



ICLEI USA Action Fund Recipient

Resilient Cities Catalyst

Resilient Cities Catalyst & City of Pittsburgh, Pennsylvania



Exacerbated by low urban tree canopy cover and poor air quality, cities across the United States currently face devastating health and safety impacts of emissions within their communities. The City of Pittsburgh is no exception to this experience.

Despite efforts to address air quality, the American Lung Association still rates Pittsburgh as the 8th worst of more than 200 metropolitan areas in the nation for long-term soot pollution, 14th worst for daily soot pollution, and 29th worst for ozone. When the City updates its Climate Action Plan (CAP), it will put health at the core through its goals of reducing poor air quality, floods, landslides, heat and energy burdens through green infrastructure initiatives such as improving greenways and park development. Leveraging the power of technology, the City of Pittsburgh will prioritize green infrastructure investments to support frontline and vulnerable communities.

The Resilient Cities Catalyst project seeks to use artificial intelligence to develop a new heat-energy vulnerability index at the property level. Using new and emerging data to quantify vulnerabilities, the work will improve tree canopy cover, greenways and park development, ultimately prioritizing the co-benefits of urban canopy cover beyond heat and stormwater management. As part of its data-driven approach, the project will address disparities in tree canopy coverage in 20 neighborhoods — ultimately bringing the life-supporting functions of trees to 10,000 residents impacted by environmental justice issues.



It is my priority to make Pittsburgh a ‘City for All’,” said Mayor Ed Gainey of Pittsburgh. “This project will allow the City to identify residents who are becoming increasingly vulnerable to climate change and extreme weather.

— Mayor Ed Gainey of Pittsburgh



By further updating and implementing the CAP, the City will create more affordable and higher-quality living conditions for the most vulnerable residents. Additionally, new green infrastructure will improve air quality, stormwater management, and minimize flooding and landslides in targeted neighborhoods. Increasing green space will also improve public land use by providing residents with recreation opportunities.

The index measurements from the RCC project aims to provide city decision makers with the ability to more effectively target green infrastructure investments and create opportunities for U.S. cities to explore ways to incentivize properties to reduce heat-contribution. This project will showcase to the ICLEI- Local Governments for Sustainability USA network how urban forests function as critical green infrastructure and serve to improve public health for all residents.

