

HAMBURG RESILIENCE DASHBOARD

HOW RESILIENT IS YOUR NEIGHBOURHOOD? THATS THE QUESTION WE ARE TRYING TO ANSWER BY CREATING A DASHBOARD OF THE DISTRICTS OF HAMBURG

INTRODUCTION

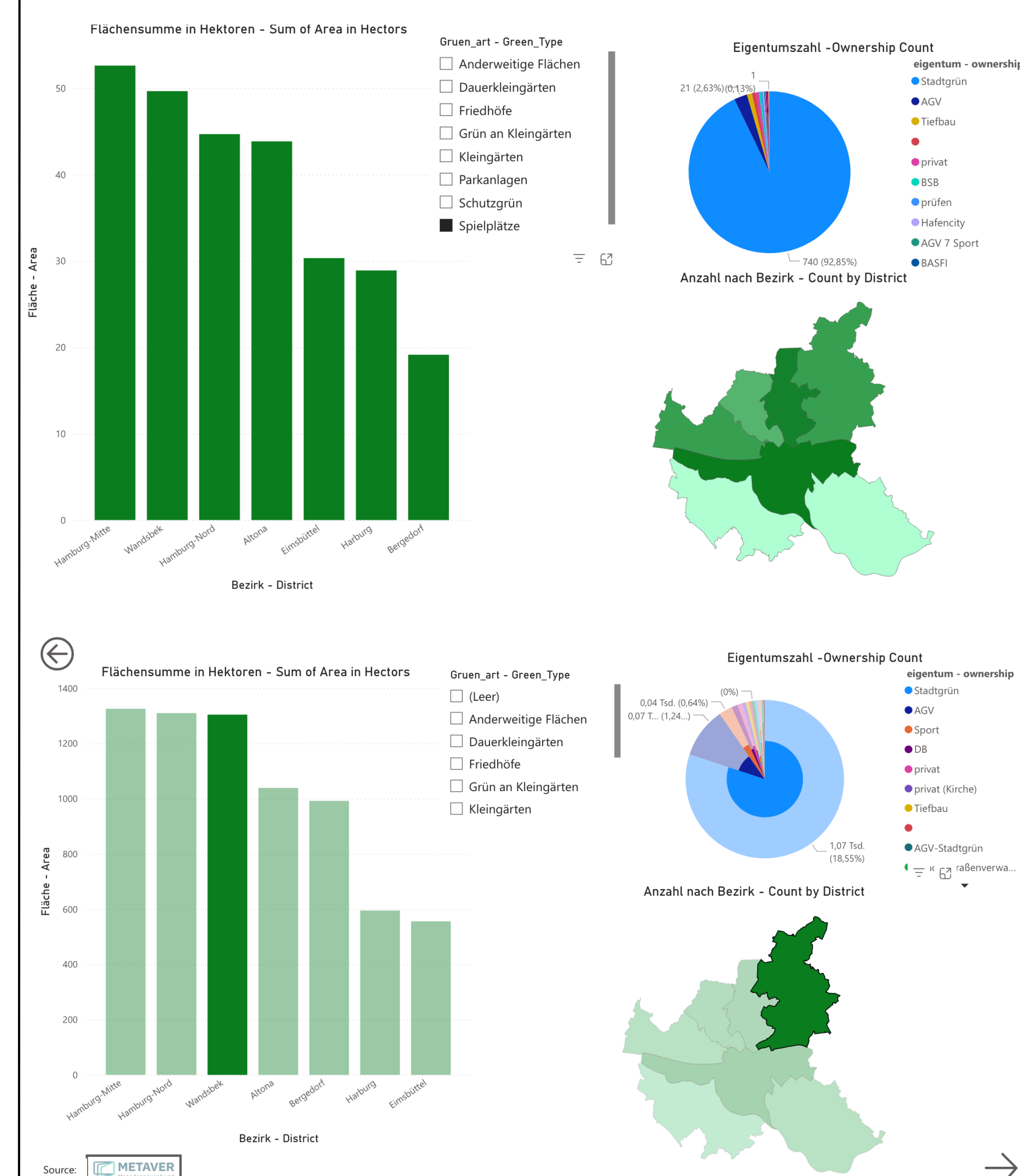
The Hamburg Resilience Dashboard (HRD) is a digital mapping tool that visualizes key sustainability and resilience metrics to support smarter, fairer, and greener urban development. This project combines environmental data, energy infrastructure, and social indicators into an interactive dashboard that helps Hamburg become more climate-resilient and equitable.

WHAT IS RESILIENCE AND WHICH ASPECTS DID WE LOOK AT?

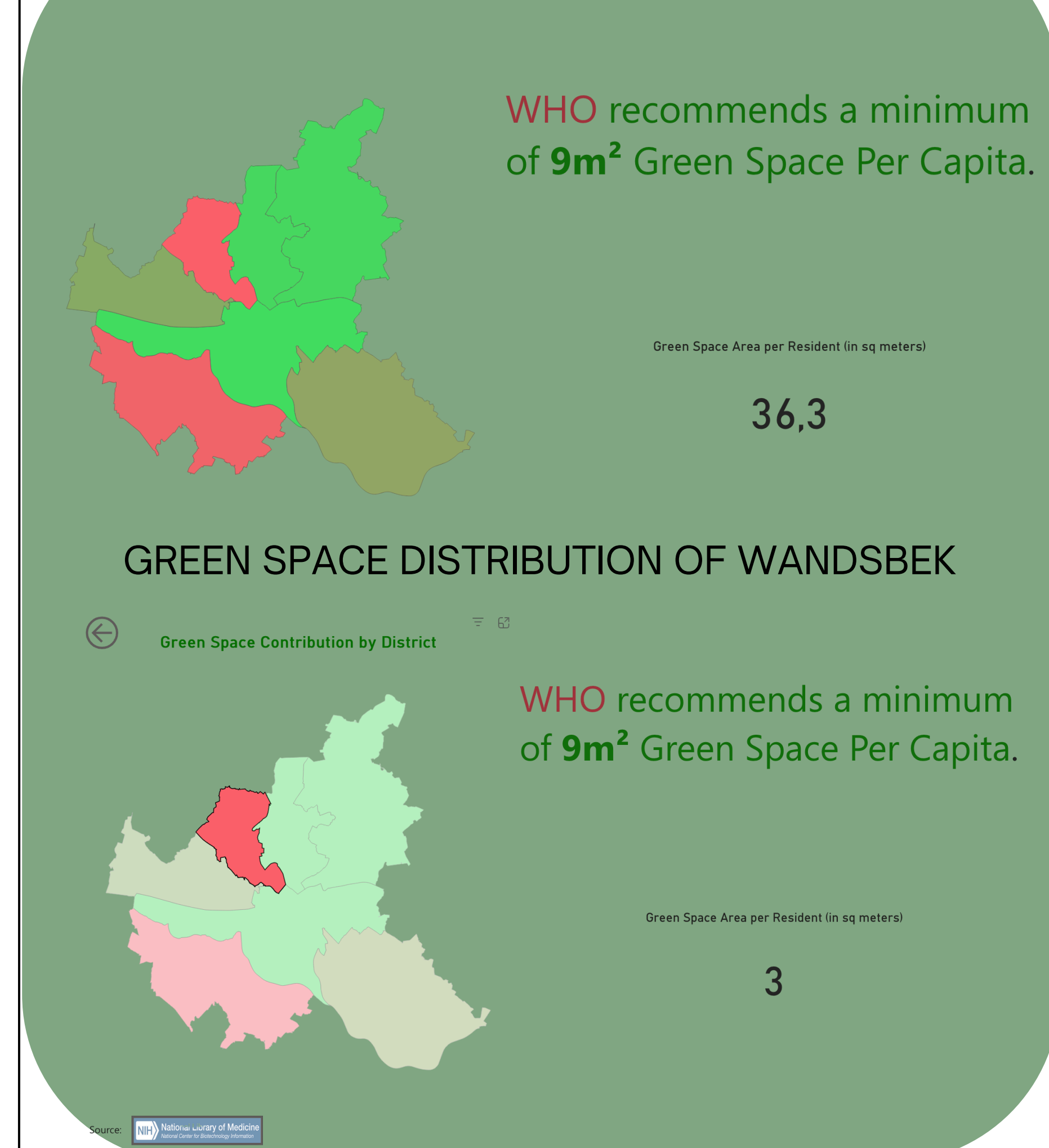
Resilience in the context of city sustainability means a city's ability to withstand, adapt to, and recover from challenges like climate change, natural disasters, or economic shocks — while still providing essential services and improving quality of life.

INSIDE THE DASHBOARD

GREEN SPACE CONTRIBUTION BY DISTRICT



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OUR DASHBOARD



GREEN SPACES

How evenly is green space distributed across different urban districts?

Are some districts more dependent on private green spaces than others?



ENERGY

What are the different sources of Energy that runs the City of Hamburg?

Which sectors in Hamburg consume most of this energy generated?



CYBER ATTACKS

How many cybersecurity-related complaints or fraud reports were submitted by residents?

How many percentage of residents are aware of cyberthreats and harm of it?



ACCIDENTS/TRAFFIC

How well is public transport developed in areas prone to accidents or congestions?

What are the most common types of accidents and where do they occur?



AIR QUALITY

What are the main sources of air pollution in Hamburg, and how do they vary seasonally?

How often does air quality in Hamburg exceed WHO or EU health-based limits?



WATER/FLOOD

How is green infrastructure used to manage heavy rainfall and drainage?

How are residents informed or trained on flood preparedness and response?

HOW DOES THE DASHBOARD WORK?

The HRD collects and visualizes data from various sources, allowing users to explore neighborhood-level information on energy systems, environmental risks, and social factors. Users can interact with maps, filter metrics, and compare districts to support planning and awareness. By clicking through the different layers of the dashboard the user can easily find answers to the pre posed questions.

ANALYSIS

- Significant disparities in resilience levels between central and peripheral districts
- Current adaptation measures are mostly concentrated in central districts
- Socioeconomically disadvantaged areas often face higher environmental stressors (e.g., heat, noise)

CONCLUSION

- First version of Hamburg Resilience Dashboard successfully developed
- Current version shows strong potential for improvement, especially in visual consistency (e.g. colour grading)
- Next step: apply unified colour scheme for better user experience
- More data will be added to answer key questions about urban resilience across Hamburg
- Goal: fully automated, self-updating dashboard showing resilience status of entire city – open and accessible to everyone

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