

High Nature Value farmland indicator for The Netherlands

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Presentation

- Context: HNV in The Netherlands
- Methodology to identify HNV farmland
- Intermediate indicators
- Final result: Draft HNV farmland indicator
- Comparison of results
- Conclusion/discussion

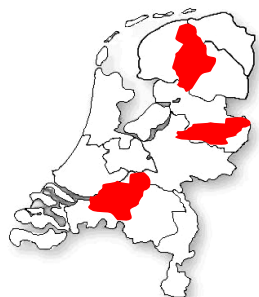
Context HNV in The Netherlands

- In the Netherlands almost 70% of the total land area (excluding water) is in agricultural land use.
- The continuous intensification, have lead to a tremendous decrease in farmland that can be characterised as High Nature Value
- In spite of this, several farmland areas in The Netherlands are still hosting large shares of European populations of farmland breeding birds such as the Lapwing, Black-tailed Godwit, Ruff and Snipe, and they are also important foraging areas for several types of goose

Methodology to identify HNV farmland

1. Specify for the 3 HNV farmland types:
 - Characteristic regions in NL (rough location and typical characteristics)
 - Select indicative species per HNV farmland type (birds and vegetation)
 - Characterise typical HNV farming systems for 3 types of HNV farmland
2. Identify relevant data sources
3. Develop first indicators per HNV farmland type (GIS) in 1 * 1 km grid
4. Combine first indicators to develop integrated indicator for every HNV farmland type
5. Combine integrated indicators to develop final HNV farmland indicator

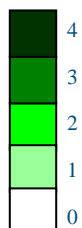
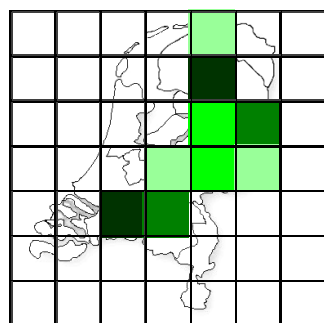
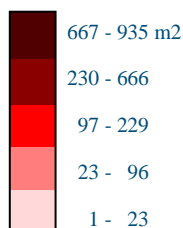
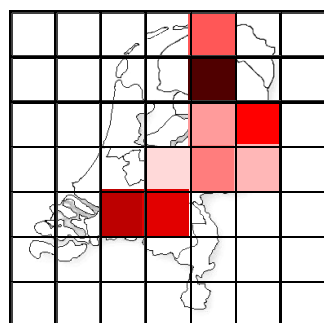
Develop first indicators per HNV farmland type



Basic data

Original values and spatial resolution

First Indicators



Area basic data / Km²
gridcel not scaled

Classified indicator building
block based on average and
standard deviation for all
Km² -cells in NL

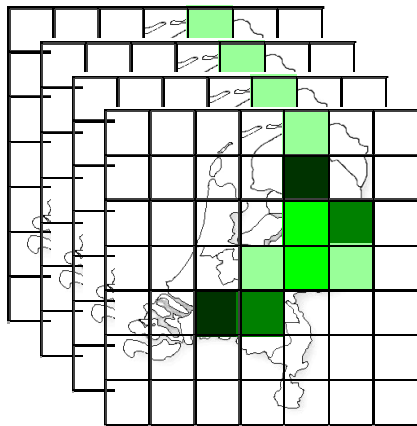


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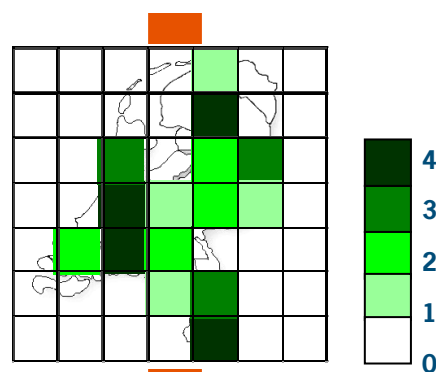
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Combine to integrated and final indicators per HNV farmland type

First Indicators



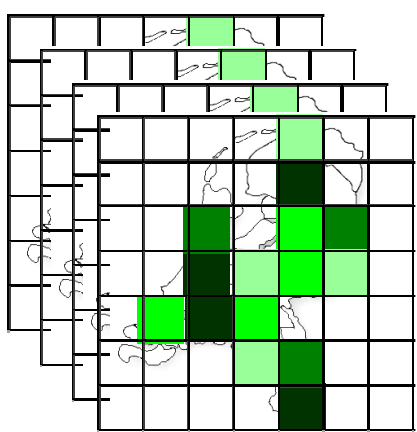
Integrated Indicators



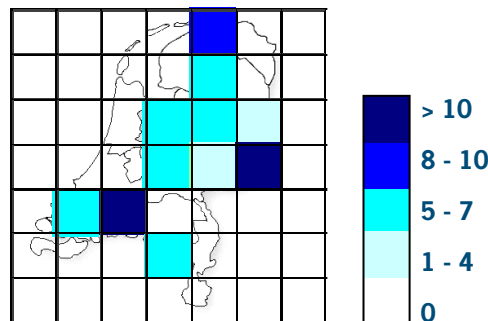
Summing the first Indicators to 6 Integrated indicators (A-F)

Classification based on average and standard deviation for all Km² -cells

Integrated Indicators



Draft HNV farmland indicator



Summing up Integrated Indicator values with different options/weights

Rough location and typical characteristics

- Does Type 1 exist at all in The Netherlands? The small area of semi-natural vegetation = Nature
- HNV Type 2 farmland is also found in the Netherlands, although usually limited to relatively small patches mostly concentrated in the peatland areas and the higher sandy soil regions
- Type 3 is the most important in extent.
 - large patches of agricultural grassland,
 - not belonging to the most intensive farmland categories in The Netherlands
 - important habitats for farmland birds (meadow birds and wintering birds) of European and international conservation status

Indicative species selection Birds

- Breeding birds moors and heathlands (1.3B):
- Wintering birds on roosts (3.3B):
- Breeding birds of pastures/meadows under wet conditions (e.g. meadows on peatland) (2.3C and 3.3A)
- Breeding birds of arable land:
- Breeding birds dry sandy soils (2.3A):

(First selection only SPEC species selected. Then added some non SPEC species, to improve the distribution pattern of very rare species with comparable high quality HNV farmland habitat)

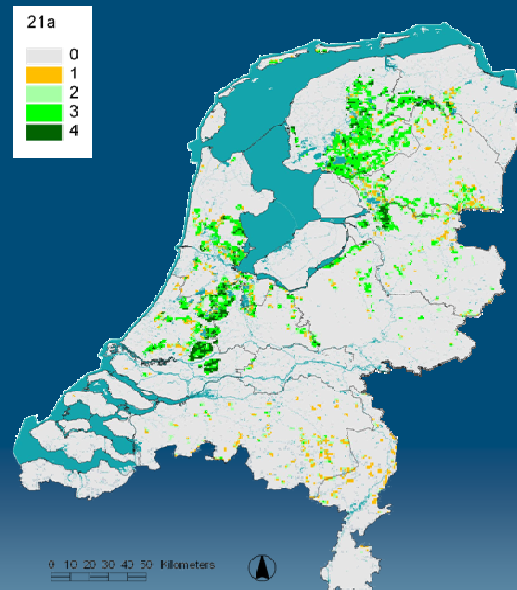
Mapped first-indicators of HNV



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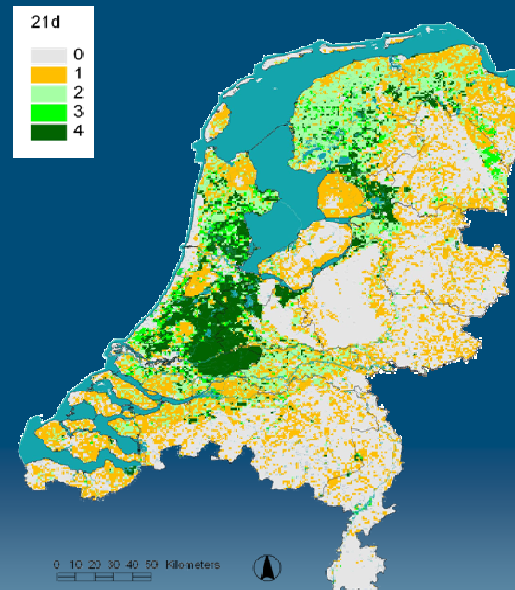
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2.1A Wet grasslands on peaty soils



LANDCOVER

2.1D Wet landscape elements (ditches)



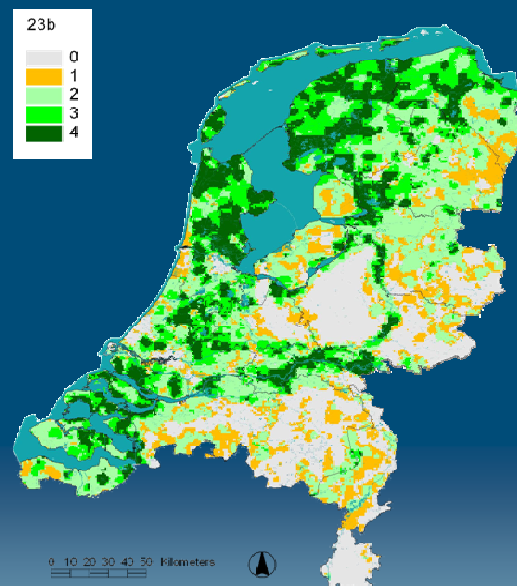
TOPOGRAPHY

2.3e Semi natural vegetation wet grasslands



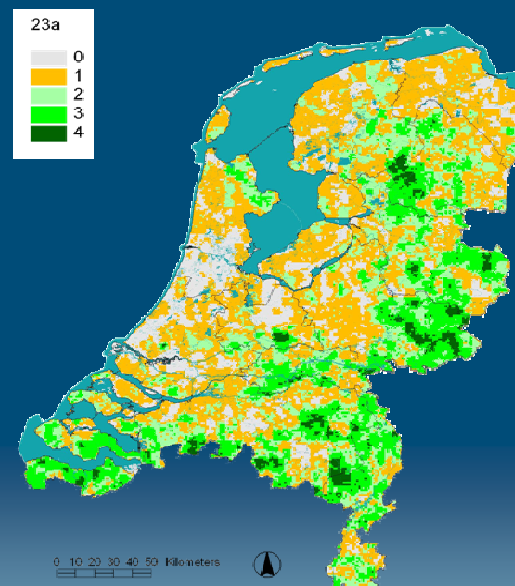
Vegetation Distribution Data

2.3b Indicative birds of wet grasslands



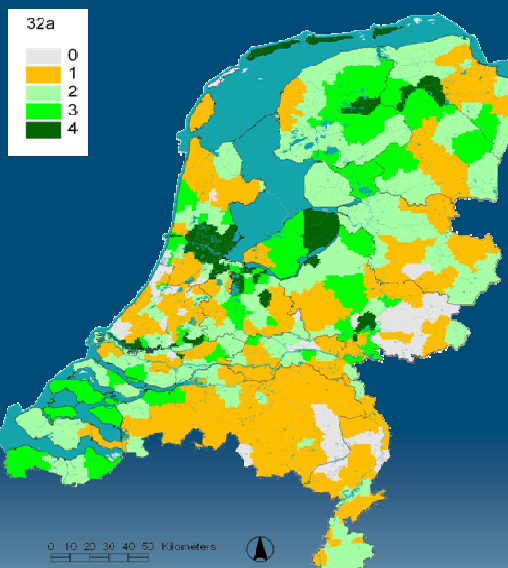
Bird Count Data

2.3a Indicative birds of small scaled landscapes



Bird Count Data

3.2a Share of medium extensive UAA



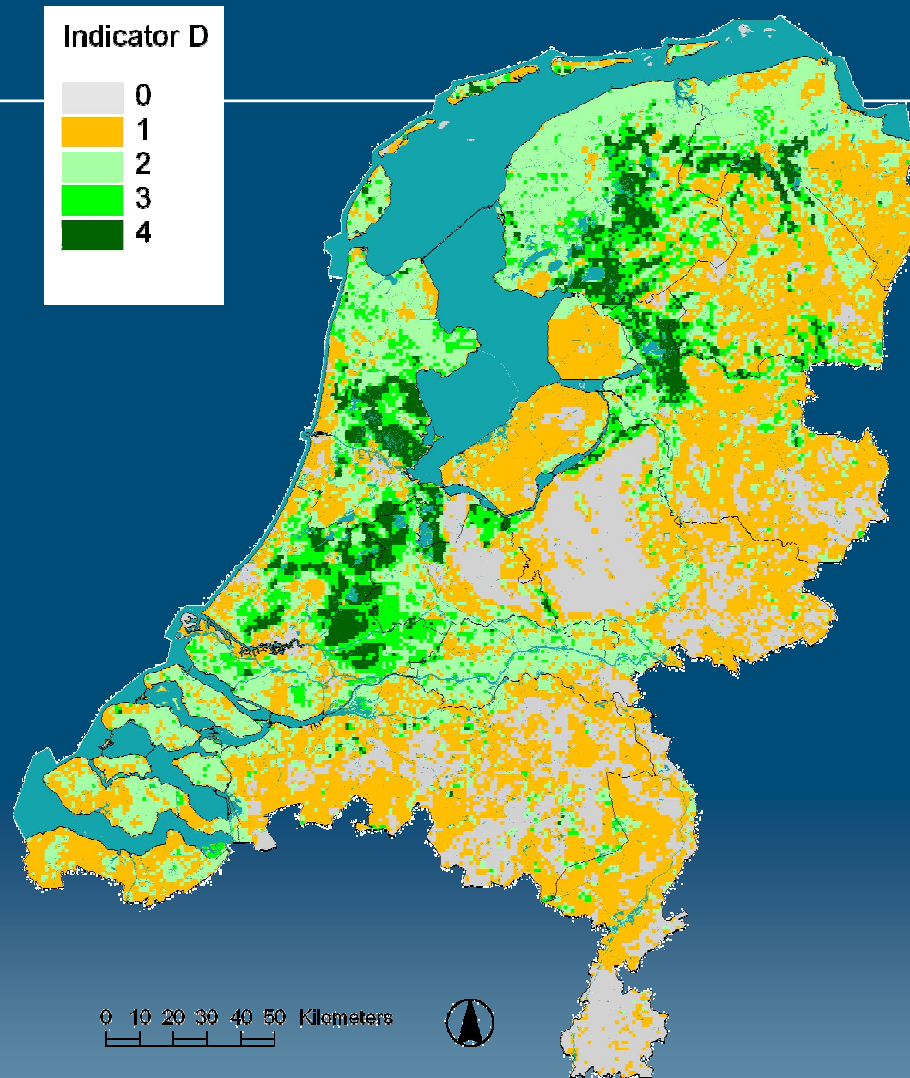
Farming statistics intensity of land use

Mapped Integrated-indicators of HNV



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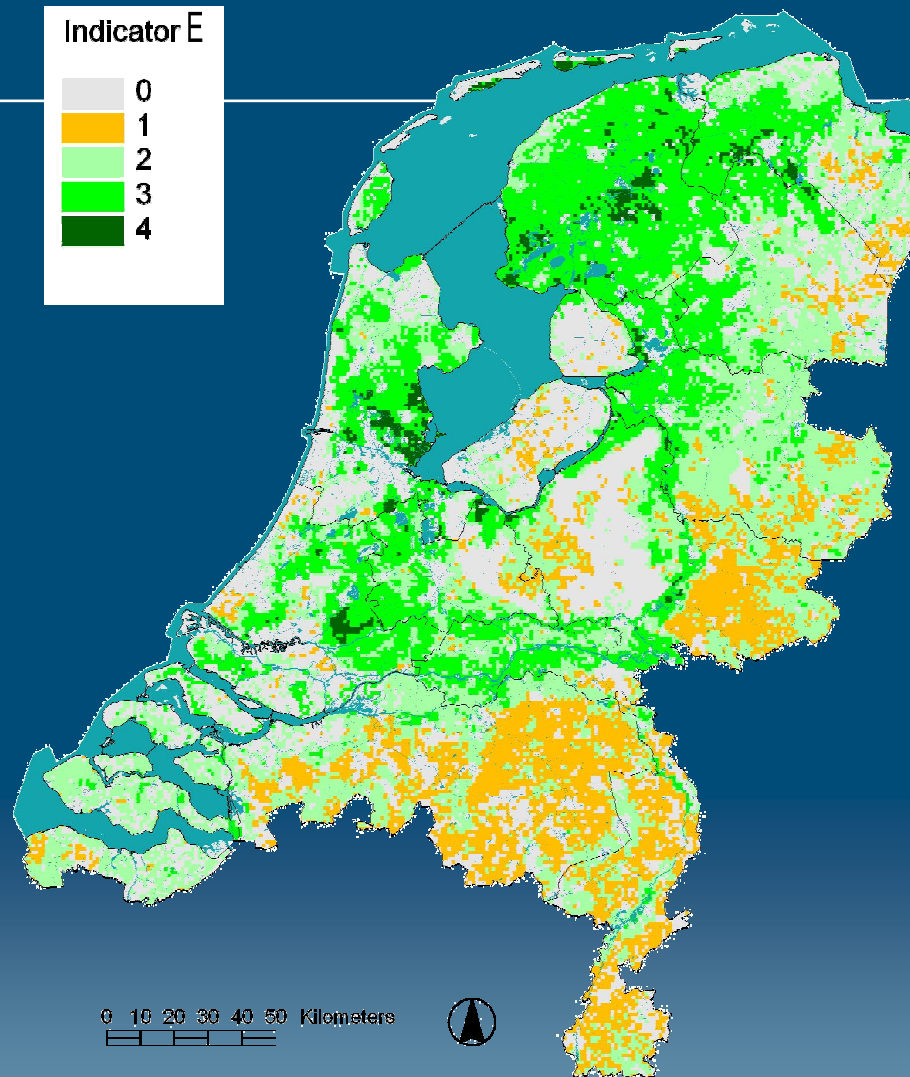


Type 2: Farmland dominated by low intensity agriculture or a mosaic of semi-natural and cultivated land and small-scaled features.

Indicator D.

Extensive livestock agriculture on wet peatlands with high density ditches.

- 2.1A Wet grasslands on peaty soils
- 2.1D Wet landscape elements (ditches)
- 2.2A Extensive agriculture
- 2.3E Indicative semi-natural vegetation wet grassland
- 2.3B Indicative bird species wet grasslands



Type 3: Farmland supporting rare species or a high proportion of European or World population.

Indicator E.

Low-medium intensive livestock agriculture on wet peatland important for meadow and wintering birds

- 3.1A Grasslands, Dutch land cover
- 3.2A Extensive to medium intensive agriculture (no bio-industry)
- 3.3A Indicative bird species wet grasslands
- 3.3B Important areas for wintering birds

Final HNV indicator



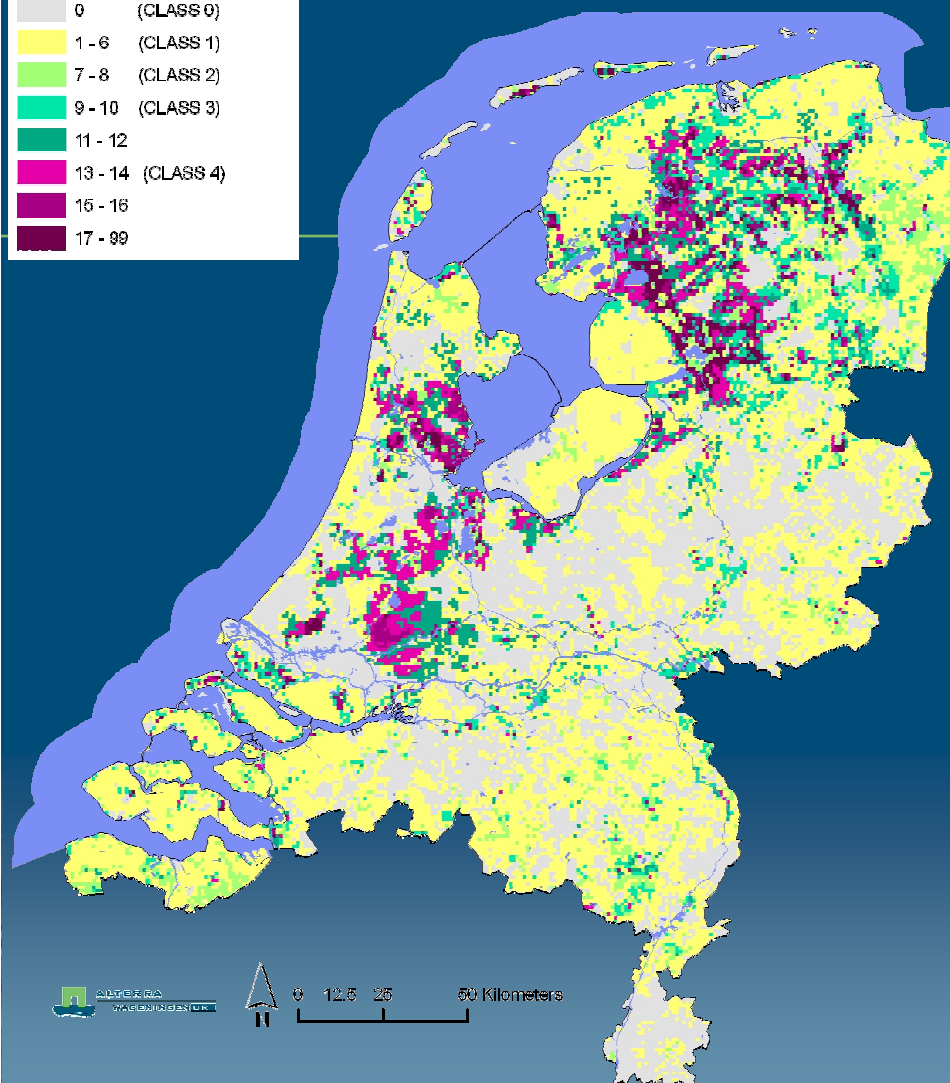
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Final Draft HNV Indicator option 2

Optie2 Standaarddeviatie

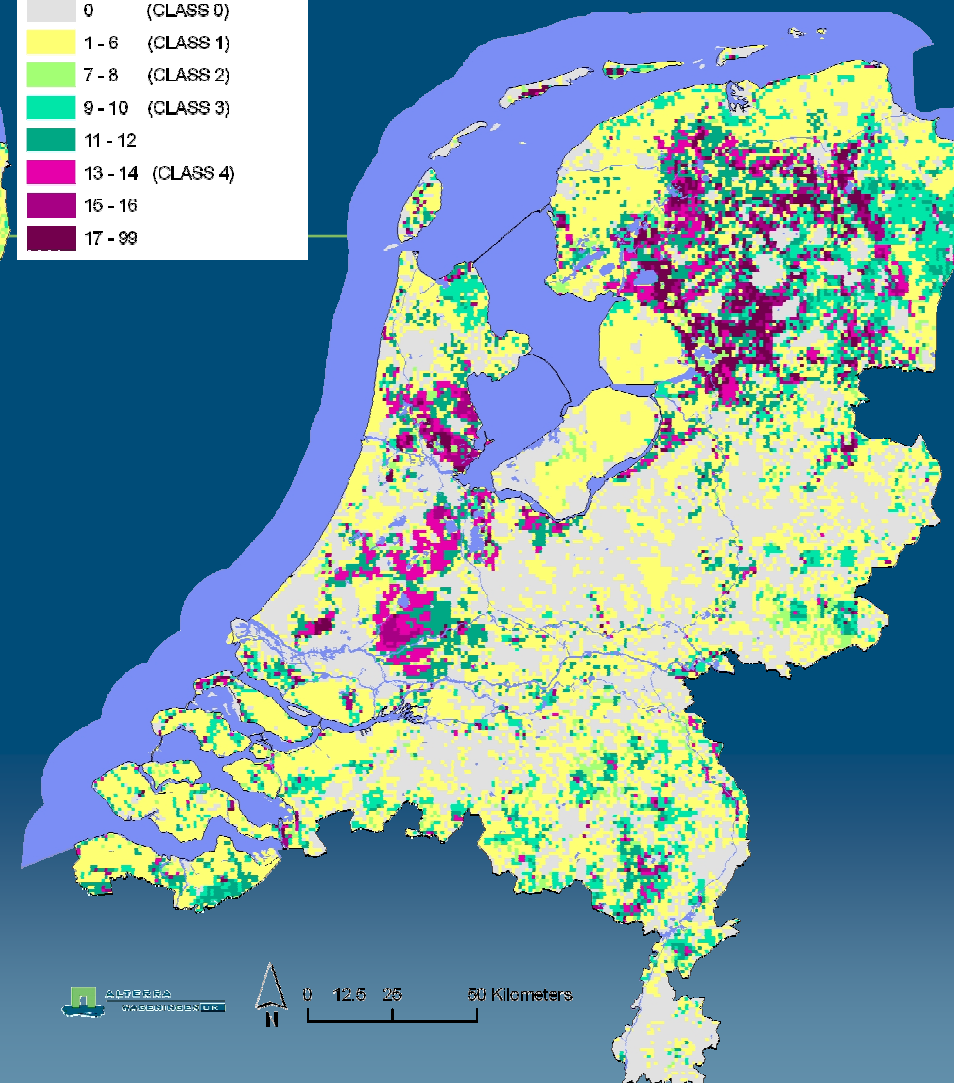
0	(CLASS 0)
1 - 6	(CLASS 1)
7 - 8	(CLASS 2)
9 - 10	(CLASS 3)
11 - 12	
13 - 14	(CLASS 4)
15 - 16	
17 - 99	



Final Draft HNV Indicator option 3

Optie3 Standaarddeviatie

0	(CLASS 0)
1 - 6	(CLASS 1)
7 - 8	(CLASS 2)
9 - 10	(CLASS 3)
11 - 12	
13 - 14	(CLASS 4)
15 - 16	
17 - 99	



Accent on wet peatlands important for meadow and wintering birds, indicator D & E

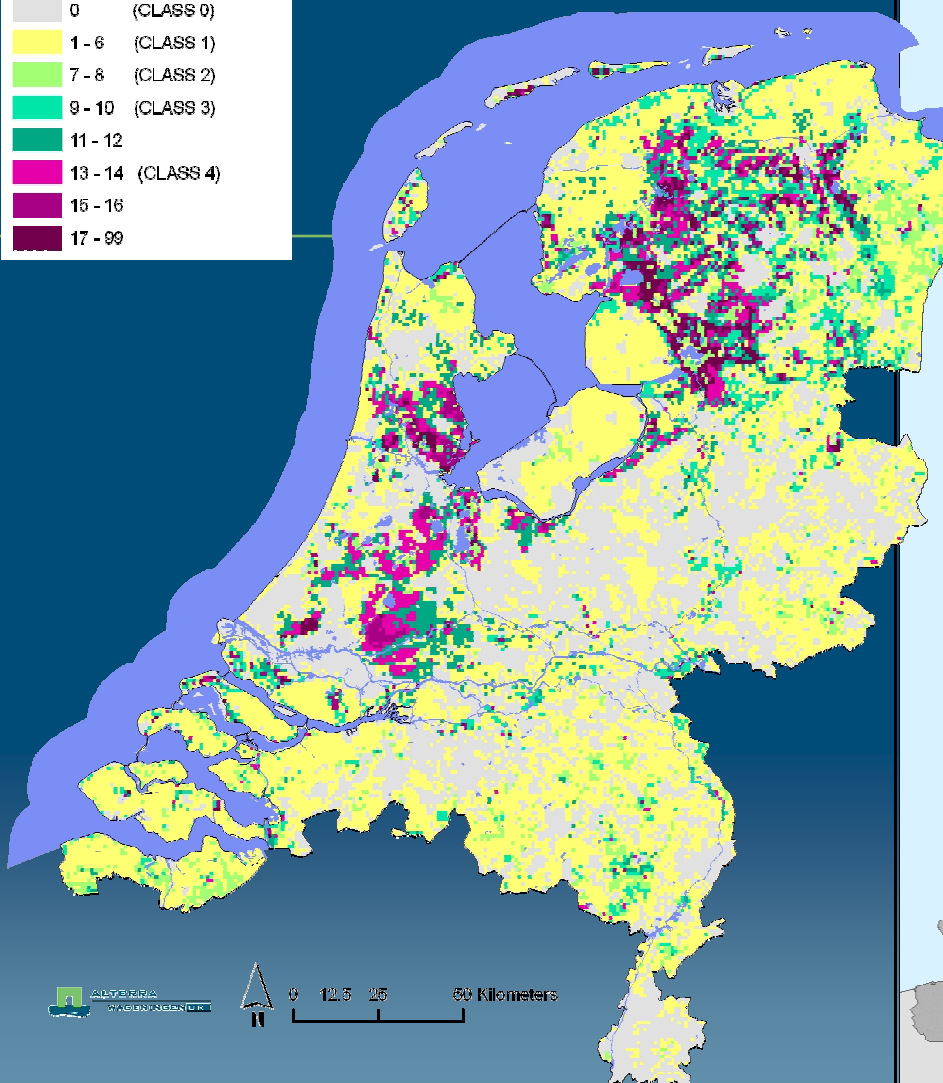
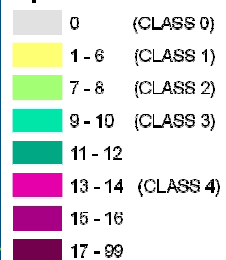
Comparison HNV indicator



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Final HNV Indicator option 2

Optie2 Standaarddeviatie

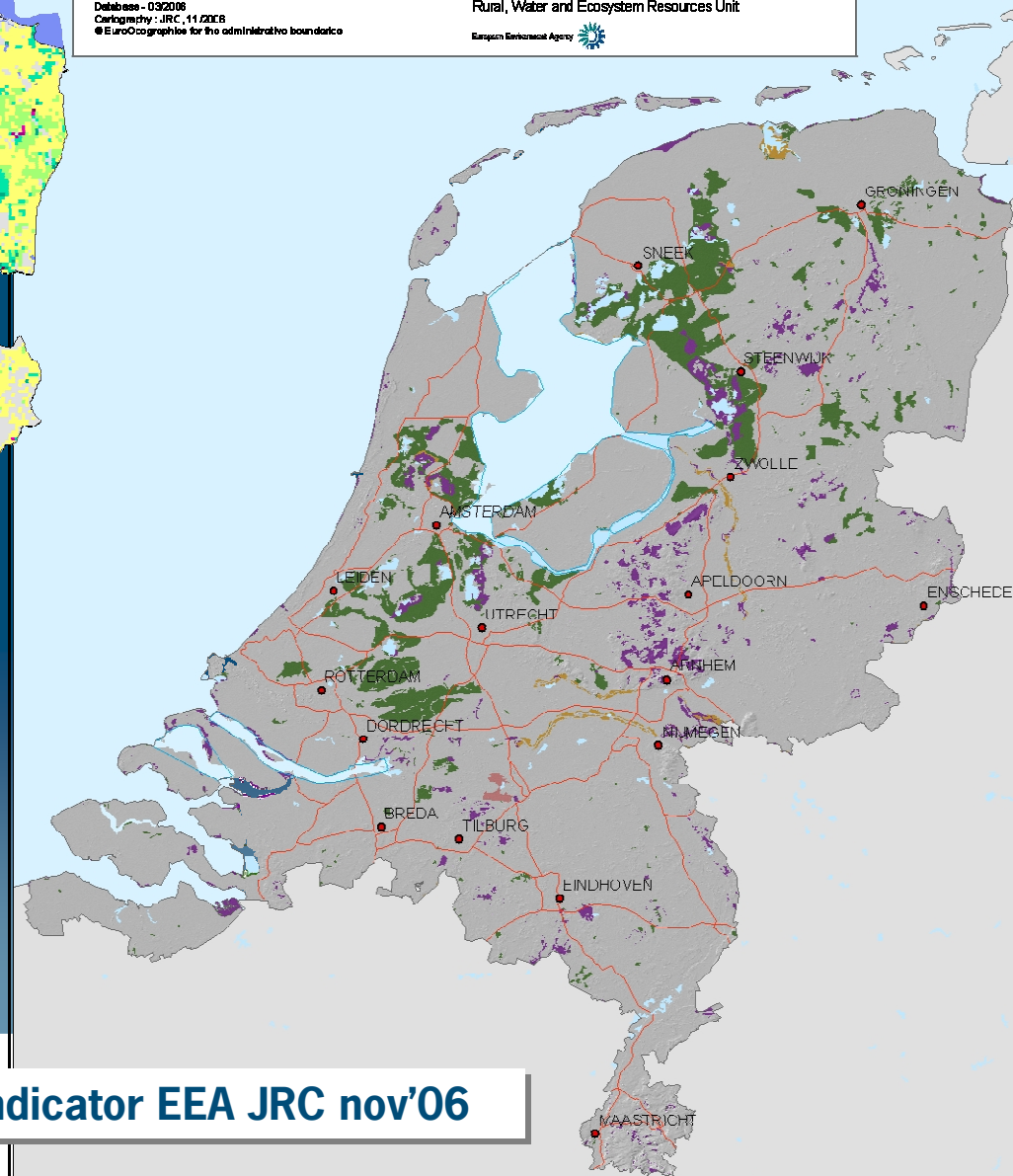


HNV - the Netherlands



Data : CORINE2000, NATURA2000, SRTM
De Vlinderstichting Wageningen (NL)
BirdLife International Important Bird Areas
Database - 03/2008
Cartography : JRC, 11/2008
© EuroGeographics for the administrative boundaries

EUROPEAN COMMISSION
Directorate-General
Rural, Water and Ecosystem Resources Unit
European Environment Agency



Conclusions on HNV farmland in The Netherlands

- HNV farmland in NL is especially important for breeding and wintering meadow birds
- Most HNV farmland areas are outside Nature Conservation areas (often outside Natura 2000 areas and IBAs).
- Main HNV areas are of Type 2 and 3 while type 1 is insignificant in The Netherlands
- Presently estimated % HNV farmland in The Netherlands between 10-20% of UAA

Status HNV identification and monitoring NL

- The results of this 2006-study have not been communicated to EC in response to questions on CMEF indicator progress in 2009/2010
- After 2006 no actions taken
- Now September 2010: Benchmarking study (sponsored by Dutch Ministry of Agriculture) to:
 - identify approaches/status of HNV farmland indicator development and targeting in other MS
 - Explore possibilities to target HNV in new post 2013 CAP

Conclusions on methodological approach

- The identification of HNV farmland was based on a combination of criteria:
 - Evidence of HNV farming system
 - Land use/land cover
 - Evidence of indicative high nature value species (birds, vegetation and/or butterflies)

Conclusions on methodological approach

- Suitable to develop HNV indicator per type of HNV farmland:
 - Understanding HNV characteristics + what data needs to be used
 - Provides a better understanding of data problems in relation to identifying specific HNV features
 - Results in indicators per HNV farmland type (1,2,3) → better starting point for targeting policy (e.g. Agri-environmental measures)
- The identification of HNV farmland is strongly biased by the quality of input data used. To reduce this bias it's better to combine data sources to identify the same HNV feature.

Conclusions on methodological approach

- Use of (bird)count data could be effective → Risks:
 - Quality inconsistent between regions/countries
 - Crucial to use counts and not only presence and absence
 - Difficult to make the bird selection. A distinction should be made between:
 - selection of birds for identifying the high quality HNV farmland habitat
 - Selection of birds that need to be targeted in HNV policy because of threat status
- A nested approach could be followed to ensure consistency and EU-wide comparability:
 - General identification at EU scale (EU-data sources + expert information)
 - More detailed identification at National scale (National + regional data sources)
 - Final definite identification at regional scale (local data and localised up-to-date information and involvement)

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