' transportation needs, increase access to key destinations, and reduce greenhouse gas emissions by funding planning, clean transportation, and supporting projects to increase the access of residents without vehicles to key destinations.[90] The program is part of California's Low Carbon Transportation Investments and is included in the Fiscal Year 2019-'20 Low Carbon Transportation Funding Plan developed by CARB.

The program provides two types of grants: 1) planning and capacity-building grants, and 2) implementation grants.[91] Planning and capacity-building grants are geared toward identifying community transportation needs and preparing applicants to apply for and implement clean transportation and supporting projects. The program funds not only clean transportation strategies but also supporting strategies meant to enhance clean transportation projects that already exist in the STEP community, as well as prioritize clean transportation options over single-occupancy combustion vehicles, or lay the groundwork for successful implementation of STEP-funded transportation projects.[92]

[90] California Air Resources Board. (2021). *Sustainable Transportation Equity Project (STEP) | California Air Resources Board*. https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program-1

[91] California Air Resources Board. (2020). Sustainable *Transportation Equity Project (STEP) Handout.* https://ww3.arb.ca.gov/msprog/step/step_handout_english_5-17-21.pdf

[92] California Air Resources Board. (2020). *STEP Implementation Grant Solicitation: Appendix E: Project Eligibility.* https://ww3.arb.ca.gov/msprog/step/step_ig_app_e_project_eligibility.pdf

For instance, the #MLKCommUNITY Initiative will support community capacity activities that will empower residents to develop a road map and implementation strategy centered on mobility equity in southeast Bakersfield.[93] The San Joaquin Council of Governments (SJCOG) received a $7 million implementation grant to bring electric bikes and cars, electric vehicle charging stations, mobile ticketing technology, and workforce development to Stockton.[94]

To achieve the overarching goal of increasing transportation equity in disadvantaged and low-income communities, STEP uses environmental justice principles to fund projects that are priorities for historically under-resourced and overburdened residents. Within this environmental justice framework, STEP has two signature elements: place-based and community-driven requirements, and holistic programming via the integration of diverse strategies. The engagement requirement elevates the voice of local implementers possessing different skill sets and expertise to collectively develop and implement a proposal. Each STEP proposal must also include partnerships between a lead applicant, sub-applicants, and community partners. This structure aims to ensure that different resident interests and priorities in the STEP community are heard and self-determine what solutions are adopted.

Strengths

The program has four key strengths:

1. Applicants are required to show how proposed projects address community-identified needs and community partners are involved in developing and implementing projects. This approach helps to maximize the benefits that STEP dollars bring while also empowering communities to set the agenda and a space to self-determine which solutions are adopted.
2. The program provides flexible funding that supports community decision-making. For instance, eligible expenses support community engagement, outreach, and education including participant incentives, public transit subsidies, and language translation and interpretation to reach diverse residents. CARB also works with the selected funding recipients to determine where flexibility is possible within the grant agreement to allow for community engagement to continue informing project design throughout grant implementation.
3. The program provides advanced pay as opposed to the reimbursement approach of TCC.
4. Project types that could be funded are flexible, going beyond what most people would consider part of the public transit system, such as strategies to support local goods movement to individuals or small businesses to minimize trips in single-occupancy vehicles.

Challenges

Similar to TCC, a main limitation of STEP is the significant capacity that is needed to even apply for implementation grants. The application process is resource intensive, requiring raising funds beyond the grants (leveraged or in-kind) from other public or private sources including other CCI programs, and existing civic infrastructure and capacity within communities. Due to its new-

[93] California Air Resources Board. (2020, November). *Grant awards announced for new $19.5 million pilot funding equitable, clean transportation options in disadvantaged and low-income communities.* Release Number 20-36. https://ww2.arb.ca.gov/news/grant-awards-announced-new-195-million-pilot-funding-equitable-clean-transportation-options

[94] San Joaquin Council of Governments (n.d.). *Press Release: SJCOG Receives $7 Million to bring electric bikes, electric cars, and other investments to Stockton.* https://www.sjcog.org/DocumentCenter/View/5548/STEP-Press-Release

ness, an extensive equity evaluation has not been conducted. Future evaluations may uncover other limitations that may place constraints on a community's vision for equitable access to transportation resources that are sensitive to local needs.

Investments That Uplift Communities Through Capacity Building and Technical Assistance

The effect of historical underinvestment in, and systemic discrimination against, communities means that many local governments and other community institutions lack resources, staff capacity, and partnerships to take advantage of public investments without project development and application assistance, and implementation support. Technical assistance and capacity building that honors the right to self-determination and leverages existing community strengths can begin to alleviate inequities and level the playing field for accessing investment programs.

The State of California recognizes the effect of underinvestment and systemic discrimination on California communities. Taking a critical step to redress these inequities, state agencies are increasingly supporting jurisdictions and community institutions serving disadvantaged communities through capacity building and technical assistance (TA). "TA is defined as the process of providing targeted support to an agency, organization, or community with a development need or resource gap. TA may be delivered in many ways, such as one-on-one consultation, small group facilitation, technical resources and analysis, or through web-based clearinghouses."[95]

Here we summarize the strengths, shortcomings, and lessons learned from two programs: CCI's Technical Assistance Program and Partners Advancing Climate Equity (PACE) Program.

California Climate Investments Technical Assistance Program

To streamline technical assistance around California Climate Investment programs, the state developed the CCI Technical Assistance Program to prepare jurisdictions and community institutions that serve disadvantaged communities for success in accessing CCI funding programs. The SGC works alongside the state agencies that administer these grants to provide assistance tailored to each program. The participating CCI programs are typically those designed to benefit disadvantaged communities. Technical assistance is provided through partnerships between state agencies and outside organizations with expertise in each program's focus, across a range of policy sectors.

Strengths

Key strengths of the CCI Technical Assistance Program are its streamlined approach to direct and tailored assistance. It helps create pipelines of strong community-engaged projects by preparing historically underinvested communities to plan, apply for, receive, and implement grants. The Technical Assistance Program works to build capacity in underinvested communities over time by identifying and augmenting communities' existing assets and strengths as well as offering support with partnership development, community engagement, and grant application advice that can help communities apply for other grants in the future. Evaluators identify the state's investments in TA and capacity building for

[95] California Strategic Growth Council. (2020, August). *Technical Assistance Guidelines for State Agencies*. https://sgc.ca.gov/programs/cace/docs/20200826-TA_Guidelines.pdf

front-line communities as critical to redress inequities. A UC Davis evaluation of TA provided through SGC's Affordable Housing and Sustainable Communities Program found that the assistance played "a unique and important role" in the success of applicants from low-income and disadvantaged communities.[96] UCLA's evaluation of the Transformative Climate Communities also found that TA is a critical element necessary to help front-line communities achieve the transformative change they desire through a robust suite of place-based investments.[97]

Per Senate Bill 1072 (2018, Leyva), an interagency working group from 13 different California state agencies developed "Technical Assistance Guidelines for State Agencies" (TA Guidelines).[98] These important guidelines are grounded in core principles meant to support long-term capacity building and equitable outcomes in the state's most under-resourced communities. **See the callout box for details.** Published by the state's Strategic Growth Council, the TA Guidelines are a critical component of SGC's Racial Equity Action Plan[99], which outlines concrete actions the agency is taking to achieve racial equity in the organization's operations, programs, and policies to achieve its vision that all people in California live in healthy, thriving, and resilient communities regardless of race.

Challenges

Given that the scope of assistance is tailored for individual state programs, TA services provided to community organizations and local jurisdictions differ depending on the grant. Many of the TA services have an emphasis on preparation, planning, and proposing phases for grant programs. However,some of the more transformative programs designed for disadvantaged communities to have agency to set the table and self-determine solutions require strong capacity to implement. Some CCI programs provide TA outside of SGC's TA Program. For instance, as previously described, the TCC Program does generally provide more TA to grantees during their implementation phase than other CCI programs. Yet more may be warranted to fully support communities to achieve the transformative changes they desire.

Partners Advancing Climate Equity (PACE) Program Pilot

As discussed in Section 2, front-line communities often suffer first and the most from climate impacts. However, these communities often have the least capacity or resources necessary to build resilience. Due to the recognized need for more capacity-building support, the CCI TA Program now exists under a larger umbrella initiative called the Community Assistance for Climate Equity (CACE). This initiative has added the Partners Advancing Climate Equity (PACE) pilot program to address the need to invest in local leadership and bottom-up community development.

[96] California Strategic Growth Council. (2021). *California Climate Investments Technical Assistance: Preparing Communities for Success*. https://www.sgc.ca.gov/programs/cace/docs/20181217-Facts-Sheet-TA.pdf

[97] UCLA Luskin Center for Innovation. (2021). *Tracking Groundbreaking Climate Action.* https://innovation.luskin.ucla.edu/tracking-groundbreaking-climate-action/#toggle-id-1

[98] California Strategic Growth Council. (2020, August). *Technical Assistance Guidelines for State Agencies*. https://sgc.ca.gov/programs/cace/docs/20200826-TA_Guidelines.pdf

[99] California Strategic Growth Council. (2020, August). *Racial Equity Action Plan Update and Resolution.* https://sgc.ca.gov/meetings/council/2020/docs/20200826-REAP_Full_Staff_Report.pdf

The objective of PACE is to engage local leadership in a yearlong capacity-building program in which community leaders identify their own needs and visions, develop partnerships, build skills, and access resources. PACE is founded on the principle that "we can nurture equitable climate resilience by nurturing the collective power of front-line communities."[100]

PACE is offered by the SGC in partnership with several nonprofit organizations: the Local Government Commission, Climate Resolve, Urban Permaculture Institute, The Greenlining Institute, and Movement Strategy Center. The Greenlining Institute and the Trust for Public Land advocated for the aforementioned Senate Bill 1072, of which PACE was an outcome. PACE is also supported in part by a grant from the U.S. Environmental Protection Agency Office of Environmental Justice.

Strengths and Potential Challenges

The PACE model truly invests in local leadership development for individuals and community-based organizations. Participants receive support of up to $8,000, in-depth training, and mentorship to cultivate skills in four areas: leveraging available resources to advance local climate resilience and social equity priorities; creating data-driven community needs assessments and developing action plans; forming and sustaining cross-sector partnerships that enhance collective impact strategies; and navigating state funding programs, policies, resources, and decision-making processes.

A second strength of the program is its grounding in best practices for community engagement[101] that the aforementioned organizations have documented and translated into PACE's foundational values and principles. These include building authentic, symbiotic relationships for meaningful collaboration; honoring, uplifting, and growing community leadership and knowledge; restoring community power to encourage self-determination; ensuring transparency and collaborative governance every step of the way; and respecting and caring for participants' time and capacity.

Because PACE is a new pilot program, an extensive equity evaluation has not yet been conducted and details on its implementation challenges are not known. Future evaluations may uncover other limitations. However, broader challenges applicable to capacity-building programs includes ensuring diverse participation and the length of time it takes to achieve capacity.

California continues to advance additional TA and capacity building efforts. For instance, the Strategic Growth Council is developing a Regional Climate Collaboratives Program to further the pipeline that PACE begins. While PACE focuses on leadership development across the state, the RCCs will provide capacity building for place-based groups of community-based organizations and residents in specific under-resourced communities.

Core Principles for Technical Assistance

The following guidelines[102] have been excerpted from a list of central values that ground TA and capacity-building activities implemented by the State of California and edited for nationwide

[100] Partners Advancing Climate Equity. (2021, February). *Partners Advancing Climate Equity*. PACE. https://partnersadvancingclimateequity.org

[101] California Climate Investments. (2018, December). *Best Practices for Community Engagement and Building Successful Projects*. https://ww2.arb.ca.gov/sites/default/files/classic/cc/capandtrade/auctionproceeds/cci-community-leadership-bestpractices.pdf

[102] Strategic Growth Council (2020, April). *Technical Assistance Guidelines for State Agencies.* https://sgc.ca.gov/programs/cace/docs/20200826-TA_Guidelines.pdf

relevance. References to state agencies have been replaced with broader terms of government agencies.

Social Equity

Each community has a distinct history and unique assets and challenges. However, some communities and individuals have suffered from historic injustices and continue to carry disproportionate burdens that others do not. As a result, they experience additional barriers to applying for funding, which often keep the communities that most need funding in a vicious cycle of resource scarcity. Racial, gender, income, and other disparities that disadvantage certain groups of Californians should be taken into account when designing and implementing TA programs. Equity must be central to TA and capacity-building efforts to give under-resourced communities a fairer chance to compete for funds or to implement policies that not only benefit their residents but also contribute to state (and federal) goals.

Building Community Capacity

TA should not simply be about contractors doing work on behalf of communities, but about building long-term capacity within communities to sustain and expand successful practices into the future. Capacity building is the process by which individuals, groups, organizations, and institutions grow, enhance, and organize their systems, resources, and knowledge. TA should build recipients' resilience by identifying and augmenting communities' existing assets and strengths with the goal of reaching a level of autonomy in which outside TA is no longer needed. All TA should support relationship building, knowledge transmission, and sustainability of activities once the TA project term has ended.

Trust

Effective TA can build stronger relationships between federal, state, and local entities. It can also cultivate partnerships and trust within communities. This is especially the case when TA not only supports local governments but also includes meaningful engagement and partnership with residents and community-based organizations. Residents of under-resourced communities may distrust government agencies based on experiences of discrimination or neglect. Histories of redlining and other forms of systemic discrimination have understandably compromised trust in government for many communities of color. Other populations that may not trust government include immigrants — specifically those with undocumented status — certain rural communities, and other historically under-represented groups. TA is an opportunity to build trust slowly and incrementally within these communities by partnering with trusted local organizations and institutions and maintaining frequent two-way communication.

Community Engagement

Community engagement is the process of working collaboratively with a diverse group of stakeholders to address issues affecting their well-being. It involves sharing information, building relationships and partnerships, and engaging stakeholders in planning and making decisions with the goal of improving the outcomes of policies and programs. This type of engagement is a powerful vehicle for improving the legitimacy, relevance, and overall success of any project that aims to improve conditions within a community. Community engagement should be a central element of every step of the TA process.

Building partnerships on the ground with trusted community-based organizations and other local entities with a recognized commit-

ment to equity is critical to ensure a representative and meaningful engagement process. If community engagement is included in the scope of a TA or capacity-building effort, it is important to budget for compensating the community partners that help with outreach, material development, translation, and/or facilitation of workshops or other engagement events.

Community Relevance

Under-resourced communities face multifaceted challenges, covering a wide range of basic needs related to clean air and water, adequate city services, and availability of parks. For this reason, government agencies must work closely with TA recipients and devote adequate time and resources to ensure that the TA responds to the priorities and needs of the community it is meant to serve. This early engagement can help build trust and avoid wasting resources on support that will not have the desired impact.

TA and capacity-building initiatives must also be adaptable to changes that may arise during the project term. Under-resourced local governments and organizations are often juggling a number of different issues with few staff. When crises arise, these communities are often the hardest hit, and the local agencies, community-based organizations, and anchor institutions (such as universities) that serve them may need to shift focus to meet urgent needs.

Cultural Awareness

To truly build trust through capacity building, government agencies should hire TA contractors and tailor TA activities to fit the cultural context of the communities served. This may include 1) providing translation and interpretation services or hiring TA contractors who can provide service in the language of TA recipients; 2) respecting cultural norms and traditions, acknowledging past and current injustices; and 3) hiring TA providers who come from the communities served or at a minimum can demonstrate cultural awareness and humility in their approach.

Mutual Learning

TA and capacity-building efforts can help government agencies better understand how to support local communities and improve government policies and programs to ensure better and more meaningful implementation at the local level. For example, application assistance TA may reveal certain parts of an application process that are unclear or onerous. Policy implementation TA might help an agency identify complexities or a need for a more context-specific approach than originally expected. In contrast, viewing TA as one-way service provision rather than an opportunity for mutual learning and growth is a missed opportunity to improve government programs and policies.

Investments That Engage Through Community-Based Approaches

A homeowner is more likely to weatherize their home if their neighbor has done so and explains how they went through the process. Particularly for programs aimed at the household and consumer level, word-of-mouth from trusted sources can be critical. As previously discussed, under-resourced households may face language, technology, trust, and capacity barriers to access programs that can help build their financial and health resiliency.

A focus on disadvantaged and low-income populations can lead to descriptions of communities that focus on deficits at the expense of their positive characteristics, strengths, and assets. With the leadership and urging of environmental equity advocates, Califor-

nia programs are now reaching many under-resourced households through leveraged partnerships with organizations rooted in impacted communities to make implementation more effective. In the following, we provides details on two examples — the state-funded Clean Cars 4 All program and a public-private partnership, emPOWER. These two examples also focus on cultivating stronger relationships between state and local entities to increase partnerships and community trust.

Clean Cars 4 All Program

The Clean Cars 4 All Program (formerly called the Enhanced Fleet Modernization Plus-Up or EFMP) provides direct assistance to low- and moderate-income households in order to accelerate the turnover of old, heavily polluting cars and their replacement with cleaner, more fuel-efficient vehicles and alternative mobility options. In 2017 Assembly Bill 630 (Cooper) formally established the program while the earlier 2007 Assembly Bill 118 (Nunez)[103] authorized the fees to pay for EFMP Base program.

The program has two components: 1) Scrap Only, which is administered by the Bureau of Automotive Repair (BAR), and 2) Scrap and Replace, which is administered by air districts. About 90% of EFMP Base funds go to the Scrap Only component. Although EFMP Base Scrap and Replace is run in conjunction with CC4A, it has its own eligibility requirements and allows conventional intermediate car replacement vehicles. The vast majority of Base replacement vehicles are co-funded with CC4A.

In 2014 EFMP Plus-up began as a GGRF-funded pilot in South Coast and San Joaquin air districts. It was codified as its own program by AB 630. It expanded to the Bay Area and Sacramento between 2016 and 2019. It has also received funding from CARB's Air Quality Improvement Program (AQIP) and Volkswagen's 2016 Clean Air Act Civil Settlement[104] but GGRF funding accounts for 90% of historic funds.[105] As of the first quarter of 2021, the CC4A program has resulted in over 11,000 vehicles being scrapped and replaced in four districts (Los Angeles, San Joaquin Valley, Bay Area and Sacramento Metro), which includes projects co-funded with EFMP Base, providing over $115 million in funding.[106]

An evaluation by UCLA identified two distinct outreach approaches taken by air districts that reached households in the lowest income bracket of program eligibility.[107] The first approach relied on an online screening system while the second involved more community-based outreach and engagement. The latter approach has proven to be particularly effective by leveraging partnerships with community-based organizations (CBOs) that involve high levels of interaction with community members and potential program

[103] Alternative Fuels and Vehicle Technologies: Funding Programs, A.B. 118. (CA. 2007). https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080AB118#:~:text=AB%20118%2C%20Nunez.,and%20vehicle%20technologies%3A%20funding%20programs.&text=The%20bill%20would%20create%20the%20Air%20Quality%20Improvement%20Fund%2C%20and,the%20Air%20Quality%20Improvement%20Program.

[104] California Air Resources Board. (2017). *VW Diesel Vehicles.* https://ww2.arb.ca.gov/our-work/topics/vw-diesel-vehicles

[105] Estimate provided by California Air Resources Board staff in September 1, 2021 email.

[106] California Air Resources Board. (2021). *EFMP Scrap and Replace and CC4A Summary Report | California Air Resources Board*. https://ww2.arb.ca.gov/efmp-scrap-and-replace-and-cc4a-summary-report

[107] UCLA Luskin Center for Innovation. (2017, September). *Design and Implementation of the Enhanced Fleet Modernization Plus-Up Pilot Program*. University of California, Los Angeles. https://innovation.luskin.ucla.edu/wp-content/uploads/2019/03/Design_and_Implementation_of_the_Enhanced_Fleet_Modernization_Plus-Up_Pilot_Program.pdf

beneficiaries, and offer programmatic benefits beyond CC4A.[108]

Strengths

Program funding and policies were reviewed and discussed though community engagement activities, such as annually through public planning processes and at multiple public events. Program incentive demand has often outpaced supply, which is a testament to the appeal of CC4A. An evaluation of the program by UCLA identified experimentation and adaptation by each of the districts in pursuing the most effective ways to reach participants as a critical strength of the program.[109] For instance, some districts have achieved multifaceted, mass, and multilingual outreach strategy only possible through community partnerships. By using CBOs and other local organizations such as churches as essential outreach mechanisms, the program is highly effective at reducing mistrust and other barriers to participation. Another strength of the program is its tangible, direct assistance to low- and moderate-income households through participating air quality management districts. Further, despite the separate funding sources for the program, the streamlined application makes the process easier to navigate for households.

Challenges

Unlike some of the other California programs highlighted in this section, such as TCC or STEP, the design and implementation strategies of CC4A are more top-down, in part due to the nature of the benefit offered and desire to ensure consistency across the state.[110] Program funding and policies were reviewed though community engagement activities. However, because implementation guidelines are left to the discretion of districts, these are not bound by any statutory requirements to adopt a community-driven approach that gives front-line communities the agency to self-determine adopted solutions. On the implementation side, a challenge is that many car dealerships or dealership staff do not have the knowledge or incentive to proactively work with the advanced technology vehicle fleet and/or the needs of low-moderate income households. Further support with the replacement vehicle process is also needed. Finally, a distributive equity challenge is also evident due to large differences in funding distribution across districts; an analysis of recipient data shows that approximately 60% of state funding has been distributed to Southern California. This is reflective of both districts' relatively unequal size and different district approaches to outreach.[111]

EmPOWER Program

EmPOWER is another outreach initiative reaching underserved households through a community-based approach that leverages local knowledge and relationships.[112] The program was catalyzed by the Liberty Hill Foundation with funding from Electrify America, Southern California Edison, the Los Angeles Department of Water and Power (LADWP), CARB, and SGC. The program commits a min-

[108] UCLA Luskin Center for Innovation. (2021, May). *Procedural Equity in Implementing California's Clean Cars 4 All Program*. University of California, Los Angeles. https://innovation.luskin.ucla.edu/wp-content/uploads/2021/05/Procedural-Equity-in-Implementing-Californias-Clean-Cars-4-All-Program.pdf

[109] Ibid.

[110] Ibid.

[111] Ibid. Participant level data (n = 11,307) for each CC4A incentive recipient through December 2020 shows 60% of funding has been distributed to the South Coast Air Quality Management District, in Southern California. However, CARB staff noted in an email September 1, 2021 that 88% of participants as a whole are under 225% of the federal poverty line (FPL) and 92% are low-income households.

[112] Liberty Hill. (2021). *Empower Outreach*. https://www.libertyhill.org/how-we-work/campaigns/empower-outreach/

imum of 60% of all funding directly to on-the-ground outreach by community-based organizations that connect low-income residents to a large suite of environment-related financial assistance programs.[113] These programs include ratepayer incentives, energy efficiency upgrades, solar and clean vehicle rebates, among others.

After an initial pilot stage in late 2018, emPOWER officially launched with a collaborative of eight trusted organizations in front-line communities. Since then, the community-based organizations have reported thousands of interactions with residents about incentives programs that can benefit them while benefiting the environment.[114] The program is an example of a community-based scalable model that strives to reduce endemic barriers associated with low-income household enrollment in environmental incentive programs.

Strengths

A UCLA evaluation identified several strengths of the program, including the streamlined process in which eligible households and individuals can learn about a large suite of programs offered by different government agencies and utilities.[115] Another strength is that the initiative dedicates a high percentage of funds for on-the-ground outreach. Providing funding for CBOs ensures program dollars stay in the communities targeted for the investments while building local capacity. Staff at participating CBOs received hands-on training and technical assistance. This included workshops in which CBO staff working in different communities could share best practices and discuss lessons learned with each other. Another strength of the initiative is complete transparency in expenditures, which is often lacking in this type of contracting.

Challenges

A barrier for eligible households to access programs included under the emPOWER umbrella is the significant documentation required to apply for the various programs. The emPOWER approach, which relies on trusted relationships between local CBOs and the residents they serve, has helped but cannot always completely overcome the reluctance that some eligible households have to provide personal information in program applications. As previously mentioned, residents of under-resourced communities may have good reasons to distrust government agencies based on experiences of discrimination or neglect. Overcoming the barriers may require various program administrators to streamline application processes and make them less onerous for the intended beneficiaries.

[113] Pierce, G., & Connelly, R. (2020, July). *emPOWER: A Scalable Model for Improving Community Access to Environmental Benefit Programs in California*. UCLA Luskin Center for Innovation. https://innovation.luskin.ucla.edu/wp-content/uploads/2020/07/A_Scalable_Model_for_Improving_Community_Access_to_Environmental_Benefit_Programs_in_CA.pdf

[114] Ibid.

[115] Ibid.

Noteworthy Federal Programs

The following federal programs contain elements important for advancing equity and justice.

Block Grant – U.S. Department of Agriculture

Section 2501 U.S. Department of Agriculture funds outreach, technical assistance, and training for socially disadvantaged[116] and veteran farmers and ranchers to own and operate successful farms and ranches. The program has been uplifted by the White House Environmental Justice Advisory Council[117] as a model block grant available with mandatory (not discretionary) budgets for groups that do outreach to environmental justice groups.

Since 1994, 484 grants totaling more than $119 million have been awarded.[118] Despite the program's early success, funding has historically been insufficient to reach counties throughout the U.S. where outreach is most needed.[119] Eligible program applicants include nonprofit organizations, community-based organizations, a range of higher education institutions, and Native American tribes. Grantees must demonstrate expertise in working with socially disadvantaged or veteran farmer communities. The program is administered by the Office of Partnerships and Public Engagement and was established in the 1990 Farm Bill. The 2018 Farm Bill made changes to increase the program's transparency, accountability, and responsiveness to stakeholders.[120]

Cooperative Agreement Program - EPA

EPA's Environmental Justice Collaborative Problem-Solving Cooperative Agreement Program (EJCPS) provides funding to plan or work on projects that address local environmental and/or public health issues in their communities.[121] The EPA recently amended the program to support the priorities detailed in President Biden's Executive Order 13985 (Advancing Racial Equity and Support for Underserved Communities Through the Federal Government)[122] as well as Justice40 Executive Order 14008.[123]

The program funds recipients to build collaborative partnerships with other stakeholders (e.g., local businesses and industry) to

[116] This definition can be found on the USDA website: https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/people/outreach/slbfr/

[117] White House Environmental Justice Advisory Council. (2021, May). *Final Recommendations: Justice40 Climate and Economic Justice Screening Tool & Executive Order 12898 Revisions.* https://www.epa.gov/sites/default/files/2021-05/documents/whiteh2.pdf

[118] U.S. Department of Agriculture. (2020, July). *USDA Announces $15 Million in Funding Opportunities to Support Socially Disadvantaged and Veteran Farmers and Ranchers*. https://www.usda.gov/media/press-releases/2020/07/21/usda-announces-15-million-funding-opportunities-support-socially

[119] National Sustainable Agriculture Coalition. (2019, June). *Outreach and Assistance for Socially Disadvantaged and Veteran Farmers and Ranchers (Section 2501).* https://sustainableagriculture.net/publications/grassrootsguide/farming-opportunities/socially-disadvantaged-farmers-program/

[120] Ibid.

[121] U.S. Environmental Protection Agencies. (2021). *Environmental Justice Collaborative Problem-Solving (EJCPS) Cooperative Agreement Program Guidelines*. https://www.epa.gov/environmental-justice/environmental-justice-collaborative-problem-solving-cooperative-agreement-0

[122] Federal Register. (2021, January). *Executive Order 13985, Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.* https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government

[123] U.S. Environmental Protection Agency, Office of Environmental Justice. (2021, April). *Request for Application EPA-OP-OEJ-21-02: Environmental Justice Collaborative Problem-Solving (EJCPS) Cooperative Agreement Program.* https://www.epa.gov/sites/default/files/2021-04/documents/ej-cps-rfa_amendment_4.21.pdf

develop solutions that significantly address local environmental and/or public health issues. Additionally, the EJCPS requires that selected applicants integrate the EPA's Environmental Justice Collaborative Problem-Solving Model into their projects. The model involves proactive, strategic, and visionary community-based processes that bring together multiple parties from various stakeholder groups to address complex environmental justice issues.[124]

Office of Climate Change and Health Equity – HHS

The U.S. Department of Health and Human Services (HHS) is establishing the Office of Climate Change and Health Equity (OCCHE) in response to President Biden's executive order on the climate crisis. This is the first office of its kind at the national level to address climate change and health equity. It is also a prime example of how federal departments and agencies can go beyond the opportunity of Justice40 investments to more systematic, institutional change for climate, environmental, economic, racial, and health justice.

The office's mission is to "protect vulnerable communities who disproportionately bear the brunt of pollution and climate-driven disasters, such as drought and wildfires, at the expense of public health."[125] OCCHE is tasked with:

- Identifying communities with disproportionate exposures to climate hazards and vulnerable populations;
- Addressing health disparities exacerbated by climate impacts to enhance community health resilience;
- Promoting and translating research on public health benefits of multisectoral climate actions;
- Assisting with regulatory efforts to reduce greenhouse gas emissions and criteria air pollution throughout the health care sector, including participating suppliers and providers;
- Fostering innovation in climate adaptation and resilience for disadvantaged communities and vulnerable populations;
- Providing expertise and coordination to the White House, Secretary of Health and Human Services, and federal agencies related to climate change and health equity deliverables and activities, including Executive Order implementation, and reporting on health adaptation actions under the United Nations Framework Convention on Climate Change;
- Promoting training opportunities to build the climate and health workforce and empower communities; and
- Exploring opportunities to partner with the philanthropic and private sectors to support innovative programming to address disparities and health sector transformation.

[124] U.S. Environmental Protection Agency. (2008, June). *EPA's Environmental Justice Collaborative Problem-Solving Model.* https://www.epa.gov/sites/default/files/2016-06/documents/cps-manual-12-27-06.pdf

[125] U.S. Department of Health and Human Services. (2021, August). *News release: HHS Establishes Office of Climate Change and Health Equity*. https://www.hhs.gov/about/news/2021/08/30/hhs-establishes-office-climate-change-and-health-equity.html

Recommendations for Federal Policymakers and Administrators

▶ Invest in Programs That Empower Front-line Communities

As federal agencies consider new programs or update existing ones to embody Justice40 equity-centered goals, there is an opportunity for policymakers to design, redesign, and fund programs that center community leadership and decision-making in their processes. This includes solutions that provide consistent and flexible funding to support community-decision making in all aspects of a program — from defining program goals and visions, project selection and implementation, selection of technical assistance needs, and financial support for extensive annual measurement, analysis, and evaluations to track progress.

▶ Invest in Systematic Technical Assistance and Capacity Building for Front-line Communities

Long-term disinvestment and discriminatory policies can erode a community's capacity for leadership, organizing, and political capital. Having the courage to address root causes rather than pursuing simple solutions requires Justice40 policies to uplift communities throughout their journey to transformation. This means considering the extensive staff time, resources, and capacity of under-resourced communities to successfully access robust funding opportunities. Even if grant funding is secured, management, new reporting requirements, and unprecedented collaborative governance and coordination requirements may stretch the capacity of local municipalities and organizations. Community-led transformation needs to be resourced to mitigate the constraints of modest reserves and potential cash flow problems and build capacity for front-line leaders. This requires streamlined program support that incorporates a social equity lens — prioritizing the most under-resourced communities in the state, focusing on building recipients' resilience through technical assistance, and nurturing the collective power of front-line communities.

▶ Leverage the Strengths of Community-Based Organizations to Reach Eligible Households in a Coordinated Way

Reaching and engaging residents in historically marginalized communities will remain a challenge for developing and implementing equitable climate investments. Community-based approaches that leverage local knowledge and cultivate relationships and trust will play a critical role in program success. Funding trusted local organizations to conduct community outreach is an effective way to bring climate investment programs to households and communities impacted by pollution, poverty, institutional racism, and mistrust. Further, investing not only in front-line communities but also the trusted organizations with established histories of organizing in these communities also uplifts local capacity building.

6. HOW TO FUND INVESTMENTS EQUITABLY?

Climate investment programs logically require funds to invest. How these funds are generated can have a profound impact on the net benefits a program delivers. Even a thoughtfully designed program that applies the equity-minded principles outlined in previous sections can be undermined by the use of funding mechanisms that work against equitable outcomes. It is thus important to consider the menu of options for revenue generation, noting the demonstrated ability of each to provide funds and whether they do so in a manner aligned with environmental equity and justice priorities.

Revenue-generation mechanisms can be generally categorized as progressive or regressive. Progressive mechanisms raise funds in a manner that does not exacerbate existing patterns of socioeconomic inequality, while regressive mechanisms disproportionately burden the least affluent, most vulnerable populations. While progressive mechanisms are the more desirable option, steps can be taken in some cases to mitigate the regressive impacts of other revenue generating strategies (explored below).

This section reviews five main categories of revenue-generating mechanisms that California uses to fund climate, clean energy, and green infrastructure investments. These five are not a comprehensive list of funding mechanisms but rather are illustrative examples to assess performance as revenue-generating tools, equity issues, and how their funds have been used at a state level.

Overview of Revenue Magnitude Across Mechanisms

Individual sources used to fund climate investments and other environmental programs in California vary widely — over three orders of magnitude — in the amount of revenue they generate (see Table 6-1). Market-based approaches placing a price on carbon — namely, California's Cap-and-Trade program — generated over $2 billion — the most significant revenue of the sources examined (besides tax-backed general funds) during the 2019–2020 fiscal year.

Table 6-1: Examples of revenue-generating mechanisms for environmental programs in California*

Mechanism	Equitability	Revenue Source(s)	Magnitude in FY 2019–'20**	Fund Uses
Market-based pricing of carbon	Regressive	Cap & Trade Program	$2,105,810,363	California Climate Investments
Consumer-facing fees and surcharges (income-sensitive)	Progressive	Income-sensitive electricity ratepayer charges	$1,145,293,210[i]	California Alternate Rates for Energy (CARE) Program
Consumer-facing fees and surcharges (non-income-sensitive)	Regressive	Flat or per kWh electricity ratepayer charges	$148,000,000[ii]	Electric Program Investment Charge (EPIC) Program
		Vehicle service fees	Unknown	Carl Moyer Memorial Air Quality Standards Attainment Program, air quality management districts (AQMDs)
		Emitter fees	$107,300,000[iii]	Air quality-related programs and administration
Property and sales taxes	Regressive	Local government funds	Unknown	Climate investment co-funding
Income taxes	Progressive	State general funds	$3,704,000,000[iv]	State agencies administering climate investment programs.
			$775,000,000[v]	
		Federal regular block grants	$183,080,596[vi]	Low Income Home Energy Assistance Program (LIHEAP)
Voter-approved bonds	Progressive	General obligation bonds	$1,049,177,781[vii]	Water-related projects
			$1,209,028,177[viii]	Park and outdoor access-related projects

* Revenue-generating mechanisms non-exhaustive; California uses numerous other ratepayer-funded incentives, vehicle service feeds, and general fund expenditures not included above.

** Revenue magnitudes reported for fiscal year 2019–2020, except where noted otherwise. Figures annualized where appropriate. Clarifying info on magnitude figures in footnotes.

[i] California Alternate Rates for Energy (CARE) total program costs and discounts across California's three investor-owned utilities.

[ii] Calendar year 2021; amount to be collected under EPIC surcharge.

[iii] South Coast Air Quality Management District (SCAQMD) fee revenue.

[iv] California general funds for natural resources agencies.

[v] California general funds for environmental protection agencies (includes CARB).

[vi] Total release of Low Income Home Energy Assistance Program (LIHEAP) funds to California.

[vii] Annualized figure — total funds committed to date ($7,344,244,465) of the approved total ($7.545 billion) under California Proposition 1 (2014) divided by years since approval, including current year (7).

[viii] Annualized figure — total funds committed to date ($7,627,084,530) of the approved total ($4.1 billion) under California Proposition 68 (2018) divided by years since approval, including current year (3).

Income-sensitive consumer-facing fees, surcharges, and voter-approved bonds have also been effective tools in California's efforts to generate revenue for environmental programs. Total program costs and discounts under the California Alternate Rates for Energy (CARE) program exceeded $1.1 billion in FY 2019–'20, providing significant energy cost relief to low-income ratepayers via surcharges on higher-income ones. Voter-approved bonds can deliver similar revenue quantities: Two recent examples, Proposition 1 (2014) and Proposition 68 (2018) have each delivered annualized funds of more than $1 billion since enactment. This annualized figure is based on total committed funds to date divided by years since approval. Since committed funds include proposed appropriations, the current year is included in this calculation.

One progressive mechanism that appears to be somewhat underutilized is federal income taxes. A salient example of a federal program aligned with equity concerns is the Low Income Home Energy Assistance Program (LIHEAP) which, like state-level programs such as CARE, aims to unburden low-income households of high energy costs. However, the difference in funding for these two programs with comparable policy aims is striking; the total release of federal funds to California under LIHEAP in FY 2019–'20 was less than 16% of CARE funds for the same period. Prioritizing federal tax revenue for new or retrofitted equity-focused programs thus represents an opportunity to dramatically buoy environmental justice efforts.

Market-Based Approaches Placing a Cost on Carbon

The fundamental strategy of carbon pricing mechanisms is to account, to some degree, for the harm created by greenhouse gas emissions. The total cost of these harms is termed the "social cost of carbon" and was recently estimated by the Biden administration to be $51 per ton.[126] As a result of carbon pricing, goods that are particularly carbon intensive or require more fuel and energy to produce and transport become more expensive, leading to reduced use and incentivizing consumers to seek more environmentally friendly alternatives.

A carbon tax represents the purest form of this approach, imposing a flat charge on each ton of carbon emittances which, in turn, is passed on to consumers via price increases. Ideally, this charge is equal to the social cost of carbon. Although no carbon tax has been enacted in the United States to date, its potential as a market-based tool for mitigating climate change has been widely discussed.

Cap-and-trade programs hybridize a top-down regulatory approach with market-based elements. Under cap and trade, the overseeing public agency sets an upper limit on the total amount of carbon that may be emitted across the entire economy for a set period. Emitting allowances are then purchased by firms at auction, allowing market forces to govern how the business community collectively meets the carbon reduction goals dictated by the cap.

[126] Interagency Working Group on Social Cost of Greenhouse Gases, U.S. Government. (2021, February). *Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990*. https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf

The upside of market-based carbon pricing is its demonstrated ability to generate large amounts of revenue for public investment. As of June 2021, auction proceeds from California's Cap-and-Trade Program have generated nearly $16 billion for the Greenhouse Gas Reduction Fund (GGRF) since the program's creation in 2013.[127] As shown in Table 6-1, over $2.1 billion of this revenue was raised in fiscal year 2019–2020. This revenue is the foundation upon which CCI has been built, providing funding for the myriad climate investment programs conducted within California.

Equity Considerations

Carbon pricing mechanisms have the significant downside of being inherently regressive. This regressivity is the consequence of two factors: 1) carbon pricing can be passed on to the consumer in the form of goods price increases and 2) lower-income households are disproportionately burdened by said price increases. The latter factor is driven by established consumer spending patterns, which show that lower-income households spend a larger portion of their total income on necessities like food and fuel. When carbon footprints are priced into these commodities through a market-based mechanism, the resulting increased costs fall most heavily on the least affluent, most vulnerable households.

Concerns have also been raised by environmental justice groups regarding the efficacy of market-based mechanisms at addressing pollution exposure disparities. These approaches do not innately address the issue of pollution sources disproportionately burdening poor and minority communities. While recent studies have shown that greenhouse gas reductions spurred by California's cap-and-trade program do produce some reduction in co-pollutants, these reductions are not as large as once thought, and there has been little to no measurable benefit for burdened localities.[128,129] Furthermore, there is evidence that offset options within the cap-and-trade framework may reduce the efficacy of efforts to improve conditions in disproportionately polluted communities.[130] Overall reductions in greenhouse gas emissions may be cold comfort to groups that continue to be subjected to inequitable and harmful conditions.

Market-based mechanisms also suffer from inconsistency, as market conditions (e.g., fluctuating auction revenues for carbon allowances) introduce volatility into the funding stream for investments meant to benefit disadvantaged communities. To effectively administer programs and maximize benefits, public agencies and partnering organizations require fiscal stability. Depending on potentially volatile market-based revenue streams can create uncertainty, and revenue shortfalls in a given year can cause major setbacks.

Recent studies suggest that intentional program design and usage of funds can ameliorate the shortcomings of market-based mechanisms with regard to regressivity. A 2016 report from the World Resources Institute highlighted how intentionally directing carbon

[127] California Air Resources Board (2021, June). *California Cap-and-Trade Program Summary of Proceeds to California and Consigning Entities*. https://ww2.arb.ca.gov/sites/default/files/2020-09/proceeds_summary.pdf.
[128] Christa M. Anderson, Kendall A. Kissel, Christopher B. Field, Katherine J. Mach (2018). Climate change mitigation, air pollution, and environmental justice in California. *Environmental Science and Technology* 52 (18), 10829-10838. DOI: https://doi.org/10.1021/acs.est.8b00908
[129] Lara Cushing, Dan Blaustein-Rejto, Madeline Wander, Manuel Pastor, James Sadd, Allen Zhu, Rachel Morello-Frosch (2018). Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011-2015). *PLoS Med* 15(7): e1002604. DOI: https://doi.org/10.1371/journal.pmed.1002604
[130] Ibid.

pricing revenue toward priority populations and fossil fuel workers can make carbon pricing a net positive for these groups.[131] However, such a model will always create regressive impacts in the interim before the benefits of implemented funds can be realized. Alternatively, supplemental regulations can help address the inability of market-based mechanisms to address inequitable pollution burdens. A 2018 study by a group of Stanford University researchers noted that community-level air quality conditions in California, for instance, could potentially be improved by adopting targeted policies and regulations in addition to the cap-and-trade program.[132] Revenue-focused approaches (e.g. cap-and-trade dividends, revenue-neutral carbon tax) are also a possibility, wherein all or a portion of funds generated from the mechanism are dispensed directly back to energy consumers to offset increased prices. California has already instituted a form of cap-and-trade dividend through the "California climate credit," which provides a rebate to energy customers of investor-owned utilities in the state.[133]

Consumer-Facing Fees and Surcharges

Fees and surcharges can be instituted on a variety of goods and services purchased by consumers. In the context of generating revenue for climate investment, we focus on three areas: electricity, vehicle services, and air pollutant emitter fees that translate into increased costs for consumers. These fees and surcharges can be further distinguished by models which are income sensitive versus those that are not.

Equity Considerations

By taking economic status into account, income-sensitive revenue-generating mechanisms can achieve progressive outcomes. A key example is the California Alternate Rates for Energy (CARE) program. Under CARE, California's utilities assess higher electricity rates on higher-income ratepayers to fund rate discounts for low-income ratepayers. Such a structure achieves progressive outcomes by raising revenue only from those who can afford it and directing those funds to assist those who need it most. CARE demonstrates the capability of this mechanism to raise revenues at a fairly large scale, with total program costs and discounts of over $1.1 billion in fiscal year 2019–2020.

When fee and surcharge burdens are applied universally, however, these revenue-generating mechanisms can be regressive. As with market-based carbon pricing, regressive outcomes are an equity consideration because the types of goods and services upon which such fees are assessed — including household electricity and vehicle service fees — tend to be necessities that lower-income households spend a larger portion of income on. Additional charges such as a flat per kWh electricity surcharge (the model used by California's Electric Program Investment Charge) or fees on vehicle smog checks and tire changes (which funds the state's Carl Moyer Memorial Air Quality Standards Attainment Program) weigh more heavily on those living paycheck to paycheck than the affluent. Consumer-facing fee mechanisms must be designed in a manner that reflects these realities to avoid working against the

[131] Kaufman, N., & Krause, E. (2016, April). *Putting a Price on Carbon: Ensuring Equity*. World Resources Institute. https://files.wri.org/s3fs-public/Putting_a_Price_on_Carbon_Ensuring_Equity.pdf
[132] Anderson, C. M., Kissel, K. A., Field, C. B., & Mach, K. J. (2018). Climate Change Mitigation, Air Pollution, and Environmental Justice in California. *Environmental Science & Technology*, *52*(18), 10829–10838. https://doi.org/10.1021/acs.est.8b00908
[133] California Public Utilities Commission (2021). California Climate Credit. Accessed Sept 16, 2021 at https://www.cpuc.ca.gov/climatecredit/.

equitable outcomes that climate investment programs are meant to achieve.

Property and Sales Taxes

Taxes are an essential tool for governments to fund public programs. However, different types of taxes vary in how much they contribute to progressive versus regressive outcomes. In this section, we focus on two tax types that are generally regressive: property and sales taxes.

Equity Considerations

As in categories mentioned above, the regressive nature of these taxes is driven by consumer spending patterns as a proportion of household income. Lower-income households spend a larger portion of their budgets on housing and on necessities (e.g., clothing) that are subject to sales tax, resulting in these taxes generally constituting a larger percentage of household income. Additional concerns have been mounting for years regarding property tax regressivity as gentrification and rising property values impose increasing tax costs on poor, longtime residents of developing areas.

These taxes make up a sizable portion of state general funds and local government revenues. In recent years, sales tax has composed nearly a third of state general funds collectively[134] while supporting a relatively small fraction of local government expenditures (about 7%).[135] However, property taxes make up a large portion of local governments' revenue base — over 30%.[136] Therefore, when climate investment programs utilize funds that depend on these regressive taxes — such as CCI programs that require or incentivize matching local funds — they undercut the equity benefits produced by the program to a small degree.

Income Taxes

Income taxes make up a significant portion of state and federal tax revenue. Individual or personal income taxes account for about half of federal government revenue[137] and nearly half (about 45%) of collective state general funds.[138] This makes income taxes a demonstrably effective mechanism for generating large amounts of revenue while still working in a progressive fashion.

Equity Considerations

In contrast to property and sales taxes, income tax structures at state and federal levels are generally progressive. The structure of marginal tax brackets minimally burdens lower-income households and individuals while avoiding perverse incentives by only applying higher tax rates to earned income on the margin. This results in a classically progressive revenue-generating mechanism, wherein the largest tax by both absolute magnitude and as a proportion of each additional dollar earned is paid by the highest earners, while low-income households are less tax burdened.

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[134] National Association of State Budget Officers. (2020). *2020 State Expenditure Report*. https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/SER%20Archive/2020_State_Expenditure_Report_S.pdf

[135] Tax Policy Center. (2020, May). *What are the sources of revenue for local governments?* Urban Institute and Brookings Institution. https://www.taxpolicycenter.org/briefing-book/what-are-sources-revenue-local-governments

[136] Ibid.

[137] Ibid.

[138] National Association of State Budget Officers. (2020). *2020 State Expenditure Report*. https://higherlogicdownload.s3.amazonaws.com/NASBO/9d2d2db1-c943-4f1b-b750-0fca152d64c2/UploadedImages/SER%20Archive/2020_State_Expenditure_Report_S.pdf

However, given the strength of this mechanism, there are fewer examples than one would expect of income tax-derived funds being used to support environmental investment. In California, state general funds support agencies like CARB (which administers CCI) and Air Quality Management Districts (which regulate air pollution). On the federal side, equity-focused programs like LIHEAP receive funding derived in part from income taxes. These uses are either difficult to disaggregate or relatively small, suggesting room for greater use of income tax revenues to support climate investment programs.

Bonds/Borrowing/Deficit Spending

Issuing bonds, similar to borrowing/deficit spending at the federal level, has been a widely used mechanism to raise funds in the short term for investment in various public programs. While various types of bonds exist, the most common ones issued by governments are *general obligation bonds*. Under general obligation bonds, the issuer commits to using all means necessary to repay bondholders, including tax revenues.

Bonds have proven to be an effective means of generating revenue in California. In the past decade voters have approved several multibillion-dollar bonds to fund programs focused on or related to climate investment and equity. Proposition 1, approved by voters in 2014, issued over $7.5 billion in bonds to fund a range of water-related projects. More recently, in 2018, $4.1 billion in bonds was issued under Proposition 68 to support various programs focused on public parks and outdoor spaces and promoting equitable access to these areas. An analysis of committed funds — fund expenditures or proposed expenditures — for these propositions indicates an average of $1 billion per year for their policy areas since approval.

Equity Considerations

The reliance on taxes to repay bonds means that general obligation bonds are generally as regressive or progressive as the tax structures used by the issuing government. For instance, given their reliance on property and sales taxes, local government bonds would be considered regressive. In contrast, state and federal bonds would be somewhat progressive, as their tax base relies more on income taxes than other types. Since we are focusing here on bonds as revenue generators at the state or federal level, we classify the mechanism as progressive overall.

Recommendations

Given the multifaceted considerations discussed above regarding how to fund equitable climate investments, we recommend that government agencies prioritize two funding sources that are inherently progressive in their structure: income taxes and deficit spending. These strategies avoid regressive impacts on low-income households and communities, even in the short term. Moreover, these revenue streams are well established and demonstrably capable of raising large amounts of revenue at the state and federal levels.

7. CONCLUSION

The Biden-Harris administration recognizes that people of color and low-income households and communities face intersectional, multigenerational, and disproportionate impacts from systemic racism, economic inequities, and environmental health injustices. This report proposes a framework for Justice40 investments to systematically target five major types of environmental and procedural inequities that hinder the transition to a clean, sustainable, and equitable economy: disproportionate exposure to pollution, uneven distribution of climate impacts, lower levels of local government resources, disproportionate occupational impacts, and uneven distribution of the costs and benefits of environmental policies.

To actualize and operationalize Justice40, the federal government should look to best practices and pitfalls from early state action on climate, clean energy, and other green job investments prioritizing benefits for under-resourced communities, low-income households, and vulnerable workers. This report identified lessons from several states, with a focus on California. The Golden State has the most robust and fully implemented equivalent to Justice40. Its track record allows for retrospective analysis of its approach, achievements, and challenges.

The federal government has the opportunity to build upon strengths and avoid shortcomings in the approaches that states have taken to lay the overall framework and foundation that can be built upon for equitable, effective, and accountable investments in communities across the country.

Like at the state-level, there are important examples at the grassroots of community-led investments for environmental, economic, and racial justice. A few snapshot examples were provided in Section 1. A next research step could be to systematically evaluate these and other community-level examples to identify best practices, opportunities, and challenges that the Justice40 Initiative could address by intentionally building the pipeline for community redevelopment and collaboratively making equitable and effective investments.

In the future, we hope to study mechanisms for bringing government, impact investors, and philanthropy together to invest in the capacity, capital, and systems needed to advance community priorities from the ground up.

APPENDIX A: Agency Responsibilities Regarding Eligibility and Transparency in California

Under the California Climate Investment model, the overseeing agency — the California Air Resources Board (CARB) — takes on a multifaceted role. In addition to acting as an administering agency for several programs itself, CARB facilitates reporting by other administering agencies and works with the Department of Finance to report to state lawmakers on the overall performance of the initiative. Key actions to fulfill these responsibilities include:

- ***Developing reporting tools,*** in collaboration with administering agencies, that are aligned with program foci and enable thorough, accurate, and consistent reporting across programs
- ***Providing guidance and monitoring*** for administering agencies to facilitate the reporting process and ensure compliance
- ***Assemble and present initiative-level data*** from across programs in a communicable form to policymakers, stakeholders, and the public.

Evaluating Investment Eligibility

One important element of reporting is determining whether investments are eligible to be counted toward statutory minimums for priority populations. CARB has created a multistep process for evaluating this question:

Step 1: *Identification of the priority population(s) the program is intended to benefit.*

Administering agencies must first identify which priority populations will receive benefits from the program. As aforementioned, this is done either by the geographic location where the benefits are delivered — within either a disadvantaged or low-income census tract, as identified by CalEnviroScreen or AB 1550, respectively — or at the household level based on income eligibility. For certain types of programs, additional guidelines may be provided to aid the agency in determining the location of the project's benefits in a standardized fashion.

Several strategies are available to agencies for determining household-level eligibility. These include:

- **Pre-qualification based on household enrollment in public assistance programs like CalFresh/SNAP, TANF, or Medi-Cal**
- **Household self-certification of income, corroborated by random sample verification by the agency**
- **Contracting with grantees to assess compliance with income eligibility thresholds**
- **Universal income verification for applicants.**

Step 2: *Identification of a need specific to the community served.*

Accurately identifying a community-specific need is integral to CCI's approach to community investment, as it maximizes alignment between the programs CCI funds and on-the-ground conditions experienced by priority populations. The recommended approach for administering agencies is to engage in a robust community engagement and local planning process (e.g., hosting community meetings and workshops, and/or direct engagement with local groups and residents) to collaboratively identify a need. The agency can also solicit remote input from the community via correspondence, a more removed approach.

When direct engagement is infeasible, administering agencies may use fallback options for identifying community needs based on the most acute CalEnviroScreen indicators for an area or by addressing needs identified by CARB as common among priority populations (Table A-1).

***Step 3:** Provision of a "direct, meaningful, and assured" benefit aligning with the program's focus that addresses the identified community need.*

Last, administering agencies must report the benefits the program will deliver and how those aligns with community needs identified in step 2. This final step is where benefit criteria tables are highly differentiated based on the programs they are designed for. Whereas steps 1 and 2 are consistently applicable across the broad array of CCI programs, step 3 criteria are specific to particular programs' policy foci. For instance, the *Sustainable Transportation* table's step 3 criteria largely focus on transit, transportation, and mobility, while the *Energy Efficiency or Renewable Energy* table lists criteria focused on energy efficiency and cost savings.

Note that the policy area-specific benefits programs report are in addition to the universal requirement that CCI programs lead to reductions in GHG emissions.

Programs must satisfy the requirements of all steps in the evaluation for their benefits to be reported as directed to priority populations. Programs operating in disadvantaged communities but which are not aligned with any identified community need, for instance, would not report their funds as being invested in priority populations. Given the diversity of programs within CCI and the dynamism of the climate investment sphere, CARB works with administering agencies to refine or create new benefit criteria tables to respond to agency needs.

Reporting requirements for administering agencies

CCI administering agencies are required to report descriptive information for the programs they administer, public outreach and engagement actions taken, and details on how program funds have been used:

- ***Descriptive information*** focuses on the basic program model, including how it leads to reduced GHG emissions and how it provides benefits to priority populations.
- ***Public outreach and engagement reporting*** entails publishing the program schedule and documenting steps taken to promote public transparency and outreach — dates, locations, and other details of public workshops, for instance.
- ***Program fund utilization reporting*** includes the details of the solicitation process and its outcomes — such as the number of applications and quantities of requested and leveraged funds — and usage of funds for administrative costs.

Special attention is given to documenting the use of program funds for administrative costs, either by agencies themselves or intermediaries. These costs, while necessary, reduce the availability of monies that could be used to deliver benefits to communities. As such, it is important to closely monitor administrative costs to ensure efficiency.

Reporting requirements for implementing entities

For any given usage of climate investment funds, an implementing entity — typically either a grant recipient (e.g., a local government or NGO) or the administering agency itself — oversees fund spending. CCI's reporting requirements are most stringent at this

Table A-1: Common needs of California's priority populations identified by CARB

(Reproduced from the 2018 California Climate Investment Funding Guidelines)

Public Health

» Reduce health harms (e.g.,asthma) suffered disproportionately by priority populations due to air pollutants.
» Reduce health harms (e.g.,obesity) suffered disproportionately by priority populations due to the built environment (e.g., provide active transportation, parks, playgrounds).
» Increase community safety.
» Reduce heat-related illnesses and increase thermal comfort (e.g.,weatherization and solar energy can provide more efficient and affordable air-conditioning; urban forestry can reduce heat-island effect).
» Increase access to parks, greenways, open space, and other community assets.

Economic

» Create quality jobs and increase family income (e.g., targeted hiring for living-wage jobs that provide access to health insurance and retirement benefits with long-term job retention, using project labor agreements with targeted hire commitments, community benefit agreements, community workforce agreements, partnerships with community-based workforce development and job training entities, State-certified community conservation corps).
» Increase job readiness and career opportunities (e.g., workforce development programs, on-the-job training, industry-recognized certifications).
» Revitalize local economies (e.g., increased use of local businesses) and support California-based small businesses.
» Reduce housing costs (e.g., affordable housing).
» Reduce transportation costs (e.g., free or reduced-cost transit passes) and improve access to public transportation (e.g., new services in under-served communities).
» Reduce energy costs for residents (e.g., weatherization, solar).
» Improve transit service levels and reliability on systems/routes that have high use by disadvantaged and/or low-income community residents or low-income riders.
» Bring jobs and housing closer together (e.g., affordable housing in transit-oriented development and in healthy, high-opportunity neighborhoods).
» Preserve community stability and maintain housing affordability for low-income households (e.g., prioritize projects in jurisdictions with anti-displacement policies).
» Provide educational and community capacity building opportunities through community engagement and leadership.

Environmental

» Reduce exposure to local environmental contaminants, such as toxic air contaminants, criteria air pollutants, and drinking water contaminants (e.g., provide a buffer between bike/walk paths and transportation corridors).
» Prioritize zero-emission vehicle projects for areas with high diesel air pollution, especially around schools or other sensitive populations with near-roadway exposure.
» Reduce exposure to pesticides in communities near agricultural operations.
» Greening communities through restoring local ecosystems and planting of native species, improving aesthetics of the landscape, and/or increasing public access for recreation.

implementation stage, as it is at this point that benefits are delivered and measurable outcomes achieved. The exact types of data that agencies must report varies by program; common measures and outcome categories are outlined in Table A-2.

Given the breadth and diversity of programs encompassed within climate investments, creating reporting tools aligned to each eases the reporting process for administering agencies. CCI has opted to accomplish this by providing agencies with program-specific reporting templates. To minimize confusion and ensure consistent reporting, CCI's overseeing agency also provides guidelines to identify at what stage of development programs should begin reporting outcomes, metrics, and methodologies to use, and reporting schedules. To centralize the process and enable frequent updates, all CCI reporting is done via a single online system — the California Climate Investments Reporting and Tracking System.

Even in cases where groups other than the agency itself are implementing funds, responsibility for outcome reporting still rests with the agency under CCI guidelines. In such scenarios, agencies possess a variety of options for collecting data necessary for outcome reporting. These options include directing the implementing group to collect data as part of the grant conditions, collecting data themselves, or contracting with a third party (e.g., obtaining data on water or energy usage from a utility).

Table A-2: Common implementation-level reporting requirements for CCI administering agencies

Reporting Requirement	Description, Components, and Examples
Benefits to Priority Populations	Criteria met for counting benefits toward priority populations
	Identification of priority population meaningful need and how addressed
	Identification of all types of priority populations benefited
GHG Emissions Reductions	Quantity of GHG emissions reductions achieved, per standard methodology
Employment Benefits	Number of jobs provided
	Job details (e.g., classification, required training and education, credentials provided)
	Measures of job quality (e.g., wages, benefits)
	Priority population-specific job-related figures
Other Co-Benefits	Quantifiable, program-specific benefits, using standard quantification methodologies where appropriate
	Examples: Reductions in criteria air pollutant emissions, reduced vehicle miles traveled, energy, or water savings

APPENDIX B. Examples of Household Eligibility Criteria for CCI and Federal Programs

Table B-1: Examples of Household Eligibility Criteria for Programs and Policies

Example Programs	Household Eligibility Determinant
General CCI programs per CA AB 1550	Household income less than 80% of statewide median household income (MHI) — $60,188 in 2019
	Household located in census tract with MHI at or less than 80% of statewide MHI
	Income limits identified by State Department of Housing and Community Development
Clean Cars 4 All CCI Program utilizing Program-Specific Eligibility Criteria	Household income at or less than 400% of federal poverty level. Eligibility varies by household size, county, multiple grant levels. Requires residence in DAC zip code. Max income for 4 people at each level: Max grant: $58,950 Mid grant: $78,600 Base grant: $104,800
Federal Family Electric Rate Assistance Program (FERA)	Household income at or less than 250% of the federal poverty line — $65,500 max for 4 people.
Federal Low Income Home Energy Assistance Program (LIHEAP)	Household income max 150% of federal poverty line or 60% state MHI, whichever is higher, not lower than 110% of federal poverty line. Exact threshold varies by state. Max for 4 people: Mississippi (lowest cost of living): $15,720 Hawai'i (highest cost of living): $45,195 California: $53,006
	Household member qualifies for other public assistance program.

APPENDIX C. CCI Major Programs by Primary Policy Sector and Administering Agencies, 2019

Primary Policy Sector	Major Program Title	Administering Agency
Agriculture	Alternative Manure Management Program	California Dept of Food & Agriculture
	Funding Agricultural Replacement Measures for Emissions Reductions (FARMER)	California Air Resources Board (CARB)
	Healthy Soils	California Dept of Food & Agriculture
	Sustainable Agricultural Lands Conservation	California Strategic Growth Council
	Renewable Energy for Agriculture	California Energy Commission (CEC)
	Dairy Digester Research & Development Program	California Dept of Food & Agriculture
Air	Community Air Protection	California Air Resources Board (CARB)
	Fluorinated Gases Emission Reduction Incentives	California Air Resources Board (CARB)
	Woodsmoke Reduction	California Air Resources Board (CARB)
Community Improvement	Affordable Housing and Sustainable Communities	California Strategic Growth Council
	Transformative Climate Communities	California Strategic Growth Council
	Climate Resilience Planning	San Francisco Bay Conservation and Development Commission
Conservation	Climate Adaptation and Resiliency	California Wildlife Conservation Board
	Coastal Resilience Planning	California Coastal Commission
	Wetlands and Watershed Restoration	California Dept of Fish & Wildlife
Energy	Low Income Weatherization Programs*	California Dept of Community Services and Development
Fire	Fire Prevention	California Dept of Forestry & Fire Protection (CalFire)
	Fire Prevention Grants Program	California Dept of Forestry & Fire Protection (CalFire)
	Forest Carbon Plan Implementation	California Dept of Forestry & Fire Protection (CalFire)
	Prescribed Fire Smoke Monitoring	California Air Resources Board (CARB)
	Wildfire Response and Readiness	California Governor's Office of Emergency Services
	Forest Health Program and Health Research	California Dept of Forestry & Fire Protection (CalFire)

Primary Policy Sector	Major Program Title	Administering Agency
Food	Food Production Investment	California Energy Commission (CEC)
Forests and Green Space	Urban and Community Forestry	California Dept of Forestry & Fire Protection (CalFire)
	Urban Greening	California Natural Resources Agency
	Climate Ready Program	California State Coastal Conservancy
Research	Transition to a Carbon Neutral Economy	California Environmental Protection Agency (CalEPA)
	Climate Change Research	California Strategic Growth Council
Transportation	Low Carbon Transportation Programs*	California Air Resources Board (CARB)
	Low-Carbon Fuel Production	California Energy Commission (CEC)
	High-Speed Rail Project	California High-Speed Rail Authority
	Low Carbon Transit Operations	California Dept of Transportation
	Transit and Intercity Rail Capital Program	California State Transportation Agency
	Active Transportation	California Dept of Transportation
Waste	Waste Diversion Programs*	California Dept of Resources Recycling and Recovery (CalRecycle)
Water	Safe and Affordable Funding for Equity and Resilience (SAFER)	California State Water Resources Control Board
	State Water Efficiency and Enhancement	California Dept of Food & Agriculture
	Water-Energy Grant	California Dept of Water Resources
Workforce and Capacity Building	Regional Forest and Fire Capacity	California Natural Resources Agency
	Community Fire Planning and Preparedness	California Dept of Forestry & Fire Protection (CalFire)
	Low Carbon Economy Workforce	California Workforce Development Board
	Technical Assistance	California Strategic Growth Council
	Training and Workforce Development	California Conservation Corps

APPENDIX D: Lessons From CCI on Designing Policy for Priority Populations

Regarding program design and implementation, administering agencies for climate investments enjoy a plethora of options to target funding within their respective programs toward priority populations. Broadly speaking, California's policymakers have employed two parallel approaches to equity-minded program design.

Policies that focus on only priority populations

The first and more direct approach is designing new policies with an exclusive equity focus. This focus manifests in selecting eligibility criteria that enable only priority households or communities to benefit from the policy. California's Transformative Climate Communities program provides an example of equity-minded program designed from the ground up (see Section 5). Some federal programs, such as the Low-Income Home Energy Assistance Program (LIHEAP), have also used this strategy.

Equity retrofitting policies for priority populations

Alternatively, policymakers may undertake an "equity retrofit" of general environmental policies that have, initially, very broad criteria. These policy equity retrofits involve adjusting eligibility criteria or program deliverables to privilege priority households or communities when investments are being made.

To guide agencies' choices — either in creating a program anew or retrofitting an existing one — at a granular level, CARB lays out a series of recommendations in the 2018 CCI Funding Guidelines. These recommendations generally fall within three categories: establishing within-program funding requirements, establishing required minimum thresholds for particular benefits, and designing competitive solicitation processes.

Program-Level Funding Guidelines

Administering agencies can utilize a few distinct strategies to advantage priority populations via program-level funding guidelines. The most straightforward method is to institute minimum funding requirements for program monies, stipulating either a minimum percentage or dollar amount that must be directed toward projects benefiting priority populations. Several CCI programs, such as the Affordable Housing and Sustainable Communities program, use this threshold-based approach. Alternatively, programs can offer larger fiscal incentives for projects benefiting priority populations. Some of California's Low Carbon Transportation programs, for instance, offer larger clean vehicle rebates for vehicles serving eligible households or located within disadvantaged communities.

Minimum Benefit Thresholds

In a somewhat analogous fashion, administering agencies can also institute guidelines setting thresholds or requirements for delivery of benefits to priority populations. It is important to underscore here the distinction between benefits delivered and funding expenditures. In the context of program design requirements, "benefits" generally mean the various types of co-benefits programs produce, such as jobs created or cost savings related to energy- and water- efficiency gains. Programs using benefit thresholds mandate that a minimum proportion of benefits are realized in a manner benefiting priority populations. For instance, California's High-Speed Rail program requires that 30% and 10% of total

worker hours be performed by national target workers and disadvantaged workers, respectively. In another example, the Food Waste Prevention and Rescue Grants program backs projects that distribute food diverted from landfills to low-income communities and households.

Requirements can also be instituted for cost savings resulting from a program, mandating that all or a portion of these be reinvested in a manner that benefits priority populations. Such is the case with the Community Solar program, which allows for intermediaries like municipal governments or housing providers to receive funds on the condition that resulting cost savings are passed on to residents through bill credits.

Competitive Solicitation Processes

Last, agencies whose programs solicit competitive applications from potential grantees can design the evaluation process to advantage projects benefiting priority populations. Typically, CCI programs that utilize such a process score potential projects along a number of criteria, usually resulting in a maximum score of 100. Most of these programs advantage the applications for projects benefiting priority populations via a set score bonus; the typical range of this bonus is 5–10 points out of 100. Agencies can award this evaluation bonus based on a number of different project elements, including:

- **Degree to which projects effectively identify and address an important priority population need**
- **Targeting of multiple needs common to priority population communities**
- **Meeting multiple program benefit criteria**
- **Location in jurisdictions making a concerted effort to avoid displacement of priority populations**
- **Community organizations or residents highly involved in project development**
- **Establishment of lasting relationships with community institutions, resulting in long-term capacity building.**

This approach, while not as concrete in ensuring funding or benefits are directed to priority populations as the two aforementioned methods, tilts the balance of program funds awarded in favor of the same outcome. Numerous CCI programs use this approach, including the Urban Greening and Waste Diversion programs.

APPENDIX E: Lessons From CCI Regarding Implementation of Funds Toward Priority Populations and Program Design

CCI has proven successful in directing climate investment funds toward priority populations, consistently exceeding the minimums mandated by law. Based on a comparison of amalgam investments directed to priority populations versus all funds implemented across major programs in the 2019–2020 fiscal year, 70% went to disadvantaged or low-income communities and households — double the overall statutory requirement of 35%. Figure E-1 showcases this reality, breaking down funding across major programs by both overall amount and the proportion each program directed toward priority populations. As can be observed, a sizable majority of programs met or exceeded the 40% priority funding threshold called for in the Justice40 Initiative. Furthermore, most of the programs receiving $50 million or more in funding in the most recent fiscal year delivered over 60% of funds to priority populations, driving the favorable outcomes noted above (though it should be noted that funds received are not necessarily implemented in the same year).

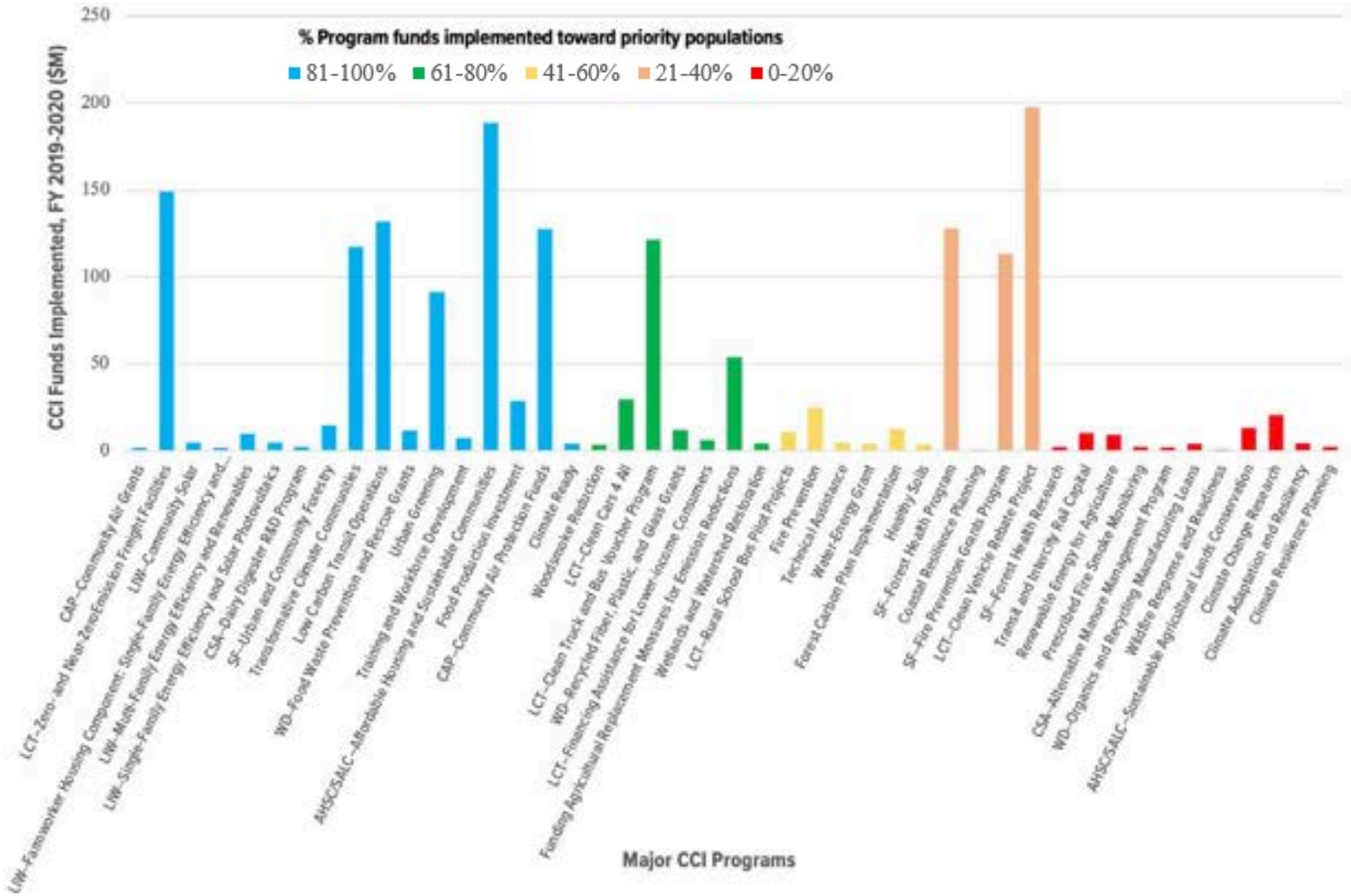
However, the degree to which California's priority populations benefit from climate investment varies widely across programs and policy sectors, offering some lessons as federal agencies begin to lay the groundwork for meeting the goals of the Justice40 Initiative. Six best practices are laid out in the CCI Funding Guidelines for designing equitable programs. Based on a review of fund implementation for the 2019-2020 fiscal year — the most recent for which data is available at the time of writing — three program design choices are most closely linked to strong performance with respect to directing funds to priority populations:

1. **Setting program-level eligibility requirements and investment minimums to privilege priority populations. Unsurprisingly, programs that exclusively serve such populations (via stringent eligibility criteria) or that set high program-level investment minimums tend to direct investments more favorably toward priority populations. A notable example is California's Low-Income Weatherization programs, which stipulate that benefits exclusively go to low-income households and communities and, as a result, deliver 100% of their funds to these populations.**
2. **Instituting location-based eligibility requirements determined based on screening tools (i.e., CalEnviroScreen, AB 1550) for programs delivering direct benefits at the community level. High-performing examples include the Affordable Housing and Sustainable Communities program and some Low Carbon Transportation programs.**
3. **Utilizing evaluative mechanisms that provide a measurable advantage to projects aimed at directly benefiting priority populations for programs that award funds or grants via competitive applications. Based on program performance, this strategy tends to have a more muted positive impact than the above two. However, exemplars can be found, including the Urban and Community Forestry program.**

Funding patterns across policy sectors also suggest that certain types of programs are more conducive to delivering benefits exclusively or in large part to priority populations. As depicted in Figure E-2, primary policy domains (as identified by the authors) including Air (E-2 A), Forests and Green Space (E-2 B), Energy (E-2 C), and Community Improvement (E-2 D) appear to be well aligned with delivering all or the vast majority of funds to priority populations. All but one of the major programs across these four sectors delivered 80% or more of their funds to priority populations in the most recent fiscal year — the one exception, Woodsmoke Reduction, exceeded 60%. Programs in three of these sectors — Community Air Protection, Urban Greening, Transformative Climate Communities, and Affordable Housing and Sustainable Communities — are sizable in terms of funding, implementing $90 million or more in the most recent fiscal year.

The four programs within the energy sector all fall under the umbrella of Low-Income Weatherization (LIW) programs, although these programs have been diversified to target different types of recipients.

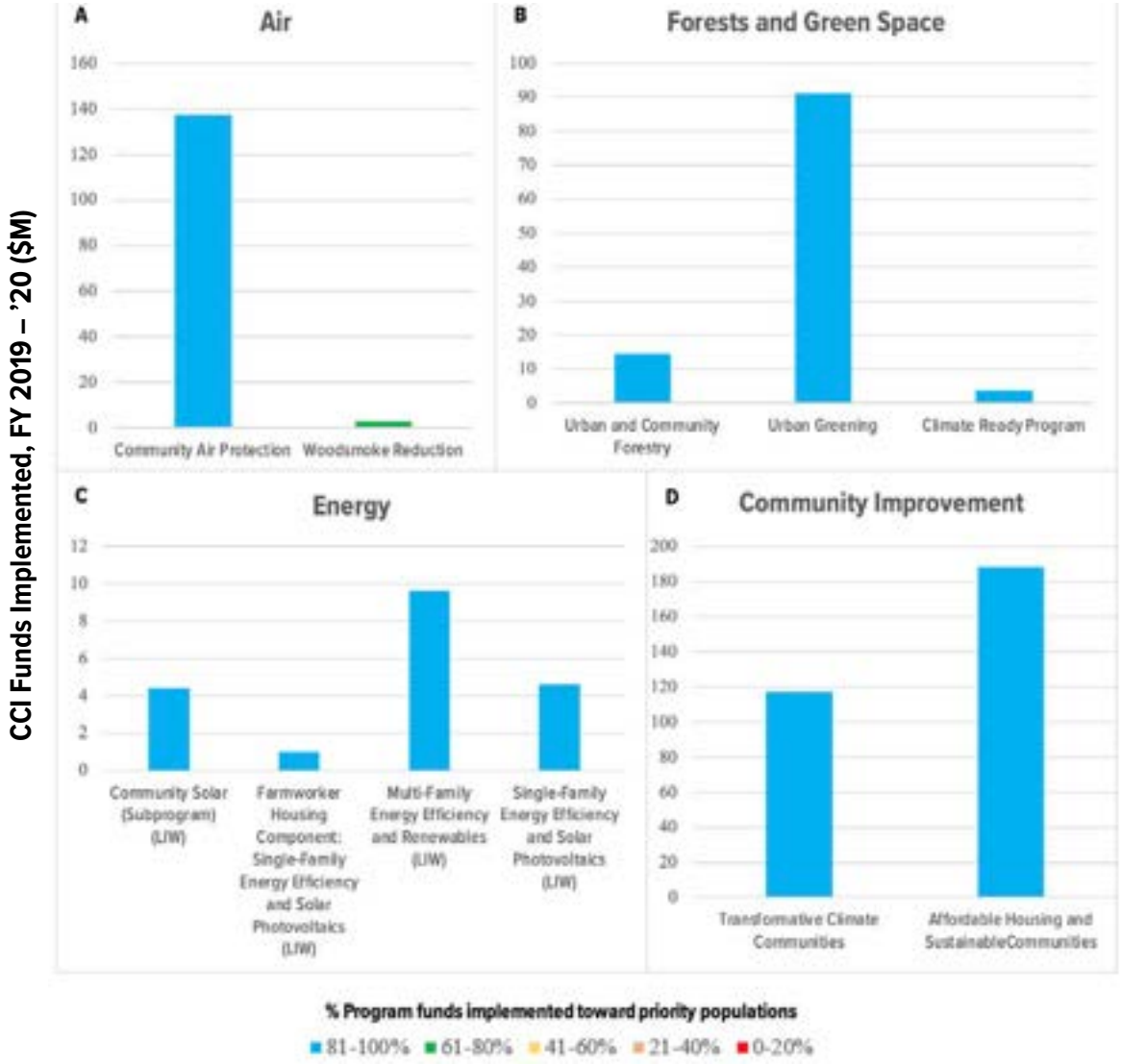
Figure E-1: Percent of major CCI program implemented funds directed to priority populations in FY 2019–'20 (in millions of dollars)



*Programs in Figures E-1 through E-4 coded per legend by % of implemented program funds directly benefiting priority populations. Within codes, programs are ordered by this same metric in descending fashion.

Figure E-2: Major CCI program implemented funds, by primary policy sector, delivered to priority populations in FY 2019–'20

Focused on domains where programs consistently excel at delivering benefits to priority populations.



Other policy domains, however, show either mixed or lower results across programs in directing funds to priority populations. As Figure E-3 shows, programs in the Agriculture (E-3 A), Waste (E-3 B), Transportation (E-3 C), and Workforce and Capacity Building (E-3 D) sectors range widely in the degree to which they implemented 2019-2020 fiscal year funds to benefit priority populations. All four of these sectors host at least one program that directs 80% or more of implemented funds to priority populations, but many others show middling (e.g., Technical Assistance and Healthy Soils in the 41–60% range) to low performance (e.g., Transit and Intercity Rail Program at less than 20%). The Agriculture, Transportation, and Waste sectors all contain at least one program in the lowest priority population funding bracket. In some cases, this may be attributable to alternative program priorities and/or a lack of congruity between the programs' equity goals and the existing definition of priority population.

As seen in Figure E-4, the Conservation (E-4 A), Fire (E-4 B), and Research (not depicted, as it encompassed only one major program) policy domains generally directed lower proportions of funds towards priority populations in fiscal year 2019-2020. Two of the three major programs in the Conservation sector and four of the six within Fire directed less than 40% of funds to priority populations. The observed trends in implemented funds across these sectors suggest a few patterns regarding policy areas where directing funds to priority populations tends to be more challenging:

1. Programs with an *inherent geographic focus on remote, low-population areas* such as wildlands, forests, and — to a lesser degree — agricultural operations tend to face more challenges directing funds to priority populations.

2. Programs where *flexibility in response to dynamic conditions* is required, such as fire prevention and management, are given greater discretion in disbursement of funds and tend to direct smaller portions of funding to priority populations. Such programs often fall into the aforementioned category of programs inherently focused on sparsely populated, remote areas.

3. Programs *designed to create indirect, second-order benefits* for priority populations but where inherent challenges exist regarding direct investment (e.g., research grants to academic institutions) are difficult to use as vehicles for delivering funds to priority populations.

It is important to note that at least one major CCI program in every policy sector implemented 40% or more of its 2019–2020 fiscal year funds to benefit priority populations. Thus, it is demonstrably feasible to prioritize investment for these communities and households across a range of diverse policy domains. Moreover, one must remember that these programs — and their utilization of funds — exist within the CCI ecosystem, and therefore lower levels of investment directed to priority populations within a subset of programs is not necessarily reflective of a failing on those programs' part when the overall portfolio has consistently exceeded its investment goals. Flexibility in fund usage is important to pursuing additional policy goals as part of an overarching, comprehensive equitable investment strategy.

Figure E-4: Major CCI program implemented funds coded by proportion delivered to priority populations in FY 2019–'20, grouped by primary policy sector

Focused on domains where programs generally delivered relatively low proportions of benefits to priority populations.

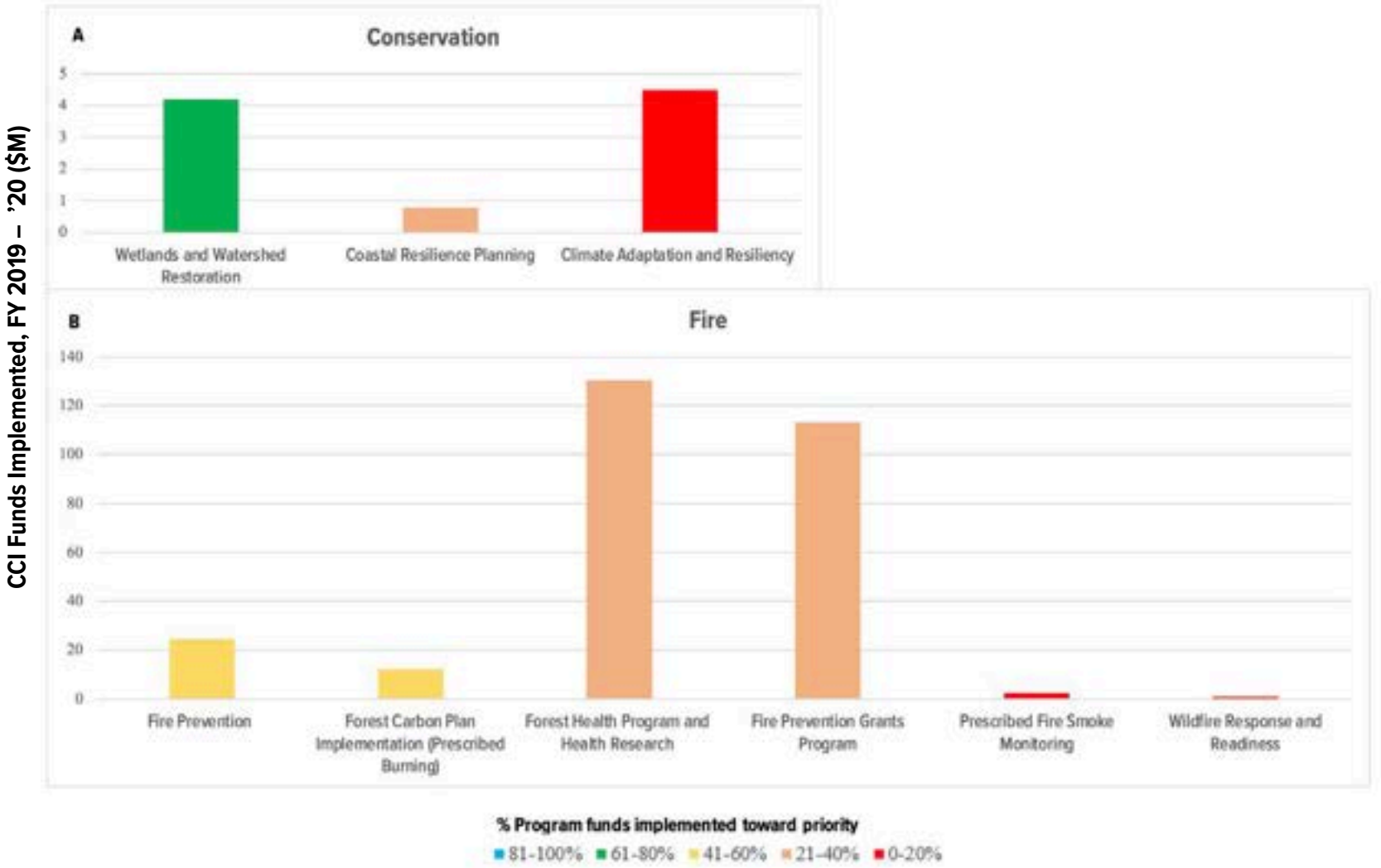
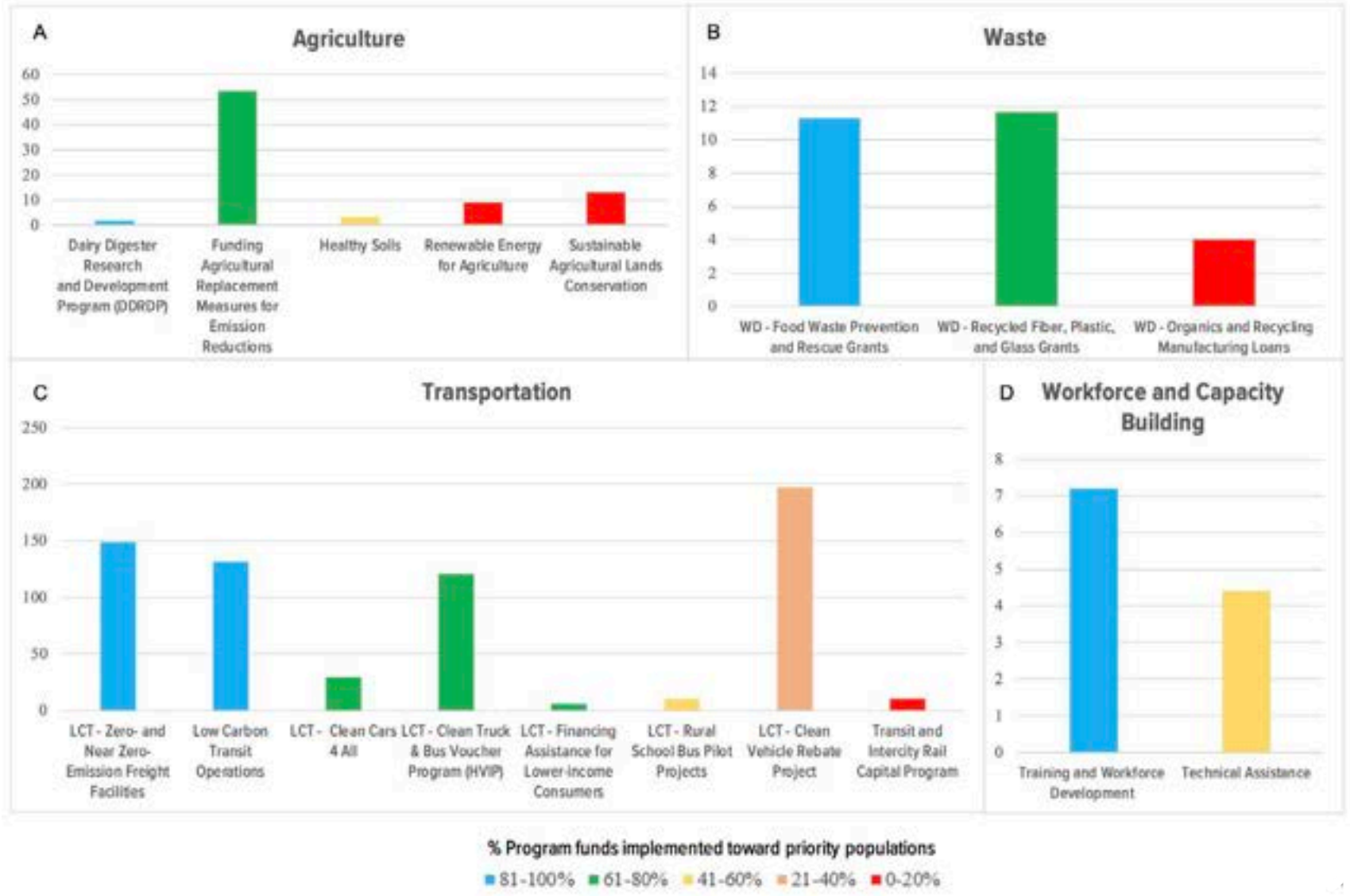


Figure E-3: Major CCI program implemented funds with mixed results in delivery of funds to priority populations in FY 2019–'20, grouped by primary policy sector



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