

Co-designing insect-friendly agricultural landscapes – Results and experiences from a transdisciplinary process in three German landscape labs



Maria Busse, A. Bartels, K. Beutnagel, V. Fick-Haas, M. Glemnitz, St. Holzhauer, E. Plaas, P. Scharschmidt, J. Dauber

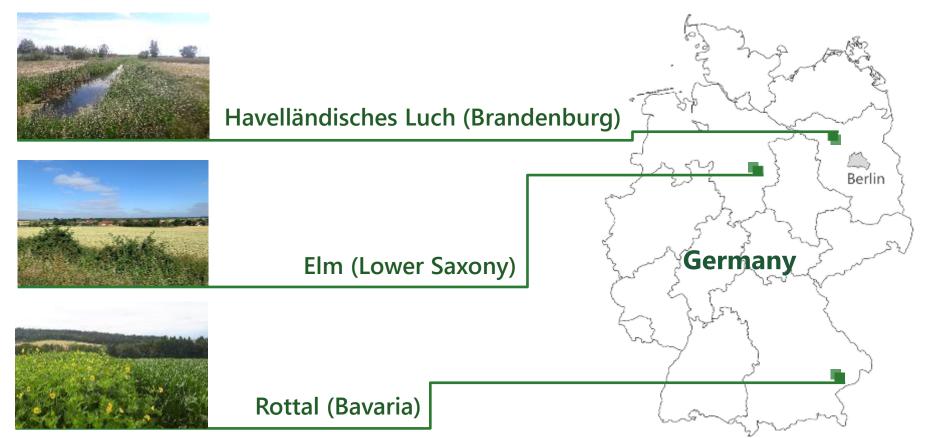


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Facilitating insects in agricultural landscapes

### Landscape labs (3 x 3 km) in FInAL





### Research question





# How to empower people in the landscape labs?

- Approaches
- Perceptions / reflection
- Next steps



### Landscape lab approach





Real-World settings

Transdisciplinary research

Landscape scale (fields + seminatural habitats) Co-design with landscape actors

Agroecological principles Space for experiment-ing & co-learning



Options for transfer-ability



#### Semi-structured interviews: Motivations. perceptions, expectations & needs





labs

#### Workshop 1: Discussion on principles & general interventions

#### Workshop 2 (online)

Discussion on specific interventions & adaptation to local needs



#### **Experiment**ation: Start of implementing measures in the labs

Workshop 3 (online):

Co-design of a

first implement-

landscape scale

tation plan at

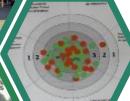


Field trip 1: Co-design & practical application of measures

#### Field trip 2: Co-design & evaluation of measures







Workshop 5: Specifying transformation pathways & evaluation of co-design process

2021

**Preliminary synthesis** 



2020



**Iterative phases** 

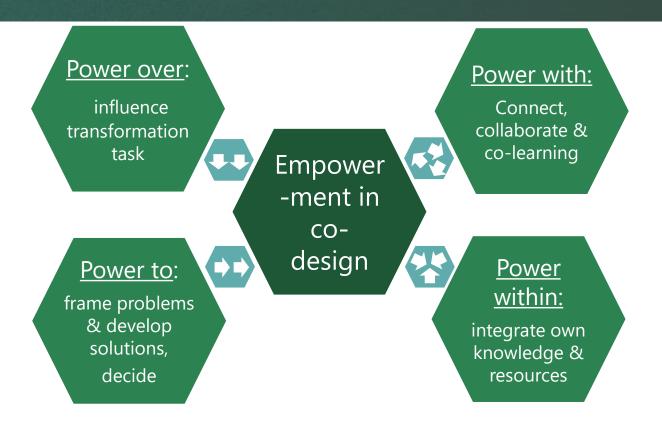


2022

### **Empowerment = Process of building capacities**







Empowerment is also related to procedural justice

Zamenopoulos et al. 2021; Busse et al. 2023

### Results: Perceptions at the start





## Semi-structured interviews (semantic web analysis):

- Need for agroecological transformation and regional collaboration
- Perceived dependence from global agrofood system and EU policy with limited scope of action and self-efficacy

(Busse et al. 2021)

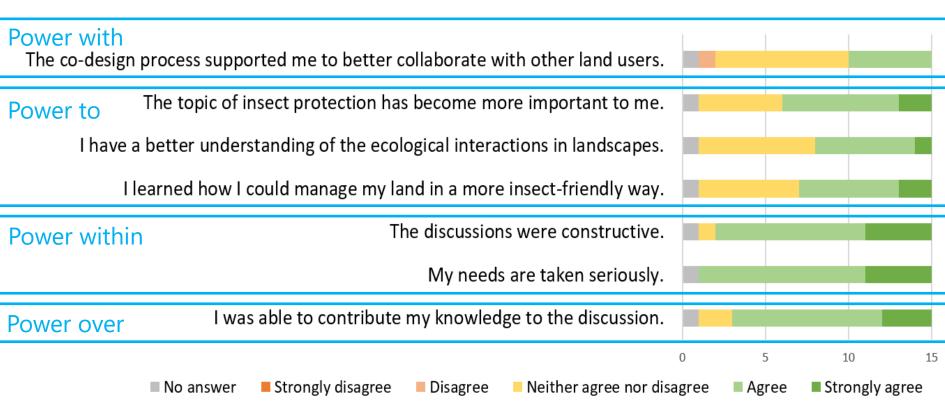


### Results: Reflection of co-design process





Practitioners / farmers (n= 15)



#### Discussion: Interpretation





- Interrelated levels = community + individual empowerment (Zamenopoulos et al. 2021)
- <u>Power over</u> transforming agricultural landscapes = difficult without:
  - "radical metamorphoris of the social network [agro-food system]" (Foucault 1977),
  - changing social practices (Maller 2023) and "deep values" (Rossi 2020)
- Encourage horizontal and vertical collaborations is needed







Power with: Creating inspiring practical examples that encourage collaborations

Power within: Better integrate ecological and practical knowledge

Power to: On-going co-design process and reflection

Power over: Stimulate deep and more systematic changes



#### **Publications**







Busse et al. (2021). How farmers think about insects: Perceptions ... *Biodiversity and Conservation*, *30*(11), 3045–3066. <a href="https://doi.org/10.1007/s10531-021-02235-2">https://doi.org/10.1007/s10531-021-02235-2</a>

Hölting & Busse et al. (2022). Co-design: Working with farmers in Europe to halt the loss of biological diversity. *Ecological Solutions and Evidence*, *3*(3). https://doi.org/10.1002/2688-8319.12169

Busse et al. (2023). Co-design approaches in land use related sustainability science. *Land Use Policy*, 129, 106623. <a href="https://doi.org/10.1016/j.landusepol.2023.106623">https://doi.org/10.1016/j.landusepol.2023.106623</a>









## Thanks for your attention!







#### I invite you to:

exchange experiences in different labs

jointly compare results (cross-case analysis)

collaborate in workshops for in EU partnership on agroecological living labs

Dr. Maria Busse

E-Mail: <a href="mailto:maria.busse@zalf.de">maria.busse@zalf.de</a>
<a href="https://www.final-projekt.en/">https://www.final-projekt.en/</a>











#### Results: Reflection of co-design process





