

# Mapping urban vulnerabilities

## Leveraging green space for climate and health resilience

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The abstract should include the following sections:

### 1. Introduction

*Urban areas are hubs of human activity and environmental stressors, making them particularly vulnerable to climate risks and public health challenges. Vulnerability is shaped not only by exposure to hazards but also by systemic inequalities and community resilience. Unequal access to green space affects physical, mental, and social health while mitigating urban heat and flooding. A holistic approach integrating environmental and health factors is essential for targeted interventions in high-risk neighbourhoods.*

### 2. Objectives

*This study assesses neighborhood-level vulnerability by analyzing urban hazards, residents' health, and socio-economic disparities. The goal is to provide a spatial framework for evidence-based decision-making to prioritize interventions in the most at-risk areas.*

### 3. Methods

*GIS tools and open data sources were used to analyze environmental risks, green space distribution, health indicators, and socio-economic conditions. Health data from RIVM and CBS were combined with environmental data from the KlimaatEffectAtlas to construct a composite vulnerability index. Correlation and spatial analyses ranked neighborhoods based on vulnerability. Green space accessibility was assessed using the WHO's 3-30-300 rule.*

### 4. Results

*Findings show a correlation between tree cover and reduced heat and flood risks. Pathmos and the city center are the most vulnerable areas, where green spaces are scattered and have limited mitigation capacity. Twenty neighborhoods lack the 30% tree cover guideline, though most meet the 300-meter accessibility criterion.*

### 5. Conclusion

*Urban vulnerability requires standardized assessment methods to enhance collaboration and prioritization. Establishing consistent frameworks supports more effective and equitable urban planning strategies.*