

Environmental Justice in Rural Germany

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The study deals with environmental justice in the context of rural areas in Germany. It addresses one main question: How can environmental justice be defined in the context of rural areas in Germany? And several subquestions: How are environmental burdens distributed in Germany? In which regions and spatial types do specific burdens accumulate and to what extent do they overlap with certain spatial characteristics? Which data sets are collected with which focus and which are not? What does this mean for the recognition of rural areas in the context of environmental justice?

Environmental Justice and rural areas

- Environmental justice pertains to issues of fairness, (in)equality, and rights concerning environmental conditions and decision-making processes (Holifield 2012).

Distribution

Justice in terms of the unequal distribution of impacts and responsibilities and the spatialities associated with them.

Recognition

Justice regarding the processes of disrespect, insult and degradation that devalue some people and identities compared to others.

Process

Participation and procedural justice in terms of how geography plays into inclusion and exclusion in environmental decision-making.

Capabilities

Justice in terms of an individual's opportunities to do and to be what they choose in the context of a given society.

Dimensions of environmental Justice according to Schlosberg (2007) and Walker (2009)

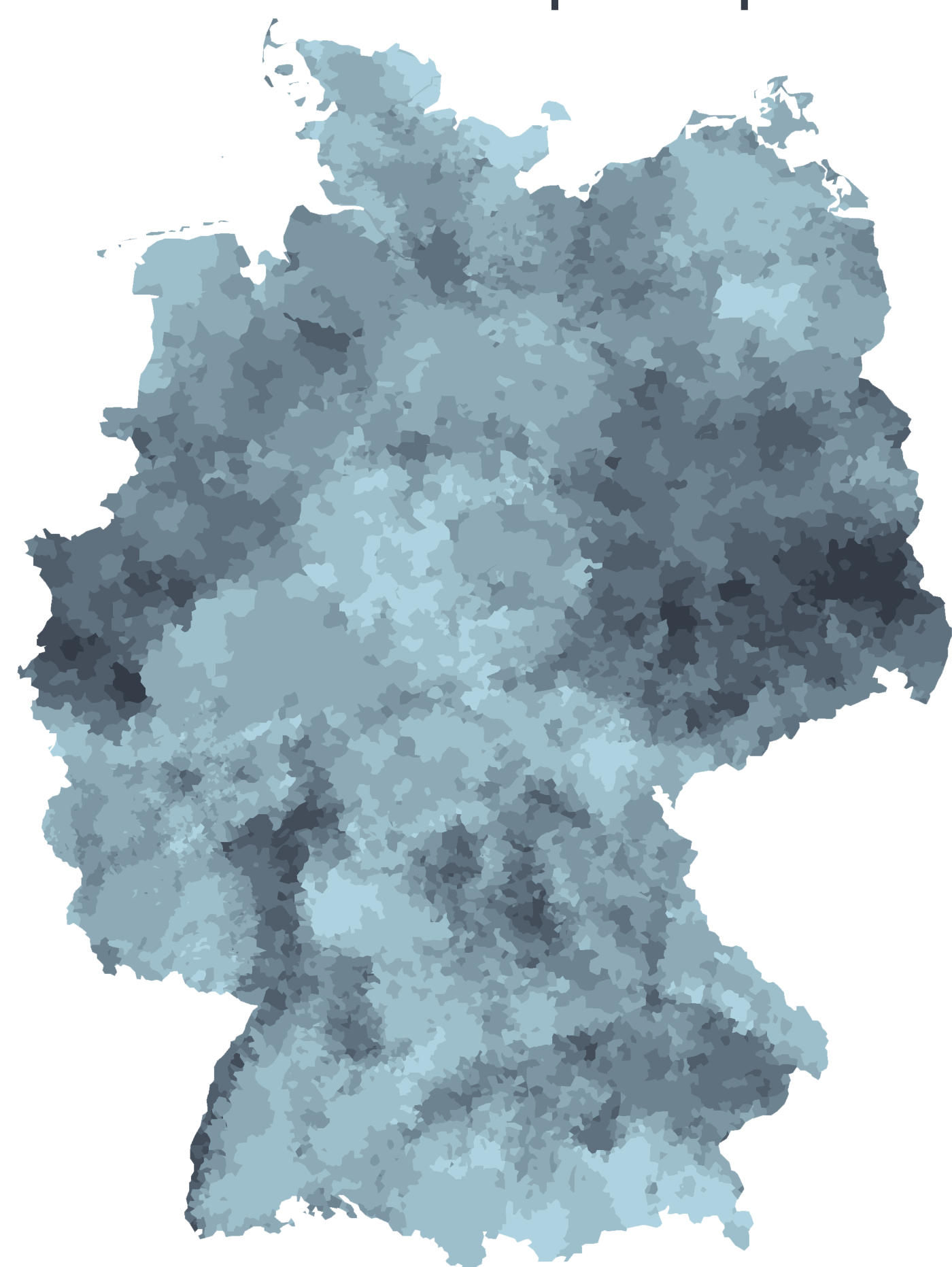
- Initially, authors focused on the racial and economic aspects of discrimination. However, some have also explored the impact of rurality on environmental injustices (e.g. Ashwood & MacTavish 2016, Sayan 2017).
- Research on rural areas is a topic that has received little attention in Germany to date. Mießner & Naumann (2019) identify a double blind spot in (critical) research on rural areas.

Methods and Data

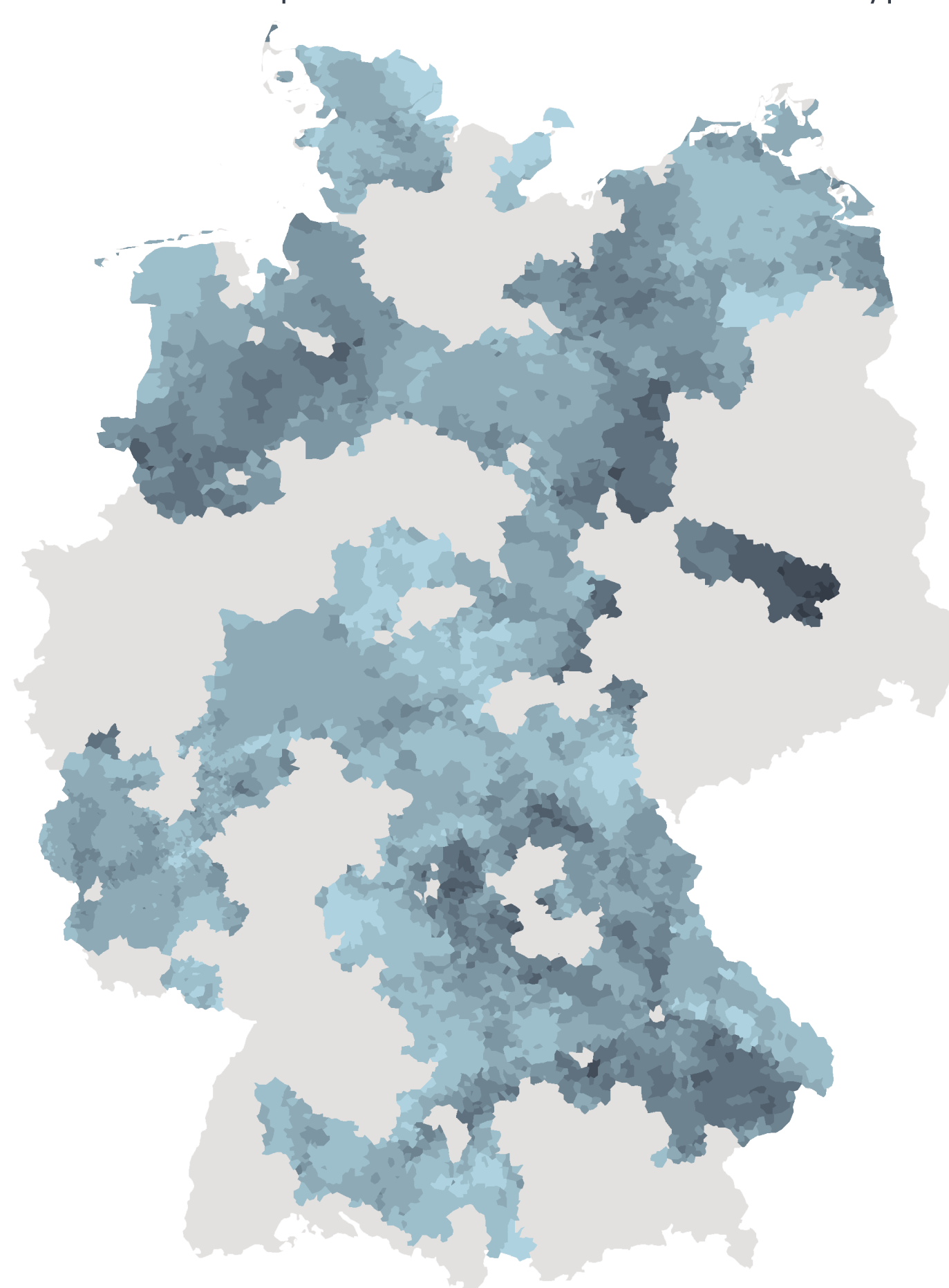
- 2 Dimensions of particular importance for the study: Distribution and Recognition
- Analysis of the spatial distribution of environmental pollution using a methodology inspired by Moos (2020)
- Combining publicly available environmental data with data on socio-spatial structures
- Environmental data: heat load, green features, noise pollution, air pollution, Locations of sites for undesirable land uses, water (A total of 10 indicators, no data available on pesticides and indigenous lands)
- Data on socio-spatial structures: Thünen-Typology (Thünen-Landatlas 2024) is used to typify spaces based on their degree of rurality.
- Attempt to address the issue of recognition of rural areas by taking a critical look at the focus of the data collection methods and the lack of data on environmental burdens and threats in some fields

Environmental impacts per area (based on municipal boundaries and the Thünen-Typology on rurality)

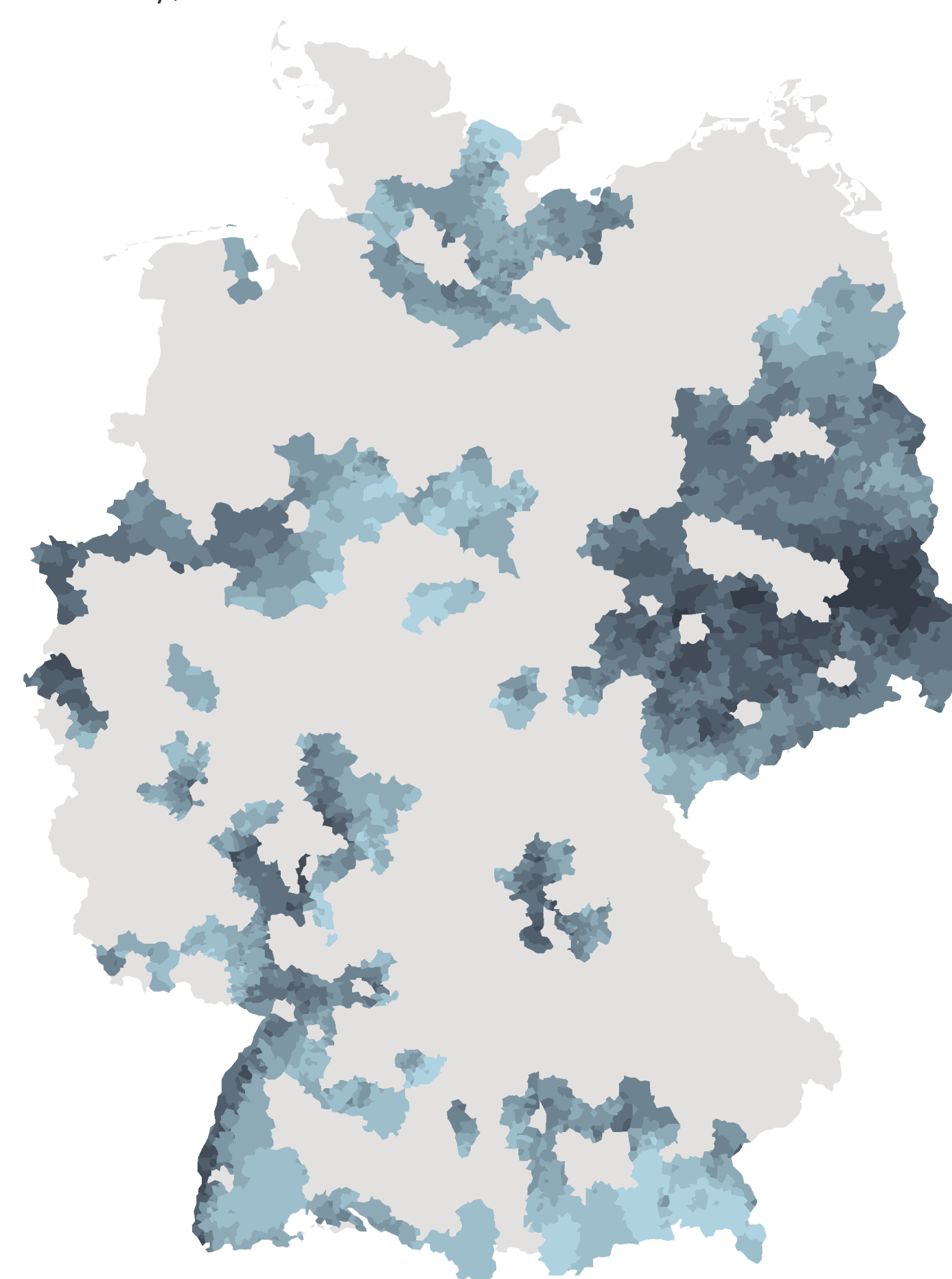
Number of environmental burdens: 0 1 2 3 4 5 6 7 8



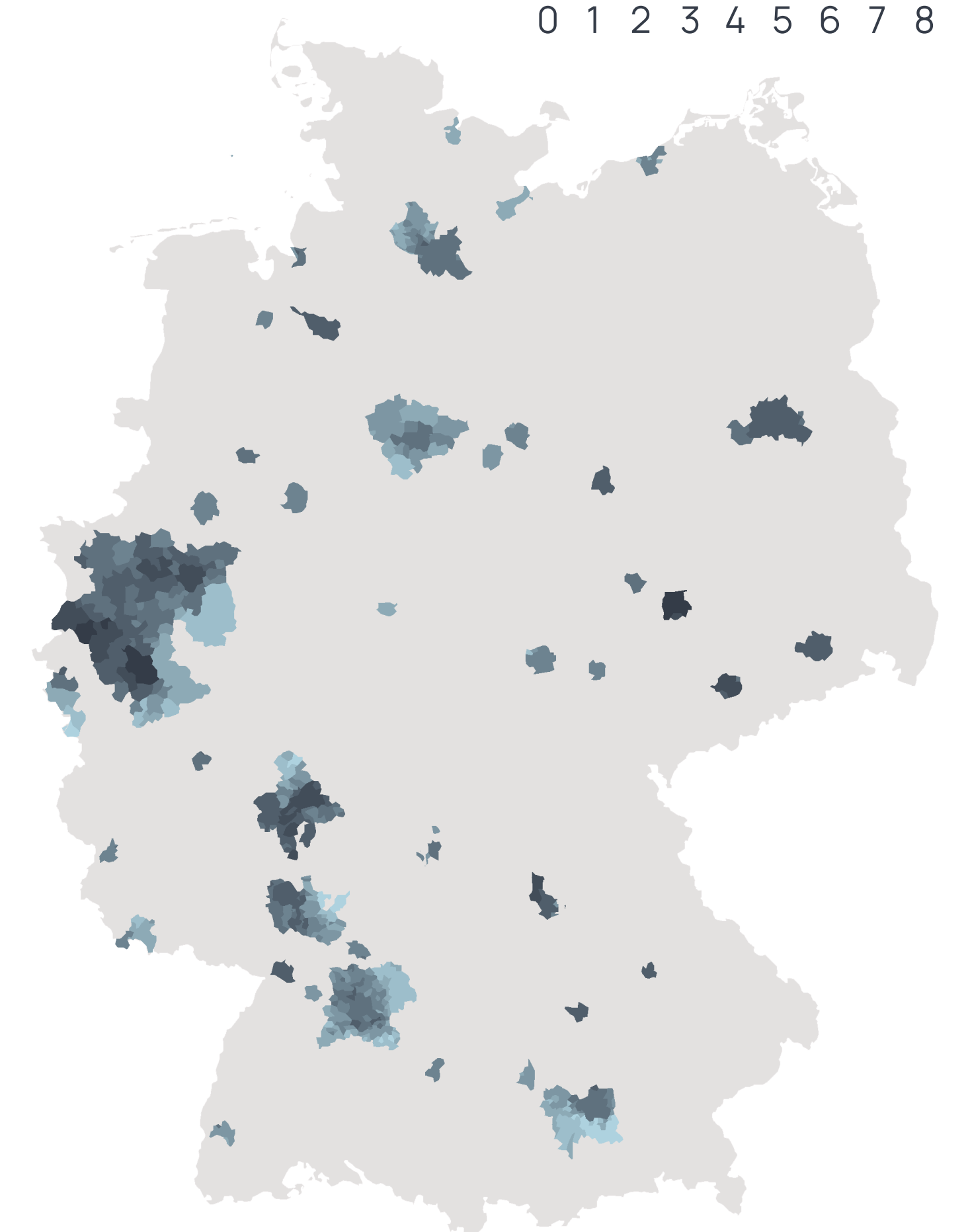
Germany in total



very rural areas



rather rural areas



non-rural areas

Results:

- The analysis indicates that there is no clear connection between environmental burdens and the level of rurality in a given area.
- Environmental pollution is often concentrated regionally and that several types of pollution are clustered in specific areas. Both urban and rural areas are affected.
- Several of the analysed data sets have a specific focus on urban areas. This is due to the fact that they are either collected solely for certain areas or measuring stations are located in certain positions
- In Germany, there is no documented data on exposure to pesticides. However, samples indicate high levels of exposure to pesticides, particularly in rural areas.

Conclusion and Outlook:

- Environmental justice is also important in rural areas.
- Regional characteristics of environmental pollution are more important than urban-rural differences
- Especially some environmental threats can not be analyzed as there is no data documenting them
- connection between rurality, economic and health situation and environmental pollution should be examined more closely in the future
- Further research should combine qualitative spatial Data with survey and Interview Data to conduct integrated small-scale analyzes of all Dimensions of Environmental Justice in Case Studies

Literature:

Ashwood, L. & MacTavish, K., 2016: Special section on The Rural as a Dimension of Environmental Injustice. *Journal of Rural Studies*, 47(A), 1-386.
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Sayan, S., 2017: Urban/rural division in environmental justice frameworks: revealing modernity-urbanisation nexus in Turkey's small-scale hydropower development. *Local Environment*, 22(12), 1510-1525.
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