

# Governance for Transformations Towards Resilient Dutch Sand Landscapes

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## CONTEXT

- There is a need for a transformation towards more resilient Dutch sand landscapes.
- Transformative change (Visser et al. 2021)
  - Fundamental system-wide reorganization
  - Across technological, economic and social factors (including paradigms, goals and values)
  - Requires changes in the way we make sense of the system
  - Involves changes in land use patterns and existing power structures
- There is a focus on direct drivers. Transformative change also requires that indirect drivers are considered (Diaz et al. 2019; Visser et al. 2021).
- There is an innovation bias in transformation research and policy (Feola, Vincent and Moore 2021).
- The process of transformative change is inherently political, because different actors may stand to gain or lose because of the change (Patterson et al. 2017).

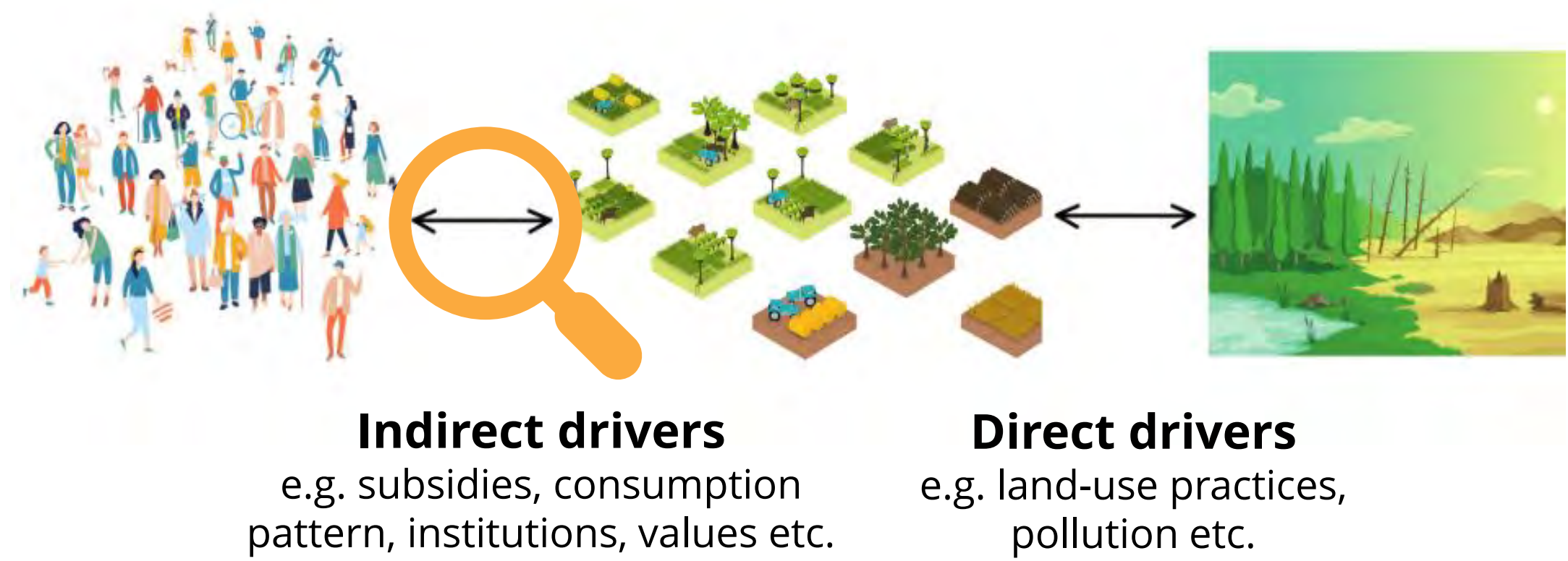


Figure 1. Indirect and direct drives. Inspired by Diaz et al. (2019) and Visser et al. (2021).

## RESEARCH AIM AND QUESTION

- The aim of this research is to contribute to a better understanding of transformative change in complex socio-ecological systems by analyzing which governance approaches can help actors to work towards more resilient water and soil systems in the Dutch sand landscapes.
- **Research question:** which governance approaches can facilitate a transformation towards resilient Dutch sand landscapes?

### 1. Identifying and exploring the roles of different stakeholder perspectives

Question: How do actors perceive the water and soil system?

Method: As part of a stakeholder analysis, Q-methodology is used to identify interesting, informative and relevant viewpoints from different stakeholders.



### 2. Understanding the interaction between drivers: what keeps the system in place?

Question: Which drivers give the current land use practices their stability and how do these drivers interact?

Method: Case-study

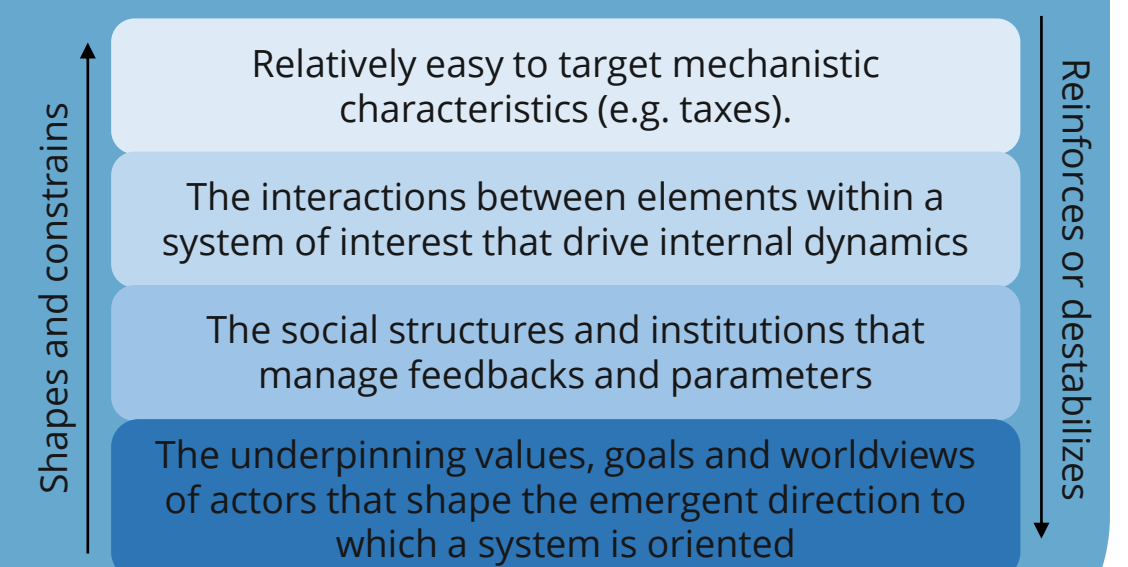


Figure 2. System characteristics based on Abson et al. (2017)

### 3. Analyzing existing governance approaches for Dutch sand landscapes

Question: which governance approaches have the potential to transform Dutch sand landscapes?

Method: Literature review and focus groups

- (1) Identify existing governance approaches from literature
- (2) Complement the overview with practical examples
- (3) Evaluate and specify the interventions for the Dutch sand landscapes

### 4. Co-designing transformative pathways

Question: what can we learn from co-designing transformative pathways? (Coordinate with other research projects)

Method:

- Design a shared vision
- Backcasting based on (1) what needs to be constructed (2) what needs to be deconstructed

## RELEVANCE FOR THE DUTH SAND LANDSCAPES

- Better understanding of transformative change in socio-ecological systems
- Overview of effective governance approaches that facilitate transformations
- Overview of action perspectives



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