



Synergies and Trade-offs of Nature Conservation and Health – Implications for sustainable (urban) Health Planning from a German perspective



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Biodiversity and Health in the Face of Climate Change

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Assumptions regarding nature conservation (not only in Germany)

- measures of (health-oriented) environmental protection of great acceptance throughout the German society
- concrete measures of nature conservation often still face lack of acceptance
- for 25 years, strategic and conceptional paradigmatic change from bioecologic-ethical to „modern“ understanding of nature conservation as a societal approach for human health & wellbeing, too
- new: approaches to assess socio-economic value of nature and ecosystem services
- UN-decade on biodiversity
- nature conservation looking for strategic alliances

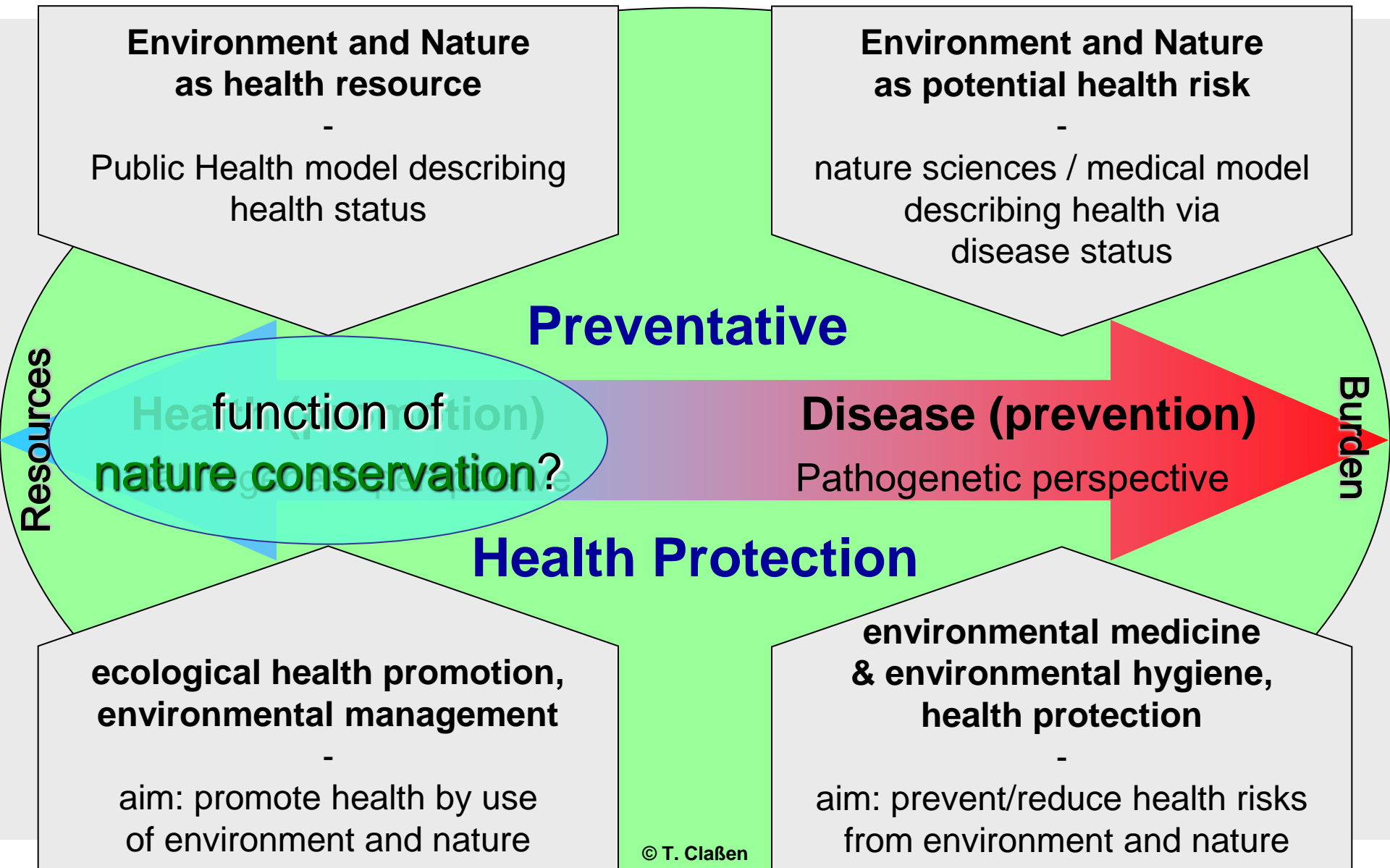


Assumptions regarding the (public) health sector

- ▶ **health sector** in general facing severe challenges due to:
 - newly identified health risks (e.g. multi-resistant pathogens, allergens)
 - socio-demographic change
 - rapidly increasing costs in health care
- ▶ **public health sector** opening up to other disciplines, including **environment and natural resources sciences**
→ aim: better health & cost reduction
- ▶ but: **nature & health?**
- ▶ challenge in German **public health sector**:
pathogenetic perspective vs. **salutogenic perspective**



Model of Environment – Nature – Health Interaction





Searching for synergies and obstacles ...

... already in 2004, pilot study initiated by the
German Federal Agency for Nature Conservation

objectives:

- Are there any (potential) **fields of action** between **nature conservation** and **preventive health protection**?
- If so, are they **noticed** and used **synergistically**, or do linkages occur by accident?
- Are there any horizontal or vertical **communication barriers**?
If so, what are the reasons for these obstacles?
- What are the **opportunities** for initiating better **co-operation** between both topics, if this co-operation makes sense?





Approach of the pilot study

- Synopsis of basic considerations and scientific concepts at the interface between **nature conservation** and **health**
- Assumptions regarding the perception of **nature (conservation)** and **health** in the public
- Mixed-methods approach: survey of identified key-stakeholders
→ standardized survey (254 pers./institutions → 158 returned)
→ semi-structured expert interviews (18 pers.)
- Identification of projects, programmes, strategies of good practice
- Identification and analysis of strengths and weaknesses of previous strategies and concepts
- Highlighting recommendations



Relationship between nature conservation and health protection

apparent synergies

Health because of nature (nature as health resource)

- ▶ Biodiversity, nature- and phyto-medicine for pharmaceutical uses
- ▶ Nature as protection against natural hazards
- ▶ Nature for mental health, recreation
- ▶ Nature as promoter of physical activity
- ▶ Nature for social wellbeing
- ▶ Nature as means of consumer protection (e.g. for drinking-water protection)
- ▶ ...





Relationship between nature conservation and health protection

apparent obstacles or rivalry

Health risks due to nature

- ▶ Allergies from natural products
- ▶ Disruption of well-being and health risks due to nature conservation
- ▶ Nature as reservoir for pathogens and vectors
- ▶ ...

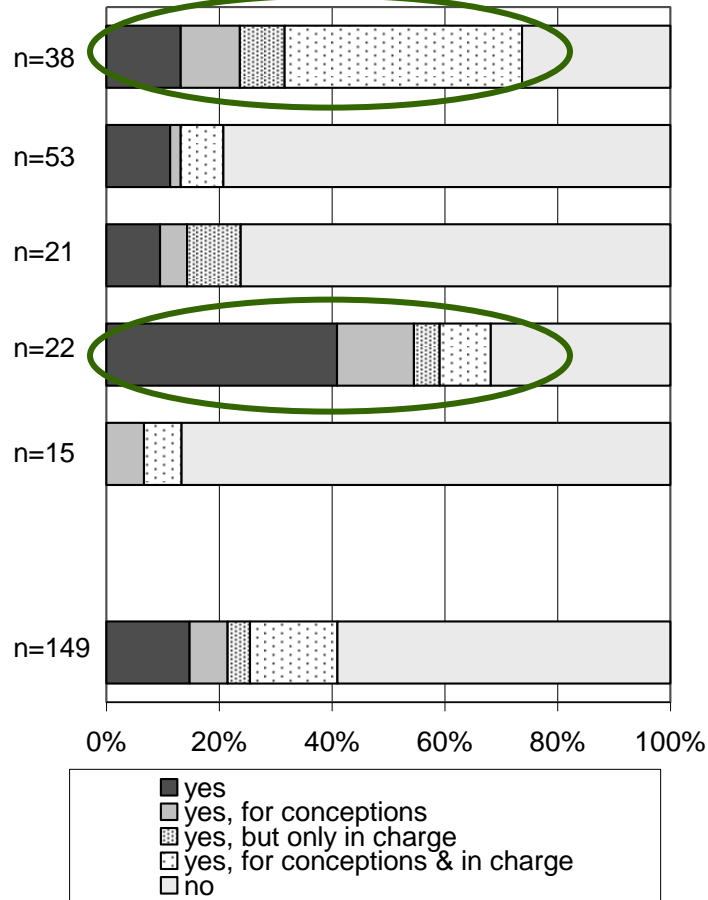
But on the other hand:

- ▶ „Health delusion“ causing disruption of sensitive parts of nature
- ▶ Exploitation of natural genetic resources → loss of biodiversity
- ▶ ...



Cooperation in programmes or projects of ...

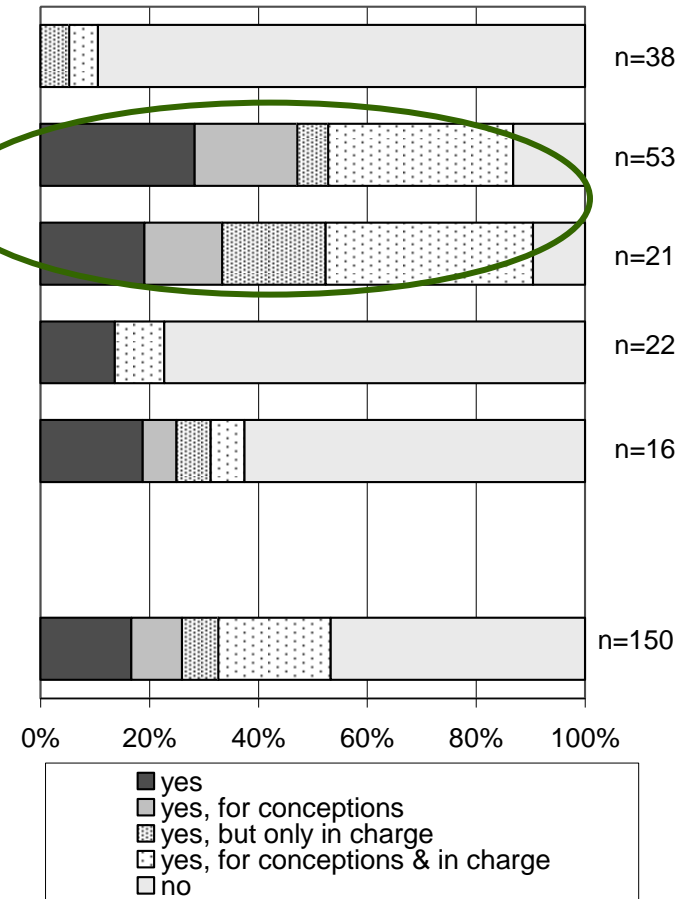
health sector



Sector of work

Health
Nature/environment protection
City and regional development
Environment and Health
Municipal administration
Total

nature conservation sector



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Findings of stakeholder interviews: hiding behind responsibilities?

‘They do not affect us, and in this respect I do not know them.’ (H 5)

Another example:

‘With respect to nature conservation [...] there is no organisational opinion.’
(H 3)

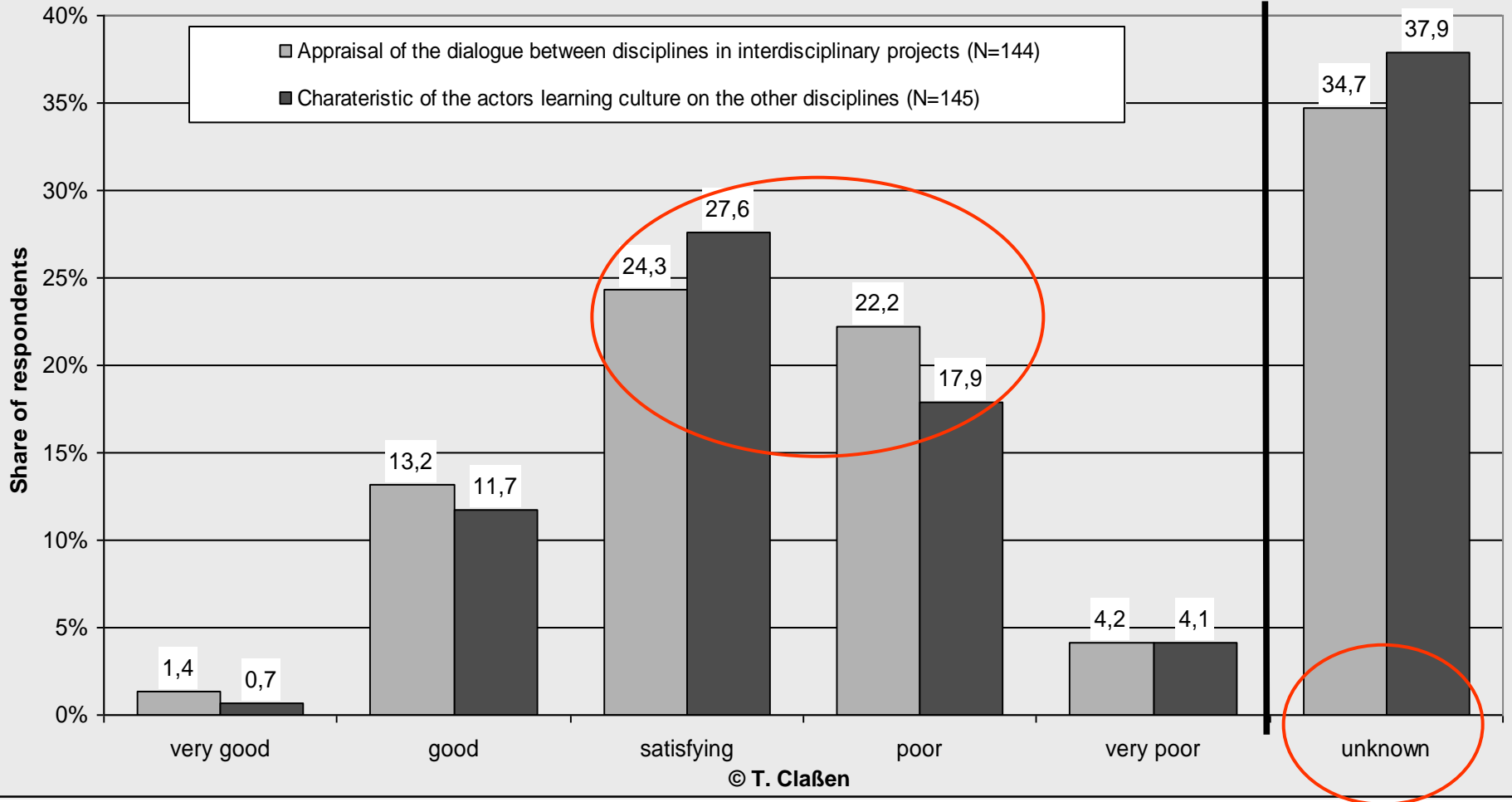
But when asked to the own opinion:

‘We badly need health promoting environmental and living-conditions. I need health-oriented prevention of bad conditions for giving everybody the opportunity to promote his own health. An in this respect, without any doubt there is a strong link between nature conservation and health protection.’ (H 3)



Intersectoral cooperations, networking, dialogue structures

Perception about dialogue structures and (organisational) learning culture





Conclusions of the pilot study

- ▶ **Numerous fields of action** between nature conservation and preventive health protection!
- ▶ **Persistent opinion** of some experts in nature conservation that it is mainly an **ethically reasonable duty** → **but time passes by...**
- ▶ Substantial **communication barriers** due to **divided responsibilities** and often the need of **profiling** the own administration
- ▶ **Substantial lack** of co-operation and communication between the disciplines and sectors in science, politics and planning
- ▶ **Willingness** and **expectation** of the experts, in particular of those from interdisciplinary fields or on a regional level, to overcome the obstacles



Steps forward since then ...

- Translating pilot study results into practice:
 - nature conservation and health in regional development (in three ‚nature parks‘)
 - development of a web-based nature and health information system (www.natgesis.bfn.de, in German)
 - International conference on nature conservation and health
- Approaches focusing on (urban) green, blue and health in terms of
 - better evidence on health effects
 - quantification of ecosystem services for health
 - sustainable, healthy urban development and planning





Healthy urban development and nature conservation?

Ministerium für Bauen, Wohnen,
Stadtentwicklung und Verkehr
des Landes Nordrhein-Westfalen



Just a small selection!



Urbanes Grün in der int
Strategien, Projekte, Instrum



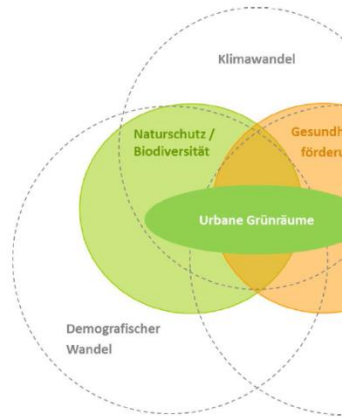
Urbanes Grün – Konzepte und Instrument
Leitfaden für Planerinnen und Planer

Ministerium für Bauen, Wohnen,
Stadtentwicklung und Verkehr
des Landes Nordrhein-Westfalen



Katrin Rittel, Laura Bredow, Eva Regina Wanka,
Dorothea Hokema, Gesine Schuppe, Torsten Wilke,
Dennis Nowak und Stefan Heiland

Grün, natürlich, gesu
Die Potenziale multifunkt
städtischer Räume



BfN-Skripten 371

2014

Bundesministerium
für Umwelt, Naturschutz,
Bau und Reaktorsicherheit

Weißbuch Stadtgrün
Grün in der Stadt – Für eine lebenswerte Zukunft

2017

**ÖKOSYSTEMLEISTUNGEN
IN DER STADT**

GESUNDHEIT SCHÜTZEN UND
LEBENSQUALITÄT ERHÖHEN



2016

2012



2014

but: nothing originating from the health sector! → **solution??**



Local public health authorities in North Rhine-Westphalia (NRW): participation in planning

NRW Public Health Services Act (ÖGDG NRW) *from 1997* § 8 ‚Participation in Planning Approvals‘

The local public health authorities are prompted to participate in municipal and district development of policies, plans and proposals if health concerns are affected, to ascertain compatibility of health impacts.

NRW Centre for Health (LZG.NRW)

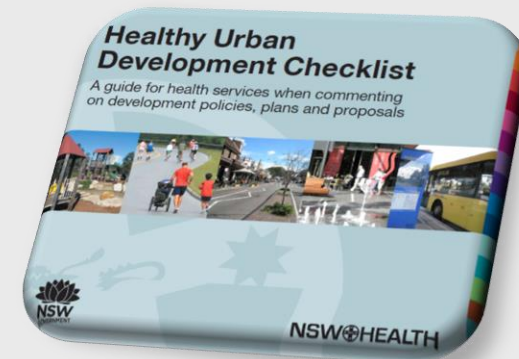
offers support to qualify municipalities and especially local public health authorities in the development and implementation of health oriented planning initiatives, e.g.

- planning procedures originated directly from the public health sector
- overall formal and informal municipal planning procedures, in which health issues might be considered
 - urban planning, landscape planning, noise action planning etc.



Healthy Urban Development Guidelines for NRW

- translation of *Healthy Urban Development Checklist* from Australia (NSW), published 2009
- adapted for NRW-context
- goal: raise awareness and support cooperation of stakeholders especially from spatial planning and health sector
- application in (urban) planning and development approvals
- structuring experts' opinions concerning policies, plans and proposals
- contribution of the public health sector to setting-oriented prevention
- instrument for integrated, sustainable policy development and healthy urban planning
- published end of 2016



For further reading (in German):

https://www.lzg.nrw.de/versorgung/ges_plan/gesunde_stadt/index.html



10 thematic chapters

- Transport and physical connectivity
- Quality employment
- **Environment and health**
- **Public open spaces** ←
- **Physical activity**
- Housing
- Social infrastructure
- Social cohesion and social connectivity
- Community safety and security
- Healthy food

Structure of the chapters:

- Introduction
- Relevance to NRW
- Key Evidence and Leading Practice
- Further reading /information
- Key questions
- Detailed checklist questions



Key questions of chapter „Public Open Spaces“

Are there likely to be significant issues related to ...

- Access to green space and natural areas?
- Public spaces that are safe, healthy, accessible, attractive and easy to maintain?
- Quality streetscapes that encourage activity?
- Sense of cultural identity, sense of place and public art?
- Preservation and enhancement of places of natural, historic and cultural significance?





Conclusions II

- *Horizontal and vertical integration* of strategies and concepts of **nature conservation** and **public health**!
- Further *awareness-raising* on different spatial and administrative levels required!
- *Integrated approaches* very constructive for sustainable and healthy urban development and planning!
- *Integrated consideration* of health, ecological and social issues *in everyday urban planning*!
- *Strategic alliances* between health, environmental and urban planning to be initiated!
- Remember: „**Sustainable Development IS Healthy Development!**“





„Integrated thinking and acting of nature conservation and health sectors opens undreamed-of possibilities for healthy urban development!“

Thank you very much for your attention!

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https://www.lzg.nrw.de/versorgung/ges_plan/gesunde_stadt/index.html