



**THE BALTIMORE SOCIAL-
ENVIRONMENTAL COLLABORATIVE**

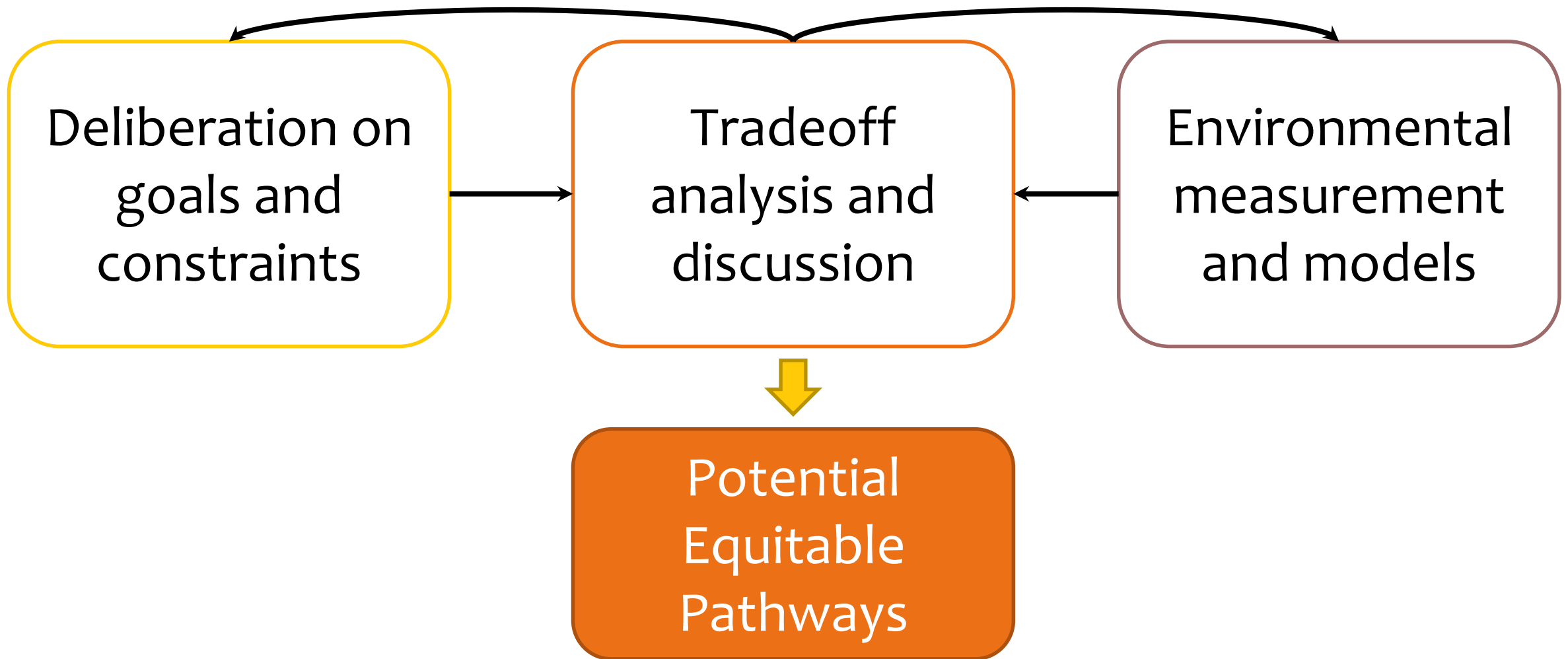
Status Report

The BSEC Mission

The **Baltimore Social Environmental Collaborative** will produce the urban climate science needed to inform community-guided *potential equitable pathways* for climate action



The BSEC Process



What BSEC does for science



What BSEC does with Baltimore

Argument  Evidence

Evidence  Action

 Action  Evaluation 

What BSEC does with Baltimore

We need to do this together

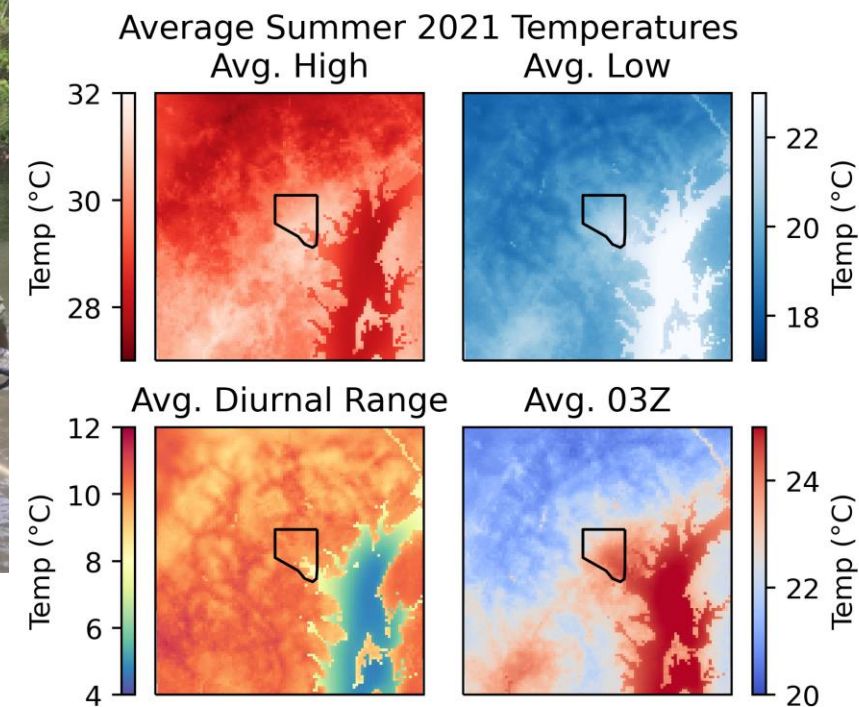
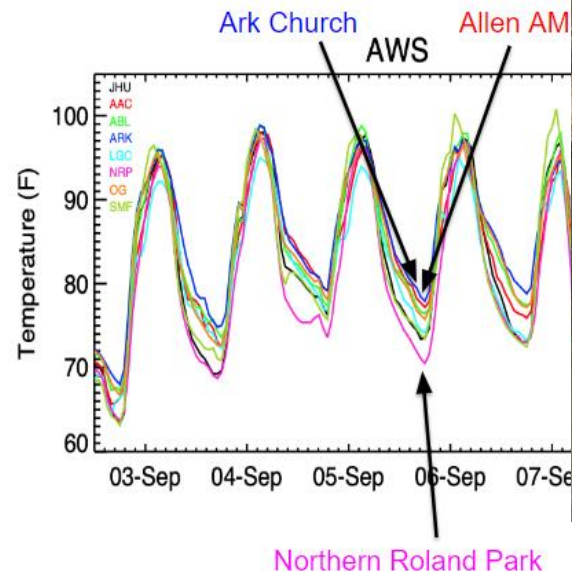
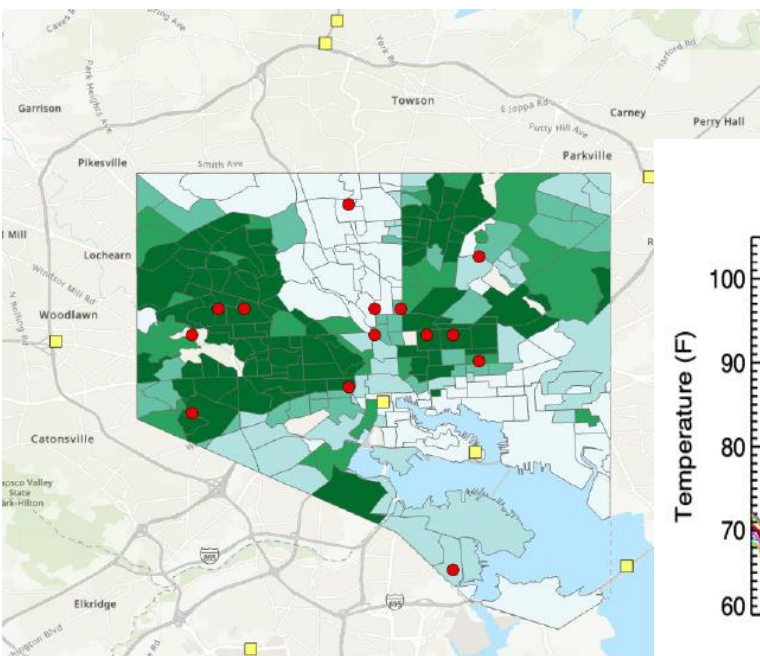
- Community scientist activities
- Education and engagement programs
- Leveraging BSEC for implementation grants
- Putting decisions and datasets in the hands of the community



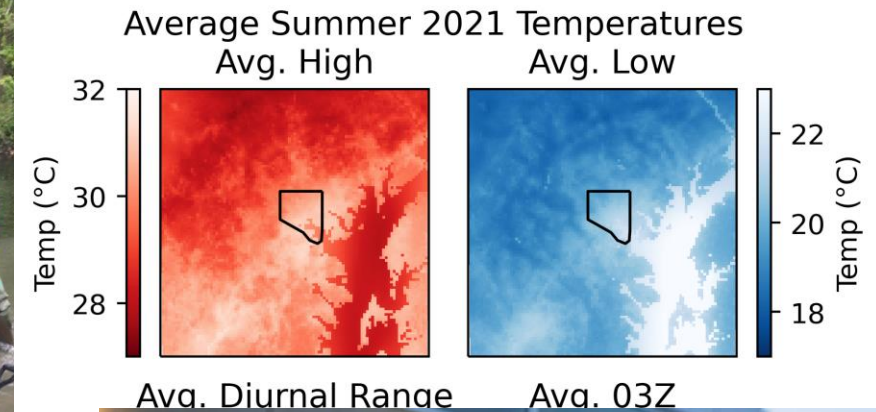
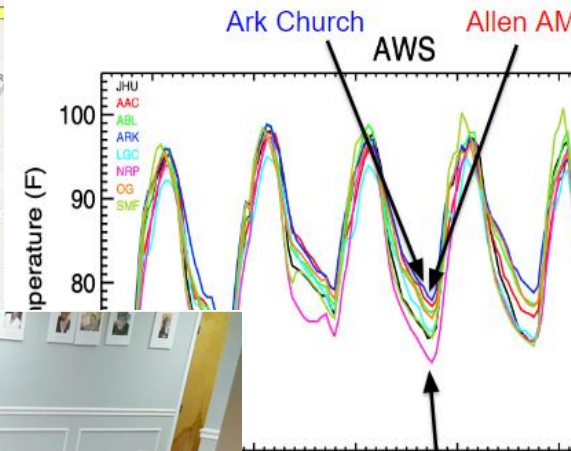
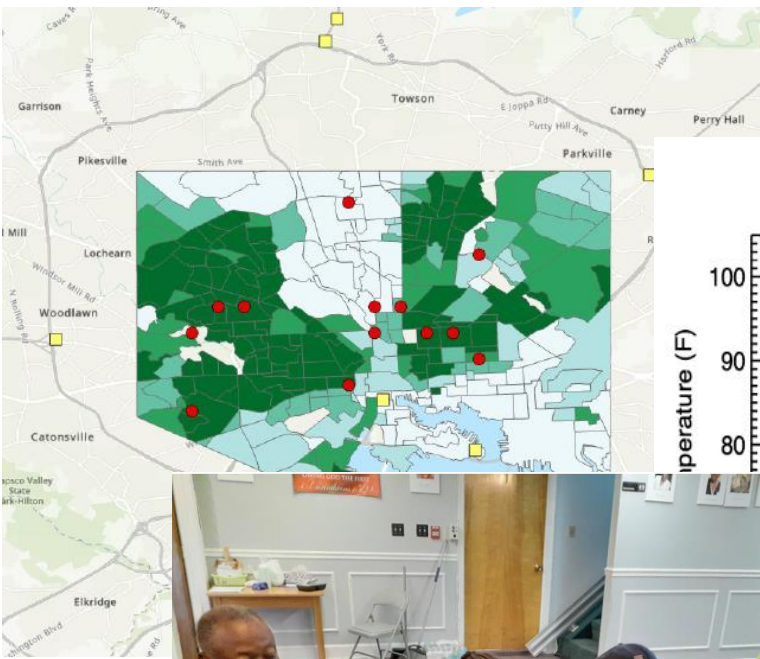
Knowledge Flows



What BSEC does with Baltimore



What BSEC does with Baltimore



Baltimore Social-Environmental Collaborative Urban Integrated Field Lab
<https://21cc.jhu.edu/research/bsec>

What BSEC does with Baltimore



WORKING WITH PARTNERS

In order to plan in action, we will work with communities, particularly frontline and environmental justice communities who are most directly affected by climate change, to address community climate priorities while also advancing broader, city-wide strategies. We will also make sure that the City government keeps its commitments. Our actions, we seek to build trust, accountability, and track implementation progress as guided by our Implementation Framing in the 2019 Sustainability Plan.

Furthermore, we seek to co-create local solutions with frontline and environmental justice communities who face the greatest challenges from climate change.

THE RESEARCH SOCIAL-ENVIRONMENTAL COLLABORATIVE (BSEC)

A year-long research effort in Baltimore funded by the Department of Energy, aiming to generate the climate data needed to inform equitable climate action in Baltimore. It is a research collaborative that includes Johns Hopkins University, Morgan State University, Pennsylvania State University, University of Maryland Baltimore County, and other research institutions, Baltimore City government, and community partner organizations. This collaboration brings together researchers, community, and City government to provide a team that can co-generate climate action ideas and evaluate the impact of climate actions as they are implemented.

Goals are to:

Understand how Baltimore experiences climate change, with a focus on partnering with Baltimore communities. Neighborhoods – especially those currently underserved by climate measurements – will host sensors to collect data on heat, water, gases, pollutants, wind, and more. There will also be opportunities for community-engaged data collection. Collecting this data is an urgent scientific contribution because climate change in cities is not well understood.

Work with communities to identify climate action strategies that achieve residents' goals in alignment with the 2023 Climate Action Plan, as informed by local priorities and place-based knowledge. Climate strategies are tailored to specific neighborhoods. Improving equity is a key focus.

Identify and evaluate ways to integrate community members into the research process.



Baltimore Climate Action Plan Update | January 2024

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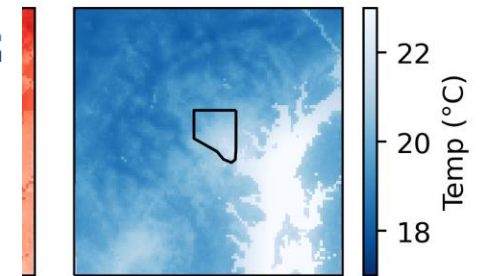
Identify and evaluate a decision support tool, the "Equitable Pathways" process, that analyzes many possible climate scenarios and identifies promising solutions that can be evaluated by the community and researchers.

Ensure that the community is always benefiting from the science being done.

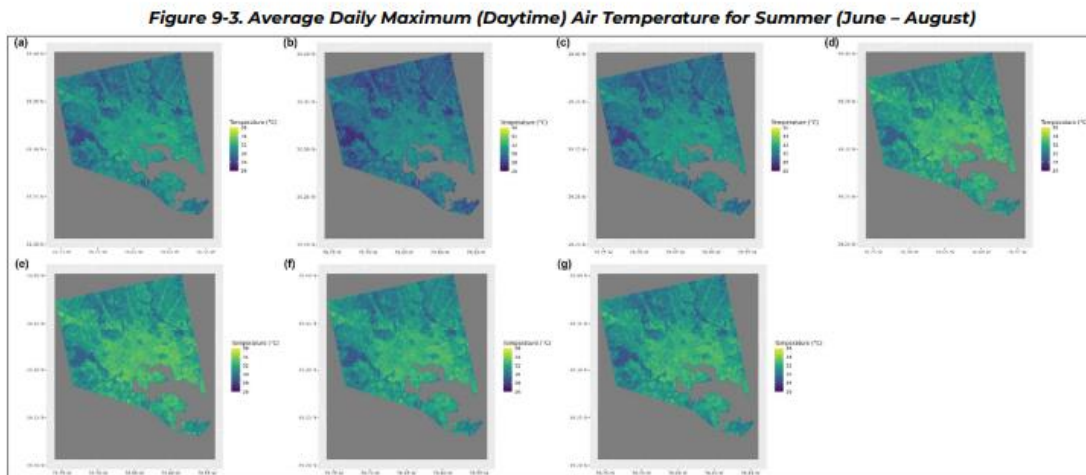


Field Lab

2021 Temperatures Avg. Low



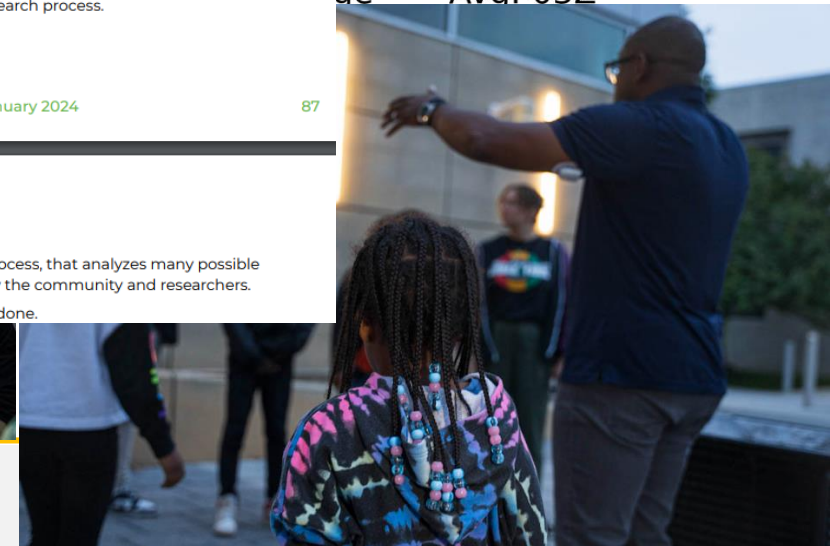
Map of Baltimore showing average low temperatures for 2021. The map is labeled 'Avg. 03Z'.



Source: Corpuz, et al. 2023

<https://21cc.jhu.edu/research/bsec>

BSEC



Work to be done

- Build knowledge flow paths between researchers and community members
- Integrate BSEC to active climate action projects
- Move our equitable pathways process forward
- Continue building the foundation for actionable climate science . . . including through CoURAGE!



Thank you

