# DESIGN APPROACH FOR CLIMATE-SENSITIVE BLUE AND GREEN SPACES WITH DISADVANTAGED URBAN POPULATIONS

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Green and Blue Spaces of Enschede
in Relation with Population

Legend
- Blue Space
- Green Space

Low — High
Population

0 1 2 km
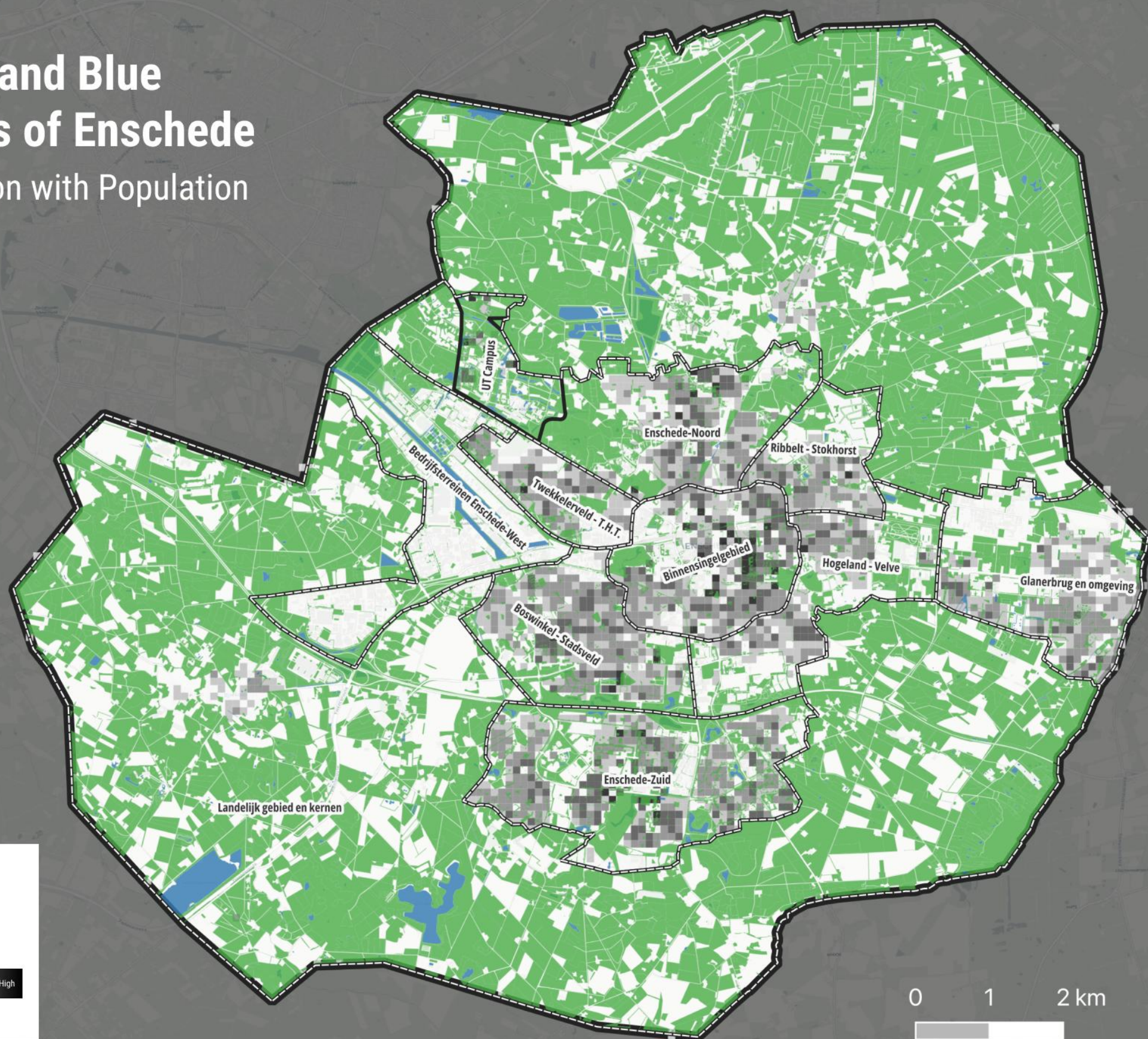
Our Idea

Blue and green spaces hold many benefits for human health, particularly in the context of climate change. They provide cooling effects and reduce air pollution, and safeguard mental and social wellbeing. The most disadvantaged parts of the population often miss out on nature's benefits due to a lack of such spaces nearby and barriers related to infrastructure, stigma, and lack of involvement in planning processes.

We aim to counteract these barriers by considering their needs and including them in urban planning processes. We use geoinformation systems and artificial intelligence for visualizing and exploring potential changes to the city landscape, and involve these population groups, as well as decision-makers, in a participatory co-design approaches.
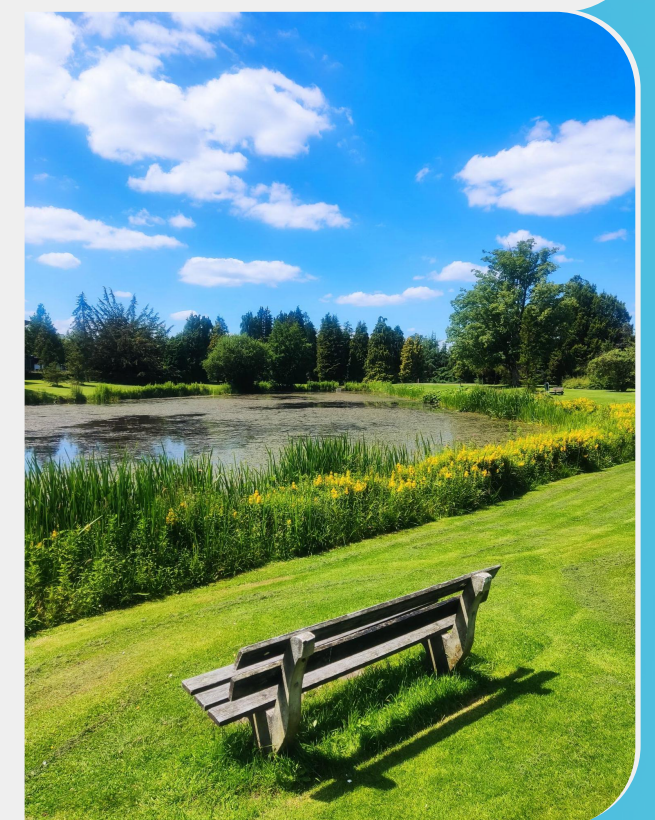
Urban Green and Blue Spaces (UGBS) are natural or semi-natural areas within urban environments that encompass both vegetation (green spaces) and water bodies (blue spaces)

Green Space   Blue Space

Our approach

Which climate-related challenges are the most vulnerable population groups in cities facing?
Which role can blue and green spaces play in strengthening their health and well-being?
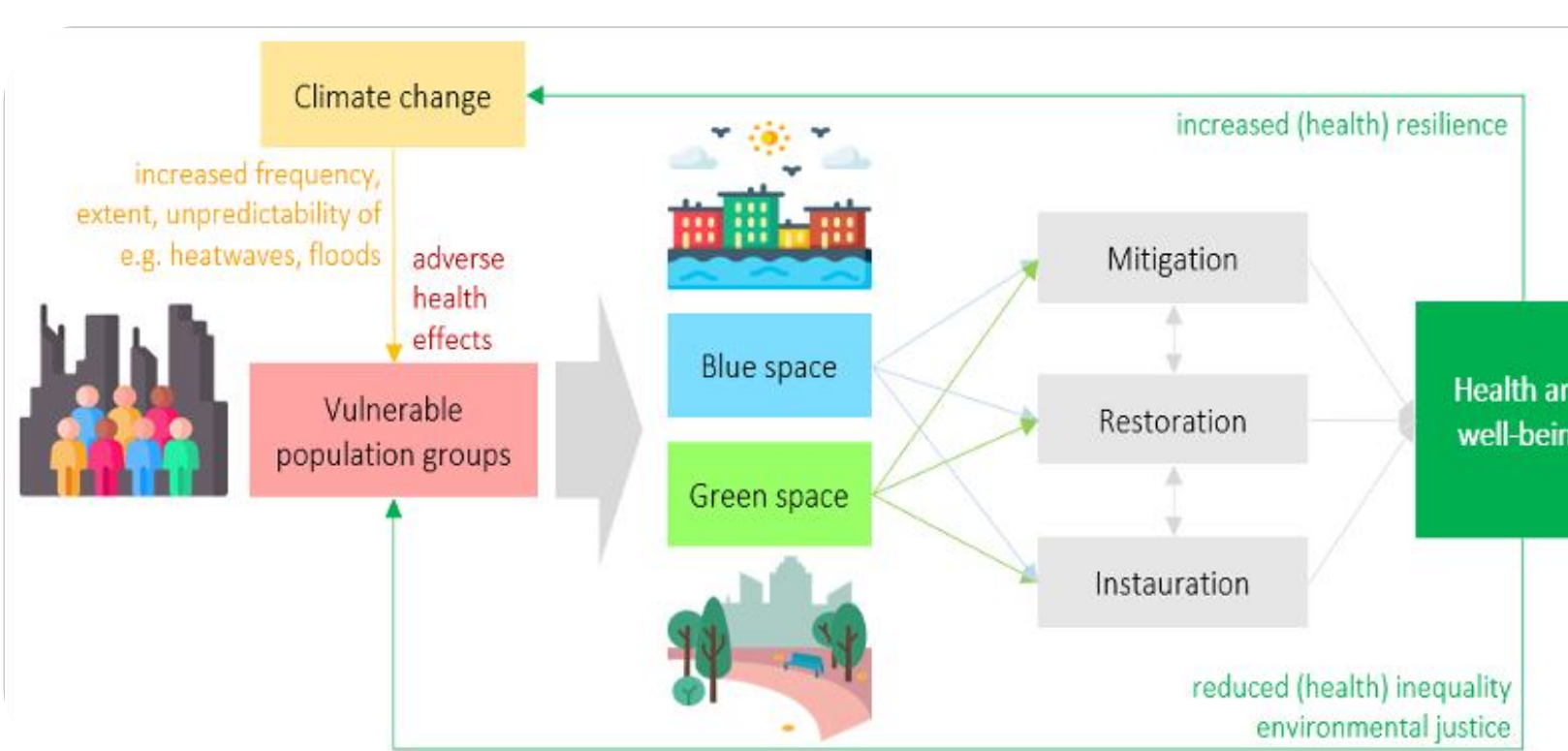
Our timeframe
12 months
Starting from September 2024

Conceptualization

Literature Review
State of the art

Understanding impacts of extreme weather events on health of vulnerable urban groups, and the health-promoting effects of blue and green spaces
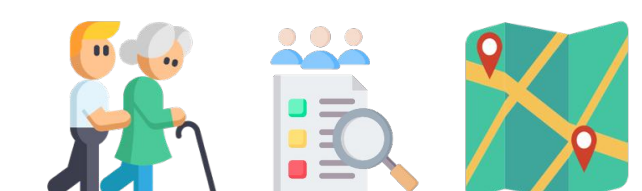

Exploration

Assessing demand and supply

Assessing the effects of blue and green spaces on subjective wellbeing and knowledge, attitudes, practices related to heatwaves/flood scenarios

Case study Enschede

Target group
- Deprived neighborhoods
- Disadvantaged groups

Surveys, walking interviews, in-depth interviews, GIS

Co-design

Technology for inclusive decision-making

Using artificial intelligences for climate-sensitive and inclusive urban planning

Case study Enschede

Participatory planning workshops
Integration GIS and co-design tools AI
Imagining utopias and dystopias with
1. Decision-makers
2. Representatives of disadvantaged groups

Capacity Building

Awareness raising and teaching

Disseminating knowledge gained

Storyboard
Discussions with stakeholders
Dissemination to scientific and non-scientific audiences
Elaboration of use in education

Re-imagine existing place

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