

Urban Heat Equality

Projekt Urban Heat Equality / Stakeholder-Prozess / Wissensspeicher / Team / Datenschutz

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3 GOOD HEALTH AND WELL-BEING



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



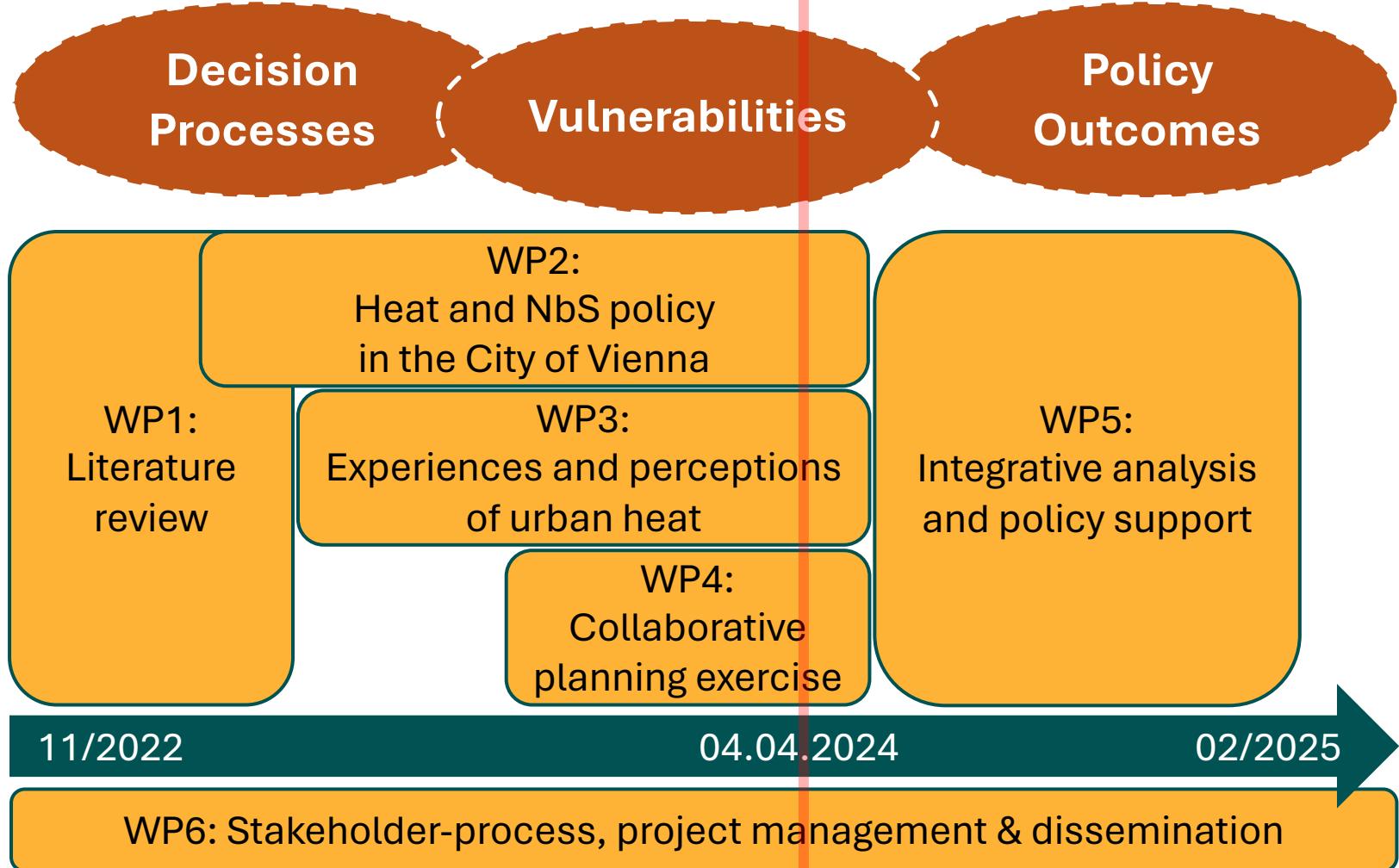
Projekt Urban Heat Equality

Das vom Klima- und Energiefonds geförderte Forschungsprojekt Urban Heat Equality beschäftigt sich mit dem zunehmenden Hitzestress in der Stadt Wien. Im Mittelpunkt stehen Entscheidungsprozesse von naturbasierten Lösungen wie Parks und Fassadenbegrünungen und die daraus resultierende Betroffenheit unterschiedlicher sozialer Gruppen. Mit Bezug zu Fragen sozialer Ungleichheit und Klimagerechtigkeit untersucht Urban Heat Equality folgende für die Klimawandelanpassung relevante Aspekte und deren Zusammenhänge:



<https://urbanheat.boku.ac.at/>

Justice





Heat and NbS policy in the City of Vienna

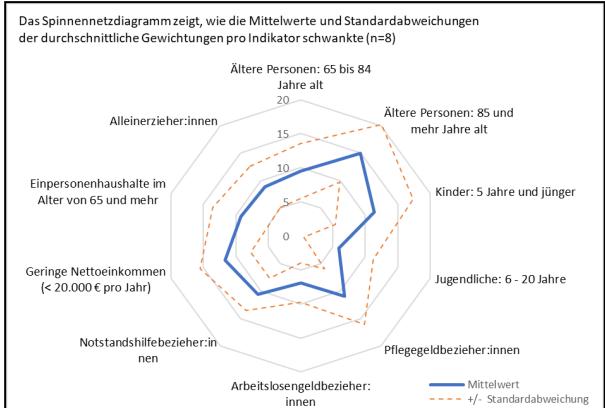
- Since **2022**: Heat-related measures in policy strategies and urban planning documents **more oriented towards vulnerable groups**
- Mostly **ad-hoc measures** targeted towards vulnerable groups (e.g. “Cooling Zones”)
- **Long-term** adaptation focus on **NbS** (public spaces and buildings)
- **Two main approaches** in public spaces:
 - redesign of existing streetscapes
 - adaptation of existing parks





Spatial prioritisation of vulnerable areas?

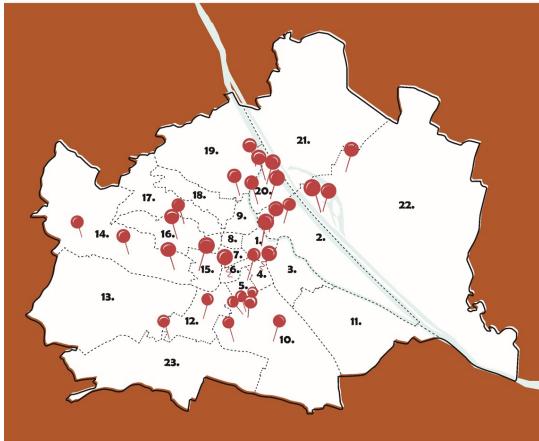
Weighted Composite Index of Heat,
Green Spaces and Social Vulnerability



map will be released upon publication



Experiences and perceptions of urban heat



1. Behaviour patterns and individual adaption strategies due to urban heat stress in Vienna
2. Use and perception of city areas and infrastructures in Vienna
3. Vulnerabilities and negative impacts of urban heat
4. Needs and suggestions of vulnerable groups

- Qualitative interviews
- Focus groups
- GTM + MAXQDA

Poster series from Viennese for Viennese
for summer 2024

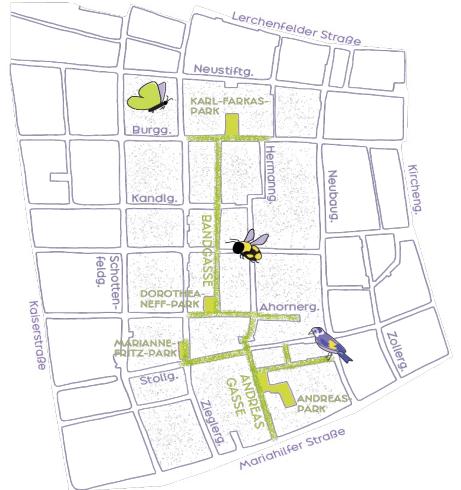
Journal article:

“Urban Heat stress: Adaption strategies and multiple vulnerabilities in Vienna”



Adaptations and perspectives

- Data collection:
 - Recruiting representatives of vulnerable groups
 - Availability and aggregation of data for heat risk index
- Stakeholder process: High interest, **4** workshops (instead of 2)
- Collaborative planning exercise linked with project “Grünes Band”
- Dissemination into practice: Poster series (instead of brochure about local knowledge)
- ACRP links:
 - DISCC-AT
 - ADAPT-UHI
 - JustFair



Thank you for your attention!

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Urban Heat Equality
Nature-based solutions to urban heat islands and their impacts on social equality

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The UrbanHeatEquality project
Marginalized social groups, such as people with a lower socio-economic background, with a migration background, residents with disabilities or elderly residents, are particularly vulnerable to urban heat^{1,2}. Nature-based solutions (NBS), such as green spaces, roofs and trees, are a common approach to reduce vulnerability to heat stress. However, NBS planning and implementation processes often ignore questions of social equality and justice. This is particularly problematic through green gentrification or other displacement dynamics^{3,4}. Consequently, the question of justice is highly relevant because it reflects how the output and outcome of current adaptation measures affect different groups of people or of vulnerability in urban areas. UrbanHeatEquality aims to analyze how the implementation of NBS to urban heat stress affects social equality in Vienna and to assess the consequences for the resilience of urban areas.

Mapping vulnerability
We are currently finalizing a heat risk index consisting of 27 indicators for the dimensions hazard, exposure and sensitivity. In the first phase, the project group conducted an initial qualitative expert-based weighting of the social vulnerability indicators, which was refined in a participatory manner (see figure below). The map of Vienna displays the minor differences of unweighted and weighted social vulnerability indicators (upper vs. lower map).

Real-world intervention
As an intervention to increase procedural justice in NBS planning in Vienna, we will conduct a collaborative planning exercise with heat-vulnerable groups in April 2024. This exercise includes the co-development of measures and recommendations for the project "Grünes Band" in the 7th municipal district of Vienna.

Hot tips from Viennese for Viennese
Recognizing multiple forms of vulnerability and their intersections, in-depth interviews and focus group with vulnerable residents all over Vienna (above) provided insights into their experiences and perceptions of urban heat. Results are best summarized by the following:

1. Individual adaptation strategies to urban heat stress
2. Use and perception of urban areas and infrastructures
3. Vulnerabilities and negative impacts of urban heat
4. Needs and suggestions of urban heat

Based on the participants' suggested adaptations of behavior, daily routines and socio-spatial practices, we are working on a poster series "from Viennese for Viennese" for summer 2024. These posters will be freely available online and distributed to our stakeholder group for use in their organizations.

Transdisciplinary approach
Collaboration with a diverse stakeholder group through several interactive workshops is a cornerstone of UrbanHeatEquality. The project's transdisciplinary approach aims to facilitate knowledge integration and contribute to the quality improvement of the research. The project consists of representatives of 18 organizations, including different municipal departments of the City of Vienna, interest groups and civil society actors. Upon their suggestion, we have compiled a repository of knowledge on urban heat, climate change and justice with a focus on Austria on our project website: <https://urbanheat.boku.ac.at/>.

1 Hahn, M., & Kabisch, S. (2018). Disadvantaged and vulnerable groups at risk due to climate change (AFC), among the most vulnerable groups are the elderly, the disabled, and low-income households. *Journal of Climate Change and Health*, 1(1), 1–10. doi:10.1080/26388372.2018.1446246
2 Vana, A., & Kabisch, S. (2019). Heat-related health risks in Europe: A review of literature. *Journal of Climate Change and Health*, 2(1), 1–12. doi:10.1080/26388372.2019.1580880
3 Kabisch, S., & Vana, A. (2011). Environmental gentrification and residential patterns of urban communities. *City Society*, 2(2), 17–30. doi:10.1177/194638421141200202
4 Kabisch, S., & Vana, A. (2012). Environmental gentrification and residential patterns of urban communities. *City Society*, 2(2), 17–30. doi:10.1177/194638421141200202