



**MAIA**  
Mapping and Assessment for  
Integrated ecosystem Accounting

# Application of the MAIA analytical tool by a National Statistical Office

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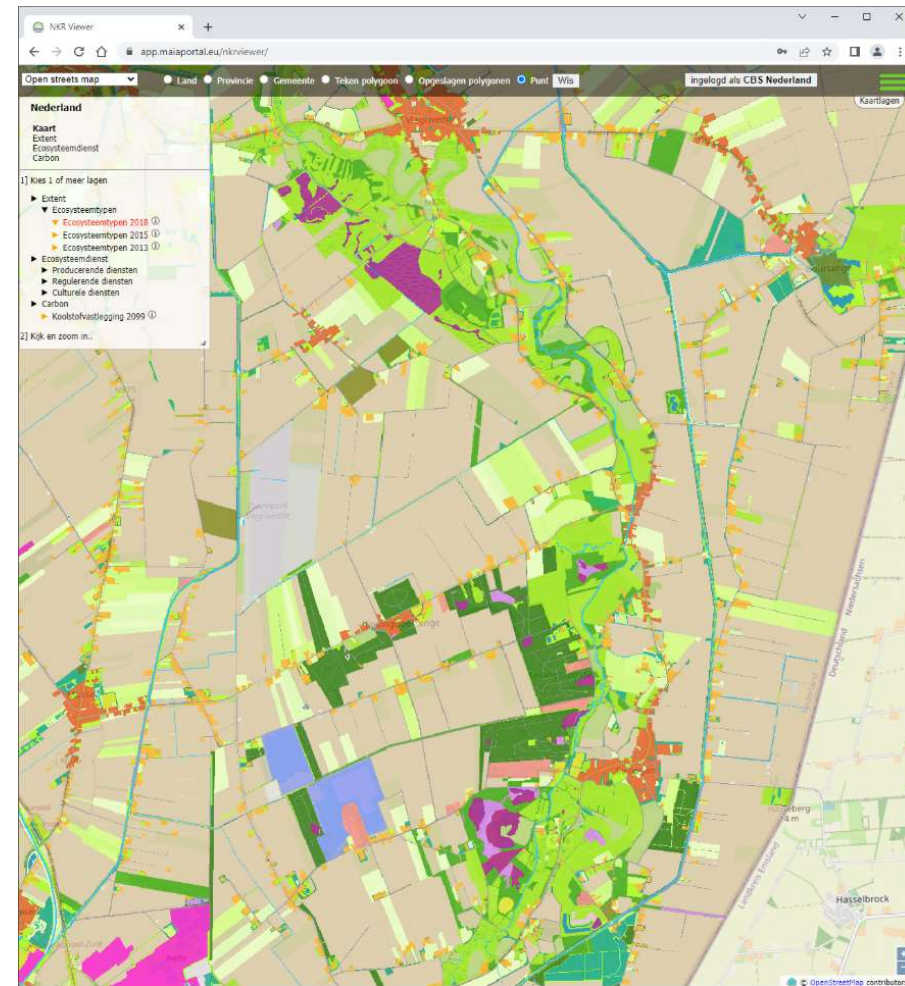
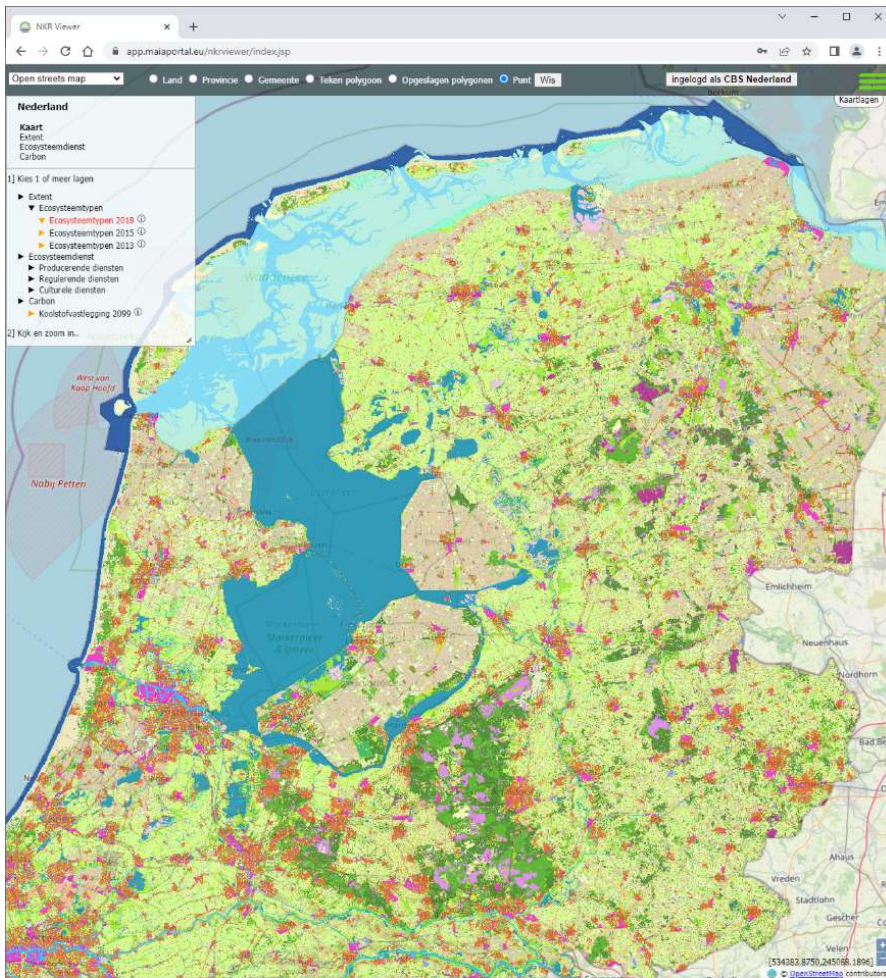


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# Overview — Applications — Challenges

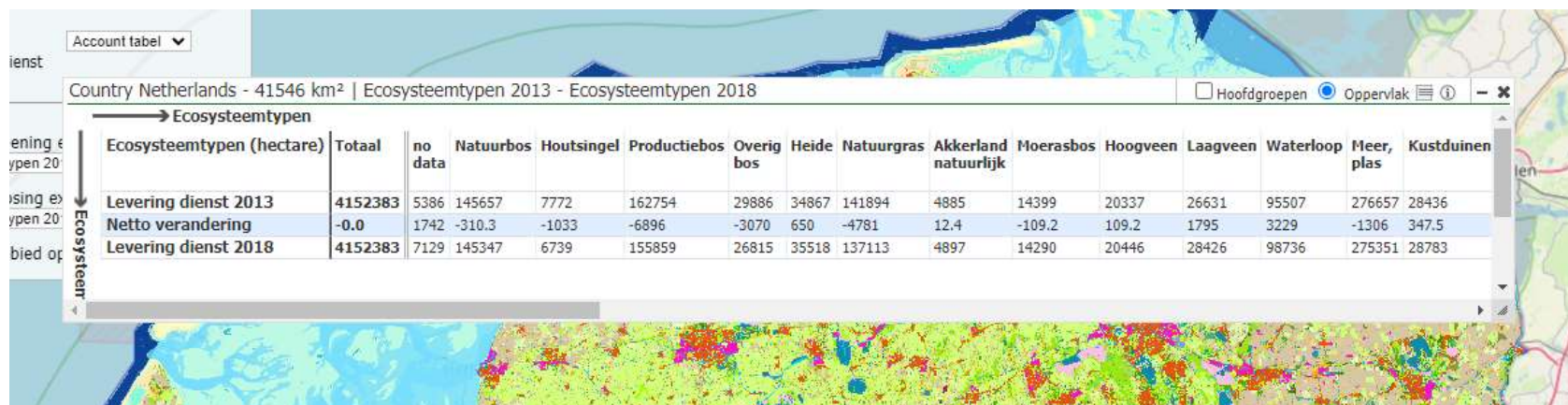
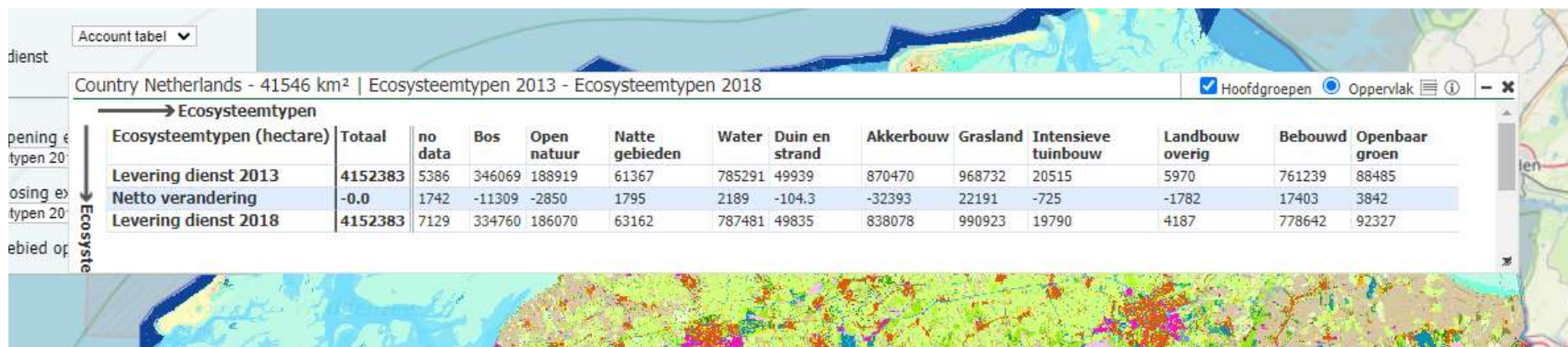


# Ecosystem Extent



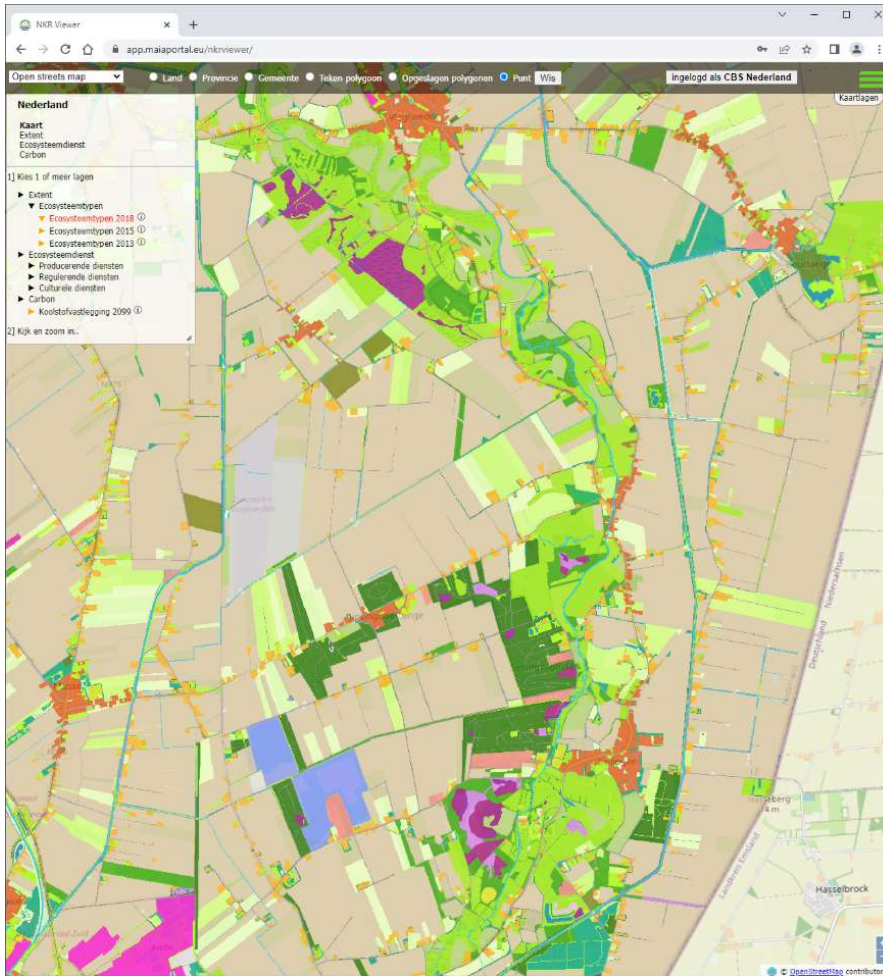


# Extent account



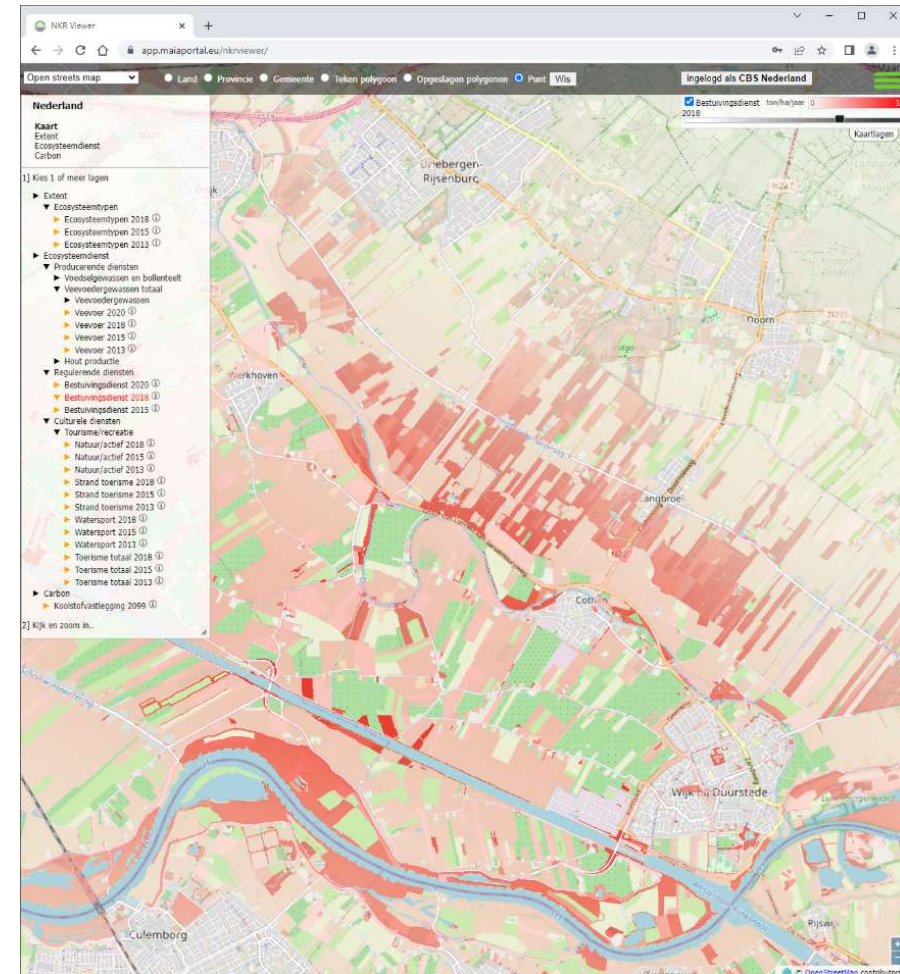
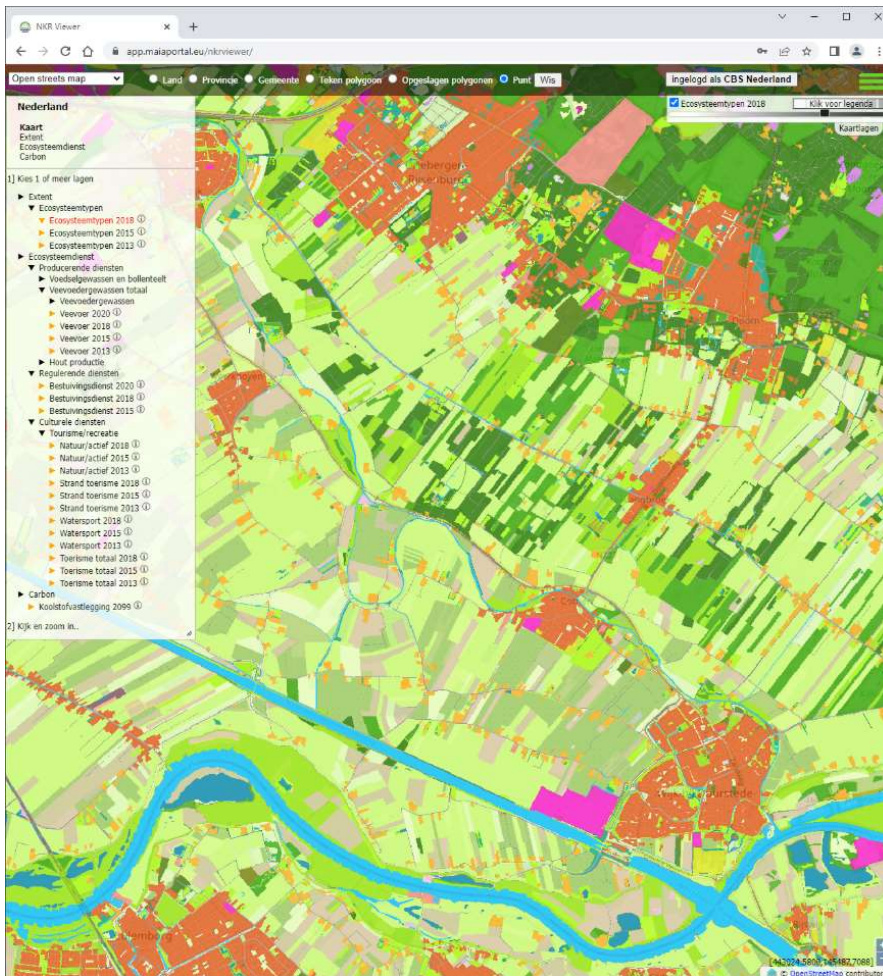


# Producing Services: Crops



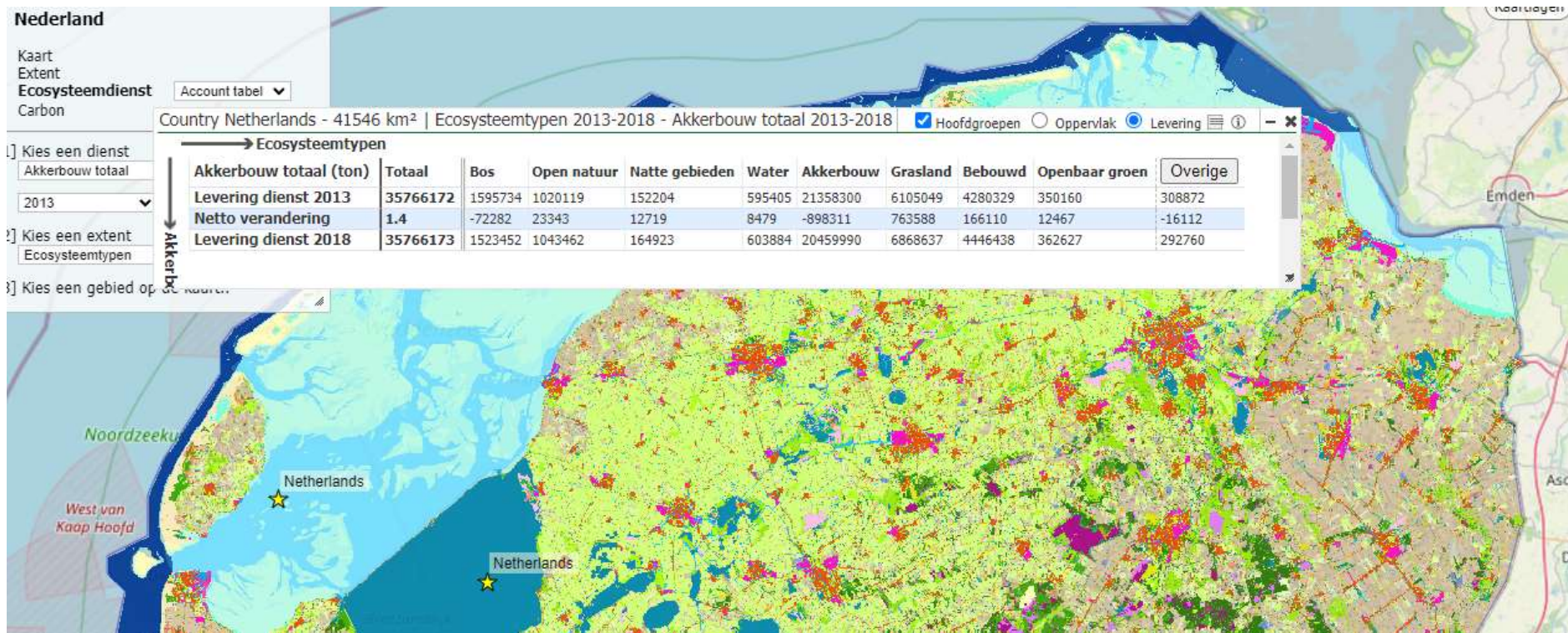


# Regulating services: pollination





# Ecosystem supply account





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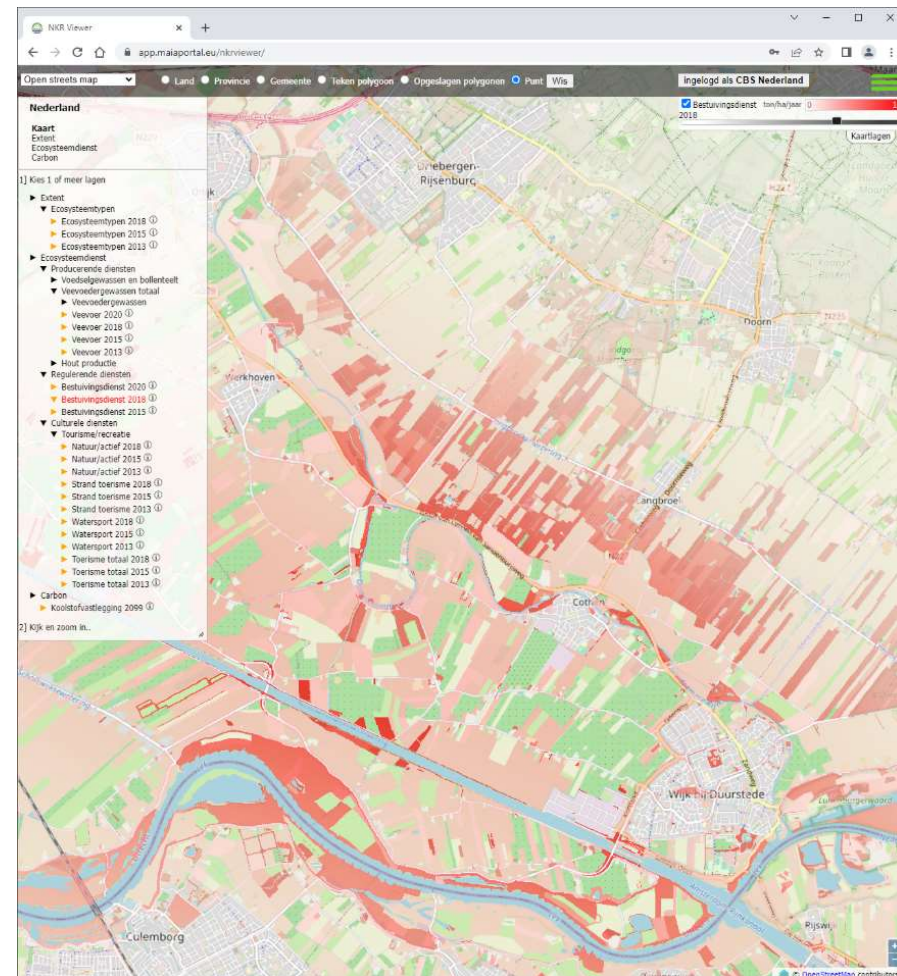
# Applications #1 – Stakeholders require detail

## Three main levels of government

- National government:
  - Policy and constraints
- Provinces
  - Implementation (e.g. Nitrogen; Biodiversity)
- Municipalities
  - detailed spatial planning

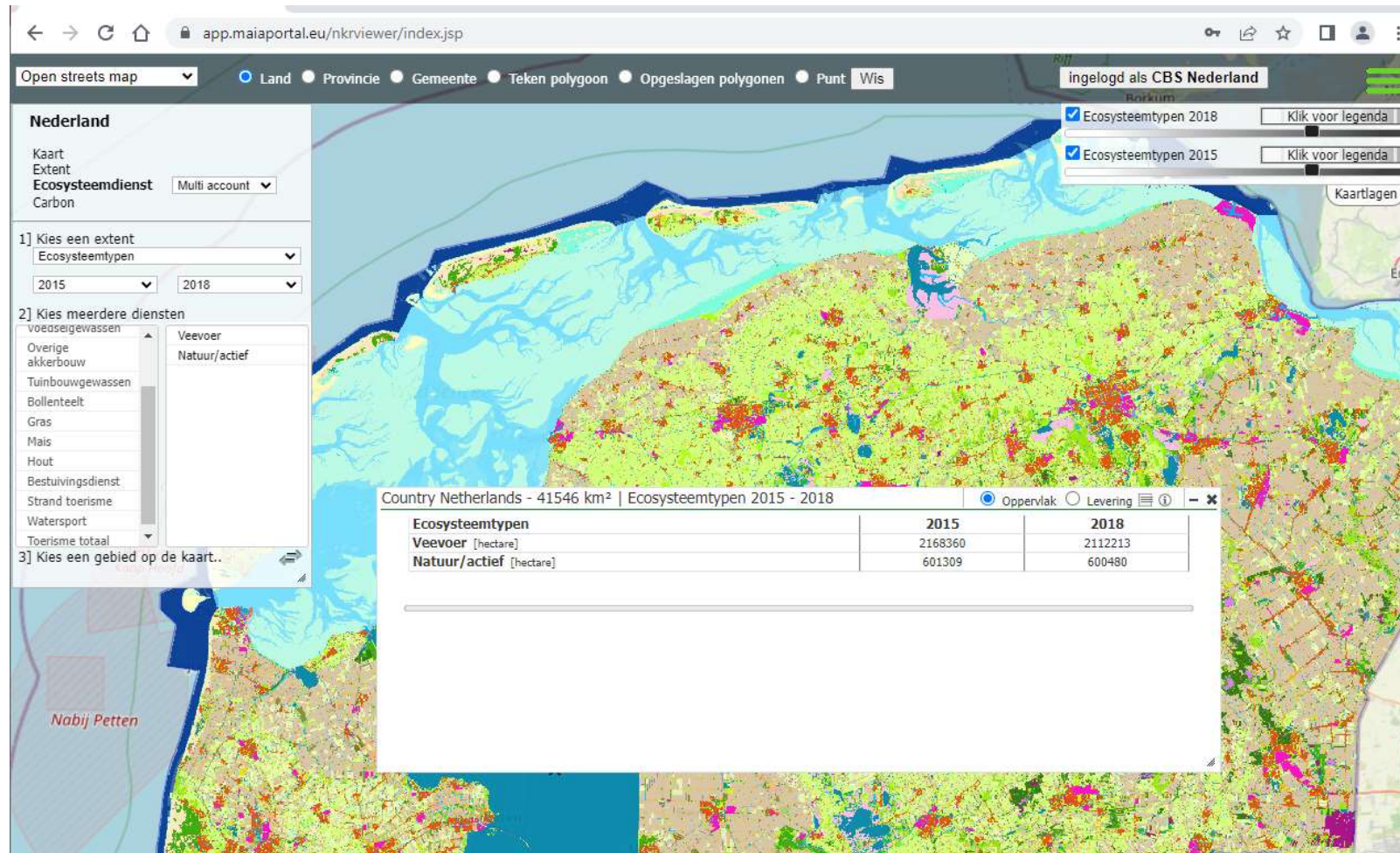
## Special regions

- Natura 2000 (*and a buffer zone around it*)
- National Parks





# Applications #2: Synergies and trade offs





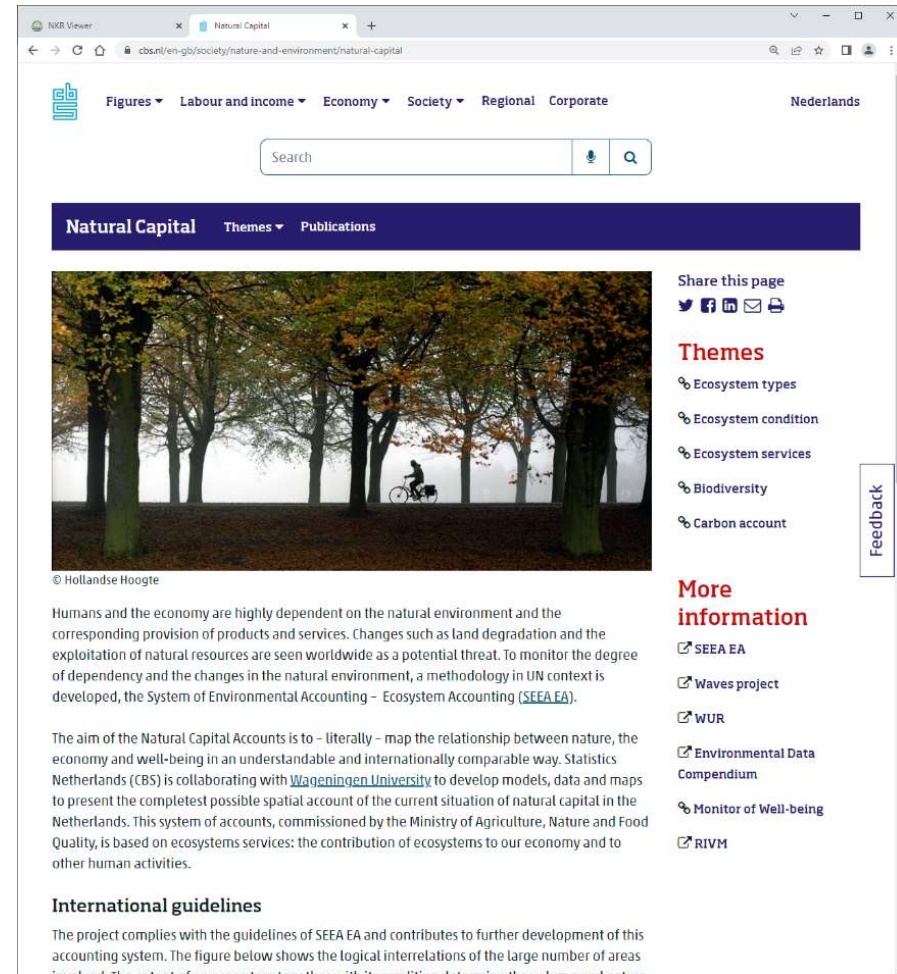
# Applications #3: NSO Dissemination

## Existing:

- Reports
- Statistical tables
- News items
- Long reads
- Static maps

## MAIA viewer:

- Dynamic maps
- On-demand stats



The screenshot shows a web browser displaying the 'Natural Capital' page on the CBS website. The page features a navigation menu with categories like 'Figures', 'Labour and income', 'Economy', 'Society', 'Regional', and 'Corporate'. A search bar is present. The main content area includes a large image of a forest with a person on a bicycle, followed by text explaining the importance of natural capital and the methodology used. A sidebar on the right offers 'Share this page' options, 'Themes' (Ecosystem types, Ecosystem condition, Ecosystem services, Biodiversity, Carbon account), and 'More information' (SEEA EA, Waves project, WUR, Environmental Data Compendium, Monitor of Well-being, RIVM). A 'Feedback' button is also visible.







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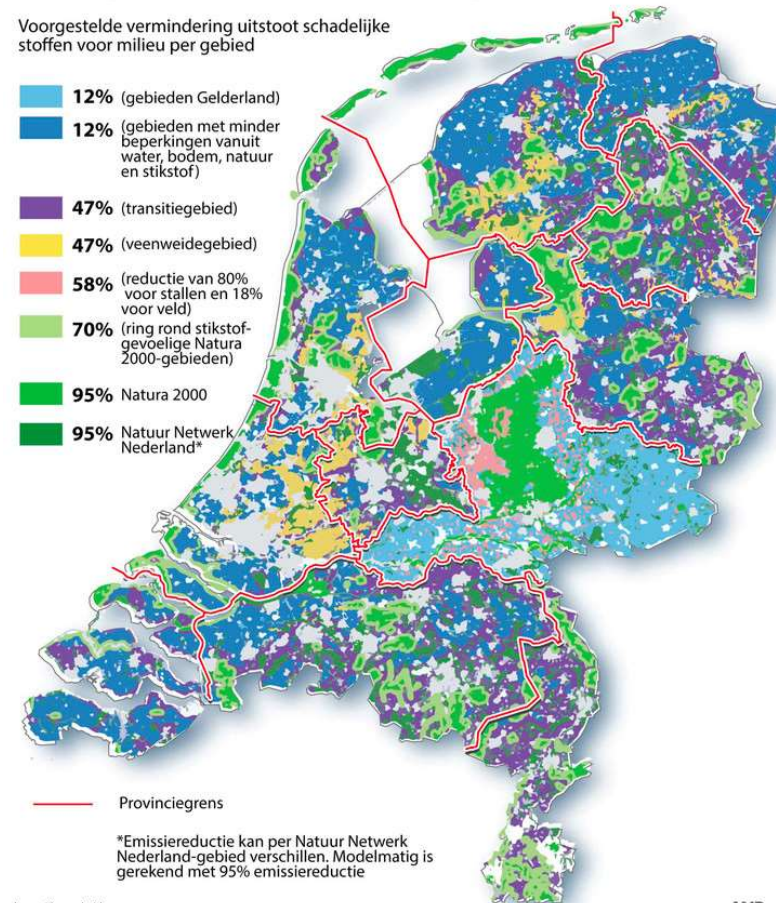
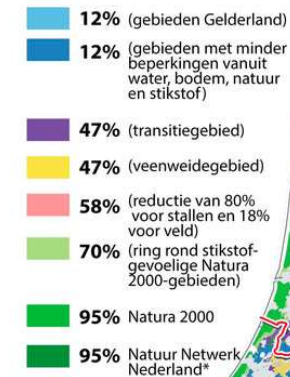


# Challenge #1: Spatial detail

- Policy implementation often on local scale
  - Requires local data
  - 10m res ecosystem accounts & maps promises this
- But: Hi-res accuracy varies
  - Hi: Earth observation
  - Lo: National or regional Look-up tables
    - Applied to hi-res ecotypes

## Waar mag straks hoeveel minder worden uitgestoten in Nederland?

Voorgestelde vermindering uitstoot schadelijke stoffen voor milieu per gebied



bron: rijksoverheid

\*Emissiereductie kan per Natuur Netwerk Nederland-gebied verschillen. Modelmatig is gerekend met 95% emissiereductie

ANP



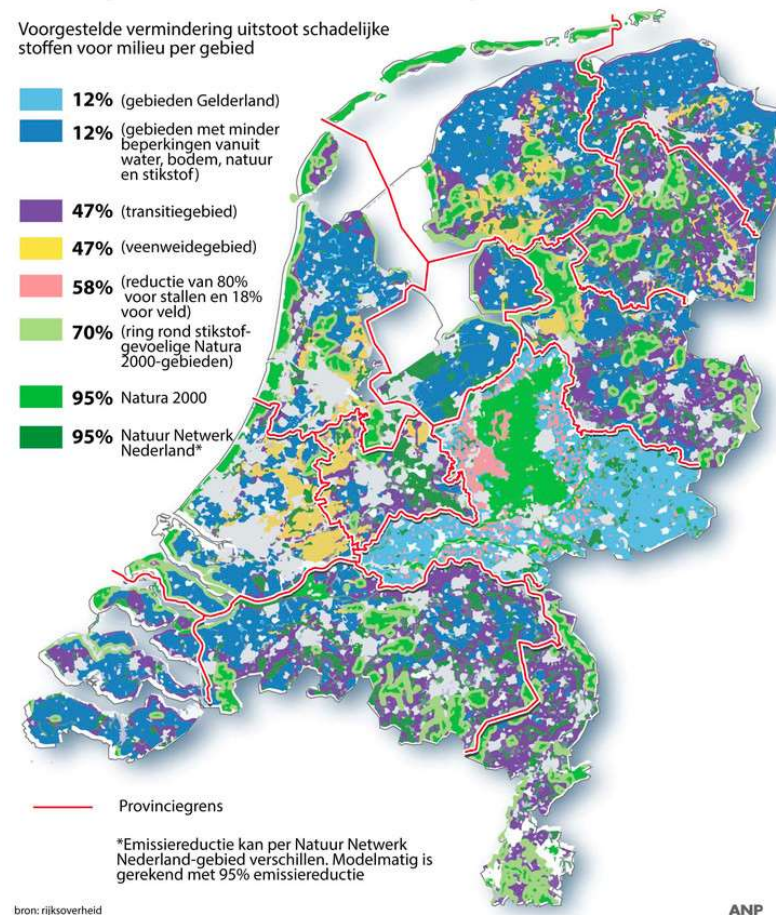


# Warning: maps *will* be interpreted at face value

## Waar mag straks hoeveel minder worden uitgestoten in Nederland?

Voorgestelde vermindering uitstoot schadelijke stoffen voor milieu per gebied

- 12% (gebieden Gelderland)
- 12% (gebieden met minder beperkingen vanuit water, bodem, natuur en stikstof)
- 47% (transitiegebied)
- 47% (veenweidegebied)
- 58% (reductie van 80% voor stallen en 18% voor veld)
- 70% (ring rond stikstofgevoelige Natura 2000-gebieden)
- 95% Natura 2000
- 95% Natuur Netwerk Nederland\*



bron: rijksoverheid

ANP





## Challenge #2: Consistency

### StatNL

- Official statistics
- Changes in regional boundaries taken into account
- ArcGIS zonal stats
- National map projection

### MAIA Viewer

- Informal statistics
- Regional boundaries currently fixed.
- Alternative algorithms
- (EU map projection)





# Conclusions

- MAIA viewer / analytical tool meets stakeholder demands
  - Maps provide great communication tool
  - Potentially high spatial detail
  - Regionalized accounting tables
  - Allows for synergy / trade-off analysis
- However some challenges remain:
  - Spatial detail of the accounts
  - Consistency with official statistics





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*Mapping & Assessment for Integrated ecosystem Accounting*  
*Road Name, City Name, Post Code, Country*  
*<http://maiaportal.eu/>*

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