

An Assessment of Environmental Justice Policy in U.S. Climate Alliance States

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Abstract

This memo tracks the occurrence and characteristics of three procedural environmental justice (EJ) policies across 24 U.S. Climate Alliance (“Alliance”) states: 1) How each state defines an environmental justice community; 2) each state’s environmental justice mapping capabilities; and 3) the existence of permanent environmental justice staff and/or advisory bodies in each state.

We find mixed results in the adoption of these policies in Alliance states. In particular:

- Less than half (38 percent) of Alliance states have developed an explicit, measurable definition of an EJ community.
- Half of Alliance states have developed an EJ mapping data tool.
- Only four Alliance states (17 percent) have integrated air pollution exposure into their EJ definitions and/or mapping data tool.
- Fifteen Alliance states (63 percent) have established an EJ advisory body, five of which (21 percent) were established by legislation.
- Eleven Alliance states (46 percent) lack dedicated EJ staff in state agencies.

This analysis reveals that EJ community definitions, mapping tools, and bureaucracy are growing in popularity among Alliance states, but have yet to achieve widespread implementation. While these policies alone do not achieve environmental justice, they are vital procedural steps that signal a government’s commitment to tackling environmental injustice in a sophisticated and durable way.

Introduction

Environmental justice (EJ) is both a movement and concept, broadly encompassing the demands that the spaces where people live, work, play, learn, and pray are safe from environmental harms. It requires that all people and communities have equal access to institutions and ample resources to grow and prosper. Its visibility in mainstream American society blossomed in the 1960s, when the Civil Rights Act of 1964 aided individuals in filing suits against chemicals and toxic waste dumps concentrated in communities of color. In the early 1970s, the town officials of Shaw, Mississippi were found to be discriminating against Black residents in the provision of municipal services, leading residents to sue the town and win.¹ As a result, *Hawkins v. Town of Shaw* became one of the first major EJ victories in 1971.²

In 1982, more than 1,000 activists protested against the construction of a hazardous waste landfill in Warren County, North Carolina, a predominantly Black community.³ During the late 1980s, the United Church of Christ Commission for Racial Justice released the first-ever report identifying the correlation between waste facilities and race, popularizing the term “environmental racism.”⁴ Dr. Robert Bullard, the “Father of Environmental Justice,” released the first EJ textbook, *Dumping in Dixie*, and identified the patterns and impacts of environmental racism and the battle against it.

State and local governments persist as venues of EJ legislation to address local community needs and priorities. They frequently innovate on environmental and social justice policy at a faster rate than the federal government and have existing efforts that the federal government can learn from.

The U.S. Climate Alliance (“Alliance”), which currently includes 24 member states, is a bipartisan coalition of governors.⁵ Each member state of the Alliance commits to:

- 1 |** Reducing collective net greenhouse gas (GHG) emissions by at least 26–28 percent by 2025 and 50–52 percent by 2030, both below 2005 levels, and collectively achieving overall net-zero GHG emissions no later than 2050.
- 2 |** Accelerating new and existing policies to reduce GHG pollution, building resilience to the impacts of climate change, and promoting clean energy deployment at the state and federal level.
- 3 |** Centering equity, environmental justice, and a just economic transition in their efforts to achieve their climate goals and create high-quality jobs.
- 4 |** Tracking and reporting progress to the global community in appropriate settings, including when the world convenes to take stock of the Paris Agreement.

1 | *Hawkins vs. The Town of Shaw*, “The Lawsuit,” <http://hawkinsvshaw.org/the-lawsuit/>

2 | *Hawkins v. Town of Shaw*, Mississippi, 437 F.2d 1286 (5th Cir. 1971)

3 | Matt Reimann, “The EPA chose this county for a toxic dump because its residents were ‘few, black, and poor’” April 2017. <https://timeline.com/warren-county-dumping-race-4d8fe8de06cb>

4 | Dr. Benjamin Chavis Jr. and Charles Lee, “Toxic Wastes and Race in the United States,” Commission for Racial Justice, United Church of Christ, 1987. <http://uccfiles.com/pdf/ToxicWastes&Race.pdf>

5 | The U.S. Climate Alliance currently has 24 member states: California, Colorado, Connecticut, Delaware, Hawai‘i, Illinois, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, and Wisconsin. Puerto Rico is also a member.

Concepts such as equity, EJ, and a just economic transition are relatively new additions to the Alliance's list of explicit commitments. Additionally, EJ policies are highly contextual to the local community, making them more difficult to measure, evaluate, and compare than numerical GHG emissions reduction targets. There is no standard template for justice and equity at the state level.

Nonetheless, cross-state comparison and evaluation of efforts towards achieving

environmental justice is a critical exercise for policy diffusion and acceleration. This white paper contributes to this effort by providing data on the adoption rate of a small number of procedural equity policies and identifies model examples for states to follow.

We find that EJ community definitions, mapping tools, and decision-making bodies are growing in popularity among Alliance states, but have yet to achieve widespread implementation.⁶

Study Overview

This study tracks the occurrence rate of three procedural EJ policies across Alliance states: 1) how each state defines an environmental justice community; 2) each state's environmental justice mapping capabilities; and 3) the existence of permanent environmental justice staff and/or advisory bodies in each state.

An environmental justice community is used in this study to refer to populations that are disproportionately impacted by environmental harms due to structural inequalities related to their race, income, pollution burdens, and/or additional factors. The exact definition varies by state and may determine how state governments conduct community engagement, allocate funding, perform analysis, construct maps, and compose advisory bodies.

Open mapping tools visualize key data such as demographics, environmental hazards, and socioeconomic disparities, and they can help identify local environmental injustice. They serve as a key tool for government accountability and transparency and help democratize the data on state EJ disparities.

Environmental justice bureaucracies, such as advisory bodies and dedicated EJ government

staff, help bridge the gap between the government and the public through community input and engagement. These personnel may be charged with symbolic, ineffective authority such as non-binding recommendations to the governor, or they may be directly charged with decision-making authority and approval on EJ policy implementation.

Sufficiently addressing environmental injustice requires deeper, systemic changes that transcend these three policies. However, these actions help build data and structure for future EJ solutions to enable more significant change. The material transformations required to address injustice require political representation and transparency, which these policies help achieve.

Climate XChange collected information on EJ community definitions, site permitting and impact processes, investment and benefit requirements, EJ advisory bodies and their origins of establishment, permanent EJ government staff, air pollution monitoring and reporting, and EJ mapping tools from all 24 Alliance states. The information is sourced from state agency websites, legislative documents, and third-party analyses.⁷ Below are the key findings of this investigation.

⁶ | This study only focuses on instances of these policies that are fully implemented and publicly documented. Thus, additional states may have these policies in development but not yet finalized.

⁷ | For a more detailed list of sources, see the Appendix.

Key Findings

ENVIRONMENTAL JUSTICE COMMUNITY DEFINITIONS

Sixteen Alliance states (67 percent) have defined an EJ community.

Only nine Alliance states (38 percent) have an explicit, measurable definition of an EJ community. Seven of these states center their definition on race and/or income.

Only two Alliance states (8.3 percent) incorporate pollution burden into an explicit definition of an EJ community.

An EJ community is disproportionately impacted by environmental harms due to structural inequalities related to their income, race, pollution burdens, political exclusion, or other factors a state may consider.⁸ EJ issues burdening certain socioeconomic and racial groups across the United States are acknowledged under previous rulings, such as President Clinton's Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations" signed in 1994.⁹ However, identifying and measuring EJ communities varies greatly among states.

To identify EJ communities, states use both explicit and implicit definitions. Typically, explicit definitions are directly measurable, while an implicit definition is symbolic in nature. States with explicit definitions describe the specific, quantifiable thresholds that qualify a geographical area as an EJ community; many of

these explicit definitions may also be codified through legislation. New Jersey, for example, defines overburdened (environmental justice) communities as any census block¹⁰ where at least 35 percent of households qualify as low-income, at least 40 percent of residents identify as a minority or are members of a recognized tribe, or at least 40 percent of households have limited English proficiency.¹¹

States with implicit definitions do not measure specific thresholds by geographic location, but rather point to broader populations, such as racial and ethnic minorities or low-income families, that experience higher rates of environmental burdens. These definitions are less actionable, but can still influence government representation. For example, Michigan uses an implicit definition to recognize that low-income individuals, Black people, Indigenous people, and people of color face more environmental challenges; this influences what communities are represented in the Michigan Advisory Council on Environmental Justice (MAC-EJ).¹²

Sixteen Alliance states have an explicit or implicit definition of local EJ communities set by law or regulation. However, only nine have established an explicit, measurable definition. While implicit definitions are a step in the right direction, an explicit definition is needed to make EJ outcomes more measurable, actionable, and influential in the state's decision-making process.

8 | Depending on the state, environmental justice communities may also be called environmental justice neighborhoods, overburdened or frontline communities, or distressed municipalities. Throughout this report, "environmental justice communities" is used to refer to these definitions as well.

9 | Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," February 1994, https://www.epa.gov/sites/production/files/2015-02/documents/exec_order_12898.pdf

10 | Census blocks are "statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks, and by non-visible boundaries, such as selected property lines and city, township, school district, and county limits and short line-of-sight extensions of streets and roads." <https://www.census.gov/newsroom/blogs/random-samplings/2011/07/what-are-census-blocks.html>

11 | New Jersey Revised Statutes Chapter 92, "AN ACT concerning the disproportionate environmental and public health impacts of pollution on overburdened communities, and supplementing Title 13 of the Revised Statutes." <https://www.nj.gov/dep/ej/docs/ej-law.pdf>

12 | Michigan Department of Environment, Great Lakes, and Energy, Office of the Environmental Justice Public Advocate, "Michigan Advisory Council on Environmental Justice (MAC-EJ)" https://www.michigan.gov/environmentaljustice/0,9615,7-400-98505_98667---,00.html

STATE MAPPING TOOLS

Among the Alliance states with explicit EJ community definitions, there is variance in what criteria are used as thresholds. Six out of nine states include a measurement of race or minority status, whereas eight out of nine states measure income or poverty rates. However, only two states – California and Washington State – include measures of environmental burdens such as air pollution, health incidence rates, and/or chemical exposure in their explicit community definitions.¹³

This may be a product of limited data collection; a region's race and income distribution is regularly updated and available through census data. By comparison, pollution burdens are more complex and require examining several indicators of harmful environmental conditions, including exposure to ozone, fine particulate matter (PM_{2.5}), lead, diesel particulate matter, drinking water contaminants, pesticide use, toxic release from facilities, wind patterns, traffic density, and vulnerable health demographics, many of which are not tracked reliably at the state level.

Ultimately, states who fail to consider a multitude of factors limit their own ability to effectively define communities of concern. However, the processes states use to arrive at these definitions are just as important as the definitions themselves, as a key component of environmental justice is meaningful public representation and participation. These findings only measure the occurrence rate of EJ community definitions and components of these definitions, not the processes used to develop them nor their efficacy in the eyes of local stakeholders.

Twelve Alliance states (50 percent) have developed a mapping tool to identify EJ factors and burdens.

Seven Alliance states (29 percent) map EJ data at the census block group level.

Only four Alliance states (17 percent) integrate pollution exposure into their state EJ mapping tool.

EJ screening tools and maps visualize key EJ indicators, such as demographic information and environmental and public health threats. These tools increase transparency and allow decision-makers, activists, and residents to identify EJ communities and take action. Although the EPA's EJSCREEN is nationally available,¹⁴ several states have developed their own contextual mapping systems.

The area of land or size of the population measured by state-specific tools have varying degrees of granularity, typically mapped by census blocks, census block groups, or census tracts. A census block is the smallest geographic unit available, whereas a census block group consists of clusters of blocks and is generally defined to contain between 600 and 3,000 people.¹⁵ Census tracts are small, relatively permanent statistical subdivisions of a county that typically capture between 1,200 and 8,000 people.¹⁶

¹³ | See the Appendix for more information on California and Washington State EJ community definitions.

¹⁴ | EJSCREEN provides 11 environmental indicators: National-Scale Air Toxics Assessment (NATA) air toxics cancer risk, NATA respiratory hazard index, NATA diesel PM, particulate matter, ozone, traffic proximity and volume, lead paint indicator, proximity to Risk Management Plan (RMP) sites, proximity to hazardous waste facilities, proximity to National Priorities List (NPL) sites, and Wastewater Discharge Indicator. The tool also uses six demographic indicators: the percent of people who are low-income, people of color, linguistically isolated, under age 5, over age 64, and/or have less than high school education. U.S. EPA, "EPA's Environmental Justice Screening and Mapping Tool," <https://ejscreen.epa.gov/mapper/>

¹⁵ | Census block groups are statistical divisions of census tracts and generally contain between 600 and 3,000 people. U.S. Census Bureau, https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_4

¹⁶ | Census tracts are relatively permanent statistical subdivisions of a county or equivalent entity that are updated by local participants prior to each decennial census. U.S. Census Bureau, https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13

It is critical that mapping tools use the smallest geographical unit possible to accurately depict pollution burdens and other environmental injustices at the local level. Twelve Alliance states have developed their own EJ mapping tool, of which:

- Four states measure at the census tract level
- Five states measure at the census block group level
- Two states measure at the census block level
- One state uses alternative data methods

Many states may have an existing geographic information system (GIS) for limited environmental data but have not yet fully integrated such data into an EJ mapping tool. In particular, air pollution exposure is a difficult factor for states to collect reliable data on without expanding their existing air pollution monitor apparatuses. Only four (17 percent) Alliance states have an EJ mapping tool that integrates measures of air pollution exposure alongside socioeconomic data.¹⁷

The underlying datasets and the geographical units states use for their mapping tools also vary. For example, Pennsylvania's Environmental Justice Areas Viewer uses both census tracts and block groups to visualize EJ communities.¹⁸ New Mexico's Environmental Justice Mapper was constructed using census block groups, data from the U.S. Department of Urban Housing and Development, and TIGER/Line Shapefiles, which are spatial extracts from the U.S. Census Bureau's MAF/TIGER database.¹⁹

Some states have socioeconomic data, air pollution data, and EJ community definitions established in the state but have yet to consolidate and democratize this data. Massachusetts and Connecticut, for example, both have public detailed maps on what areas of the state qualify as EJ communities, but do not integrate other environmental burdens such as air pollution exposure into the dataset.

The efficacy of these mapping tools is contextual to the state, and dependent on if the tool's development process was inclusive and included input from the public. In Maryland, advocacy from stakeholders led the state to include six additional EJ factors: asthma emergency room discharges, percent of non-White individuals, proximity to waste treatment and disposal facilities, myocardial infarction discharges, infants with low birth weight, and particulate matter.²⁰ By seeking feedback and public engagement, states uphold a core principle of environmental justice: stakeholder representation in decision-making.

ENVIRONMENTAL JUSTICE BUREAUCRACY

Fifteen Alliance states (63 percent) have established an EJ advisory body.

Only five Alliance states (21 percent) authorize an EJ advisory body through legislation.

Thirteen Alliance states (58 percent) have EJ staff in the executive office.

Following the principles of EJ requires new intention within governance. A state government embodies its priorities in the very bureaucracy and staff resources it deploys. Permanent EJ staff members are state employees that implement specific EJ programs, monitor implementation in other agencies, facilitate community engagement, and more. Addressing EJ requires dedicating real staff time and resources to properly engage communities and tackle the unique challenges of the state.

On the other hand, EJ advisory bodies tend to be composed of appointed experts and stakeholders representing various communities and are responsible for making recommendations and increasing public engagement. They can be a helpful vehicle of influence in government decisions that historically have failed to include communities' perspectives.

¹⁷ | The four states to integrate air pollution exposure into EJ mapping tools are California, Maryland, Minnesota, and Washington State.

¹⁸ | Pennsylvania Department of Environmental Protection, "Environmental Justice Areas Viewer," <https://www.arcgis.com/apps/webappviewer/index.html?id=f31a188de122467691cae93c3339469c>

¹⁹ | New Mexico Environment Department, "New Mexico EJ Mapper," <https://gis.web.env.nm.gov/oem/?map=egis>

²⁰ | Maryland EJScreen Mapper, <https://pl.cgis.umd.edu/ejscreen/>

Most Alliance states are developing sophisticated plans to decarbonize for 2030 and beyond, and these arenas of decision-making tend to favor the voices of economists, energy experts, and other technical expertise over lay engagement and community-level priorities. EJ advisory bodies can be a representative, independent voice in government planning forums to help counteract the natural imbalance in representation.

Thirteen Alliance states have permanent EJ staff and fourteen have established an EJ advisory body. Six of these advisory bodies were established through executive order, four were through legislation, and four were through other means. EJ advisory bodies established and maintained through a governor's executive order are vulnerable to dissolution in the event of an administration change.

Such executive orders also lack legal compulsion. For example, Massachusetts established a Governor's Environmental Justice Advisory Council as part of a 2014 executive order, yet such an

advisory council has yet to be formed seven years later.²¹ This council could be compelled, resourced, and given clear authority through legislation.

Advisory bodies are useful for representation and public engagement, while dedicated staff act as vital implementers of EJ policy. However, the existence of these authorities does not ensure that EJ goals are being met; they are subject to political capture and subversion and can also lack sufficient authority.

In late 2020, a majority of the Minnesota Pollution Control Agency's EJ advisory group resigned in protest of the agency's decision to expand the Line 3 pipeline, despite the vehement opposition from members of the Anishinaabe and Dakota nations.²² Cases like this demonstrate that advisory bodies can lack significant influence and may be more symbolic rather than influential. Assessing the quality of a state EJ bureaucracy is best judged by frontline communities and local actors that are directly subject to these institutions.

Conclusion

This analysis reveals that many Alliance states still lag behind when it comes to EJ community definitions, mapping tools, and bureaucracy. While these policies alone do not redress environmental injustice, they are vital procedural steps that signal a government's commitment to tackling environmental injustice in a sophisticated and durable way.

However, the mere occurrence of these policies is not a complete story. There is significant inter-state variance in how EJ concepts and policies have developed. There is no universal solution for what makes the perfect EJ community definition,

mapping tool, or bureaucracy. The quality of these policies is rather a political story of how well the communities in question are represented and included in their development. However, there is immense value in comparing the EJ policy experience across states and evaluating the status of widespread adoption.

The EPA notes that achieving environmental justice requires providing "equal access to the decision-making process to have a healthy environment in which to live, learn, and work."²³ Without knowing whether these policies truly represent the wishes of community members,

21 | Office of the Governor, "Massachusetts Executive Order 552: Executive Order on environmental justice," November 2014, <https://www.mass.gov/executive-orders/no-552-executive-order-on-environmental-justice>

22 | Sierra Club North Star Chapter, "Environmental Justice Advisory Group Resigns Following Line 3 Permitting Decision," November 2020, <https://www.sierraclub.org/minnesota/blog/2020/11/environmental-justice-advisory-group-resigns-following-line-3-permitting>

23 | U.S. EPA, "Environmental Justice," <https://www.epa.gov/environmentaljustice>

information on environmental justice can only be presented quantitatively in this study.

The data collection of this study has several caveats and is subject to revision for the following reasons:

- 1 | Different states employ their own unique vocabulary when describing key concepts related to environmental justice; for example, one state may use the term “environmental justice community,” while another describes such a group as an “overburdened community.”
- 2 | States are inconsistent in their policy approaches. Many states rely solely on the EPA’s definitions, tools, community investment grants, and pollution monitoring programs while others have their own set of state-specific policies and programs. This is especially prevalent in their definitions of environmental justice, environmental justice community definitions, and use of mapping tools.
- 3 | There is significant variance in how state agencies responsible for environmental justice policies are named. One state may name their agency that deals in matters of the environment the “Department of Environmental Quality” while another may name it the “Department of Environmental Conservation.”
- 4 | An environmental justice program or advisory body may be housed under any of these executive agencies, which makes it difficult for a researcher to identify which agency they should contact for EJ related assistance.
- 5 | Each state’s environmental justice movement is unique, which leads to states following different progressions of policy. Climate XChange’s framework for analyzing the components of an EJ community definition, for example, may not be fully compatible with every state’s definition.
- 6 | The three policies analyzed in this memo are not exhaustive. Other key procedural policies that are vital for additional research include but are not limited to: site permitting processes; cumulative impact assessments; air pollution monitoring; and percentage-based statewide EJ benefit thresholds.
- 7 | Many Alliance states that have not implemented the policies of this study may have them under development.

Appendix

State	EJ Community Definitions		State EJ Mapping Tools	EJ Bureaucracy	
	Does it exist?	Included criteria		Environmental Justice Advisory Bodies	EJ Government Staff
California	Yes (Explicit)	Income, Pollution	CalEnviroScreen	Environmental Justice Advisory Committee	Attorney General – Bureau of Environmental Justice CARB – Executive Office
Colorado	Yes (Implicit)	Race, Income	N/A	N/A	CDPHE – EJ Program
Connecticut	Yes (Explicit)	Income	2020 EJ Communities	N/A	DEEP – Environmental Justice Program
Delaware	Yes (Implicit)	Race, Income	N/A	N/A	N/A
Hawaii	No	N/A	N/A	N/A	N/A
Illinois	No	N/A	Illinois EJ EPA Start	Illinois Environmental Justice Advisory Group	Illinois EPA – Commission on Environmental Justice
Louisiana	No	N/A	N/A	CITF – Equity Advisory Group	N/A
Maine	No	N/A	N/A	N/A	N/A
Maryland	Yes (Implicit)	Race, Income	MD EJSCREEN	Commission on Environmental Justice and Sustainable Communities	N/A
Massachusetts	Yes (Explicit)	Race, Income	MA 2020 EJ Populations	Governor's Environmental Justice Advisory Council	EEA – Director of Environmental Justice
Michigan	Yes (Implicit)	Race, Income	N/A	Michigan Advisory Council on Environmental Justice	EGLE – Office of the EJ Public Advocate
Minnesota	Yes (Explicit)	Race, Income	MPCA – Understanding Environmental Justice in Minnesota	MPCA Environmental Justice Advisory Group	MPCA – Environmental Justice Coordinator
Nevada	No	N/A	N/A	N/A	N/A
New Jersey	Yes (Explicit)	Race, Income	NJDEP – EJ Mapping Tool	Environmental Justice Advisory Council	NJDEP – Office of Environmental Justice
New Mexico	No	N/A	NM OpenEnviroMap	Environmental Justice Task Force	N/A
New York	Yes (Explicit)	Race, Income	Maps & GIS Tools for Environmental Justice	Environmental Justice Advisory Group (EJAG) and Interagency Coordinating Council	NY DEC – Office of Environmental Justice
North Carolina	No	N/A	Mapping system	NC DEQ – Environmental Justice and Equity Board	N/A
Oregon	Yes (Implicit)	Race, Income	N/A	The Governor's Environmental Justice Advisory Board	OR DEQ – Environmental Justice Coordinator
Pennsylvania	Yes (Explicit)	Race, Income	Environmental Justice Areas Viewer	Environmental Justice Advisory Board	PA DEP – Office of Environmental Justice
Rhode Island	Yes (Explicit)	Race, Income	RIDEM Environmental Resource Map	N/A	N/A
Vermont	Yes (Implicit)	Race, Income	N/A	ANR Diversity & Equity Committee	N/A
Virginia	Yes (Implicit)	Race, Income	N/A	Virginia Council on Environmental Justice	Environmental Justice Interagency Working Group
Washington	Yes (Explicit)	Pollution	Washington Tracking Network	N/A	Governor's Interagency Council on health Disparities
Wisconsin	No	N/A	N/A	N/A	N/A