

# Bringing environmental justice to disadvantaged communities

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Not all communities in the United States face the same risks for environmental problems such as air pollution, noise and wastewater. But

how can federal agencies fairly identify which areas deserve the most help?

A new [consensus study report](#) from the National Academies of Sciences, Engineering and Medicine (NASEM) offers recommendations for developing tools that can help answer that question.

"Our job was to create methods to identify disadvantaged communities that most need federal resources to address environmental justice issues," said Harvey Miller, professor of geography at The Ohio State University and co-chair of the NASEM committee that wrote the report. "This will shape where billions of federal dollars go to address these problems."

The new report, titled "Constructing Valid Geospatial Tools for Environmental Justice," is the result of hundreds of hours of work over two years by the 11-member committee, Miller said. NASEM selected Miller to co-chair the committee along with Eric Tate, professor of public affairs at Princeton University.

"We are at a hinge point in history, and the choices we make now will reverberate for generations," Miller said in a personal note that was published as part of the final report. "I sincerely hope that this report helps to move our nation forward toward a future with environmental justice for all."

Geospatial tools—the focus of the report—are designed to integrate different kinds of health, social, environmental and economic data to come up with a composite score—a single number that can tell policymakers whether a community should receive special consideration for environmental funding.

One such tool is the Climate and Economic Justice Screening Tool

(CEJST) developed by the White House Council on Environmental Quality in 2022 in response to the Justice 40 initiative from the Biden administration. Justice 40 requires that at least 40% of the overall benefits from federal climate and infrastructure investments go to disadvantaged communities.

The committee didn't review only CEJST, but also considered a variety of existing environmental justice tools to identify what kinds of data were needed to build the best possible versions, Miller said.

"We summarized the state of the science on this and came up with what we believe is the best scientific approach for making these decisions," he said.

For the report, census tracts were used to define communities. Committee members discussed the facets of disadvantage and data sources and how they could be brought together to create tools that will calculate a composite index score for each census tract. That score would determine whether a particular tract is eligible for Justice 40 funding.

The report includes a list of recommendations for developing the best possible tool, including creating and sustaining community partnerships that provide opportunities to identify local environmental justice issues. The authors also recommended how to identify the indicators and datasets for measuring environmental issues, and determining whether tools that are developed reflect community lived experiences.

Another key recommendation is to choose economic measures that go beyond the [federal poverty level](#) to reflect wealth and variations in the cost of living.

"The wealth gap between high-income and [low-income households](#) is

larger than the income gap, and that has an important impact on environmental justice issues," Miller said.

The report also recommends using indicators that measure the impact of racism in policies and practices that have led to the disparities seen today.

"There are big variations in who is exposed to stressors in the environment like pollution, noise and toxic waste sites," Miller said. "And it is generally [lower-income](#) and minority populations that bear the brunt of environmental justice issues. Part of it is that they often can't move away from the problem, like higher-income people can."

While this report focuses on [environmental justice](#), Miller said the committee's approach could be used to develop tools in a variety of contexts. The problem of deciding where to spend federal dollars to make the most impact is common to many different issues, and having a method to develop the right tools is important.

"We wanted to create a framework where when the government creates a tool to help decide where to make investments, people can look at it and know it is legitimate, it measures what it says it is measuring in the real world, and it is transparent how it was constructed," he said.

**More information:** Report: [Constructing Valid Geospatial Tools for Environmental Justice](#)

Provided by The Ohio State University

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