

# Socio-economic projections: a tool to support urban climate justice?

A Master's thesis by Mia Prall  
Urban, Energy and Environmental Planning: Cities and Sustainability, Aalborg University



## Which SDG does your project relate to?



## What is the concrete problem you have worked with?

Climate change is inherently a global challenge, but the impacts of a changing climate are not felt equally across the world's regions, nations, cities, or communities. Climate change disproportionately impacts those who have contributed least to global greenhouse gas emissions and, oftentimes, leaves marginalized and minority groups with low adaptive capacity exposed to its consequences.

Policy and planning efforts have often exacerbated the inequitable impacts of climate change by failing to address the social and economic consequences. Within decision making regarding climate change adaptation there is often a bias towards interventions that promote economic development, protect valuable assets, increase property values, or otherwise benefit wealthy, white communities. This can lead to a failure to address the climate change related challenges that disproportionately impact vulnerable groups and marginalized communities, who are thus also excluded from the benefits of climate action and instead burdened with its costs.

At an urban scale, the impacts of both climate change and adaptation responses become spatially explicit. This leads to unique challenges regarding equity and justice in urban climate change adaptation. Cities have historically been sites of increased inequality and have more recently become hotspots of heightened risk and vulnerability in the face of the impacts from climate change. As the impacts in cities intensify and the socio-economic landscapes of urban areas are constantly reshaped due to urbanization, population growth, changing migration patterns, pandemics, and international conflict, inequity issues are only becoming more severe.

It is becoming increasingly crucial to actively consider justice and equity concerns in the planning of urban climate change adaptation initiatives. However, decision makers do not currently have the operational tools to achieve this.

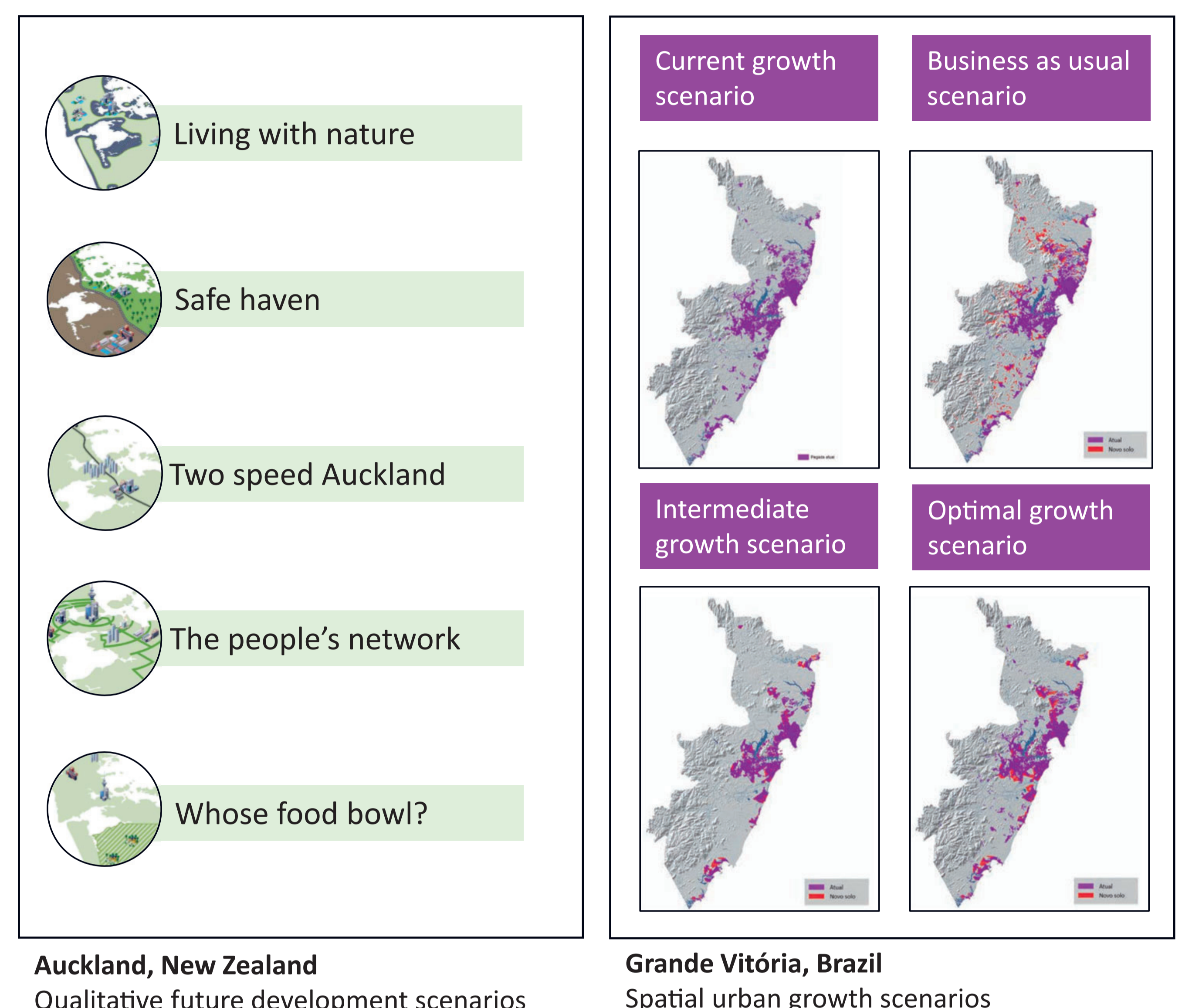


Figure 1: Examples of socio-economic projections. Socio-economic projections range from qualitative scenarios of potential futures to spatialized urban growth scenarios

## What is your conclusion and/or solution that can be applied in the 'real' world?

Socio-economic projections can assist planners and policy makers to actively consider justice and equity concerns in their decision-making processes. Socio-economic projections model scenarios of possible development outcomes by incorporating a range of data such as population projections, expected demographic trends, predicted economic development and land use patterns, and local visions for the future.

These projections can help decision makers visualize their plans and who to plan for and how to promote solutions that not only cope with future climate uncertainty but also respond to the dynamic needs of urban communities under multiple potential socio-economic development futures.

Socio-economic projections can be co-created through participatory processes involving a diverse range of local stakeholders who are impacted by adaptation decisions, such as business owners, politicians, government authorities, local organizations, and vulnerable community members. Broad and diverse participation can help to integrate local knowledge into the decision-making process – and thereby, center social and economic issues in the planning process to promote locally relevant data that validates diverse experiences and celebrates multiple forms of knowledge beyond the scientific and expert perspectives that are so often seen as the only valid form of knowledge in relation to climate governance.

When future socio-economic data is utilized alongside projections of future climate change to inform decision makers regarding climate change adaptation, we ultimately get a better idea of what possible futures to plan for. It is critical to recollect that climate change does not occur in a vacuum but is constantly interacting with dynamic and unpredictable forms of social, economic, and political change. This makes it critical to look beyond climate data when planning for the future of our cities and simultaneously ensure robust solutions that will benefit all of us in any of the potential futures we may face.

