

# Environmental Justice Mapping Symposium Report

## Introduction

On February 21<sup>st</sup>, 2018, Front and Centered, the University of Washington Department of Environmental and Occupational Health Sciences (DEOHS), and the Puget Sound Clean Air Agency, in collaboration with The Washington State Departments of Health & Ecology held the Washington State Environmental Justice Mapping Symposium. Fifty participants from community-based organizations, academia and research, and government convened for a day long discussion at the Center for Urban Horticulture at UW.

The goal of the event was to further shape the development of a mapping tool for the State that can provide information on where to allocate investments for environmental justice. The map ranks areas by cumulative risk from pollution, socioeconomic, and health factors. Specifically, our objective was to assess and improve the methodology and approach, share initial findings and identify gaps, and create next steps for community, researchers, agencies, and other partners. This is a critical step toward our objective to release a recommendation for a version 1.0 map by the end of 2018.

## Grounding Information

Edgar Franks from Community to Community Development gave the first presentation orienting participants to frontline communities, in particular farmworkers on the frontlines of climate and environmental justice threats. He spoke on the recent death of a farmworker, Honesto Silva Ibarra, 28, who suffered from working in extreme heat and bad air quality from forest fires, poor working conditions, and existing health issues.

The participants were brought up to speed on environmental justice mapping through examples presented by Tania Tam Park, who spoke about the [Puget Sound Clean Sound Clean Air Agency's](#) work to identify highly impacted communities, and by Edmund Seto, a former scientific advisory committee member for [CalEnviroScreen](#), a model for this project, and faculty at the UW Department of Occupational and Environmental Health Sciences. Participants also learned about equity and climate impacts and a forthcoming report to help consider how climate may better be incorporated, from Climate Impacts Group Deputy Director Joe Casola.

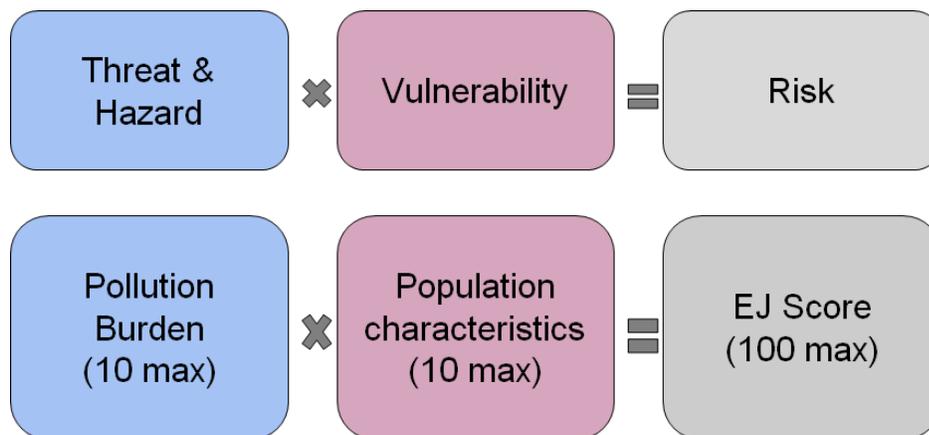


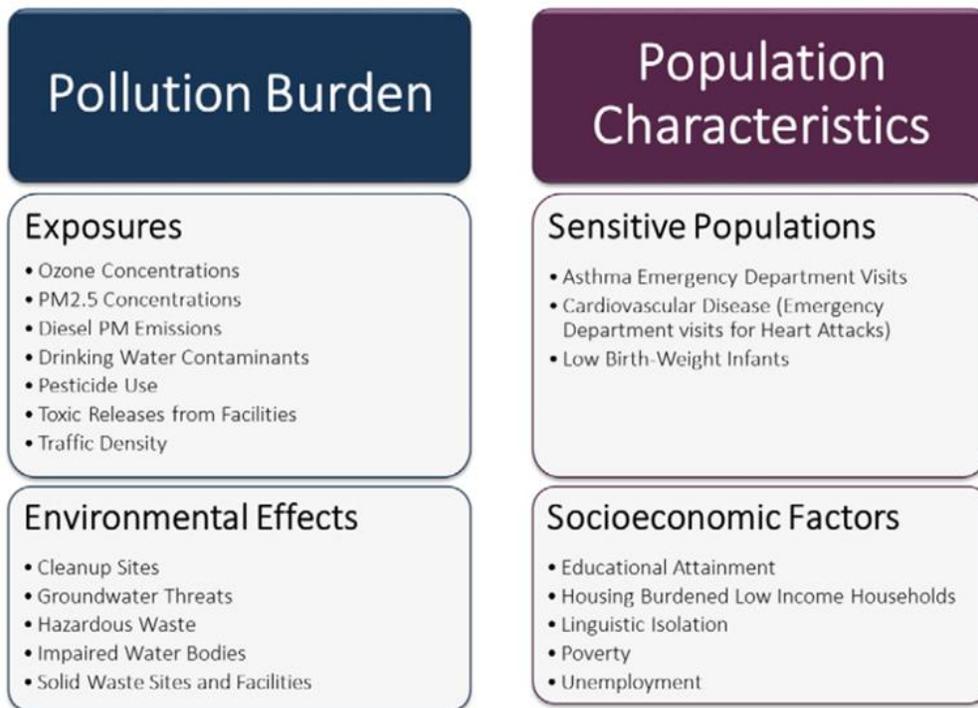
Tina Echeverria of the Washington State Department of Health, demonstrated the [Washington Tracking Network](#) Information By Location tool, the future home of this project, and described how it has already been used to guide resource allocation, like the Model Toxic Control Act [Public Participation Grants](#), and has been set up to guide investments in the State's [VW Diesel Mitigation Plan](#).

In the last presentation of the morning, Esther Min, DEOHS Phd student who has lead the literature review and data gathering, described the progress of the work group to date. This included developing the partnership, which was initiated by Front and Centered, a review of the literature by DEOHS researchers, [eleven community listening sessions](#) hosted by grassroots organizations in diverse racial/ethnic groups and geographic areas, and a work group that included the State Departments of Ecology and Health and Puget Sound Clean Air Agency staff.

## Progress Report

Esther described the initial set of indicators and process (see figures below) for ranking the 1,458 census tracts in Washington State. She highlighted some key challenges in applying the CalEnviroScreen model, including different populations and demographics, different data sources, and a more rural population in Washington State (16% of the population and 31 of 39 counties) compared to California. Specific data collection challenges in Washington include measuring drinking water contamination, given 12-15% of the population gets their drinking water from unregulated private water systems, and lack of pesticide use data collection in our state. Overall Esther was looking for good quality data (current, statewide, and accurate), location based, that is publicly available. The figures below outline the framework and starting point for the environmental justice mapping project.





## Individual Feedback

During the morning session, participants were asked to write their understanding and respond to what they heard during the presentations, and to reflect and identify gaps. The responses revealed the breadth of interest in the topic, from strategies to increase resilience, to improving public policy, to building momentum for environmental justice and more.

Participants flagged key issues like working across arbitrary boundaries and scales, monitoring trends over time, and including qualitative information. They expressed a desire to better capture adaptive capacity, indigenous interests, and climate impacts, the need for precise definitions, broad input affected communities, and alignment with other EJ mapping efforts. They also offered specific indicator suggestions, such as dust, displacement, fish consumption, floodplains, undocumented people, chemical exposure, tree cover, food access, race/ethnicity, noise, and migration.

## Discussion Groups

In the afternoon, the symposium broke-out into five 'world cafe' method discussion groups. The five sessions covered pollution, climate impacts, population characteristics, and application in policy and practices. The groups identified the need for clarity on key issues such as audience, objectives, implementation, and the lifecycle of the tool. There was interest in different scales of and the ability to go beyond statewide data limitations, a need to understand the methodology and make it accessible, a desire for using the tool in communication, policy, and environmental justice broadly, and several specific indicator suggestions and areas for further exploration, such as measures for inequality and resilience and strategies for addressing culture, chronic vs. acute issues, and displacement. A summary of the notes each specific group is provided below:

## **Pollution: environmental effects & exposures**

Participants stressed the importance of using high quality, high integrity, and actionable data for the EJ map. While there are inherent challenges for individual datasets, participants wanted the workgroup to understand and acknowledge these data challenges during the development of the tool. While this tool is intended to inform EJ issues at a statewide level, participants wanted to make sure the regional needs or nuances were not ignored when developing the tool.

The group also thought mapping positive factors of environmental health could inform policy and urban planning. In terms of what datasets to consider, the group recommended focusing on the issues that communities raise, rather than trying to measure everything. The group also thought ground truthing the map with communities is important.

Key findings:

- Actionable data is important
- There are challenges to good data
- Don't lose focus on local needs
- We can't measure everything, focus on community needs and ground-truthing



## **Climate impacts: integrating climate vulnerability**

Climate impacts on communities identified included water and air quality, flooding, displacement, high temperatures, migration as a result of conflict, food insecurity, land degradation, infrastructure impact, emergency preparedness, and mental health concerns. Vulnerable populations to climate impacts identified included populations that have historically been under resourced and oppressed such as immigrants, refugees, low-income communities, communities of color, farmworkers, and tribal communities. Workers were also identified as vulnerable due to impacts from exposure to toxic chemicals, work environment, lack of worker compensation and job insecurity.

The participants in this group recommended that existing coalitions and groups work with vulnerable populations to identify future hazards, to communicate risk, and share information. This group also recommended looking at strength-based or resilience research for the mapping project such as community assets, wisdom, and opportunities for capacity building.

Key findings:

- Consider strength-based (resilience, assets) vs. deficit approaches (impacts, risks) and short-term response vs. long-term planning
- Use place based approaches
- Use a holistic perspective
- Communicate

### **Population characteristics: socio-economics & health vulnerabilities**

Participants thought looking at race or proxy measures for race is important for the development of this tool. Needing a higher resolution of data in rural areas is important. The participants noted the strength of the EJ tool could be its ability to track trends over time.

The group discussed the need and potential to address resiliency, wrestled with the challenge of defining it and both the social environmental elements of ‘bouncing back,’ and issues like forced migration when bouncing back is not a suitable approach. The group discussed opportunities to capture occupational health specifically, and indicators that might be considered, such as H2A status and migrating workers, lack of employment benefits, limits of OSHA data, and the potential cumulative impact of exposure both at work and at home.

There was a recognition of the challenge in using census tracts, a measure of population, and the different geographies scales, types of environments, land-use, and communities they cover or cross. There was an emphasis on ways to consider an inequality measure (e.g. income differences within a census tract and/or between), ways to account for culture and indigenous populations who may not use mainstream systems and may not be counted, criminal records, gentrification, including an indicator such as changing real estate values, homelessness, and increases to the cost of living. The group discussed potential impacts of the 2020 US Census on the EJ tool, especially if a question regarding citizenship or immigration status is added to the survey.



### Key findings:

- Use race or race proxies
- Consider job/industry risk measure
- Use higher resolutions in rural areas
- Consider inequality metrics
- Buffer risk of a low quality census & account for culture and indigenous populations
- Find a measure for gentrification / homelessness / cost of living

### Application in policy and practice: communication, grants, programs, community organizing

The participants in this group noted that different agencies and communities have different needs, thus the tool can have different applications of the tool. One aspect of the tool noted was its ability to tell a story or a narrative. Because of this, it was identified as important to consider which variables are used when creating the tool to make sure that the selection does not overly emphasize the stories of certain areas. The group wanted to see a life-cycle analysis of the tool in order to involve communities throughout the development of the tool.

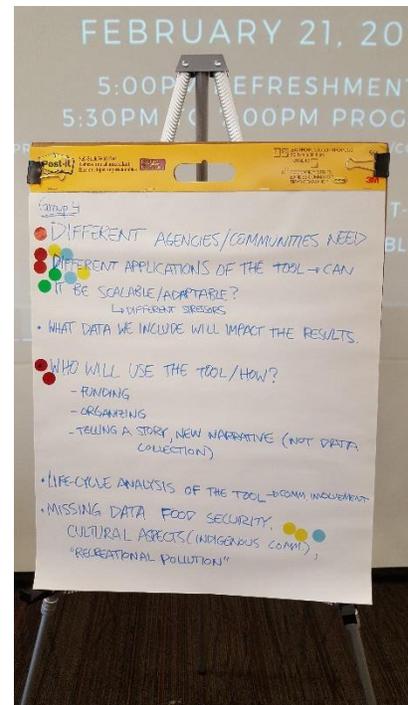
Some questions that emerged from this group include: 1) Who will use the tool and how; 2) Where does the funding come from; and 3) How to characterize variability and uncertainty in the reports that are produced with the tool. The participants noted that food security, cultural aspects (especially for the indigenous communities) and recreational pollution are among some data pieces that should be considered.

### Key findings:

- Different agencies/communities need different applications of the tool, explore how this project can be scalable and adaptable
- What goes in the tool shapes the results
- Consider the audience
- Include food security, cultural aspects (indigenous communities), recreational pollution

### Popular Areas for Exploration

In final exercise, each work group presented the key findings from their discussion to the larger group and participants expressed their priorities in a dot exercise. Rising to the top of the popular vote was attention to place based strategies, such as understanding local context, vulnerable populations, and land-use, and the recognition that different agencies and communities see different applications for environmental justice mapping. Other popular issues included making sure data is actionable and finding a measure for inequality.



## Evaluation

Participants that completed the post-symposium survey rated the program very useful with new information and relevance to their work. They asked for more information up front, including on limitations of the framework, more time for discussion, and a desire to have been able to participate in each discussion group rather than two.

## Public Forum

Following the Symposium, Front and Centered and the UW Health Science Common Book Series held a public event on both environmental justice mapping project and an aligned equity and climate impacts project with the Climate Impacts Group and Urban@UW. At the forum, listening session facilitators and Front and Centered affiliates discussed their experiences in community conversations. They are, pictured from right to left, Risho Sapan from [Mother Africa](#), Anthony Fernandes who is affiliated with [Na'ah Illahee Fund](#), and Edgar Franks from [Community to Community Development](#), along-side Joe Casola, Climate Impacts Group and Esther Min. You can listen to a [recording of the event](#) although, sound quality is poor except for Anthony (minute 24:20).

