



Training Course
Nature-based Solutions in Urban Planning

Nature-based solutions and environmental justice

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Introduction



social cohesion



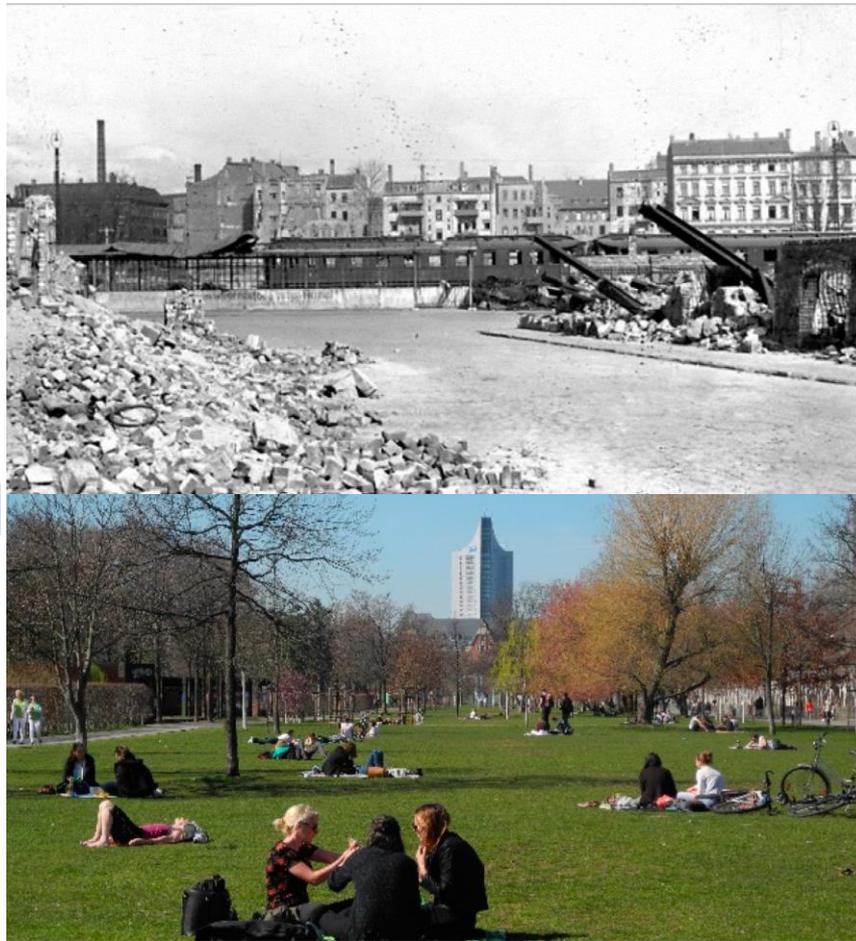
health



well-being



recreation



Uneven
distribution of ES

Social
displacement

Spatial
exclusion

Lene-Voigt-Park, Leipzig
(Germany)

The theory of environmental justice

Recognitional



- Integrate social requirements of the disadvantaged

Procedural



Fairer and democratic chance to articulate their ideas in planning

Distributional

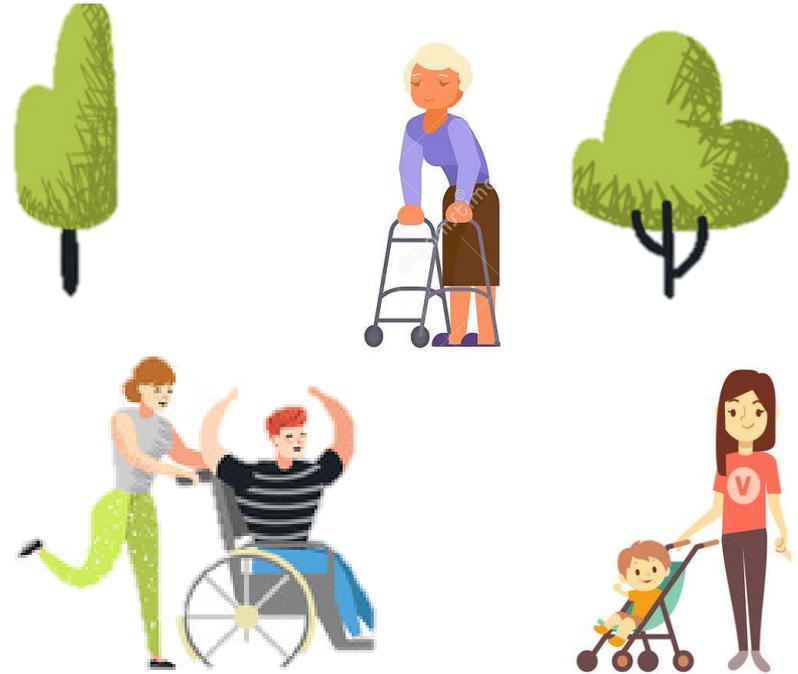


- Consider who have access to what type of benefits

Who are the subjects of justice?



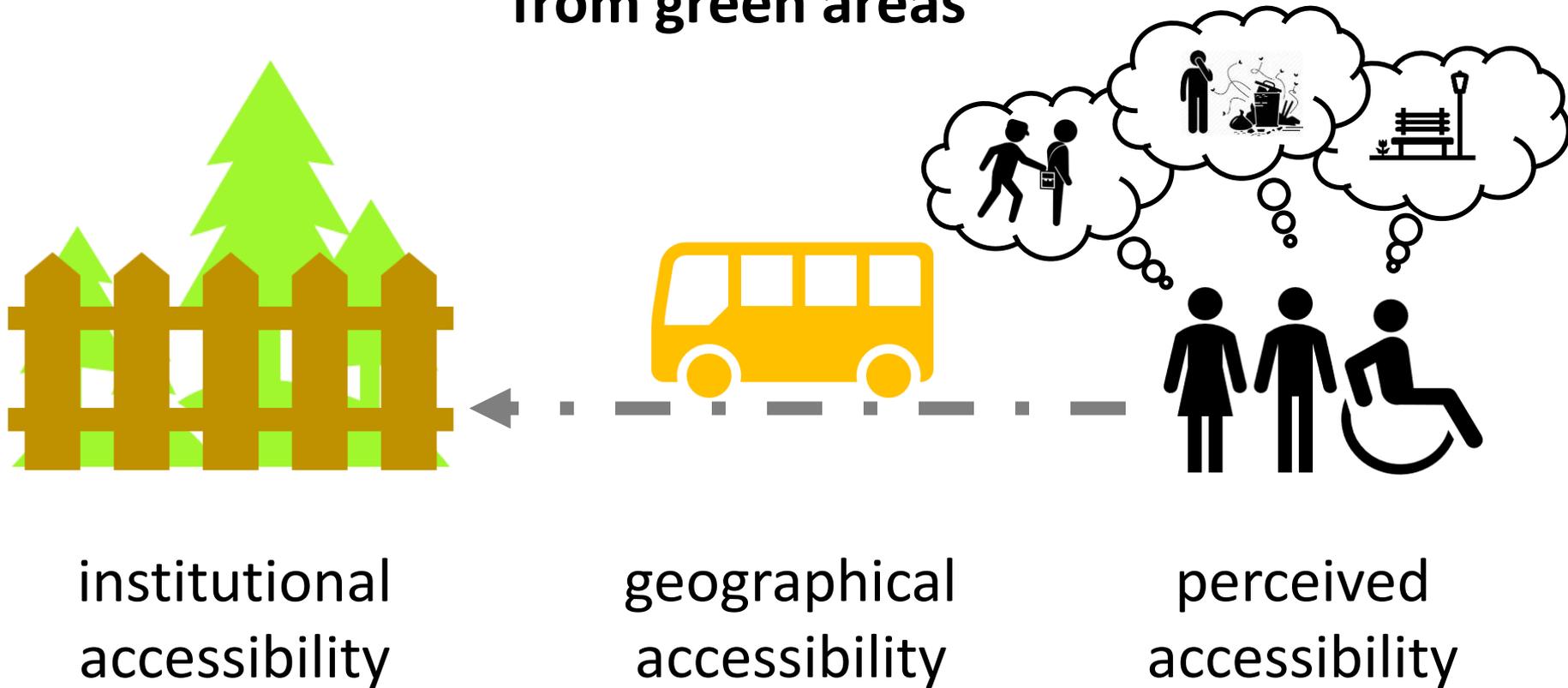
Pre-existent socioeconomic disparities and environmental threats



Needs and preferences of each social group

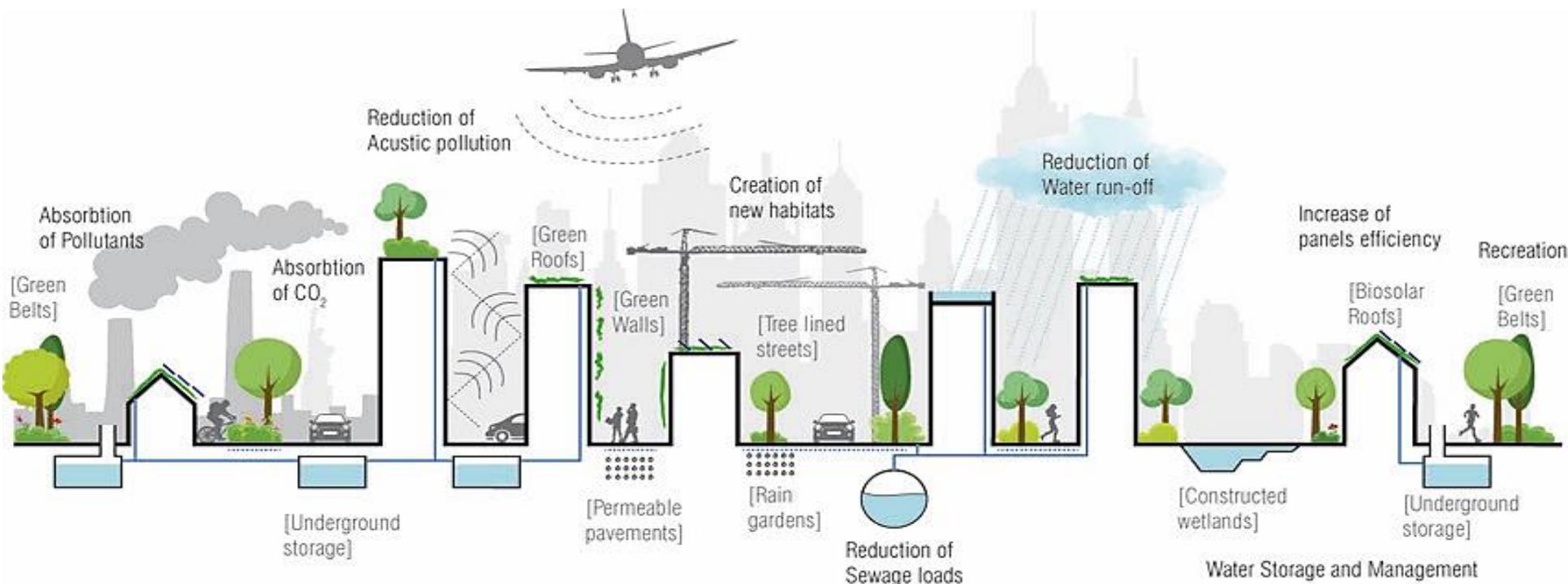
Who has access?

All possible means by which a person is able to benefit from green areas



What type of benefits?

Structural + functional characteristics = different ecosystem services supply + levels of effectiveness



Examples of EJ indicators

Theme

Indicator

Safety

- Level of criminality in urban green areas per year
- Individual perception of safety

Participation

- % of participation of disadvantaged communities in the planning process
- Perceived fairness in the decision making process

Environmental hazards

- % of vulnerable groups affected by flooding events/pollution /summer temperature per unit area (e.g. neighbourhood)

Place-based accessibility

- Walking distance from residential areas to nearest green space within a 250/500 m threshold (7 min)

Gentrification

- Rise in property prices over time series in relation to the opening of green space
- Individual sense of displacement (by project)

Institutional justice

- % of vulnerable individuals with tenure rights over parcels in community gardens

Potential trade-offs of the “more just” approach

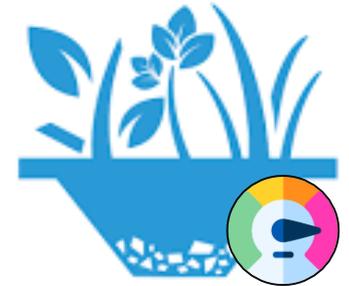
Additional cost

- Equitable NbS distribution could require more resources (management, maintenance monitoring, etc.)



Performance lost

- Forced NbS placement in underserved communities could reduce ES provision if biophysical conditions are not accounted for
- E.g. implementing stormwater infrastructure in areas of poor draining or in presence of underground utilities



Unwanted effects

- NbS could lead to the displacement of vulnerable residents by means of increasing property values in surrounding areas
- Planners must account for broader economic and market forces



Conclusions

Ideally, EJ should be a planning goal:



Identify justice voids and contextual issues (poverty, segregation, health inequities...)



Account for the preferences and needs of disadvantaged residents to whom NbS benefits could prioritise



Find suitable NbS types and indicators to measure EJ progress



Consider potential trade-offs and ways of managing them

Thank you!



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References

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