

# SUSTAINABLE DEVELOPMENT GOALS: REALIZING TRANSITIONS BY SUSTAINABLE LAND RESTORATION, LAND USE AND MANAGEMENT

■ Co Molenaar and Margot de Cleen (Ministry of Infrastructure and Water management)

## Why Motivation and problem statement

Changing political and policy context: SDG have to be implemented by 2030. Paradigm shift (= transition) are needed! We have to act and find new/other ways to achieve those goals. Land use, restauration and management are the key instrument.

## What Approach, results and key messages

Changing political and policy context. Herefore a paradigm shift is needed.



- From protection of soil quality towards restoration, sustainable use and management, to achieve societal challenges (climate, energy, food...)
- From central to local governance
- From soil as a hindrance to soil as an opportunity
- From chemical quality to ecosystem services of the soil and subsurface

## Key Conclusion and take home message

1. Transitions (food, energy, economy) are needed to realize the SDGs.
2. Land en soil services are the key awareness raising, closing of cycles (food print), restoration and sustainable land use and management are needed
3. Increasing pressure on land and soil services: multifunctional use of land
4. Achieving public goals with private means (land stewardship and trade-offs): society is at stake! Who gets the benefits/ the costs?
5. Transition guidance is needed, not legislation per se.
6. Instruments for different levels (local, regional, national..)
7. Monitoring essential, all stakeholders' responsibility, transparency
8. New knowledge is needed

## More Further reading

See added papers:

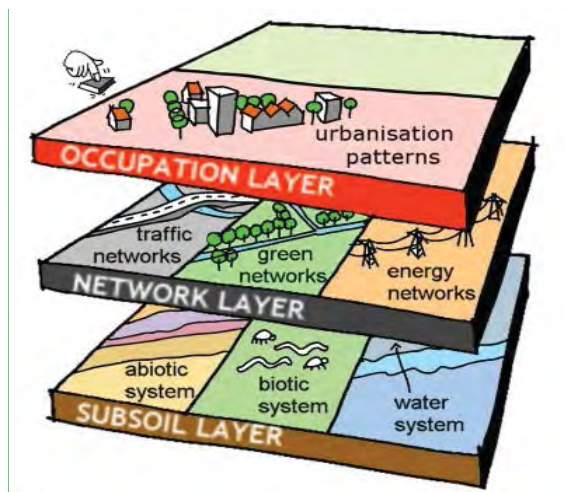
WIKI NL Soil policy in the Netherlands; The dynamics of joint policy making

Back ground paper World Soil Day 2016 Towards Societal Benefits by Soil Services



## Land and soil knowledge for addressing societal challenges

Co Molenaar  
Ministry of Infrastructure and Water Management, The Netherlands



Rijkswaterstaat  
Ministry of Infrastructure and the Environment

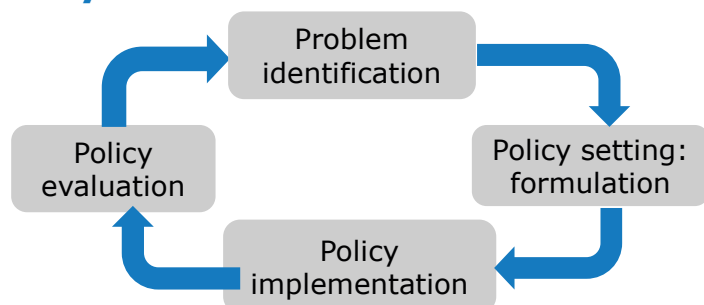
Sustainable Development Goals:  
realizing transitions by  
sustainable land restoration, land  
use and management



The necessity of knowledge  
development and stakeholder  
involvement

Co Molenaar  
Margot de Cleen

## Winsemius policy cycle







## Take home messages

1. Transitions (food, energy, economy) are needed to realize the SDGs.
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## Changing political and policy context



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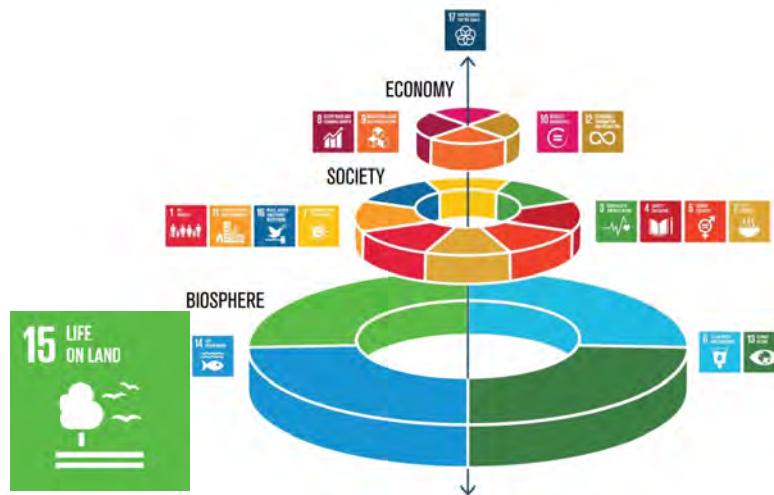
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## Urgency societal challenges: 2030 is tomorrow!

Global trends: growing population, growing middle class, growing demand for resources, climate change

➡ Growing pressure on land and soil services



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## Transition characteristics: paradigm shift

Old world view

Exploitation model

Economical return

Linear processes

Value extraction

Independency

New world view

Cooperation model

Societal return

Circular processes

Value creation

Togetherness

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## Transition characteristics: change in structure

### Old structure

Vertical

Hierarchic

Top down

Central

Silos

### New structure

Horizontal

Networks

Bottom up

Decentral

Communities

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Frank and Ernest



## Paradigm shift in soil policy

From  
**soil as a slave**

towards  
**soil as Mother Earth**

towards  
**soil as a partner**

- From protection of soil quality towards restoration, sustainable use and management, to achieve societal challenges (climate, energy, food...)
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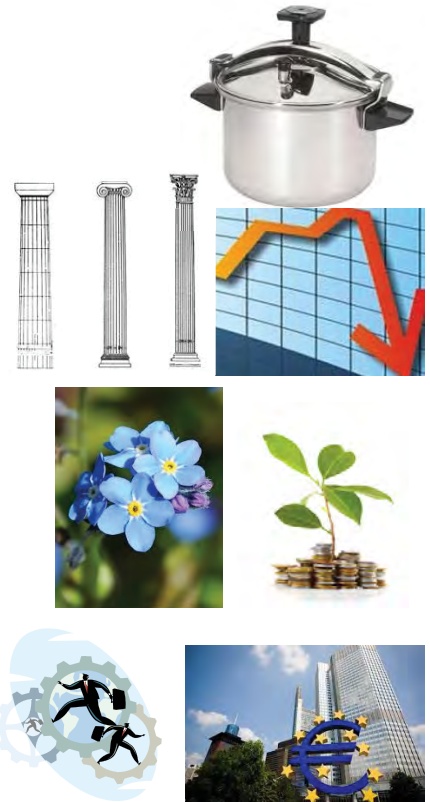
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## Current situation

- Availability of land and soil is **under pressure**
- **Unawareness** that **soil services** are essential to tackle societal challenges
  - Damage
  - loss of benefits
- **Land management policy** lacks: sectorial and protective
- Stakeholders are insufficiently involved: **public private cooperation** needed



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## The necessity of up scaling

- Up scaling to **area approach**:
  - Broader area, more potential solutions
  - Connecting to societal challenges and interests, new investors (stakeholders)
  - Problem solving, business case
- Up scaling to **services of the SSW**
  - Soil quality improves by soil value creation
- **Integral** approach
  - Area development and social quality improvement



 **Balance in use, protection and improvement of soil and groundwater quality: Land management is the instrument**



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## Policy? Land management and spatial planning

### Transition in policy:

- From subsurface care to deep and broad use of ecosystem services
- From general regulations and prohibitions to tailor made solutions on regional and local level: spatial planning
- From taking the lead to involving the energetic society

**Land management** is the instrument to connect sustainable use of natural resources to societal challenges

### Change towards:

- **Less legislation**
- **More self regulation and initiatives from society**
- **Facilitation of innovations**



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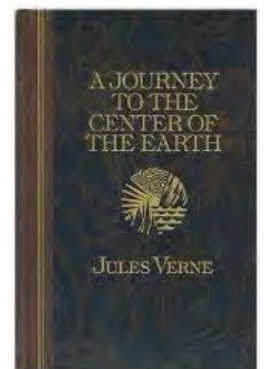
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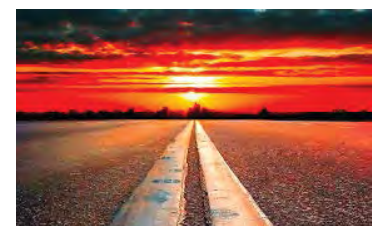


## Transition towards environmental planning

- From 2 to 3 and 4D spatial planning
- System approach (soil sediment water system)
- Spatial and inter governmental coordination
- Development and sharing of information, knowledge and expertise
- Shared assessment framework connecting national, regional and local interests and decisions



**National 4D Spatial plan**  
**Regional and local 4D spatial specifications**



- In accordance with the new integral Environment and Planning Act (2021)

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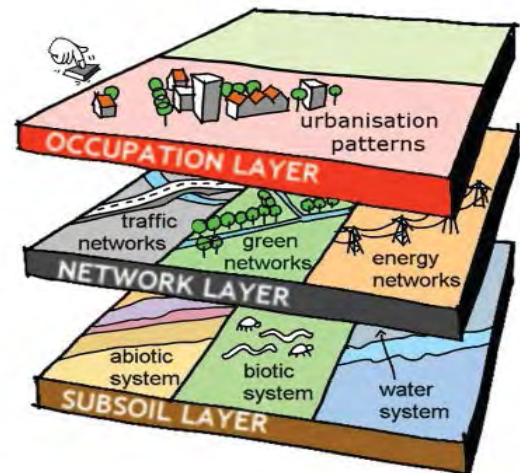
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## Dutch approach for a spatial plan for soil and subsurface

- On request of energetic society
- Inventory of national policy and interests
- Together with local authorities and stakeholders
- Sustainable and efficient use
- Long term: 100 years
- Energy, (drinking) water, agriculture, efficient use ecosystem services



**Aim is sustainable and efficient use of the subsurface**



## Recommendations for transition

- Strategy and Vision
  - Long term public and private perspectives; different scales spatial scales; towards 4/5 D land management
- Awareness and Capacity building
  - Value creation by connecting societal challenges to the SSW
- Organizing cooperation
  - Stakeholder participation
- Creating networks of practice
  - Connect with existing networks
- Facilitating with instruments, information and knowledge
- Monitoring
  - Efficacy of land management instruments





Thank you for your attention  
More information:

Co Molenaar@rws.nl  
Margot.de.cleen@rws.nl

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