Ecosystem Accounts Netherlands

Reflecting on
spatial disaggregation

Roy Remme – Natural Capital Project

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Ecosystem Accounts, the

- Project started in 2016

Ecosystem accounting in the Netherlands

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Core accounts

Thematic accounts

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The SEEA EEA biophysical ecosystem service supply-use account for the Netherlands

Roy Remme
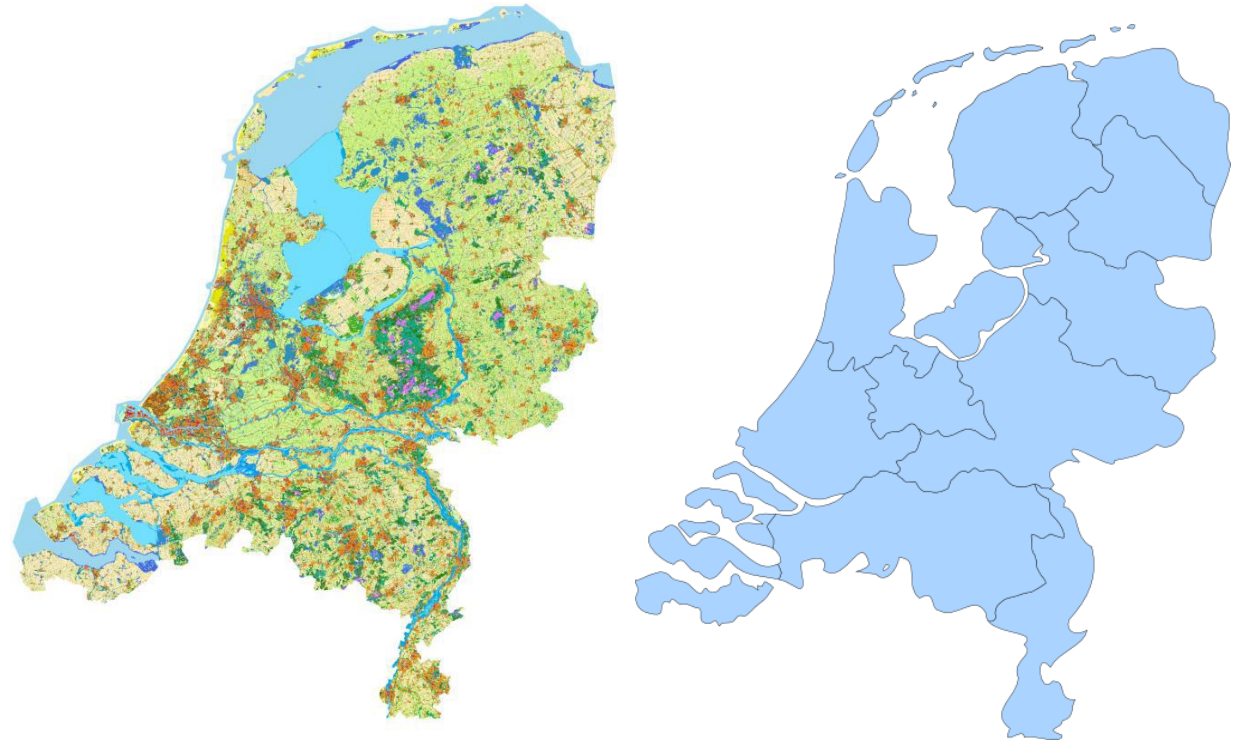
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Sjoerd Schenau

Rixt de Jong

Patrick Bogaart

Spatial disaggregation

- A form of spatial disaggregation used for most services

- Generally based either:
  - Ecosystem Unit map
  - Administrative boundaries

Some examples…

Crop production

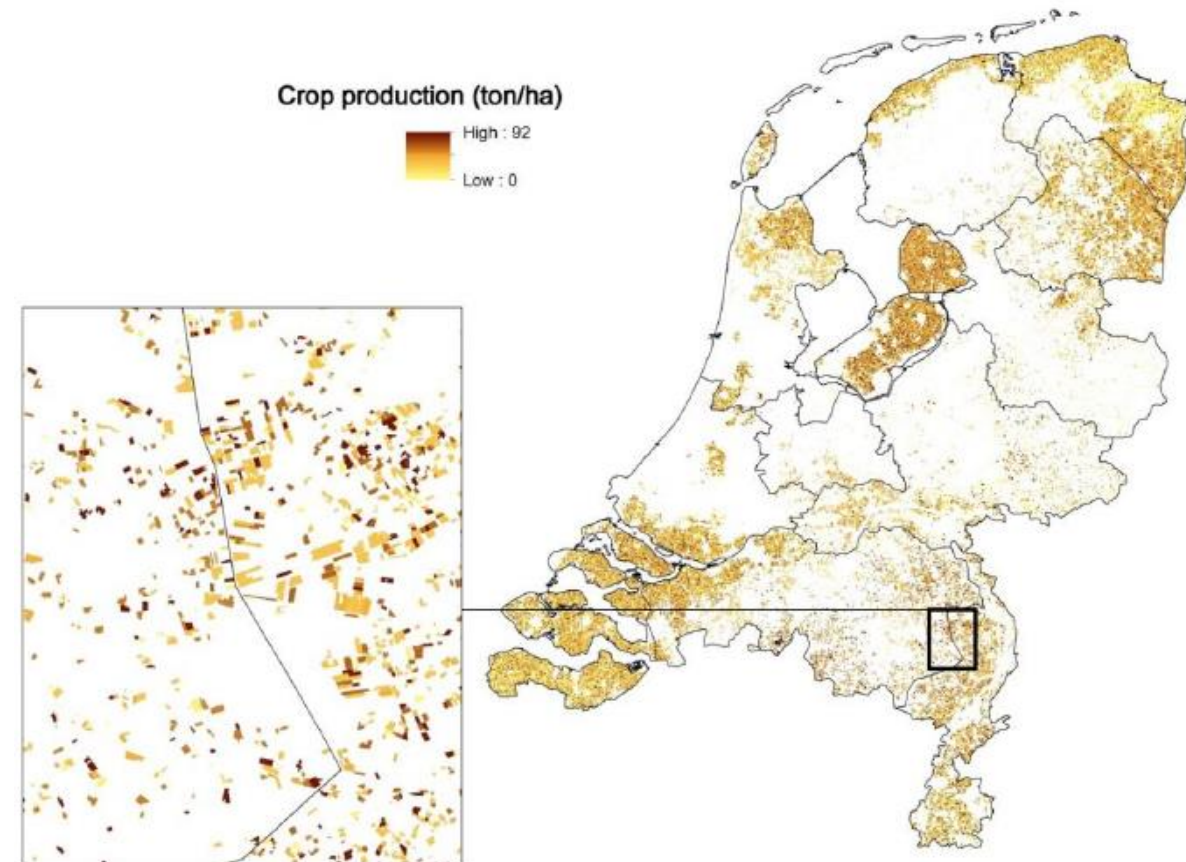## Average annual yield
Low spatial detail

| Crops	Region in harvest projections
Wheat	Province
Barley	Province
Rye	Province
Oats	Province
Triticale	Province
Other grains	Province[†]
Red kidney beans	Province
Rape	Province
Chicory	Province
Ware potatoes (on clay and sandy or peat soil)	Province
Seed potatoes (on clay and sandy or peat soil)	Province
Starch potatoes	Province
Other potatoes	Province[†]
Sugar beets	Province
Seed onions	Province
Other onions	National
Broad and field beans	National[†]
Peas	National[†]
Capuchins	National[†]
Soy beans	National[†]
Caraway seeds	National[†]
Lupine	National[†]
Other vegetables in open field	National
Fruit	4 regions[†]

potatoes (Ware potatoes, Seed potatoes)

National average only (Other onions through Other vegetables in open field)

Crop parcel
High spatial detail

(Soil type)

Crop production (ton/ha)
High : 92
Low : 0

Crop production

Key limitations to method

- Different levels of detail for different crops

- Existence of microdata
  - *productivity at farm level* -
  but <u>no access</u>

Crop production (ton/ha)

High : 92

Low : 0
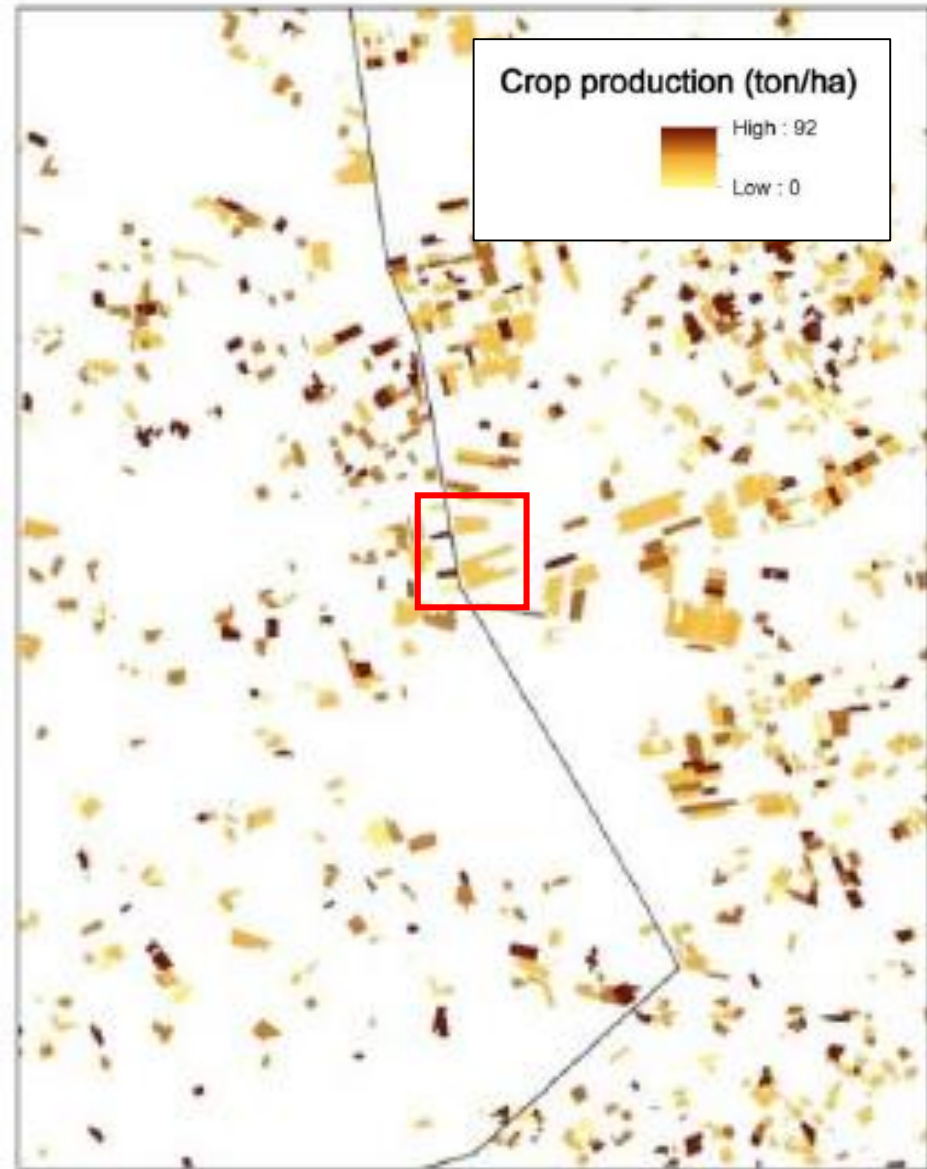
Fodder production (focus on grass)

- Average yield for 5 large regions

  Low spatial detail

- High resolution map for NPP (10x10m)

  High spatial detail

- Disaggregation within the 5 regions

b) Grass production (ton/ha)
High : 15
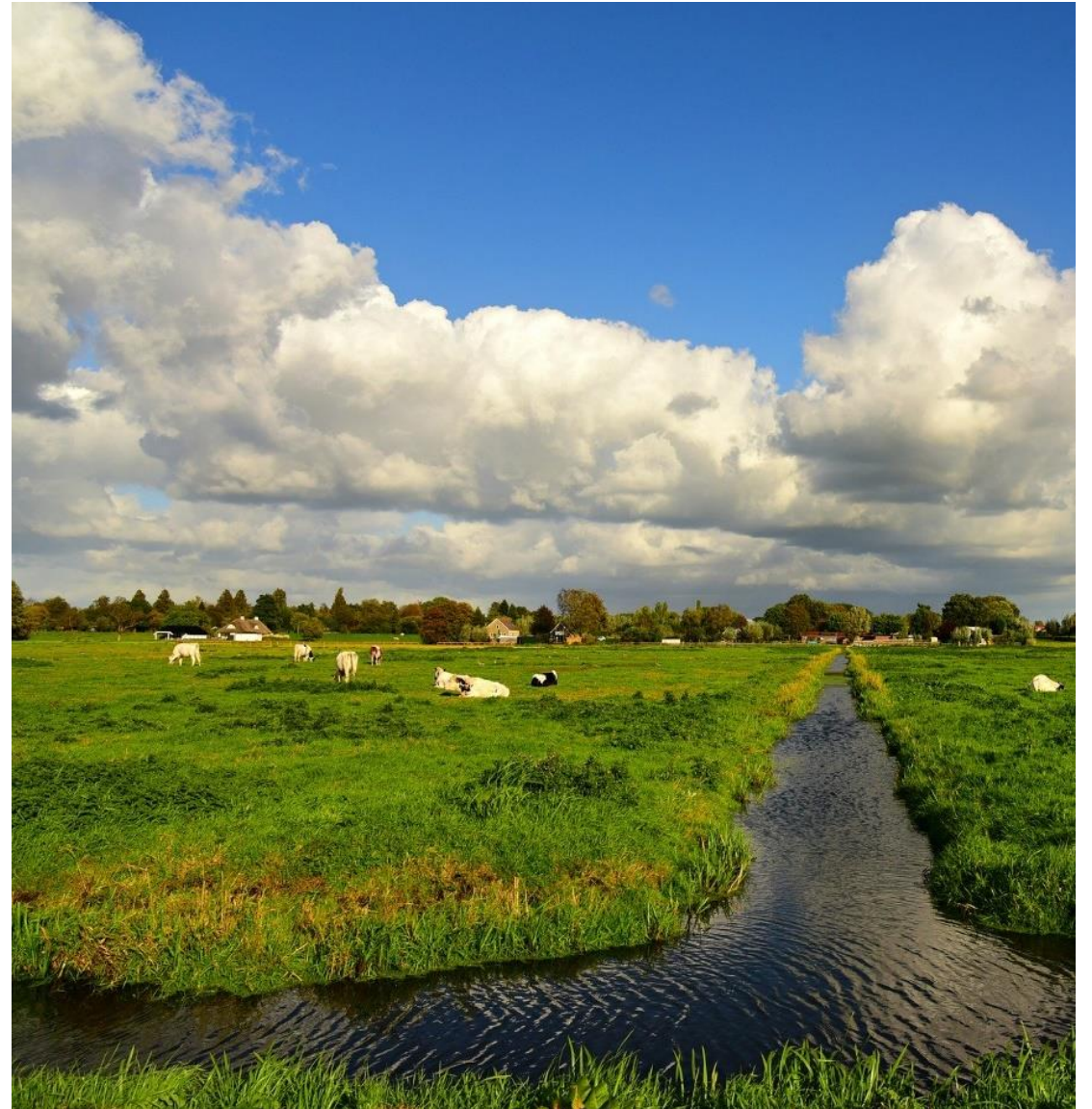Low : 0

Fodder production (ton/ha)
High : 92
Low : 0
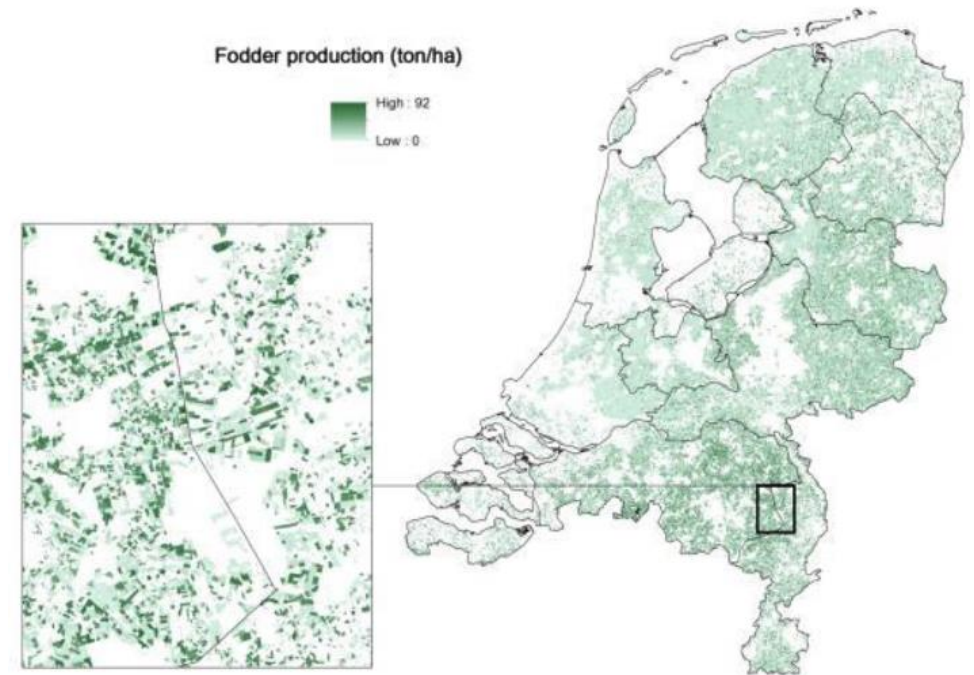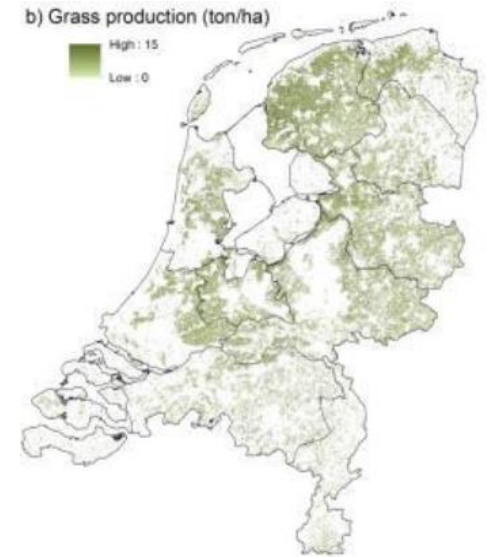
Fodder production

Key limitations to method

- Different levels of detail for different crops
  - Data maize at provincial level

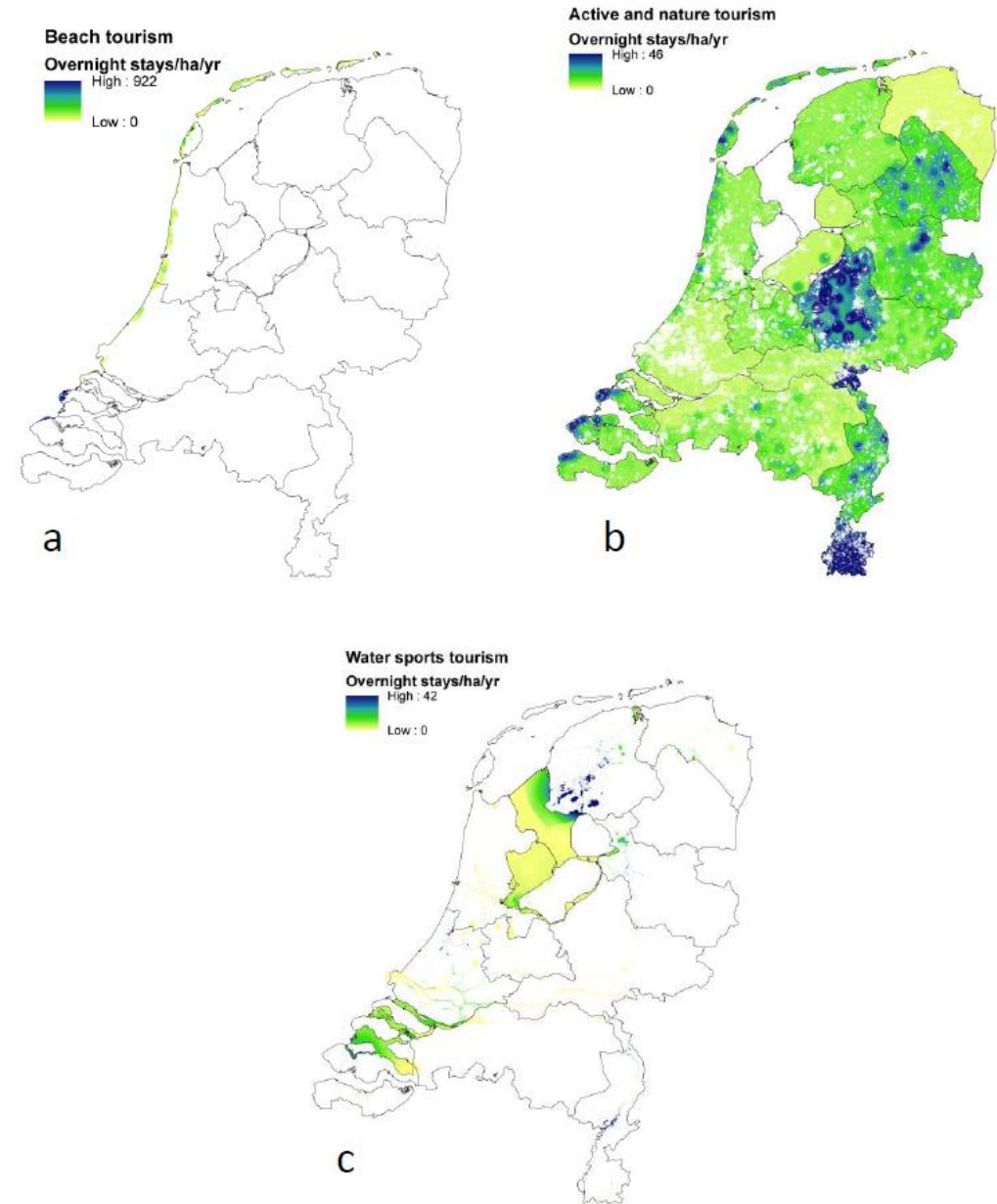- NPP could not be used to directly calculate production

Nature tourism

- Data on 3 types of tourism

- 3 slightly different methods
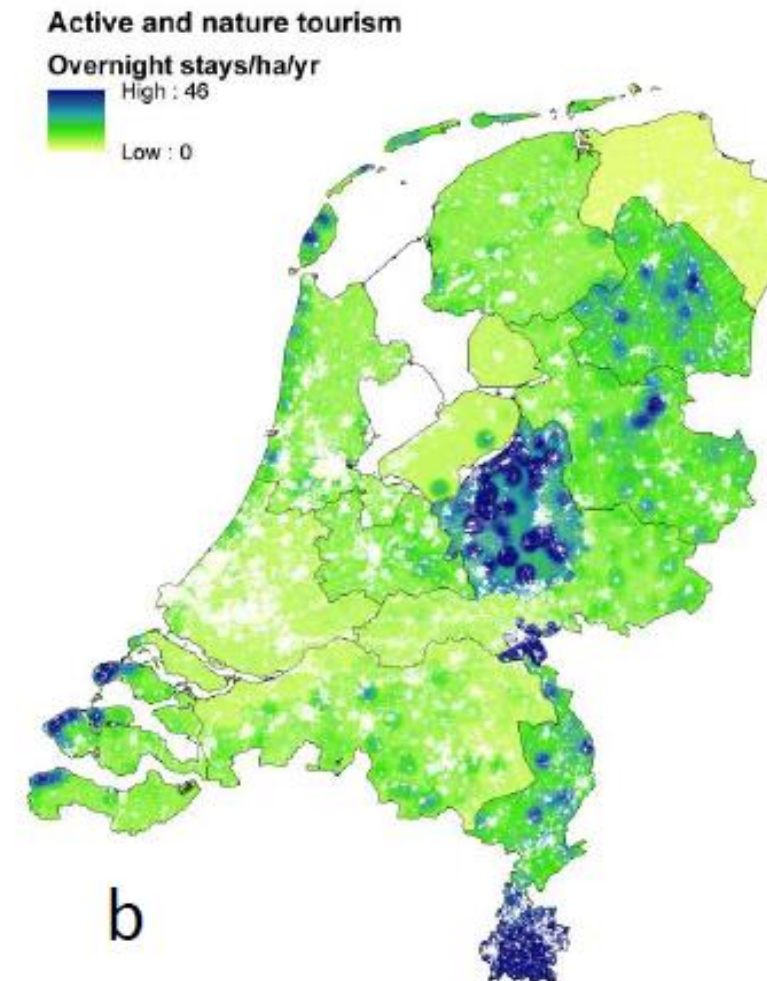
- Statistics at 2 administrative levels

Beach tourism
Overnight stays/ha/yr
High : 922
Low : 0

a

Active and nature tourism
Overnight stays/ha/yr
High : 46
Low : 0

b

Water sports tourism
Overnight stays/ha/yr
High : 42
Low : 0

c

Input data

Name dataset	Data type	Source
Ecosystem Type map	Spatial data	Statistics Netherlands
Provincial boundaries	Spatial data	Statistics Netherlands
Tourism regions	Spatial data	Statistics Netherlands
Postal codes (4-digit)	Spatial data	Statistics Netherlands
Urbanisation classes	Spatial data	Statistics Netherlands
Accommodations and beds	Spread sheet	Statistics Netherlands
Marina locations from business register	Spread sheet	Statistics Netherlands
CVO	Survey data	NBTC-NIPO

Nature tourism

1. Administrative disaggregation
   - Provinces x Tourism regions

   → 18 sub-regions

2. Disaggregation to postal code
   - Allocated based on # of accommodations and beds

3. Disaggregation to natural surroundings of accommodations

Active and nature tourism
Overnight stays/ha/yr
High : 46
Low : 0

b

Input data

Name dataset	Data type	Source
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Tourism regions	Spatial data	Statistics Netherlands
Postal codes (4-digit)	Spatial data	Statistics Netherlands
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CVO	Survey data	NBTC-NIPO

Nature tourism

Key limitations

- No data on actual use of accommodations

- Disaggregation to individual accommodation level not allowed

- Standard buffer distance around center of postal code
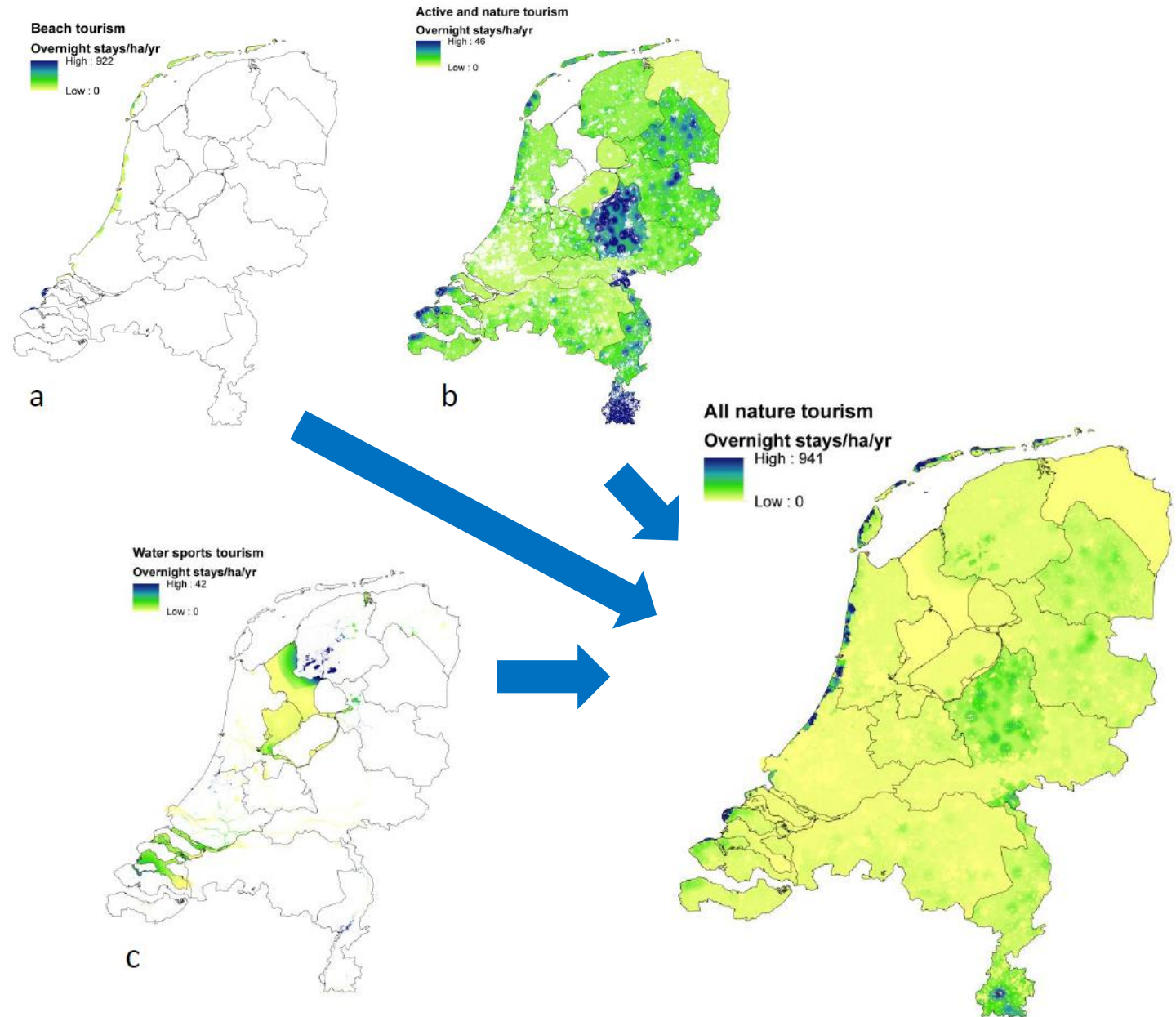
Thanks for your attention!

Roy Remme