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Patterns of environmental inequality in the EU?

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1. Definitions & frame
2. Approach
3. Results: country mapping of EI issues per environmental impact category (status 23.06)
4. Results II: (potential) patterns of EI in the EU
5. Preliminary conclusions

Intrinsic value of environmental equity

- 'Every person shall have the right to an environment which is not detrimental to his or her health or wellbeing' (Constitution S-Africa)
- 'All residents enjoy the right to a healthy, balanced environment' (Constitution Argentina)
- The right of everyone to have access to information, to public participation in decision-making and to have access to justice in environmental matters (UNECE/ Aarhus convention)
- 'Everyone shall have the right to a healthy and ecologically balanced human environment and the duty to defend it' (Constitution Portugal)

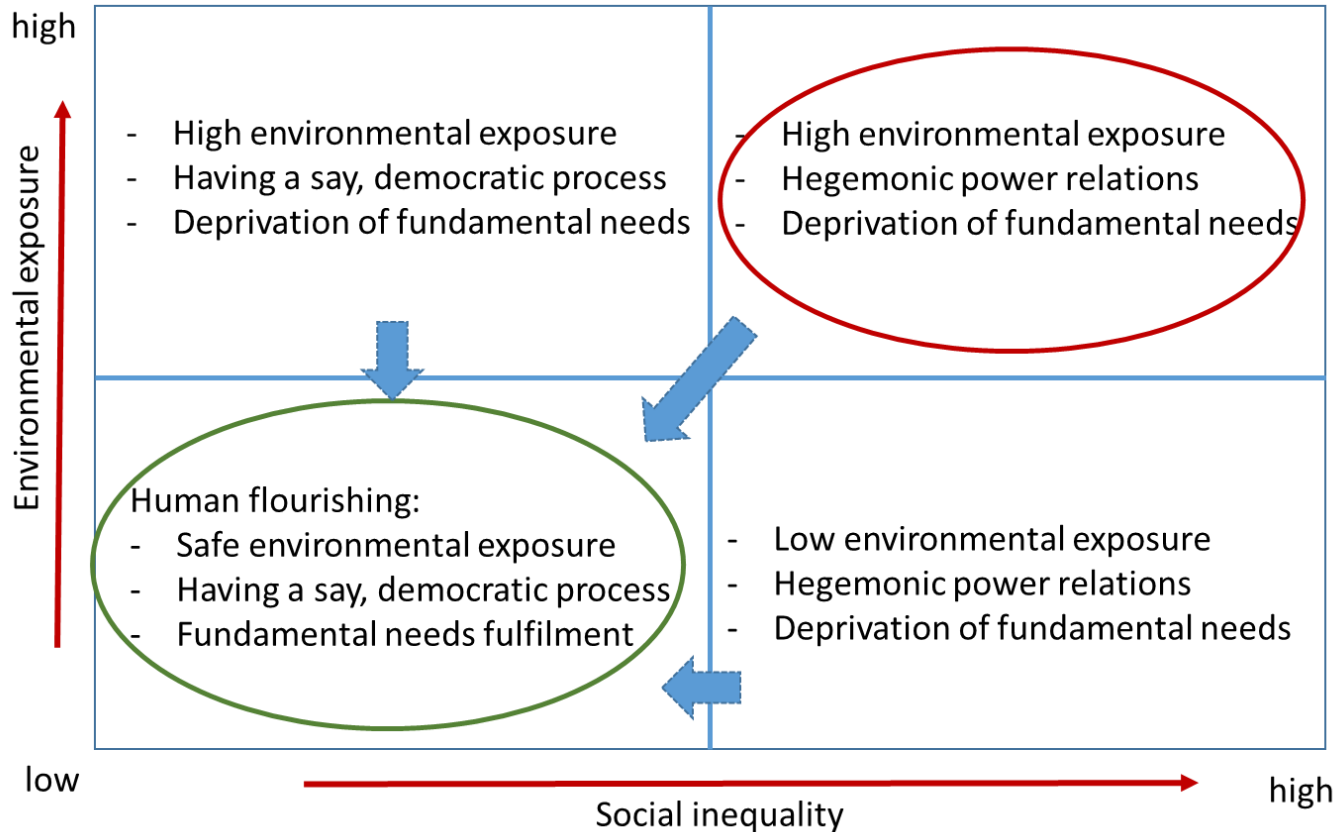
Some definitions of environmental justice

- EJ will be achieved when everyone enjoys a **healthy environment in which to live, learn, work** (US, EPA, 2016);
- Environmental justice is the idea that everyone has **the right to a decent environment and a fair share of the Earth's resources** (FoE Scotland, 1999);
- A condition of environmental justice exists when **environmental risks, hazards, investments and benefits are equally distributed** without direct or indirect discrimination ... (CEU, 2007).

Environmental inequality

- Refers to the unequal distribution of environmental goods and bads between social groups (SDRN, 2012);
- Environmental inequality can be measured and analytically described;
- A scientific approach to help making sense of the many varieties of unevenness and to provide evidence in distributive justice issues (Harvey 1996);
- Environmental inequality is described from a particular lense, a frame (Walker 2012)

Environmental justice as a process from inequality to human flourishing



- Meta review >60 empirical papers and reports on EI
- EU wide and 28 member states
- Keywords:
 - Environmental inequality
 - Environmental justice
 - Air pollution (noise, industrial siting, heavy industry, waste siting) and health (low income, unemployment, ...)
 - Climate justice (flooding, heat stress) and health, low income, unemployment, ...)
 - Access to resources (green spaces) and health, low income, unemployment, ...)
- Analysis of research question/hypothesis, method and results

General research question to investigate EI

- Is there any vulnerable social group within society carrying a disproportional disadvantage in one (or multiple) environmental exposure(s)?
- If so, which needs are being deprived?

Social group	Environmental exposure	Deprivation of human need(s)
Low income	Air quality	Physical health
Low education level	Siting and dumping	Mental health
Minority	Floods	Protection
Migrant	Climate change	Participation
Unemployed	Noise pollution	Understanding
Children	Access to resources	Leisure
...

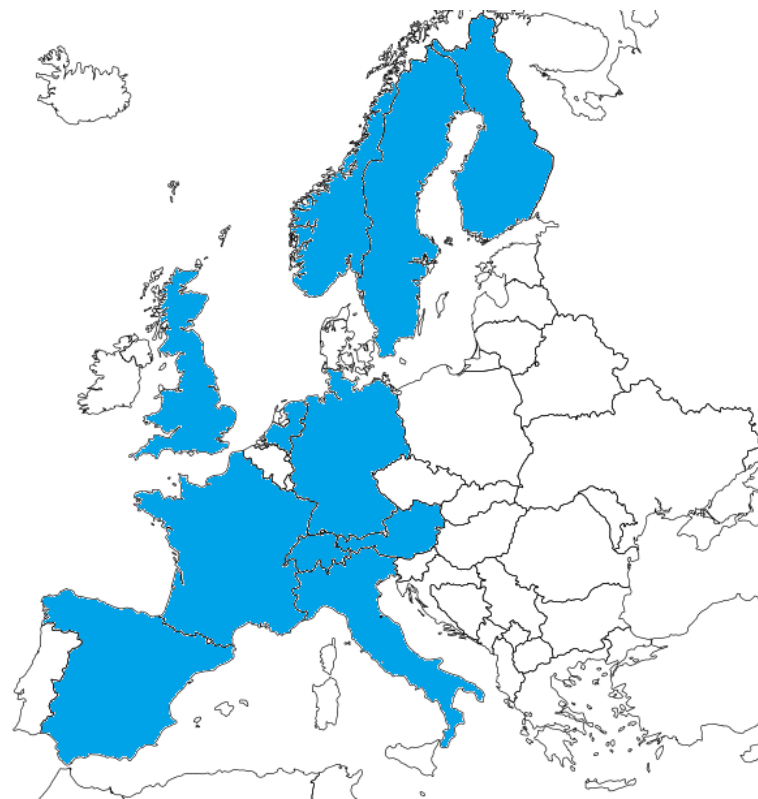
Preliminary results (23.06.2017): Ranking of countries, environmental factors and social group marker in empirical papers*

Countries	Environmental issue	Social marker
UK	Air pollution	Income
Germany	Noise, traffic noise	Socio-economic
Netherlands	Proximity to waste sites	Education
France	Cumulative risk	Social status
Switzerland	Flooding	Ethnicity
Czech	Green Spaces	Age
Slovakia	Incinerators	Employment
Sweden	Mining activities	Migration
Austria	Proximity to industrial facilities	Sex

* Priority areas within each EI dimension, no link between the 3 dimensions in this table

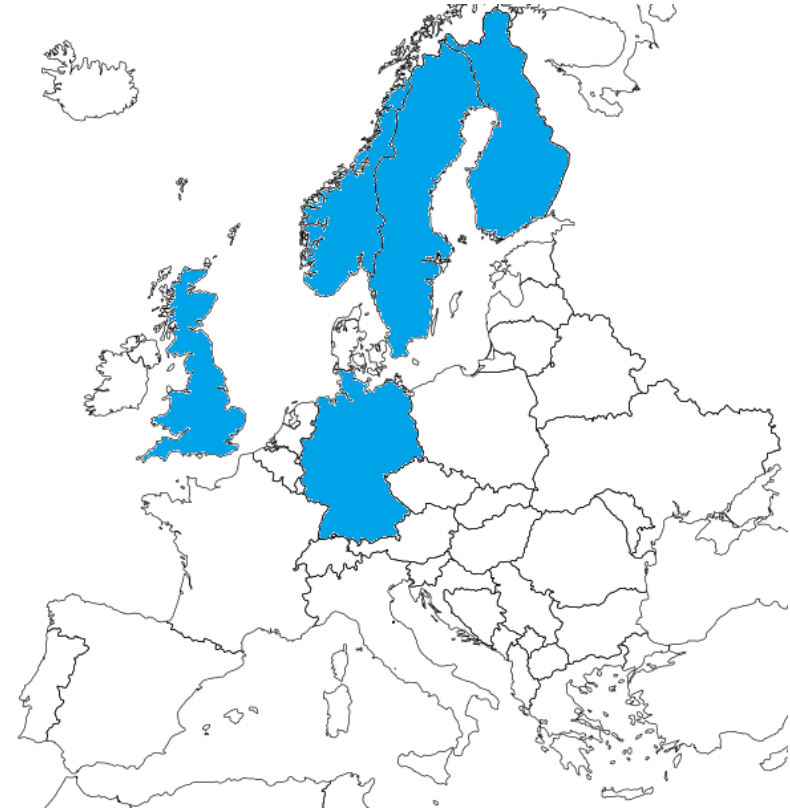
Country specific environmental inequality research – **Air Pollution**

Environmental Dimension	Social Dimension	Impact factor
Access to public facilities	Education	Health
Air pollution	Income	Life quality
Traffic noise	Nationality	Child mortality
Flooding	Ethnicity	(Risk) exposure
Incinerators	Employment	Property damage/ losses
Mining activities	Family size	(Lack of) Say
Industrial facilities	Marital Status	Subjective wellbeing
...	Sex	...
	Age	



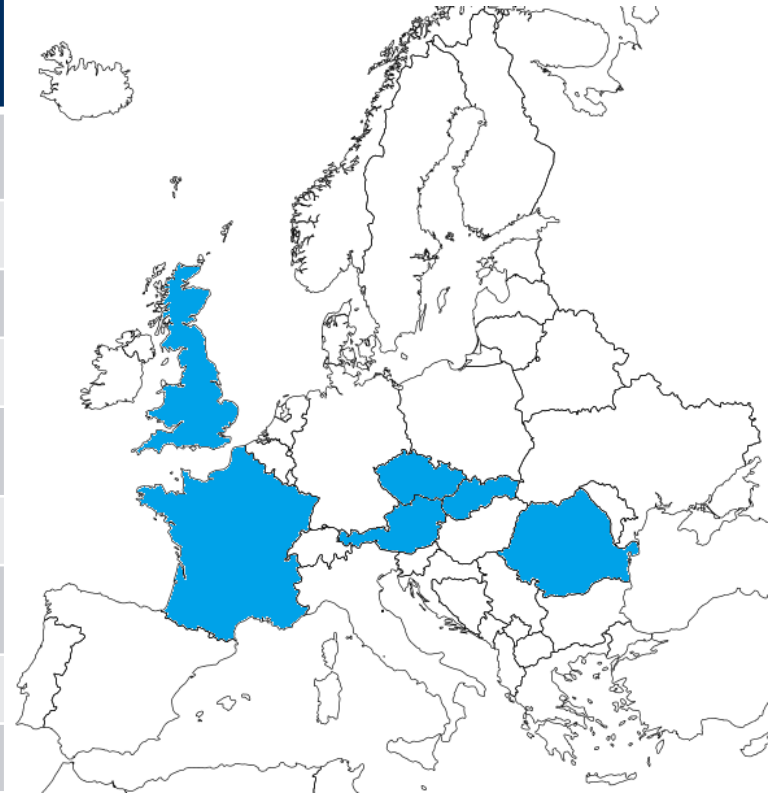
Country specific environmental inequality research – **Noise Pollution**

Environmental Dimension	Social Dimension	Impact factor
Access to public facilities	Education	Health
Air pollution	Income	Life quality
Traffic noise	Nationality	Child mortality
Flooding	Ethnicity	Risk exposure
Incinerators	Employment	Property damage/ losses
Mining activities	Family size	Subjective wellbeing
Industrial facilities	Marital Status	...
...	Sex	
	Age	



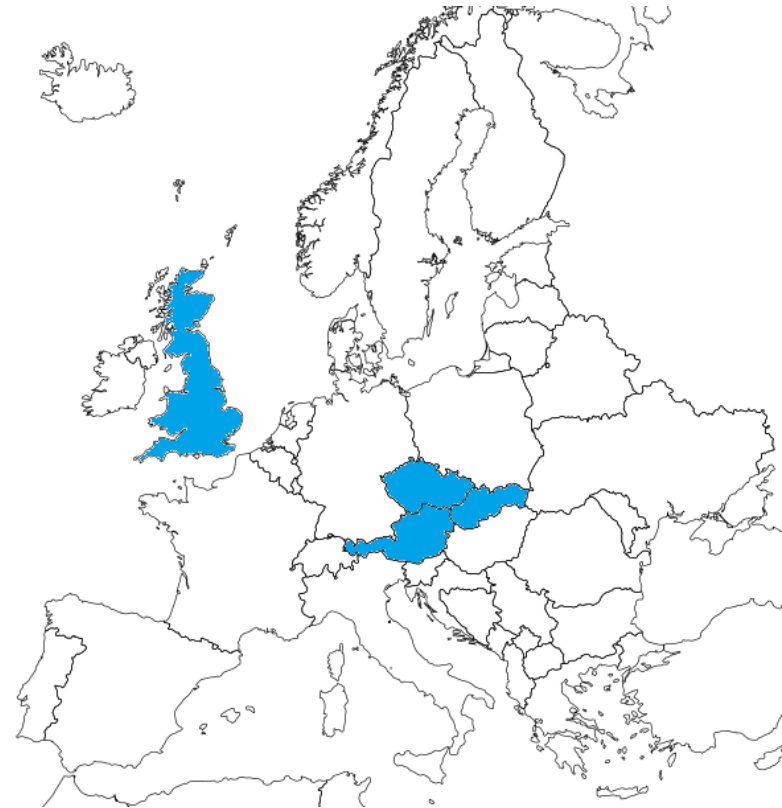
Country specific environmental inequality research – Proximity to points of pollution

Environmental Dimension	Social Dimension	Impact factor
Access to public facilities	Education	Health
Air pollution	Income	Life quality
Traffic noise	Nationality	Child mortality
Flooding	Ethnicity	Risk exposure
Incinerators	Employment	Property damage/ losses
Mining activities	Family size	(Lack of) Say
Industrial facilities	Marital Status	Subjective wellbeing
...	Age (children)	...
	Migration	

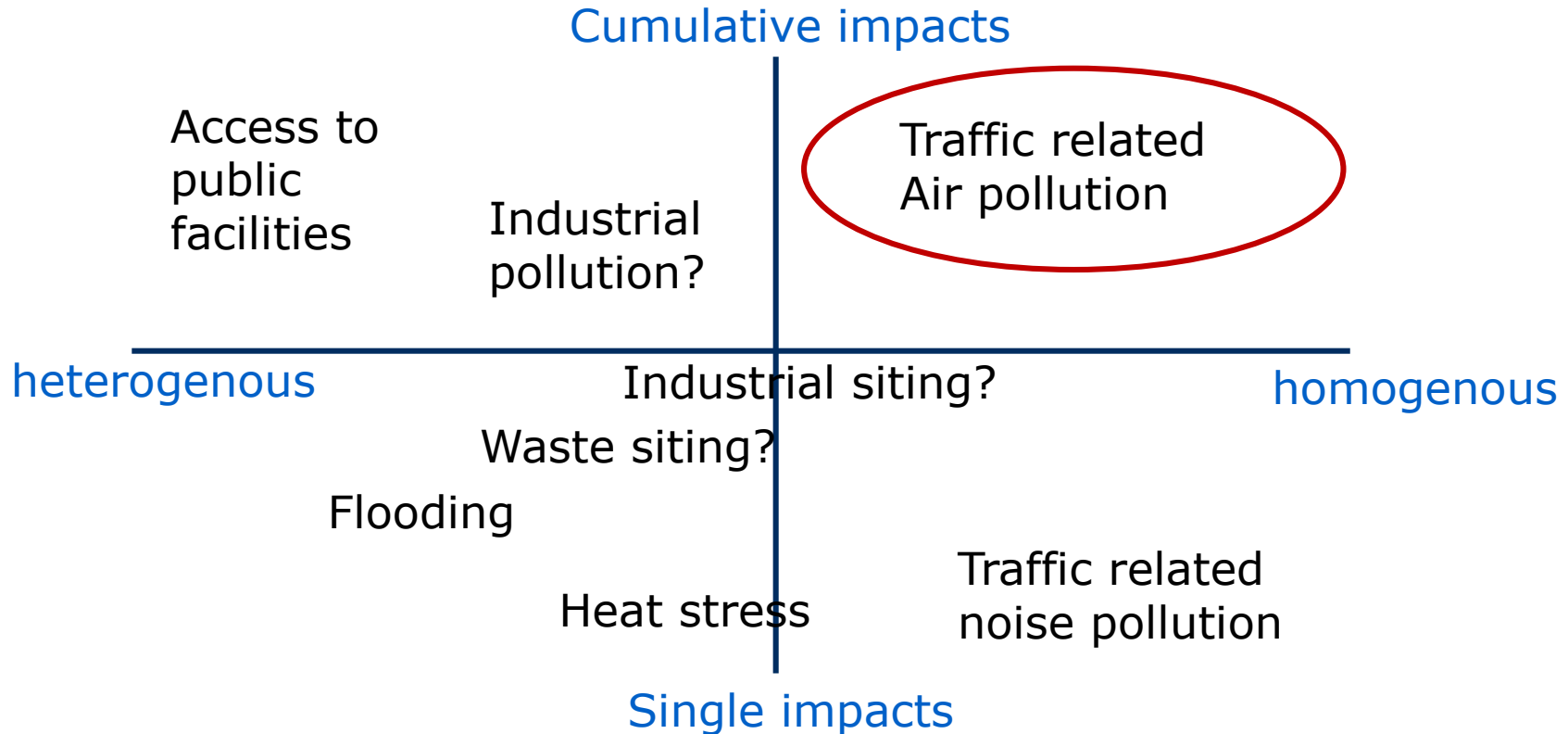


Country specific environmental inequality research – **Flooding**

Environmental Dimension	Social Dimension	Impact factor
Access to public facilities	Education	Health
Air pollution	Income	Life quality
Traffic noise	Nationality	Child mortality
Flooding	Ethnicity	Risk exposure
Incinerators	Employment	Property damage/ losses
Mining activities	Family size	(Lack of) Say
Industrial facilities	Marital Status	Subjective wellbeing
...	Age	...
	Community	



Results II: (potential) patterns of EI at the EU level



Preliminary conclusions & outlook

- Patterns of EI in air pollution, mainly in urban contexts;
- Air pollution mainly related to (conventional) traffic and transportation, also to energy grid (C/E-Europe);
- Waste and industrial siting points to patterns of EI (lower education and/or unemployment);
- Papers C/E Europe concentrate on ethnic minorities and rural poor;
- Few (case study) papers on causal relation EI and clinical health impacts;
- N-W Europe `research hot-spot` for EI – focus on air pollution;
- Climate justice to be included: evidence of displacement of environmental pollution;
- Need for EU wide research approaches into EI patterns.