March 2014

High Nature Value farming throughout EU-27 and its financial support under the CAP

Annex 1 (maps)

Disclaimer: The arguments expressed in this report are solely those of the authors, and do not reflect the opinion of any other party.

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NB Oppermann *et al* (2012) include a map showing HNV types 1 and 2 (IACS data) on a scale from <5ha to >50ha (p123).

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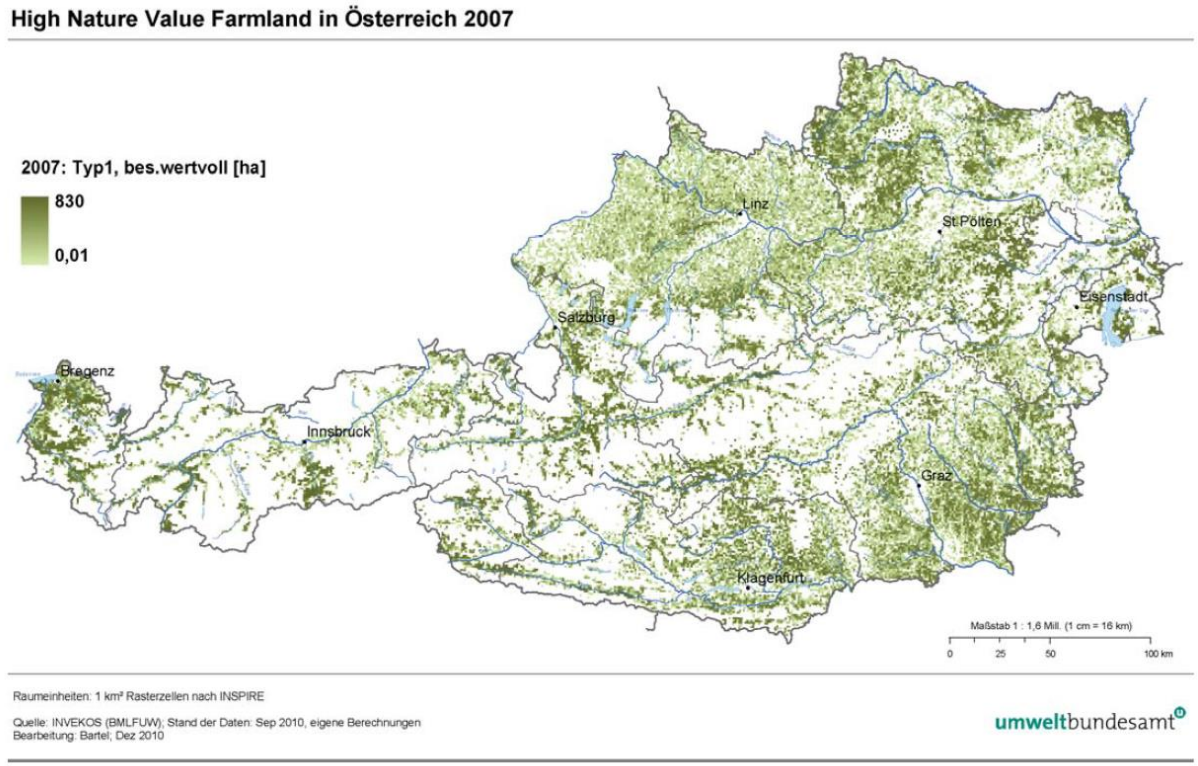
[7] Karte 7: HNV gesamt Fläche je Zelle, Flächensumme HNV1 (besonders wertvoll) 2009

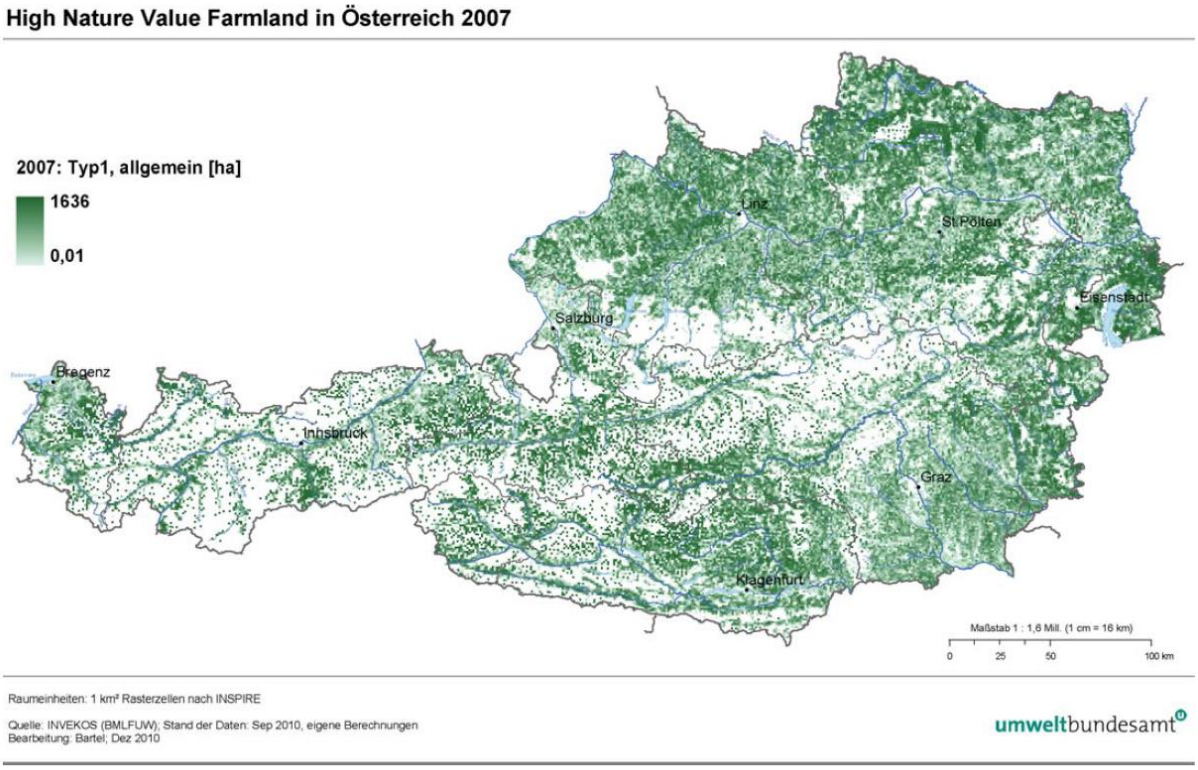
Figure 1: HNV type 1 areas (especially valuable areas) (2007)



Karte 1: HNV Typ 1 Fläche je Zelle, Flächensumme 2007 HNV1 (besonders wertvoll)

Source: Umweltbundesamt (2011)

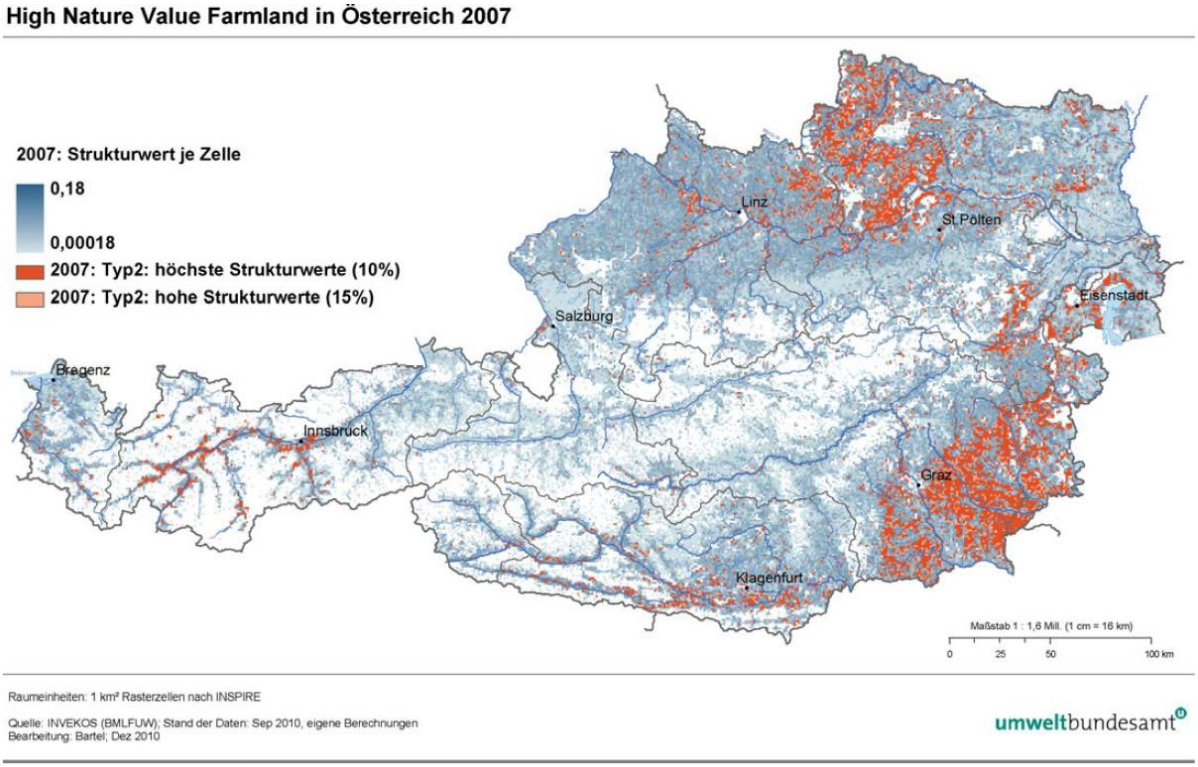
Figure 2: HNV type 1 areas (general areas) (2007)



Karte 2: HNV Typ 1 Fläche je Zelle, Flächensumme 2007 HNV2 (allgemeine Auswahl)

Source: Umweltbundesamt (2011)

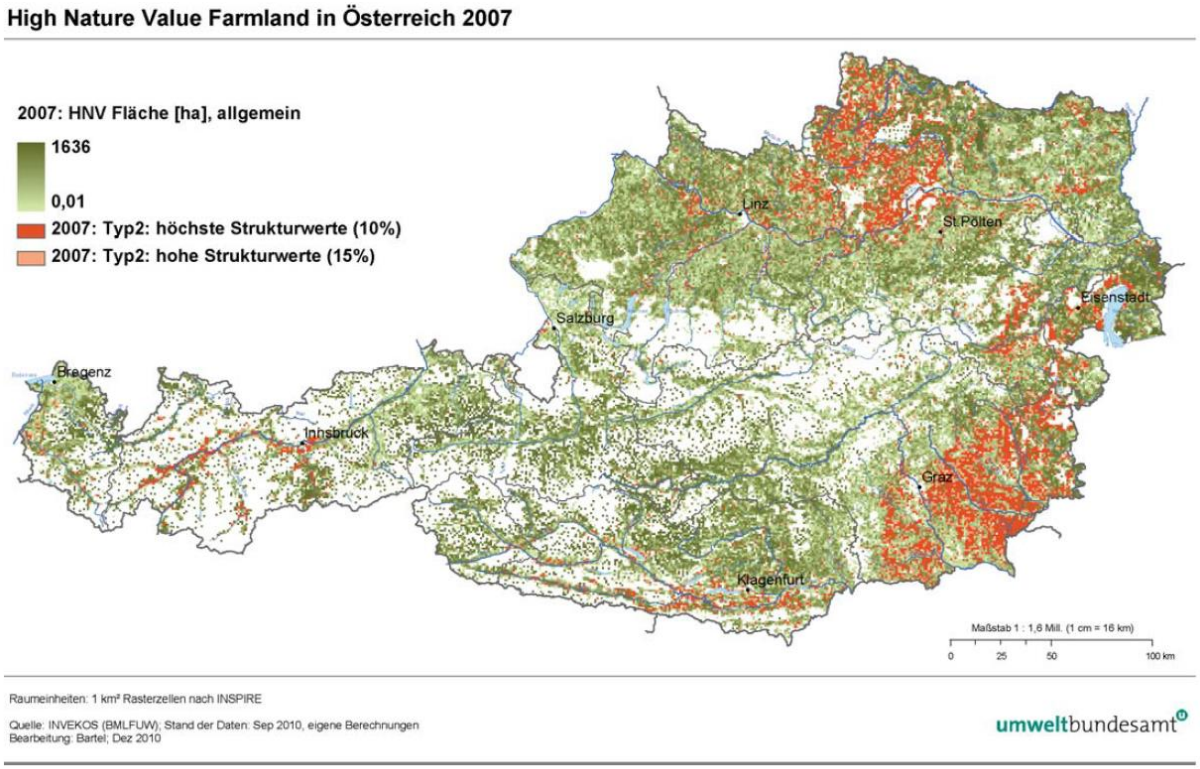
Figure 3: HNV areas according to grassland and arable systems (2007)



Karte 3:Strukturwert 2007 jeder Zelle aus Anzahl der Schläge /LF und Anzahl der Kulturen /LF

Source: Umweltbundesamt (2011)

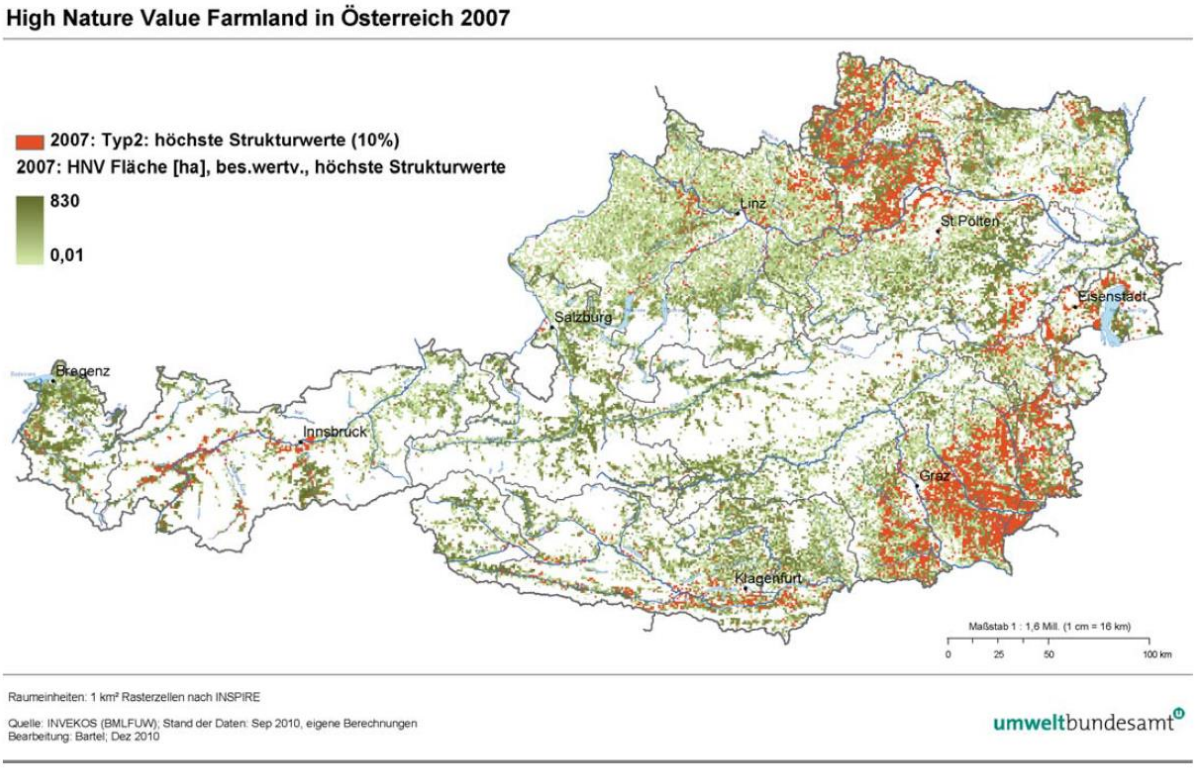
Figure 4: Total HNV type 2 area under advanced regulation and including landscape features (2007)



Karte 4: HNV gesamt Fläche je Zelle, Flächensumme HNV2 (erweiterte Regel) 2007 inkl. Strukturkriterium

Source: Umweltbundesamt (2011)

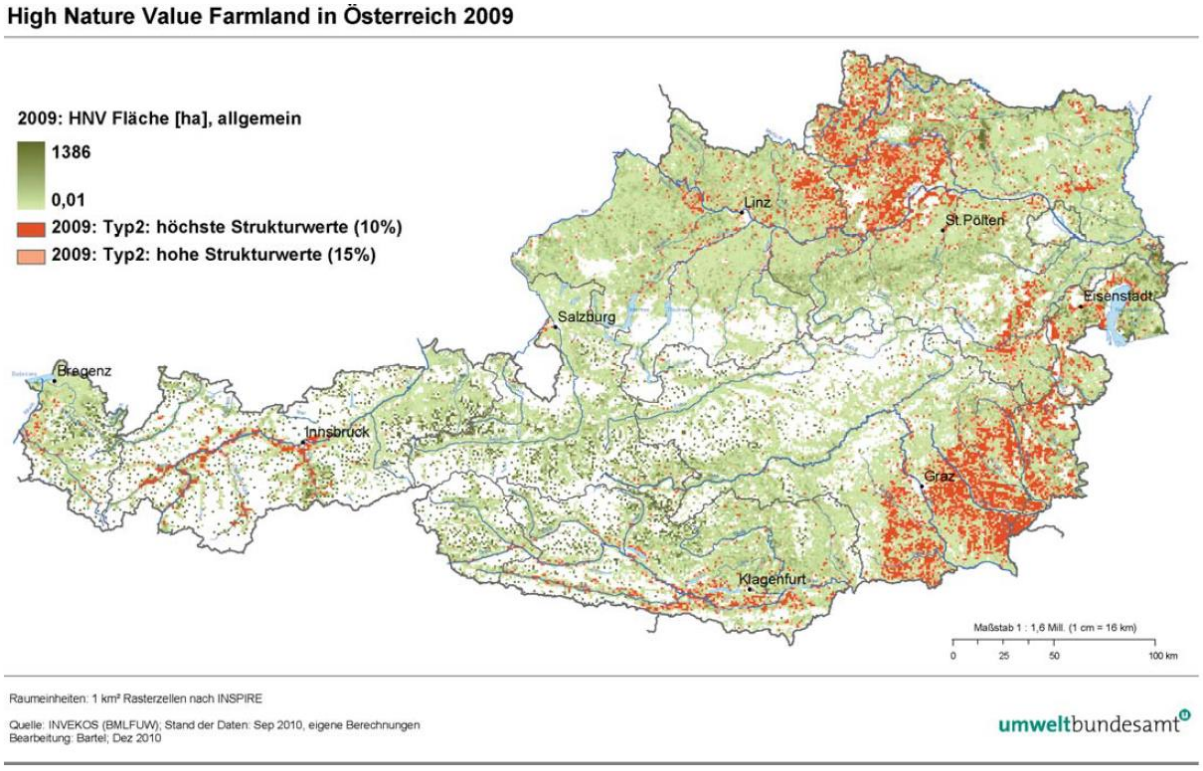
Figure 5: Total HNV type 1 area (especially valuable areas) (2007)



Karte 5: HNV gesamt Fläche je Zelle, Flächensumme HNV1(besonders wertvoll) 2007

Source: Umweltbundesamt (2011)

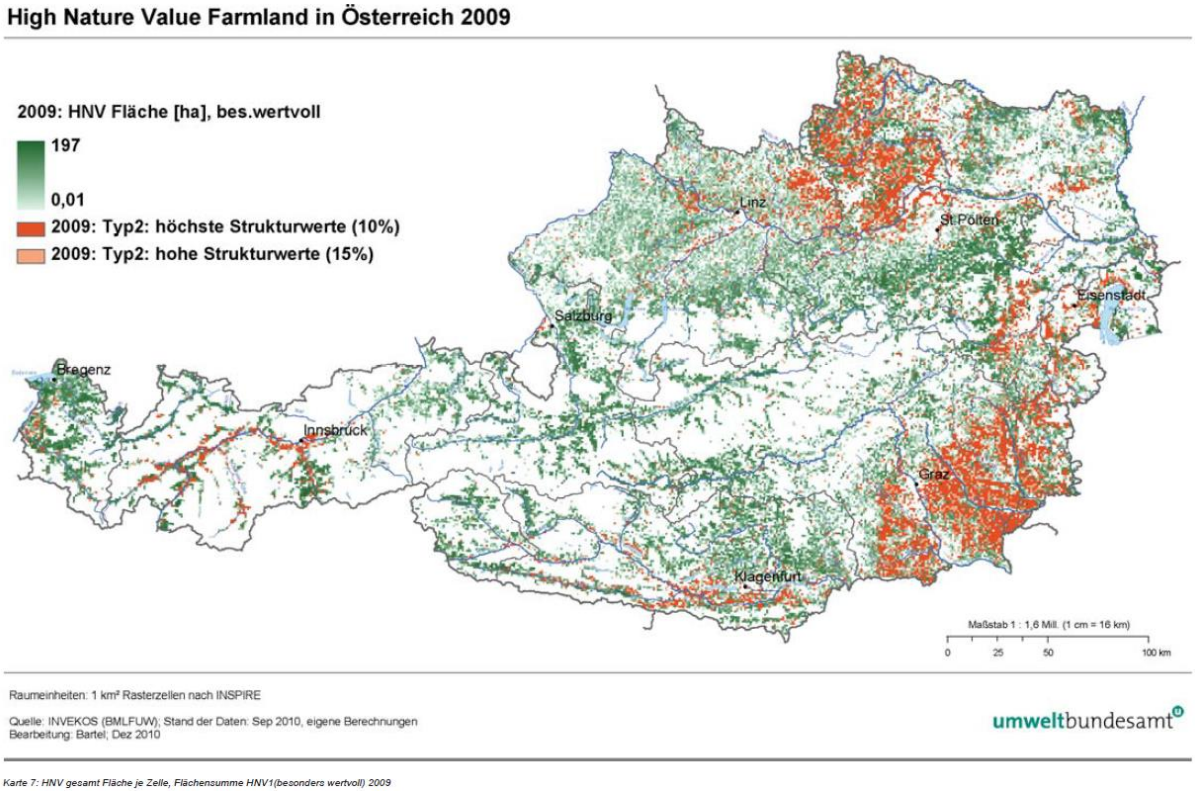
Figure 6: Total HNV type 2 area under advanced regulation and including landscape features (2009)



Karte 6: HNV gesamt Fläche je Zelle, Flächensumme HNV2 (erweiterte Regel) 2009 inkl. Strukturkriterium

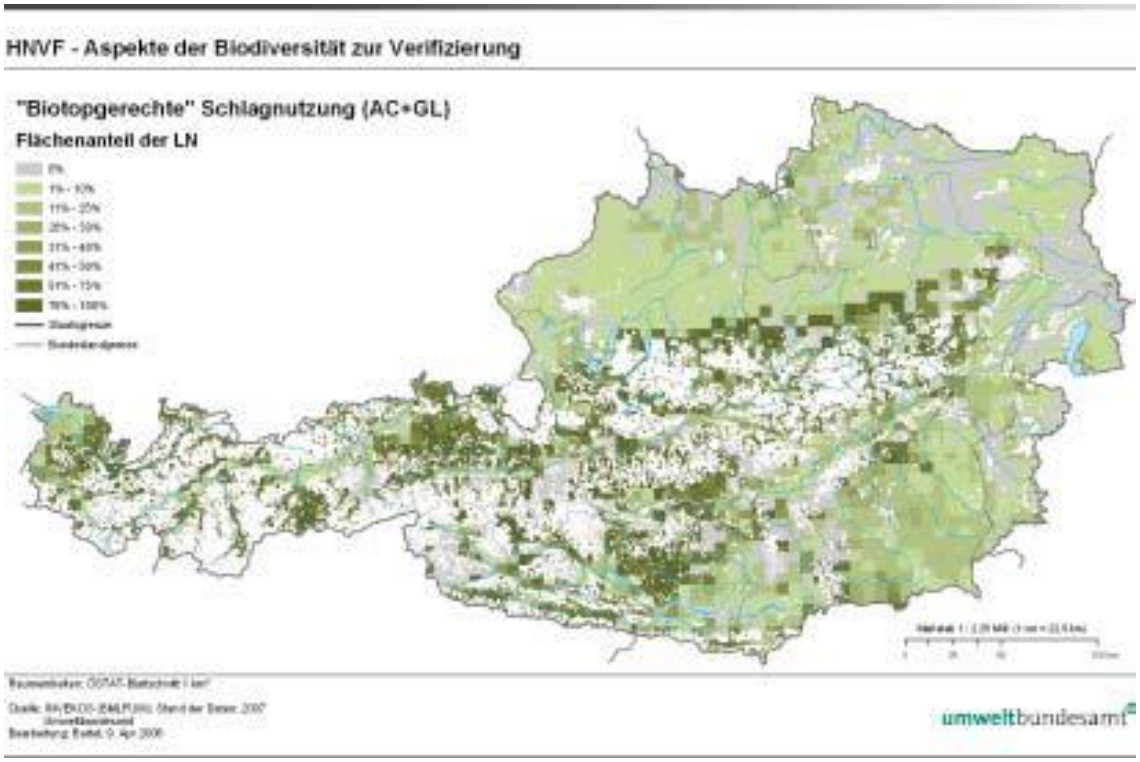
Source: Umweltbundesamt (2011)

Figure 7: Total HNV type 1 area (especially valuable) (2009)



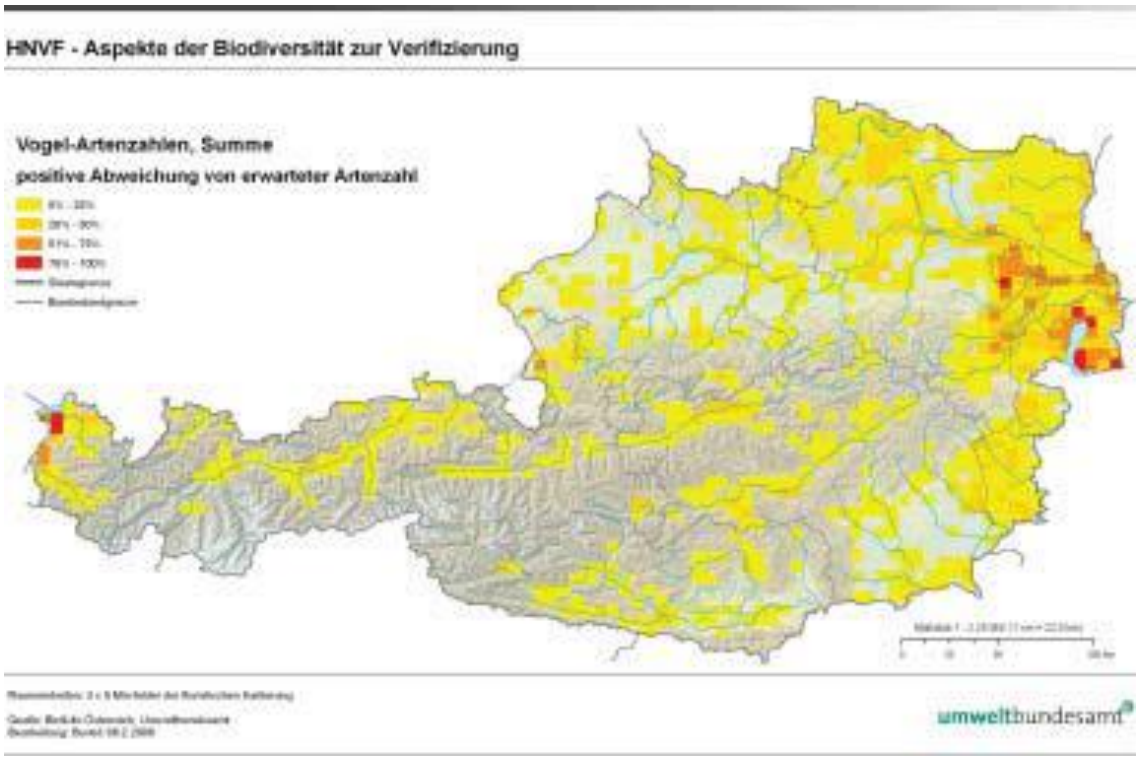
Source: Umweltbundesamt (2011)

Figure 8: Share of habitat-appropriate land use in the total utilised agricultural area (UAA) (2007).



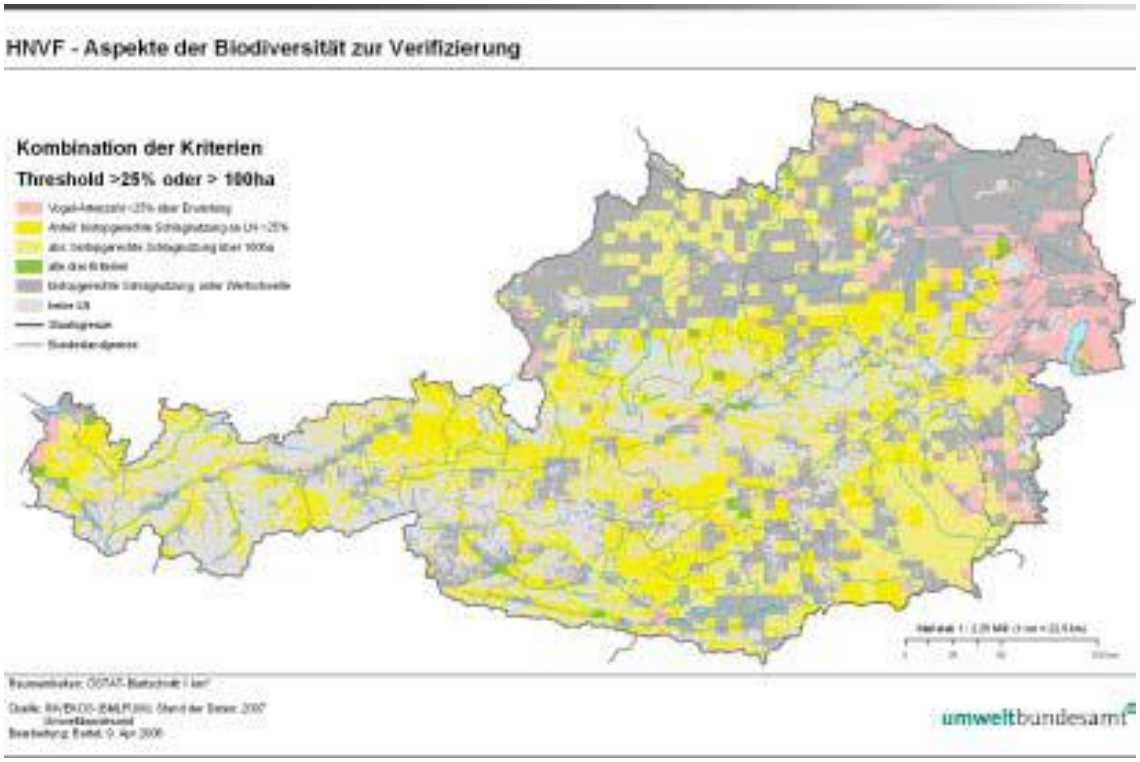
Source: Bartel and Schwarzi, 2008, p12

Figure 9: Sum of bird species for all four land use groups, cells above expectations according to species-area relation. Double weighting of occurrence of protected species



Source: Bartel and Schwarzi, 2008, p13

Figure 10: Combination of habitat type distribution and bird species diversity data using three criteria for the 3x5 angle minutes grid



Source: Bartel and Schwarzi, 2008, p14

Belgium

None provided.

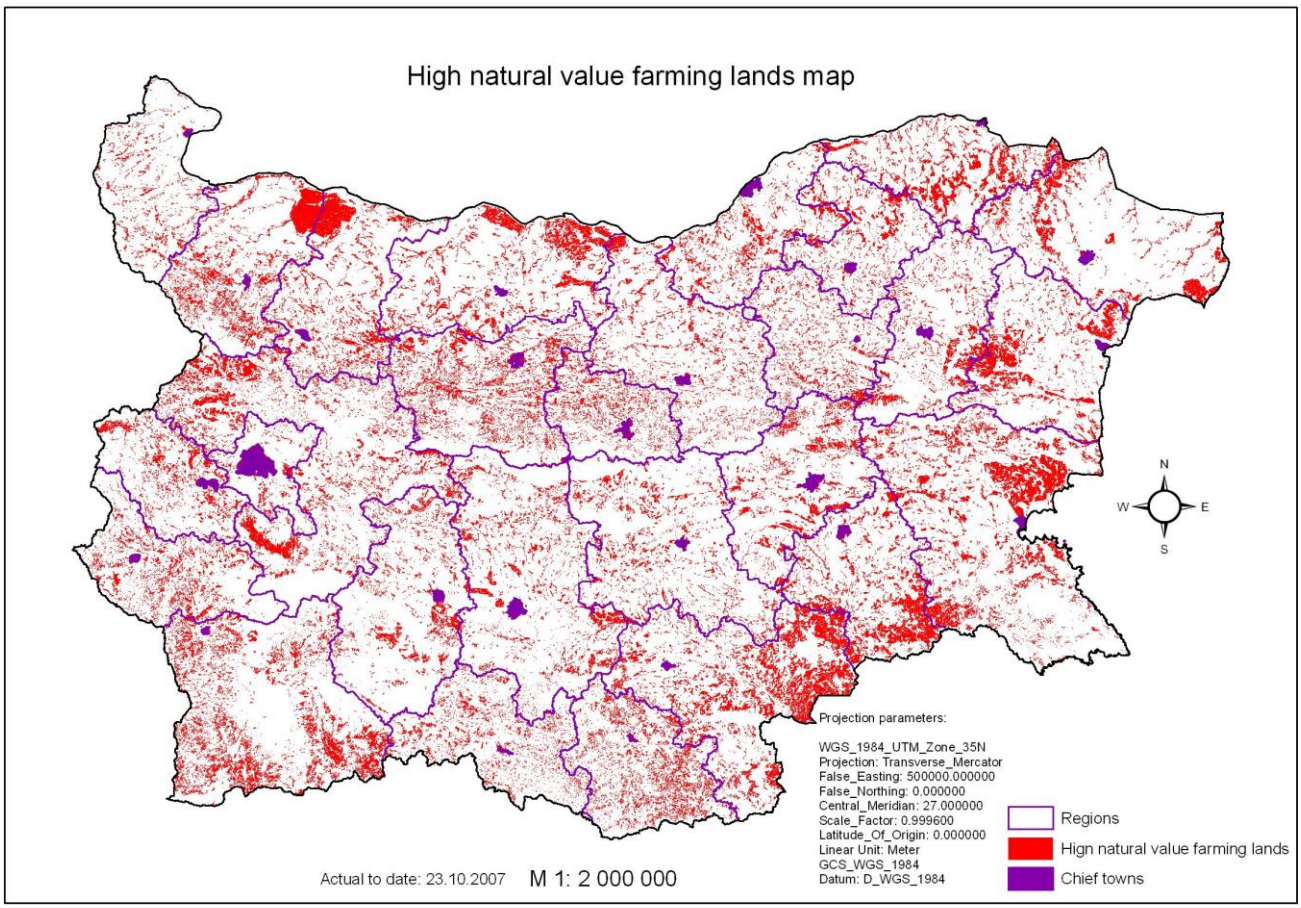
NB Oppermann *et al* (2012) include a map to show HNVF types 1, 2 and 3 and each region includes a small description (p134).

Bulgaria

Figure 11: Map of HNV Farmlands in Bulgaria

NB Oppermann *et al* (2012) include the same map but with imposed delineations to distinguish: the HNVF areas according to the Bulgarian RDP (2007-13); the landscapes dominated by HNVF (mainly large IBAs); the landscapes with a considerably high density of HNVF (mainly extensive/semi-natural grassland and small scale mosaics); and mountain area (mainly semi-natural grazing land and forest – much of the grazing land is excluded from CAP support and so does not show on the official HNV map) (p154).

Figure 11: Map of HNV Farmlands in Bulgaria



Source: RDP 2007-2013

Croatia

Figure 12: Map of indicative HNVF in Croatia (blue – carp fishponds, red – arable areas, green – grasslands, brown – transitional areas (succession); orange – mosaics; pink – vineyards, orchards and olive groves)
Figure 13: Area of selected HNVF in Croatia situated outside of proposed NATURA 2000 network in Croatia

NB There is no map provided in Oppermann *et al*, 2012.

Figure 12: Map of indicative HNVF in Croatia (blue – carp fishponds, red – arable areas, green – grasslands, brown – transitional areas (succession); orange – mosaics; pink – vineyards, orchards and olive groves)

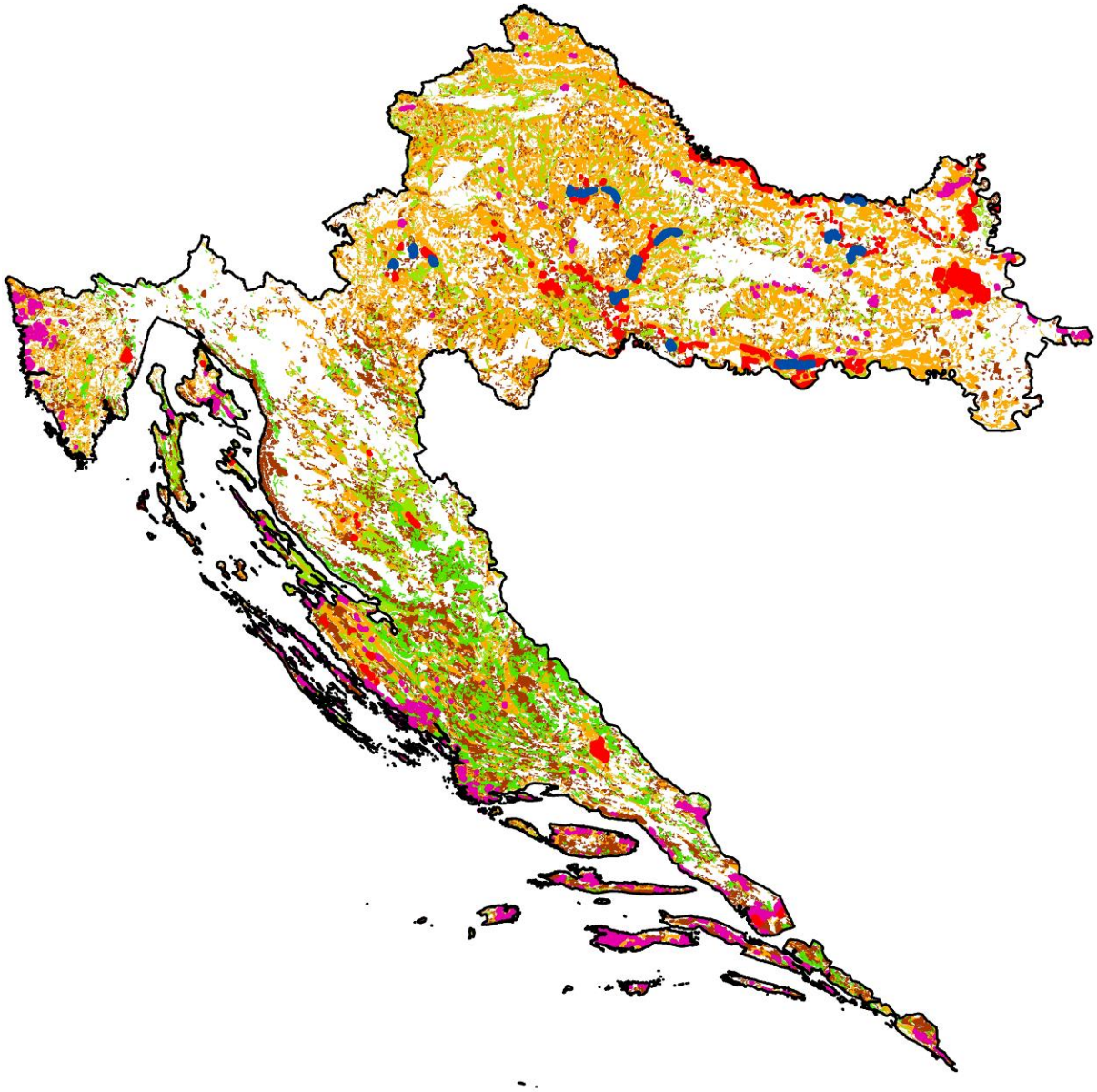
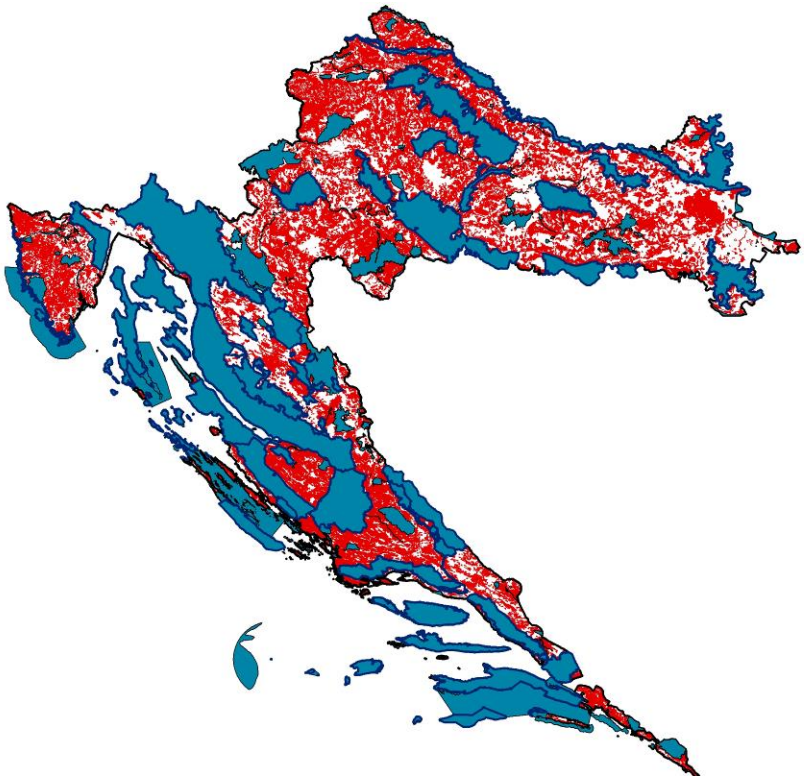


Figure 13: Area of selected HNVF in Croatia situated outside of proposed NATURA 2000 network in Croatia



Cyprus

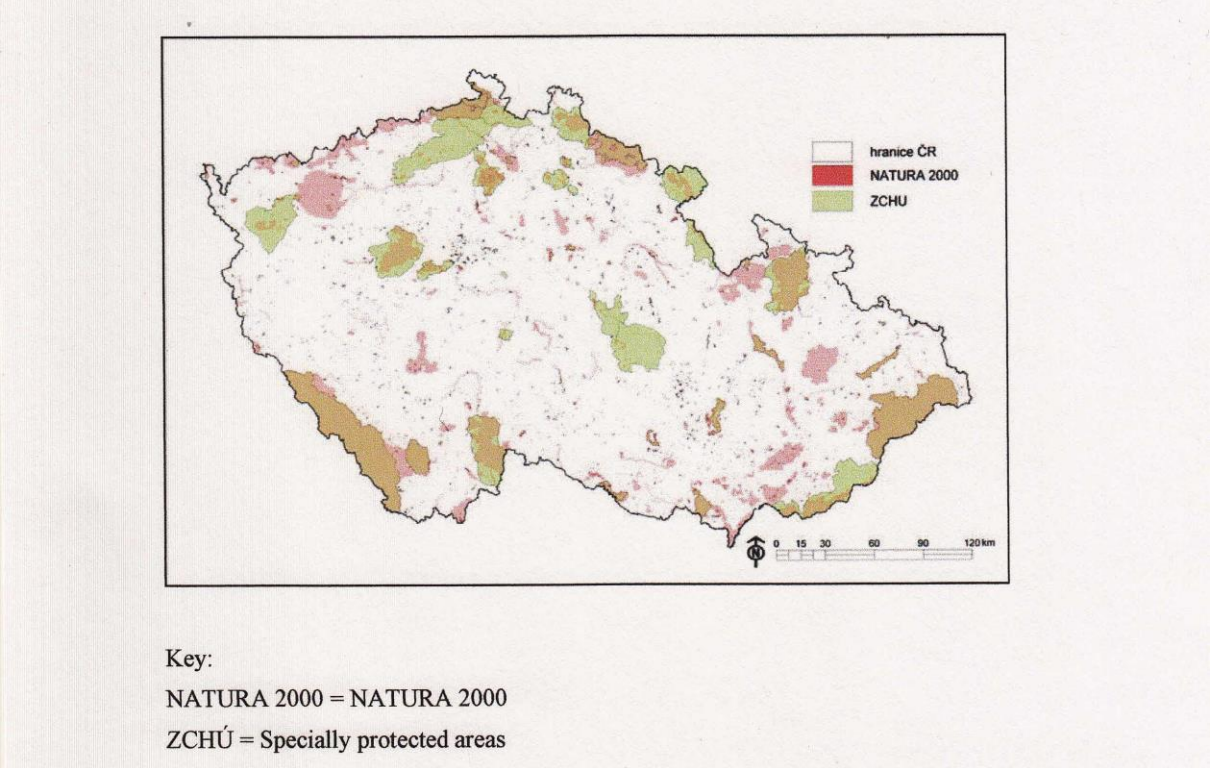
No map available.

NB There is no map provided in Oppermann *et al*, 2012.

Figure 14: HNV areas on national level based on designated Special protected areas and Natura 2000
Figure 15: Habitats of rare species of butterflies – Maculinea nausithous
Figure 16: Habitats of rare species of butterflies – Maculinea teleius

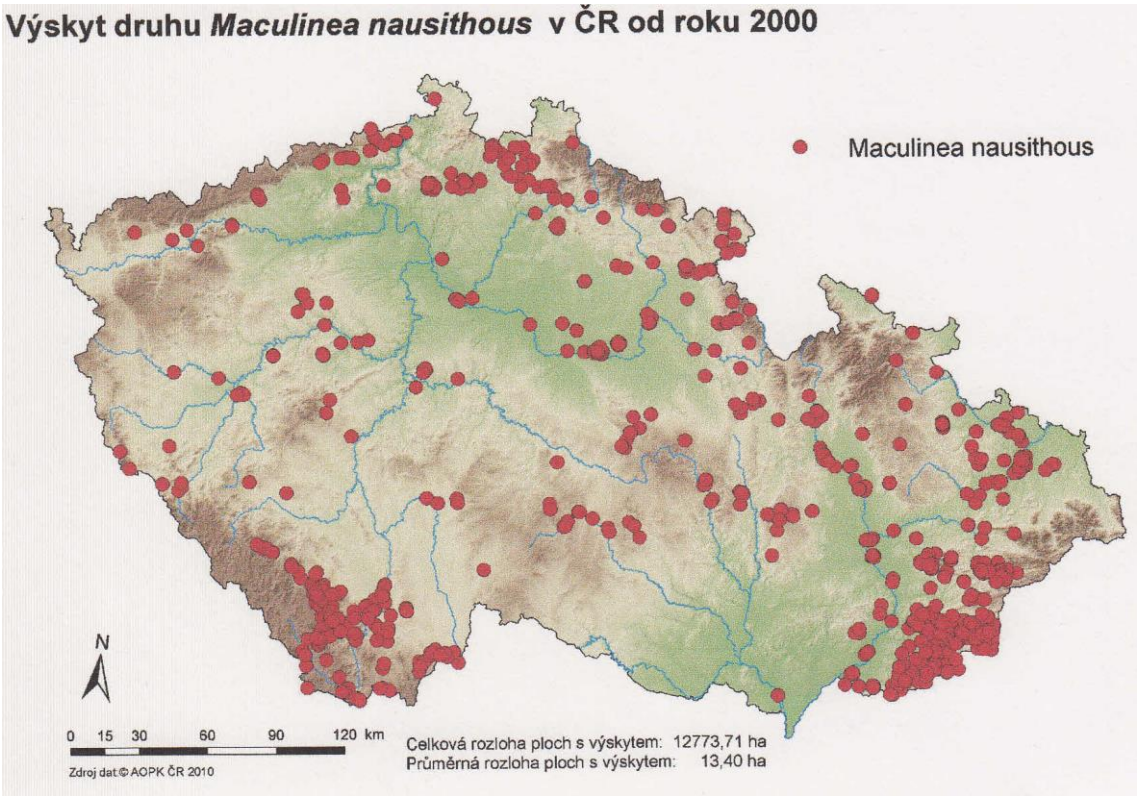
NB Oppermann *et al* (2012) include a different map which shows the spatial distribution of natural and semi-natural vegetation in the Czech Republic (outlining agricultural areas with significant areas of natural vegetation; other agricultural areas with natural/semi-natural biotopes; natural grasslands; complex cultivation) (p179).

Figure 14: HNV areas on national level based on designated Special protected areas and Natura 2000



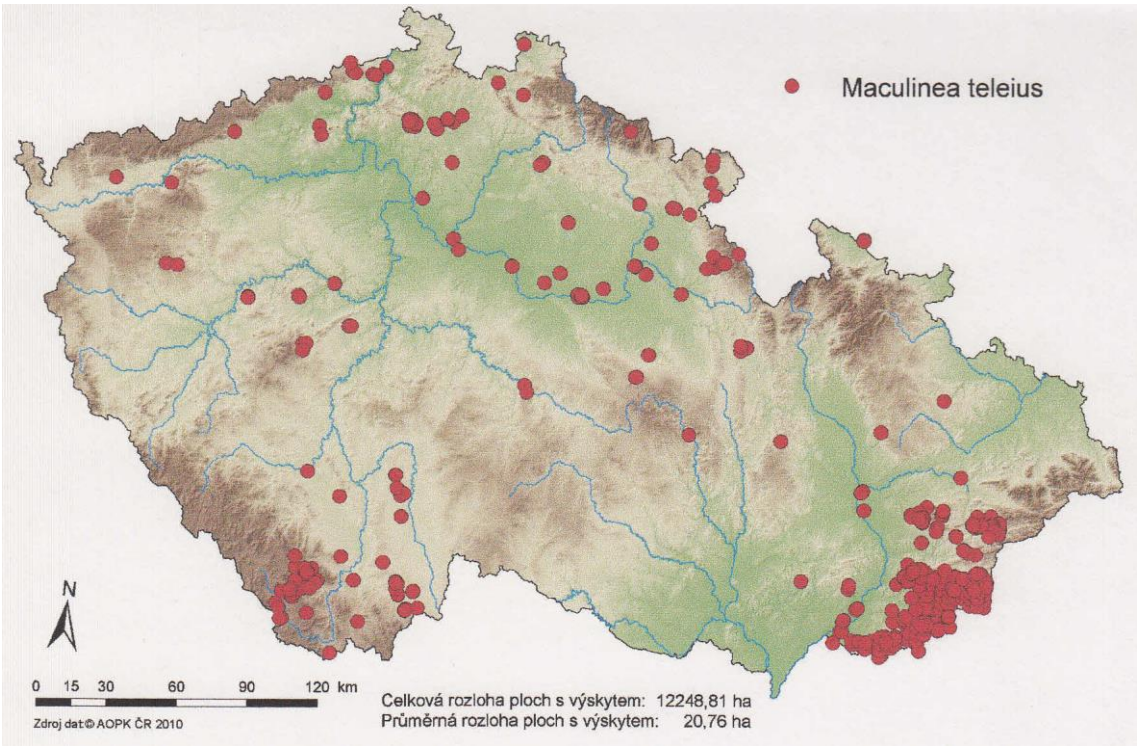
Source: RDP 2007-2013

Figure 15: Habitats of rare species of butterflies – Maculinea nausithous



Legend: The red dots represent habitats of rare butterfly *Maculinea nausithous;* monitored from 2000 till now
Source: Nature Conservation Agency in the Czech Republic

Figure 16: Habitats of rare species of butterflies – Maculinea teleius



Legend: The red dots represent habitats of rare butterfly *Maculinea nausithous*; monitored from 2000 till now
Source: Nature Conservation Agency in the Czech Republic

Denmark

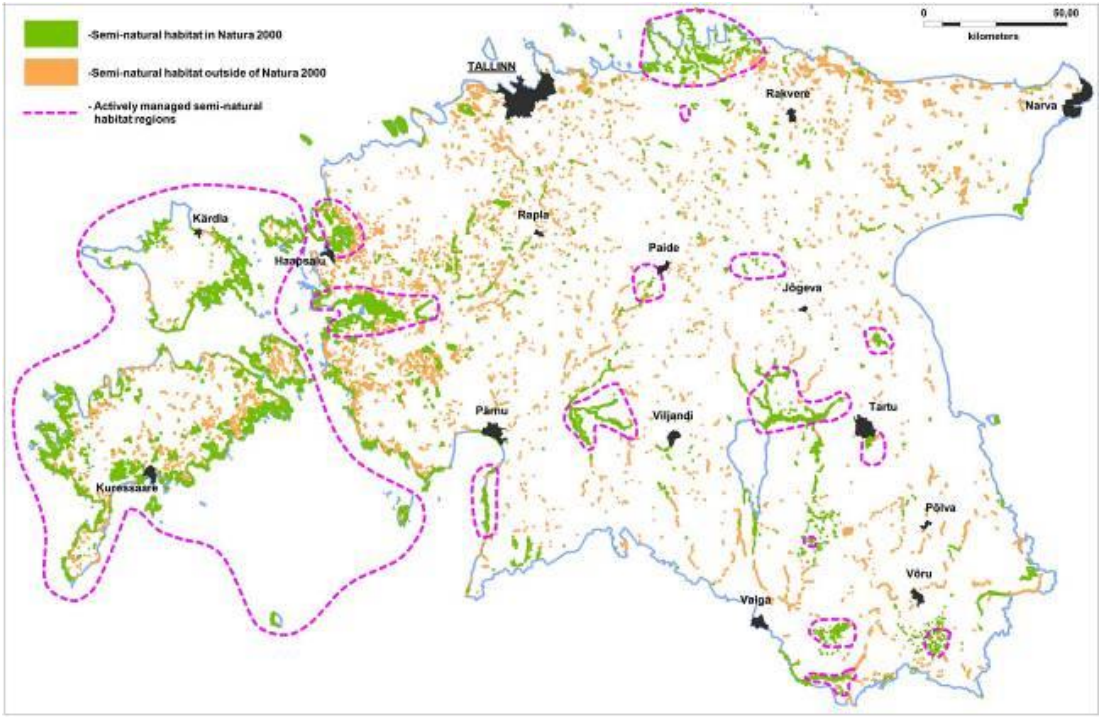
No maps available.

NB There is no map in Oppermann *et al* (2012).

Figure 17: Regional distribution of semi-natural habitats in Estonia in 2010
Figure 18: Example of merging values of each grid-cell

NB Oppermann *et al* (2012) include an additional map showing agricultural land use intensity (p197)

Figure 17: Regional distribution of semi-natural habitats in Estonia in 2010



New approach for HNV farmland (covering all 3 HNV farmland types):
1x1km grid-cell based HNV farmland approach has been selected to further define all three types of HNV farmland. Chosen 15 indicators reflect low farming intensity, nature values and landscape mosaics are as following:

Land use and production intensity characteristics:

- share of permanent grassland from the total agricultural land;
- share of short-term rotational grasslands from the arable land;
- share of agricultural land under organic farming support;
- animal density and
- share of peat soils.

Nature conservation characteristics (nature values):

- share of semi-natural habitats (SNH);
- share of managed SNH;
- species diversity of selected farmland birds (data from Bird Atlas);
- share of protected areas and Natura 2000 areas and
- presence of protected species.

Landscape mosaics/diversity characteristics:

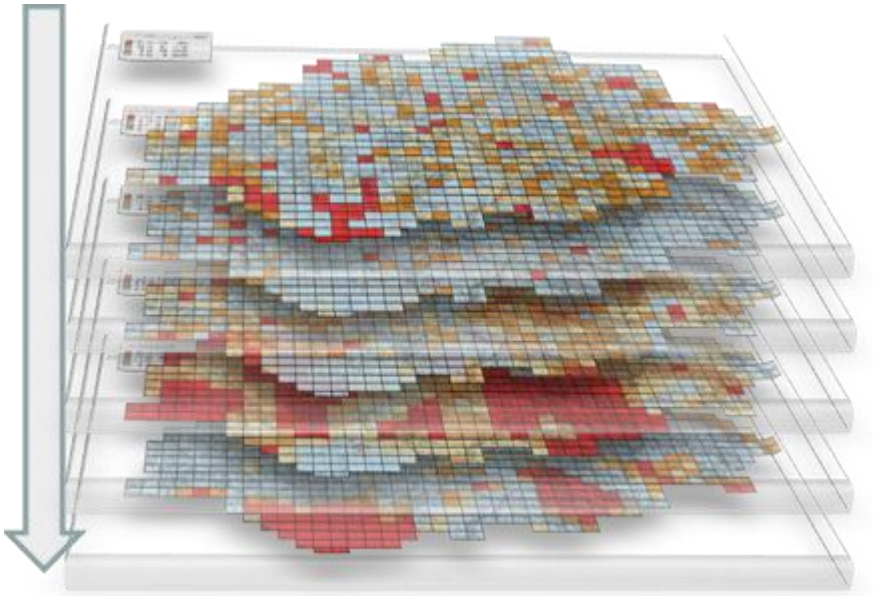
- Simpson diversity index;
- number of field parcels (physical blocks, LPIS);
- summed edge length of physical plots (fields in LPIS);
- total length of selected valuable linear objects and
- total number of selected valuable point objects.

One main criterion for such indicator selection was the availability of national data. Different national GIS datasets are used (eg Natura 2000 network, Estonian National Topographic Database, LPIS etc) Through data analysis all those 15 characteristics describing farmland values (eg landscape diversity, animal density, share of semi-natural grasslands etc), were linked with each grid.

For the final value-matrix of the grid-cells all individual indicator values of each cell (concrete numeric values converted into scale 1-5) were summed up. For example scales used for indicator 'share of agricultural land under organic farming support' are as follows:

- 0,1-10% 1 point
- >10-50% 3 points
- >50% 5 points

Figure 18: Example of merging values of each grid-cell



As a final result, each cell has a merged value that corresponds to the selected HNV features and characteristics at the site.

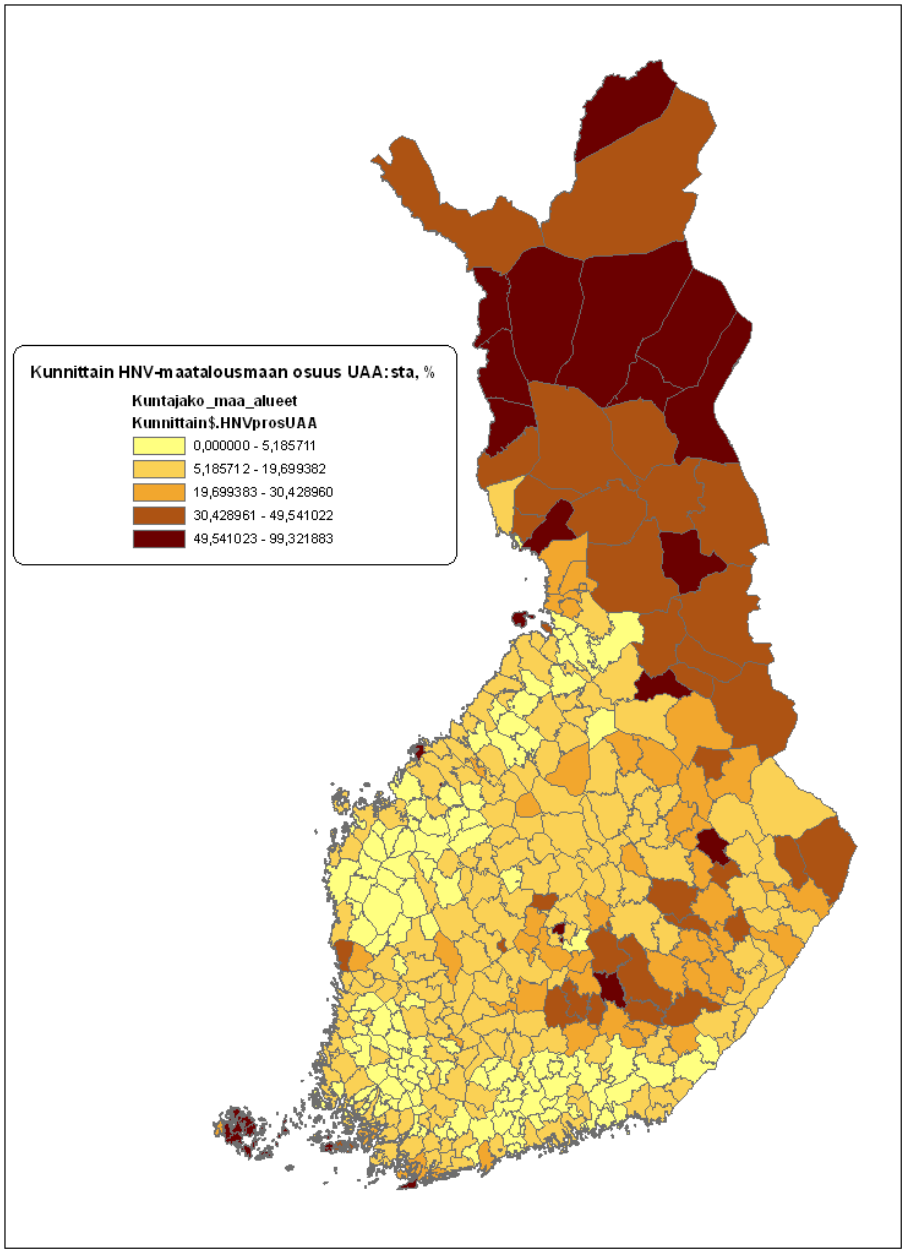
To validate the methodology the number of 1×1 km cells was expanded outside of the test area. In addition to selected pilot area, 2,420 cells were chosen by random sampling from the mainland and all 2,466 cells of coastal area. Total number of the tested grid-cells forms 18% of the total Estonian territory, which can be considered as representative sample.

This is considered a more accurate approach which helps to bring out the variations of HNV farmland and identify more valuable areas. The selected indicators are easily updated and available horizontally, aggregated data sets can be used by different stakeholders.

Figure 19: The HNV areas as based on classification of the provinces
Figure 20: Density of the HNV farms as identified by the threshold of 20 points
Figure 21: Mapping of potential HNV areas on a small scale based on available maps of field soil types, forest edge direction and soil gradient
Figure 22: Distribution of the endangered species diversity for a) butterflies, b) birds and c) plants.
Figure 23: Fragmented farmland based on edge density/area criterion

NB There is no map provided in the HNV book

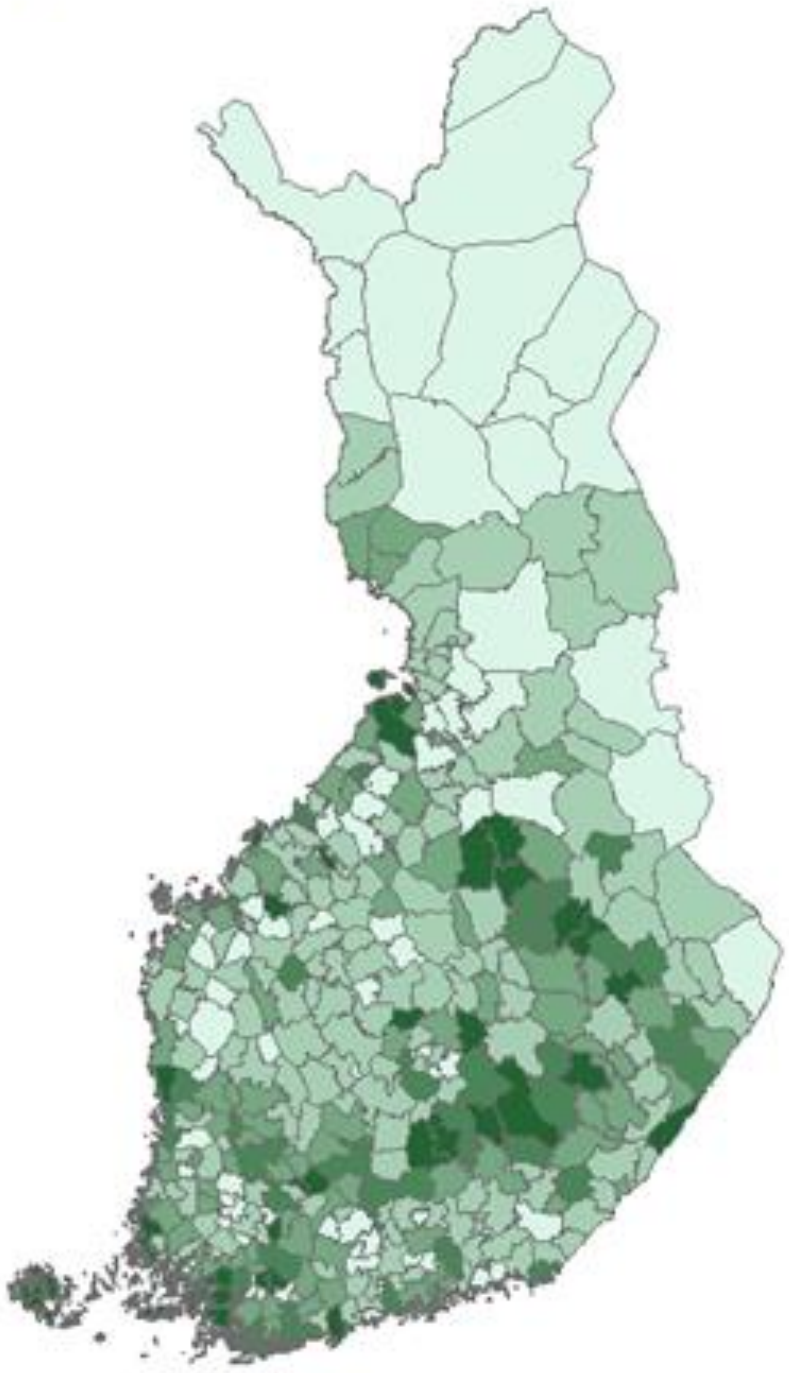
Figure 19: The HNV areas as based on classification of the provinces



Note that the darker the colour, the higher the estimated percentage of NHV farmland in the province.

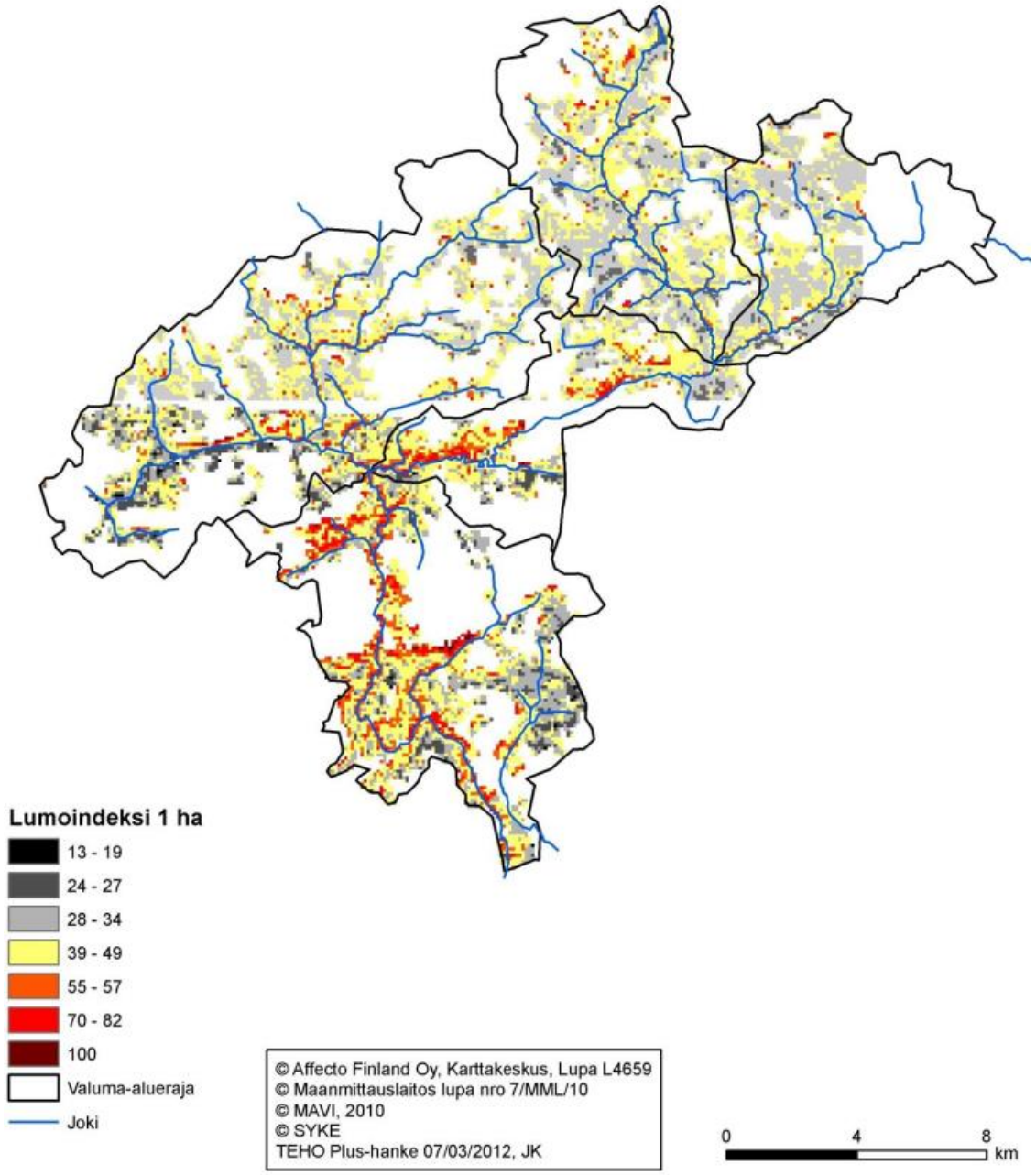
Source: Heliölä *et al*, 2009

Figure 20: Density of the HNV farms as identified by the threshold of 20 points



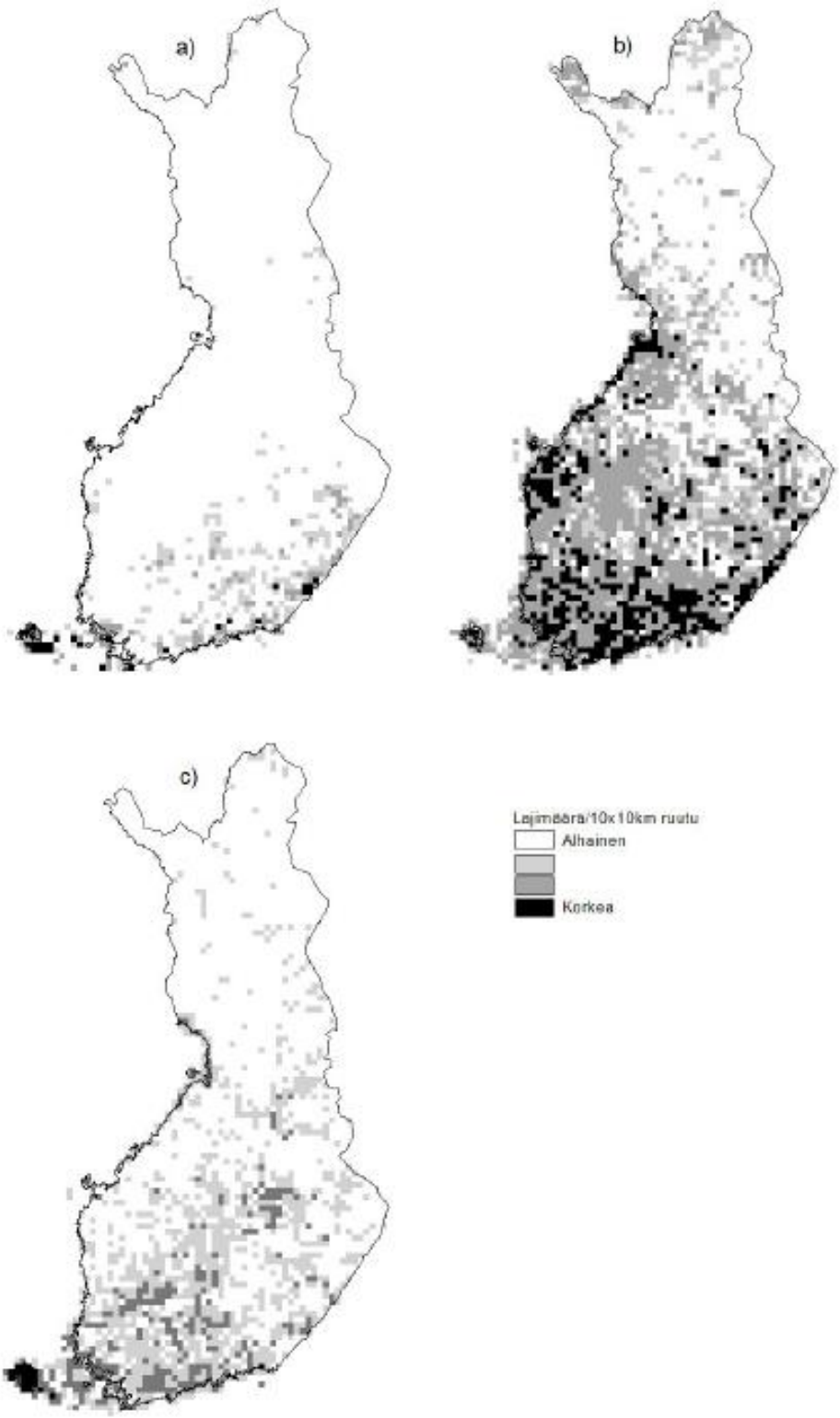
Note: The darker the colour, the higher the estimated percentage of HNV farmland in the province.
Source: Heliölä et al, 2009

Figure 21: Mapping of potential HNV areas on a small scale based on available maps of field soil types, forest edge direction and soil gradient



Source: Koskinen and Ikonen (2011)

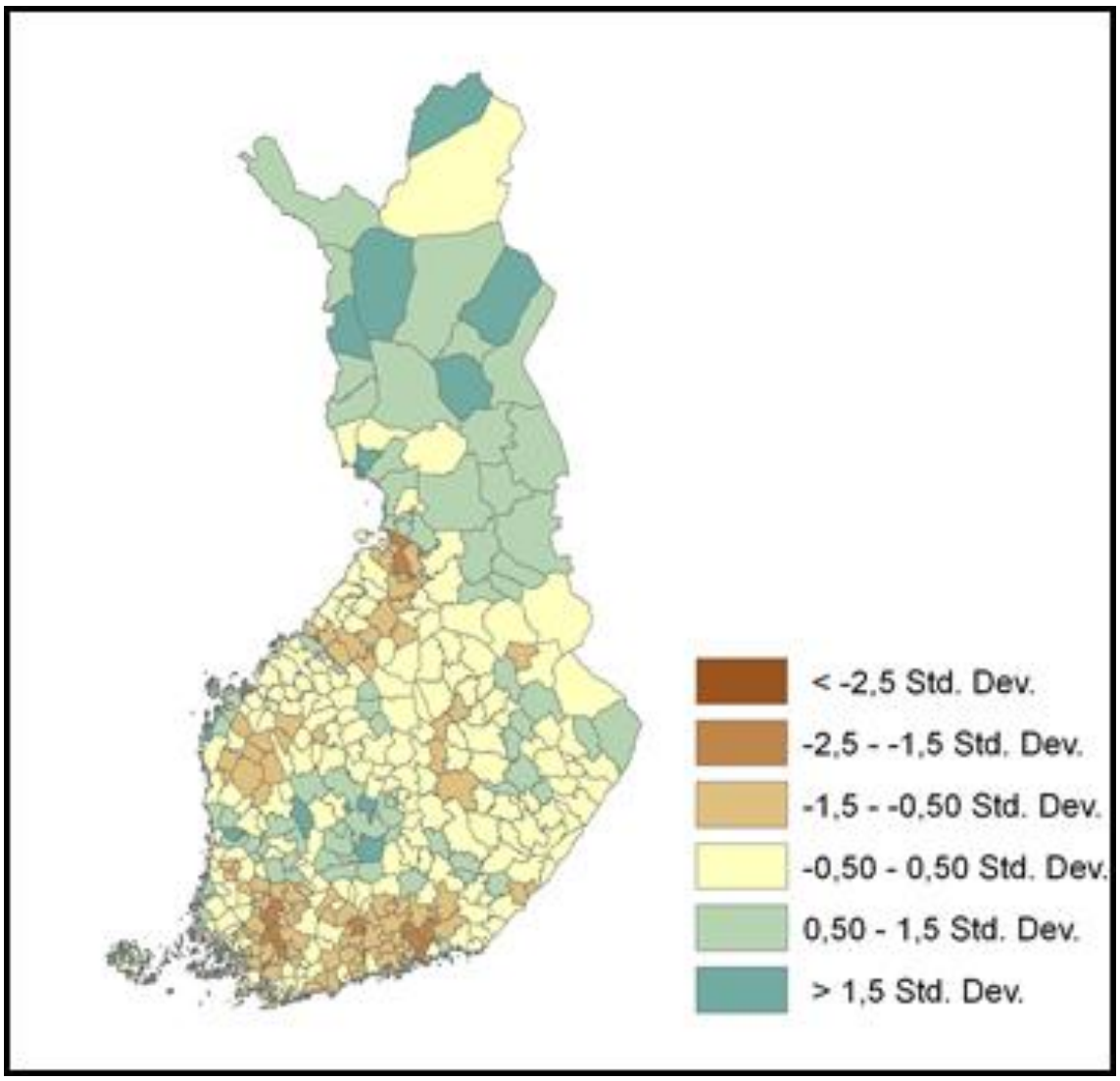
Figure 22: Distribution of the endangered species diversity for a) butterflies, b) birds and c) plants.



Note: The cell is 10 x 10 km and presents species richness; the darker the colour, the higher the species number.

Source: Heliölä *et al* 2009

Figure 23: Fragmented farmland based on edge density/area criterion



Note: The darker the green colour, the more fragmented field area is.

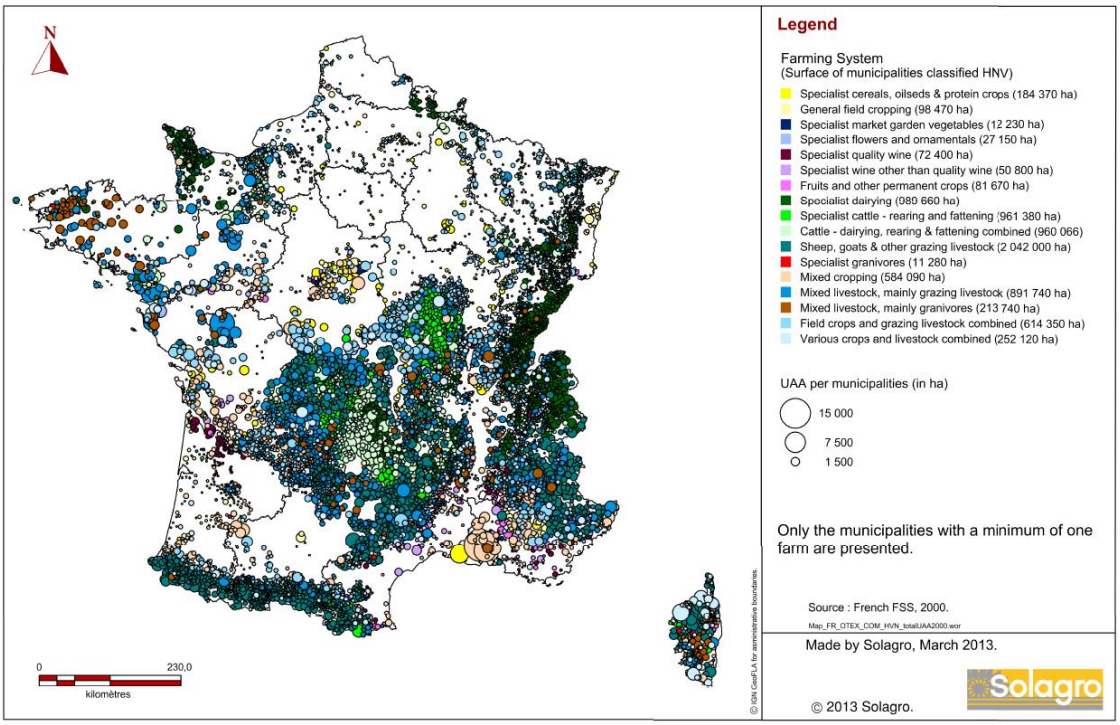
Source: Heliölä *et al,* 2009

France

Figure 24: UAA and common pastures surfaces of Municipalities classified HNV in 2000 per farming system
Figure 25: UAA and common pastures surfaces of Municipalities Classified HNV in France, 2000
Figure 26: Arable dominant systems in High Nature Value Farmland Areas at LAU2 in France, 2000
Figure 27: Livestock dominant (cattle) system in High Nature Value Farmland Areas at LAU2 in France, 2000
Figure 28: Mixed farming (Granivores) systems in High Nature Value Farmland Areas at LAU2 in France, 2000
Figure 29: Permanent crops systems in High Nature Value Farmland Areas at LAU2 in France, 2000
Figure 30: Livestock dominant (sheep) systems in High Nature Value Farmland Areas at LAU2 in France, 2000
Figure 31: UAA under HNV farming according to Solagro methodology 2010 (2000 data)
Figure 32: The distribution of HNV regions/agrarian systems in France
Figure 33: ZNIEFF in France
Figure 34: Agricultural land as declared in LPIS (GeoPortail)
Figure 35: The crossing of ZNIEFF II and agricultural use of land (LPIS)

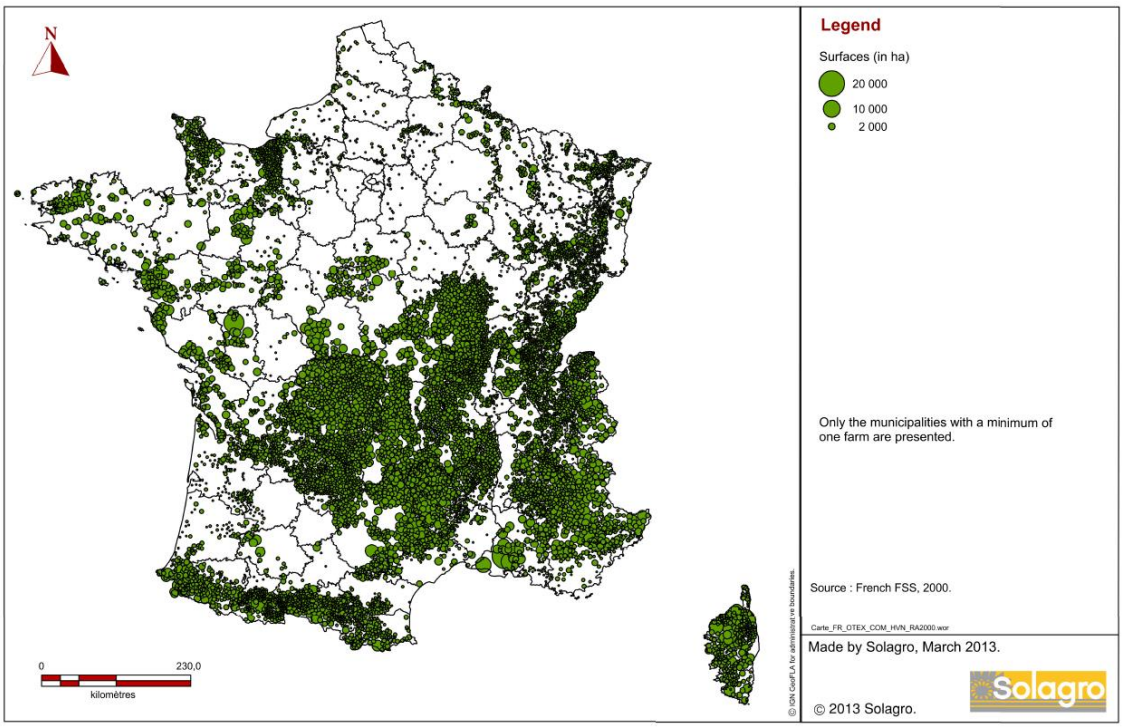
NB Oppermann *et al* (2012) include Figure 30 (below) but also two more not included here showing HNVF type 1 and another showing HNVF type 2 (Figure 4: Identification of the envelopes of Type 1 and Type 2 HNV main farmland areas (proxies)) (p212)

Figure 24: UAA and common pastures surfaces of Municipalities classified HNV in 2000 per farming system



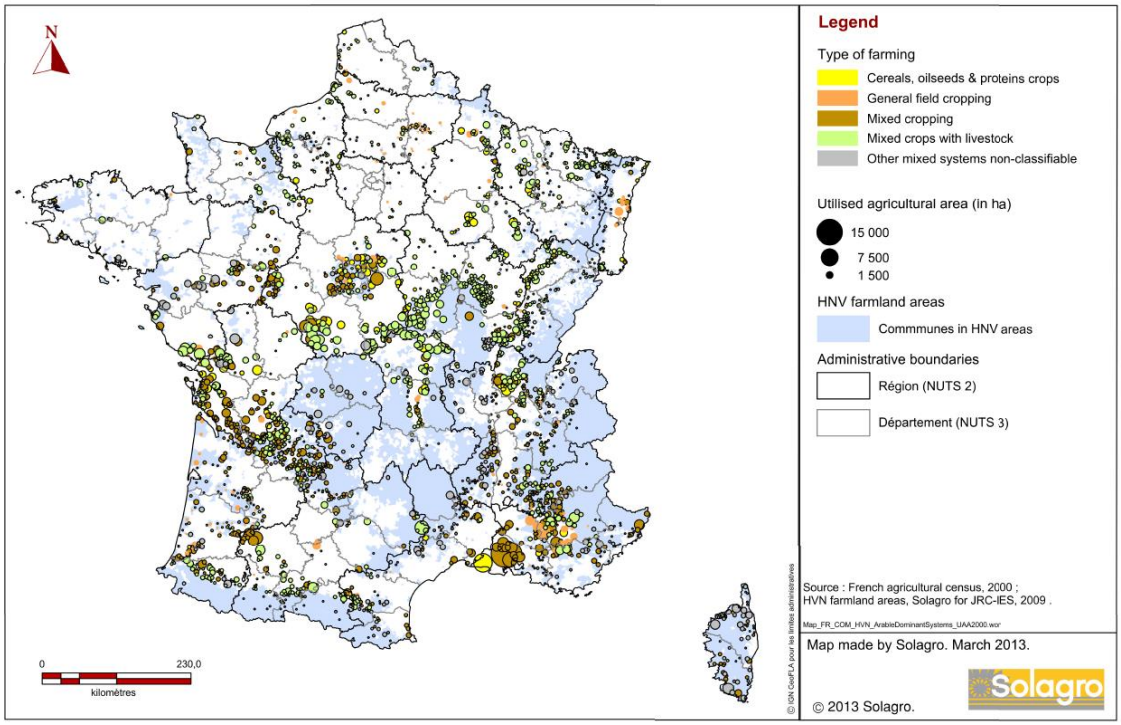
Source: Solagro, 2013

Figure 25: UAA and common pastures surfaces of Municipalities Classified HNV in France, 2000



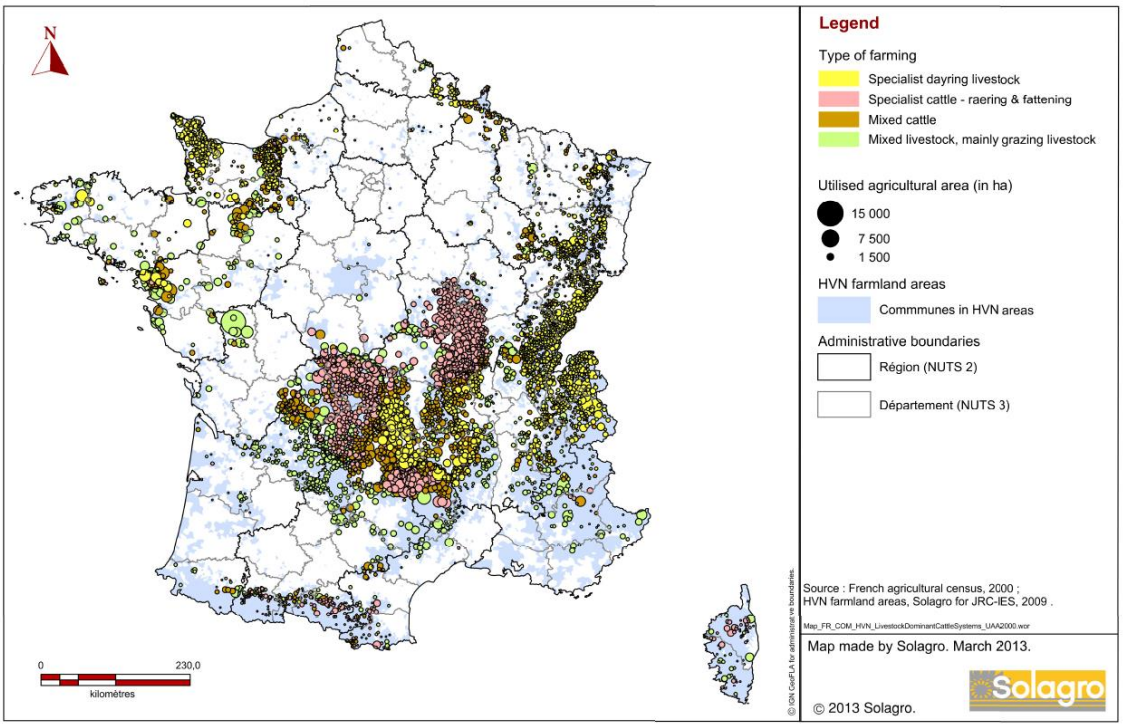
Source: Solagro, 2013

Figure 26: Arable dominant systems in High Nature Value Farmland Areas at LAU2 in France, 2000



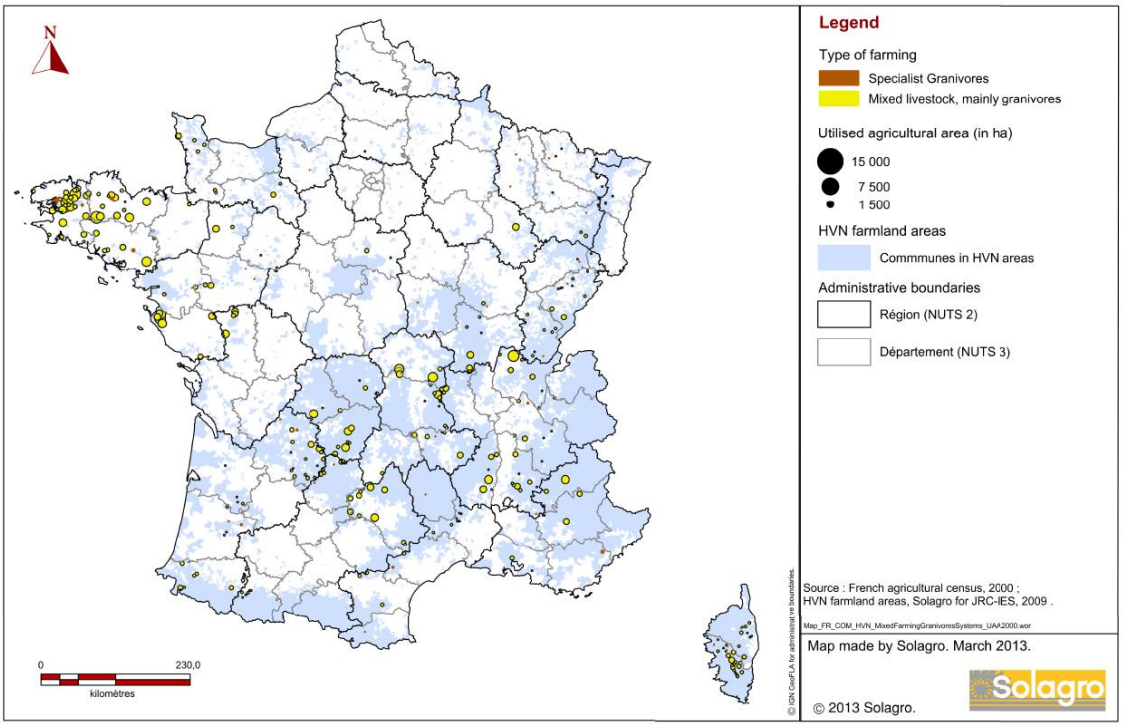
Source: Solagro, 2013

Figure 27: Livestock dominant (cattle) system in High Nature Value Farmland Areas at LAU2 in France, 2000



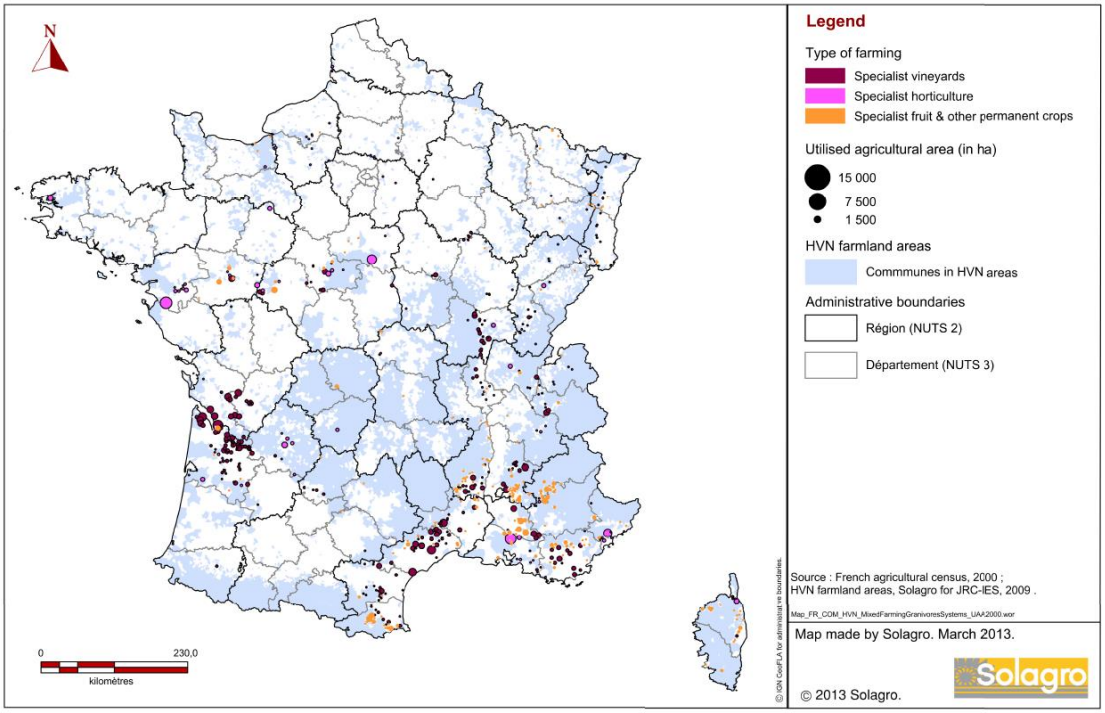
Source: Solagro, 2013

Figure 28: Mixed farming (Granivores) systems in High Nature Value Farmland Areas at LAU2 in France, 2000



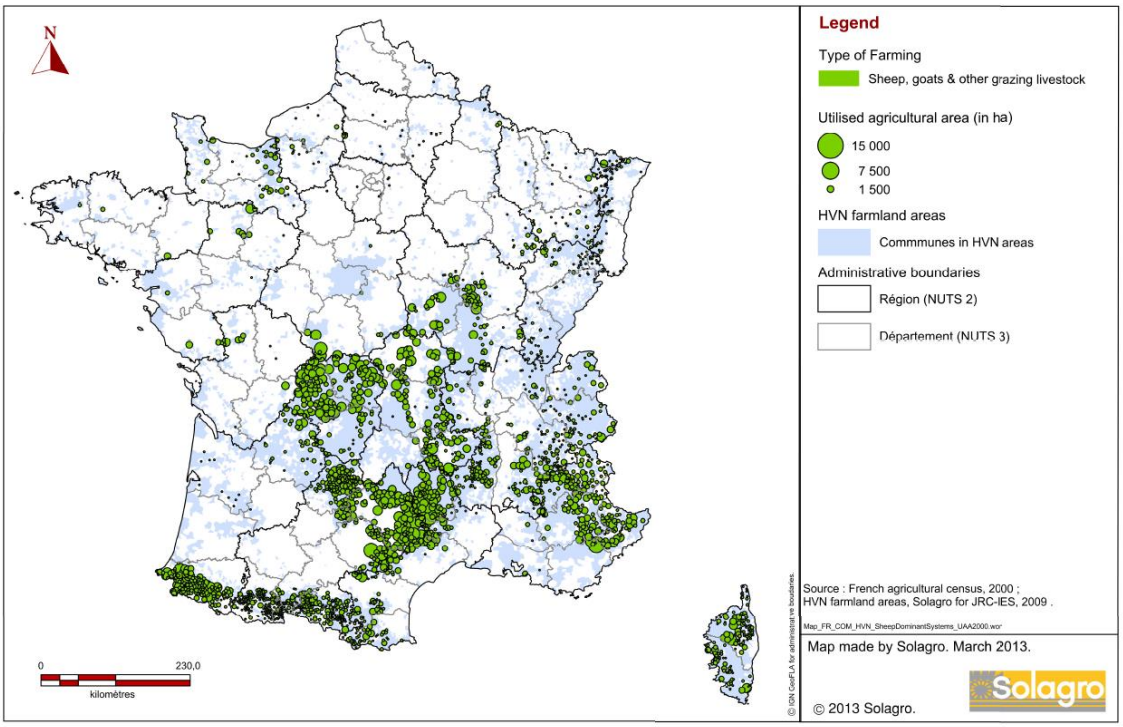
Source: Solagro, 2013

Figure 29: Permanent crops systems in High Nature Value Farmland Areas at LAU2 in France, 2000



Source: Solagro, 2013

Figure 30: Livestock dominant (sheep) systems in High Nature Value Farmland Areas at LAU2 in France, 2000



Source: Solagro, 2013

Figure 31: UAA under HNV farming according to Solagro methodology 2010 (2000 data)

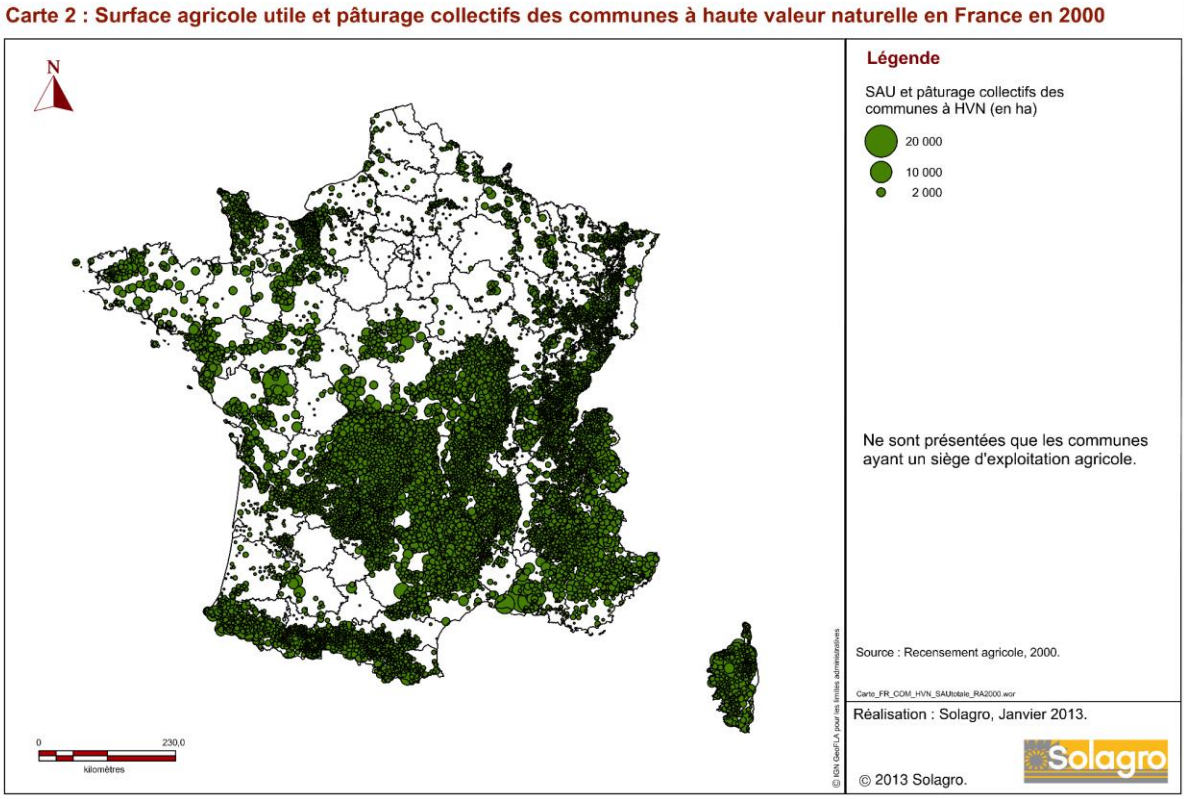
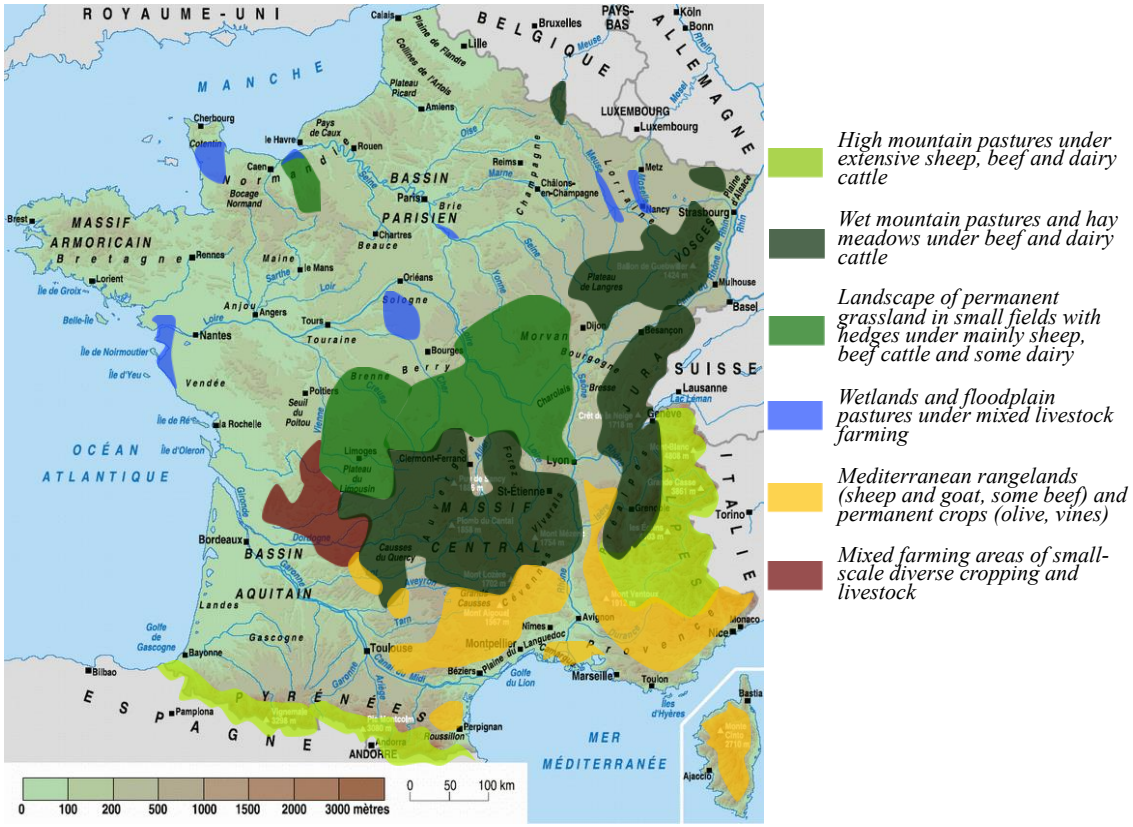
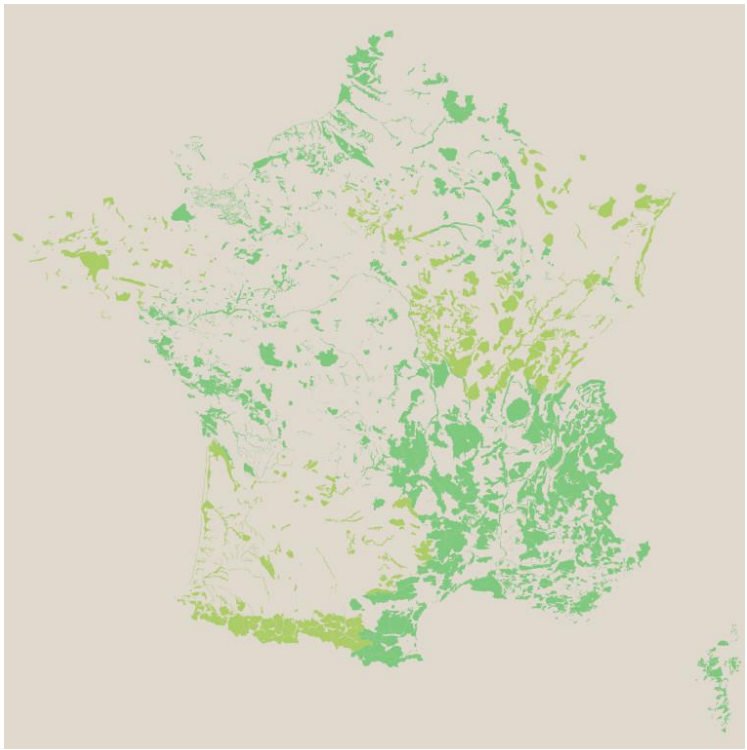


Figure 32: The distribution of HNV regions/agrarian systems in France



Source: Poux and Ramain (2012) in Opperman *et al* (2012)

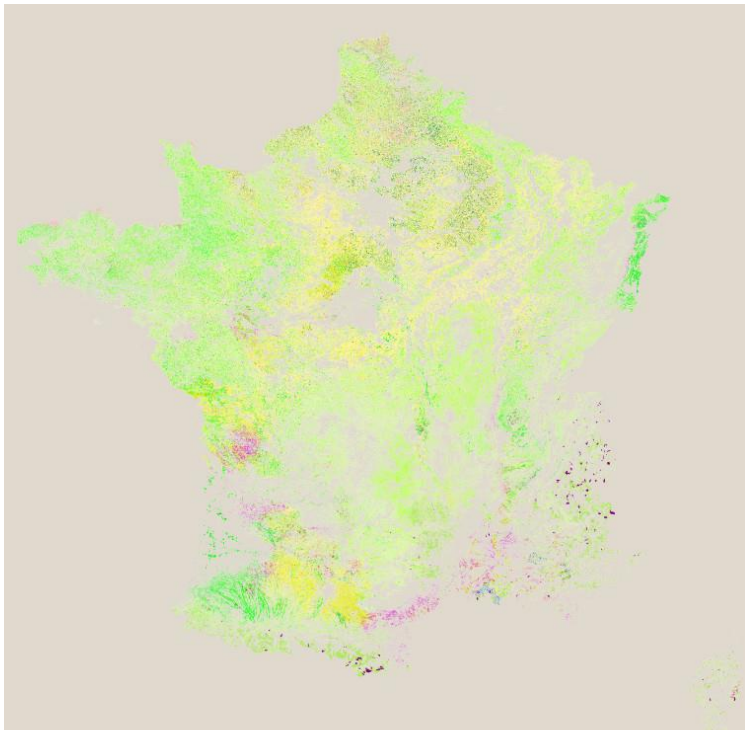
Figure 33: ZNIEFF in France



Note that the different colours refer to different methodologies, a new one being launched from 2004 onwards.

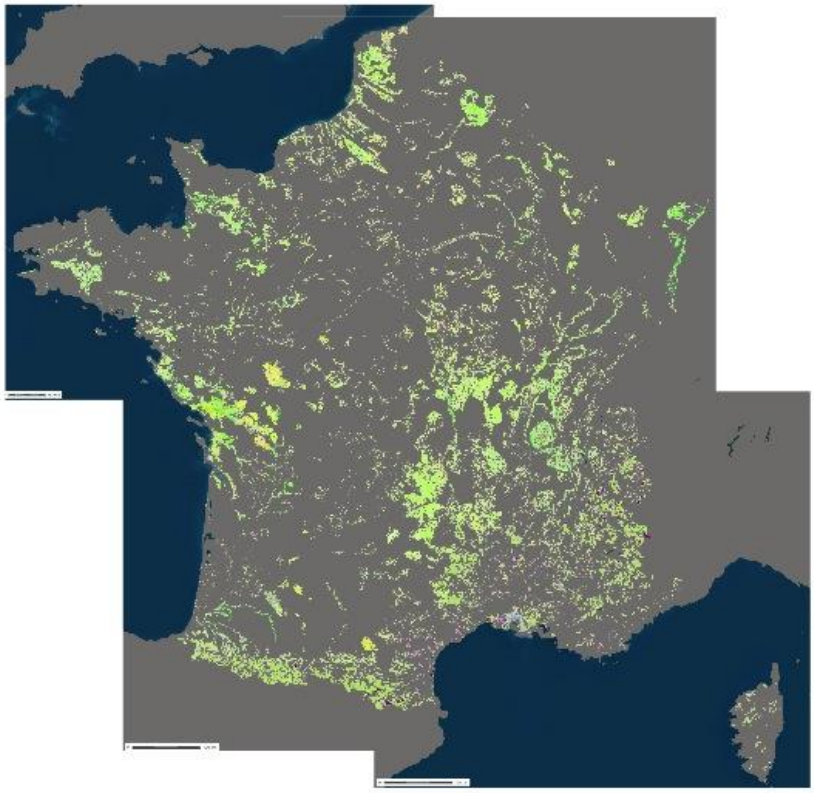
Source: the Museum National d'Histoire Naturelle

Figure 34: Agricultural land as declared in LPIS (GeoPortail)



Note that the different colours refer to different LPIS categories.
Source: the Museum National d'Histoire Naturelle

Figure 35: The crossing of ZNIEFF II and agricultural use of land (LPIS)



Source: AScA and Ministry of Agriculture © - not to be displayed without authorization and comments

Figure 36: An example of the digitisation of mapped areas [8]
Figure 37: Ecological spatial planning in Germany [9]
Figure 38: The distribution layers for HNV sampling area (left) and the corresponding satellite image (right) [10]
Figure 39: The distribution of sample plots by region (2009) [11]
Figure 40: HNV farmland in Germany based on the ecological site types map

NB Oppermann *et al* (2012) include a different map to show the distribution of HNV farmland in Germany (p231).

[8] Abb. 1: Shape-Dateien der Vorkartierung, die für die Bearbeitung zur Verfügung gestellt warden (Beispiel: Probefläche bw51, Neckarmühlbach und Umgebung; Datengrundlage: Digitales Orthophoto 1: 10.000 des des © LGL Landesamt für Geoinformation und Landentwicklung Baden-Württemberg, Az.: 2851.9-1/19 (www.lgl-bw.de) übernommen aus dem „Räumlichen Informations- und Planungssystem (RIPS) der Landesanstalt

[9] Abb. 1: Standorttypen der ökologischen Raumgliederung Deutschlands Durch die beiden Schichtungsebenen werden damit sowohl die aktuelle Landnutzung wie auch die dauerhaften standörtlichen Ausgangsbedingungen für Deutschland beschrieben.

[10] Abb. 2: Schichtenverteilung in einer HNV-Stichprobenfläche Dargestellt sind links die Landnutzungsklassen des Basis-DLM über Farben und die Standorttypen über Beschriftung, rechts das entsprechende Luftbild der Probefläche bw310.

[11] Abb. 3: Verteilung der Probeflächen und Losaufteilung für das Kartierungsjahr 2009

Figure 36: An example of the digitisation of mapped areas

NB The digitisation of the mapped areas is based on the results of the previous mapping. The template is based on the following shapefiles: Polygons of the area to be mapped each sampling area (agricultural land); Polygons of HNV farmland areas of *Vorkartierung*; Lines of the characteristic species of the transects *Vorkartierung*[12].

Source: BfN, 2012, © LGL Landesamt für Geoinformation und Landentwicklung Baden-Württemberg

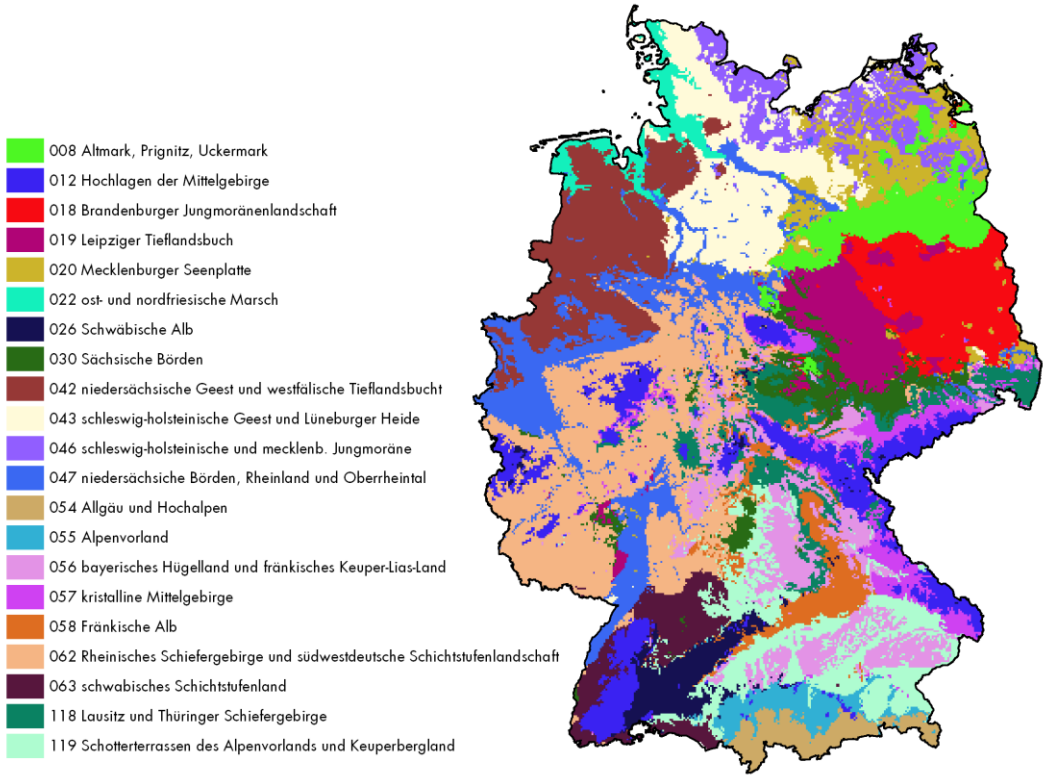
[12] Die Digitalisierung der kartierten Flächen erfolgt auf Grundlage der Ergebnisse der Vorjahreskartierung. Als Vorlage erhält jede/r Bearbeiter/in folgende Shape-Dateien:

– Polygone der zu kartierenden Fläche je Stichprobenfläche (Landwirtschaftsfläche)

– Polygone der HNV-Farmland-Flächen der Vorkartierung

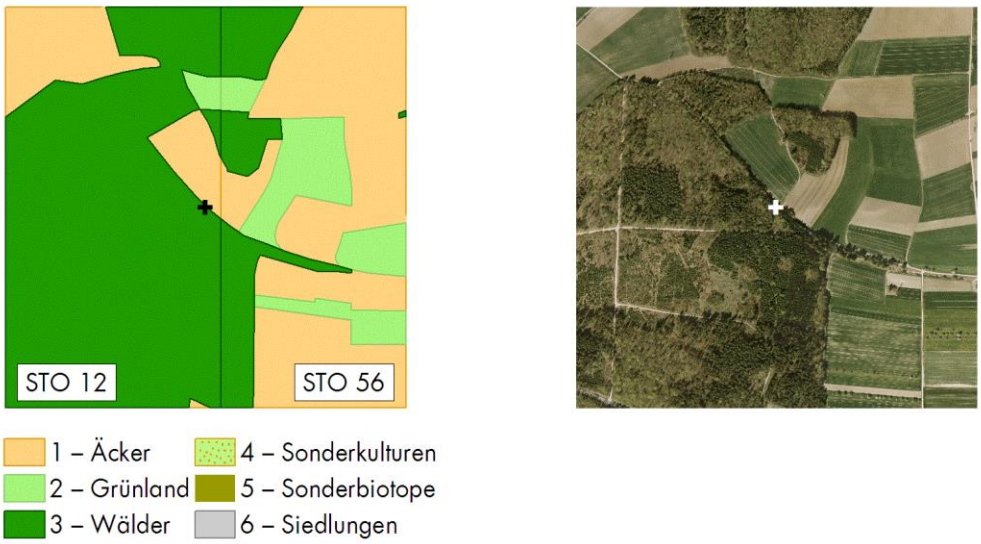
– Linien der Kennarten-Transekte der Vorkartierung

Figure 37: Ecological spatial planning in Germany



Source: BfN (2011)

Figure 38: The distribution layers for HNV sampling area (left) and the corresponding satellite image (right)

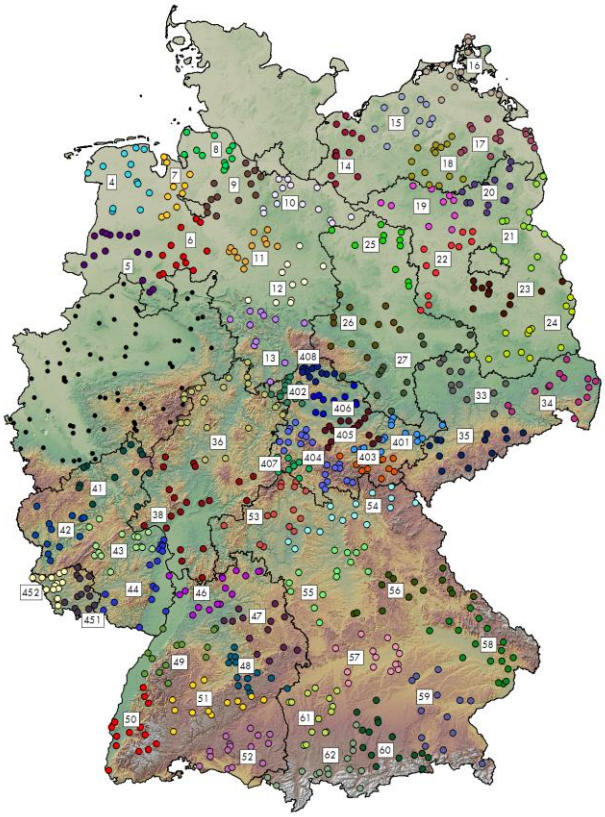


NB The distribution layers are based on the land use classes of the basic 'DLM'. The cross marks the centre of the sample surface[13].

Source: BfN (2011) - © LGL Landesamt für Geoinformation und Landentwicklung Baden-Württemberg, Az.: 2851.9-1/19 (www.lgl-bw.de)

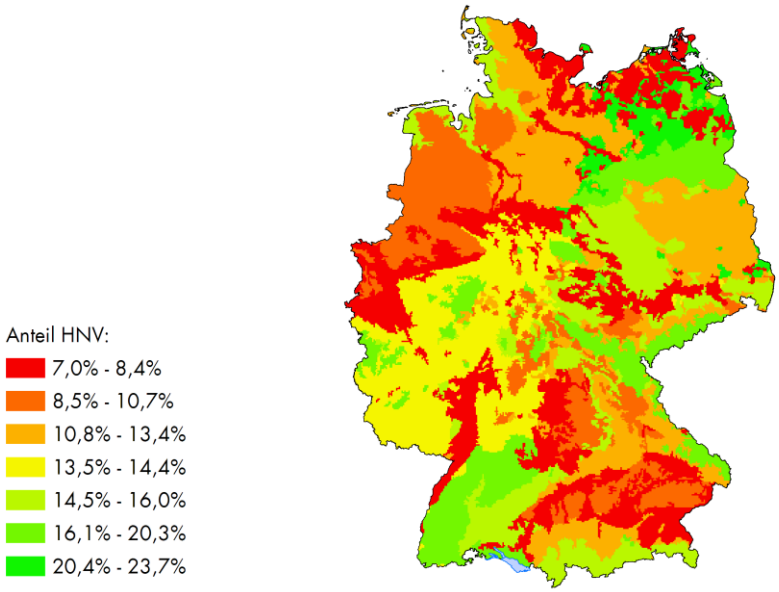
[13] Schichtenverteilung in einer HNV-Stichprobenfläche Dargestellt sind links die Landnutzungsklassen des Basis-DLM über Farben und die Standorttypen über Beschriftung, rechts das entsprechende Luftbild der Probefläche bw310. Das Kreuz markiert den Mittelpunkt der Probefläche, der bei der Ziehung der Probeflächen für die Schichtzuordnung verwendet worden war. Die Probefläche war für die Schicht 3–012 gezogen worden.

Figure 39: The distribution of sample plots by region (2009)



Source: BfN (2011)

Figure 40: HNV farmland in Germany based on the ecological site types map



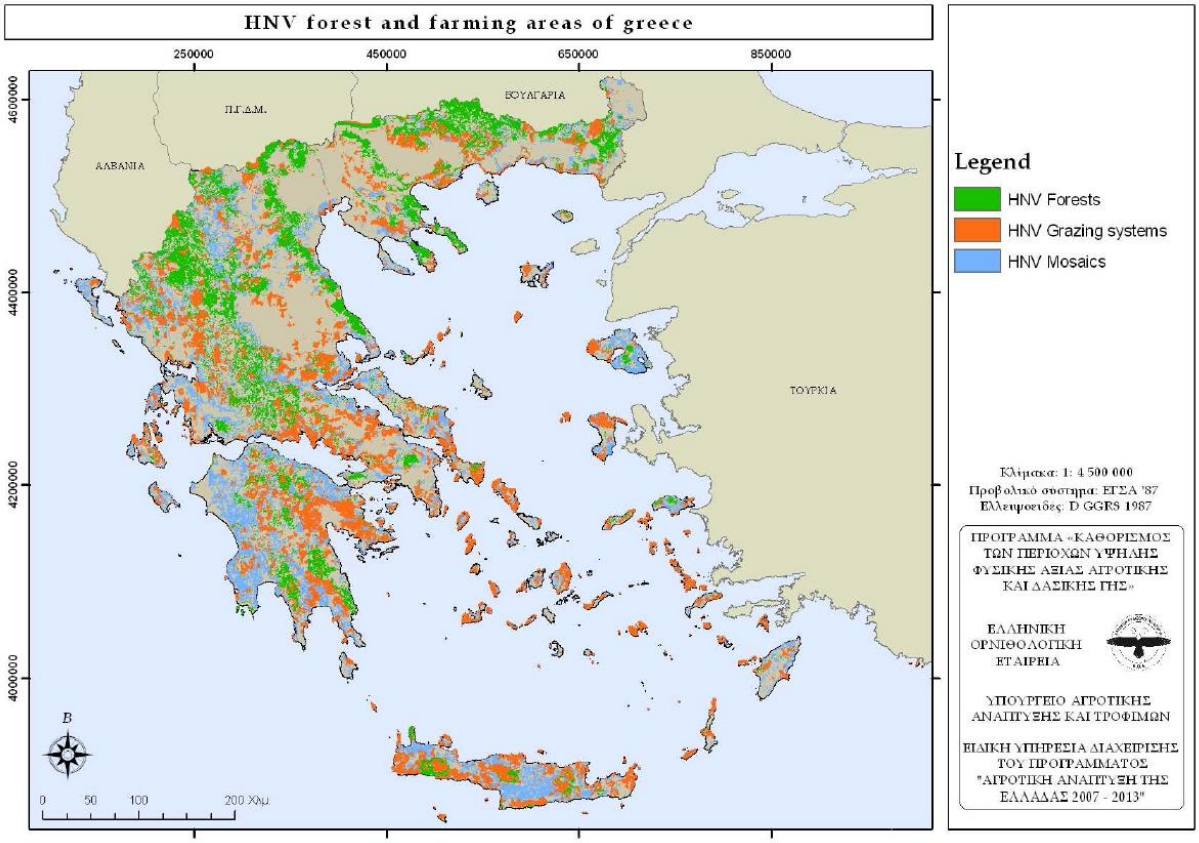
NB The values of the shades are determined from data in Table 9 of the report (BfN, 2011)[14].
Source: BfN (2011)

[14] Abgestufte Darstellung der Werte aus Tab. 9, genaue Lage der Standorttypen mit Benennung siehe Abb. 1. Im Gegensatz zu Abb. 1 sind hier nur Rasterfelder differenziert, in denen auch Stichprobenflächen im Rahmen der Ersterfassung kartiert wurden. Zahlreiche sehr kleine Rasterfelder ohne Kartierungsdaten wurden mit dem selben Wert belegt wie die umgebenden Schichten.

Figure 41: The HNV farmland and forest areas of Greece as identified from the different analytical levels

NB Oppermann *et al* (2012) include a map showing the distribution of HNV agricultural (arable and grazing) land in Greece (p243).

Figure 41: The HNV farmland and forest areas of Greece as identified from the different analytical levels



Source: Dimalex, T et al. Available at: http://pmk.agri.ee/pkt/CD/content/Posters/11-Dimalexis_Markopoulou_Kourakli_Manolopoulos_Vitaliotou_Chouvardas_poster_paper.pdf

Hungary

Figure 42: Areas designated under the HNV Areas agri-environment scheme in Hungary
Figure 43: Tanya regions in Hungary

Additional maps are available at http://geo.kvvm.hu/tir_en/viewer.htm (Nature Conservation Information System)

NB Oppermann et al (2012) include the same map as the one depicted in Figure 39.

Figure 42: Areas designated under the HNV Areas agri-environment scheme in Hungary

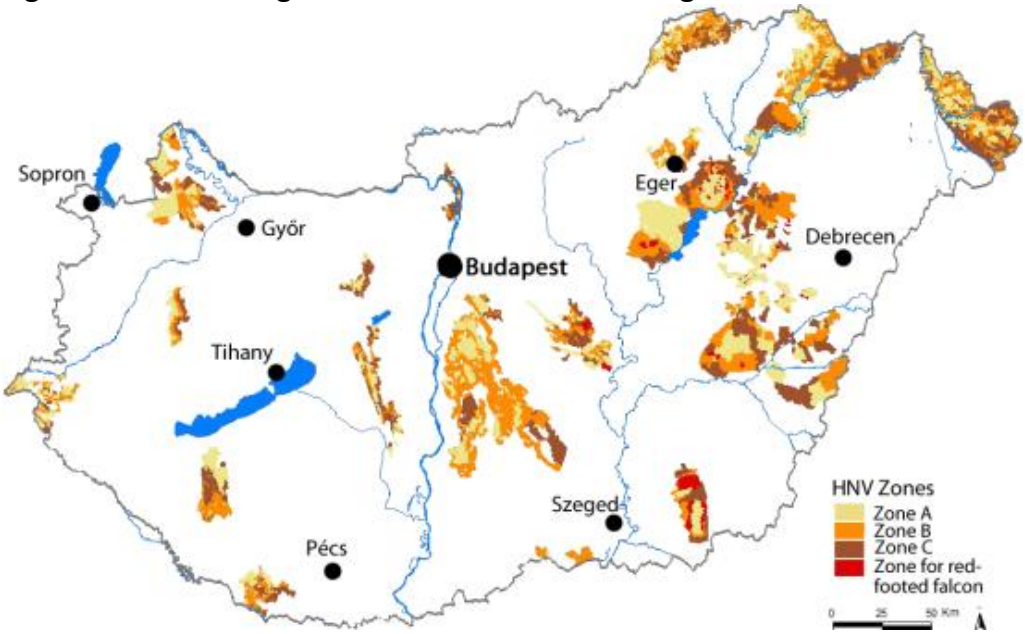
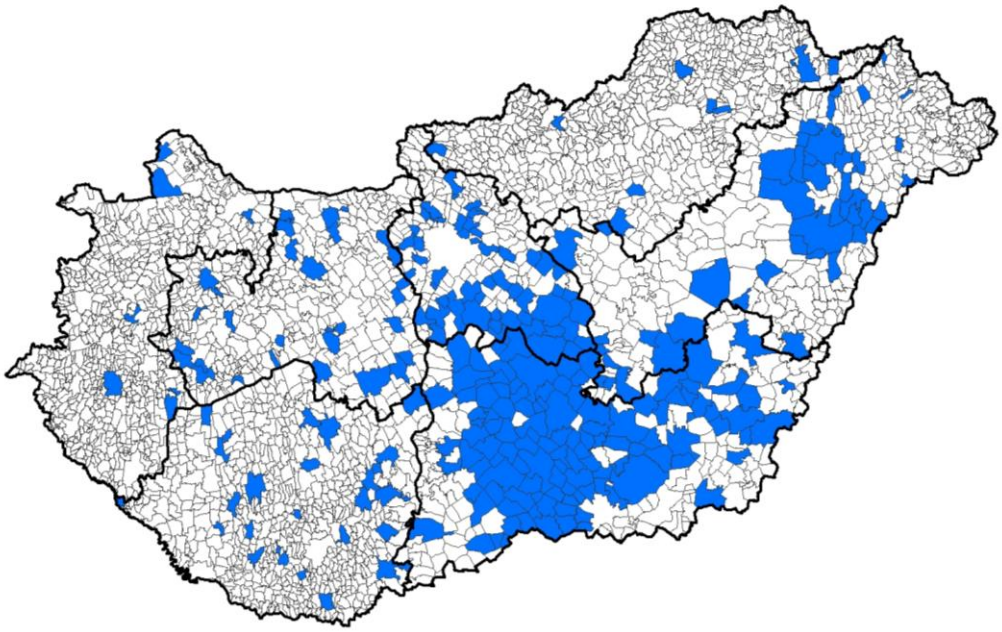


Figure 43: Tanya regions in Hungary



Ireland

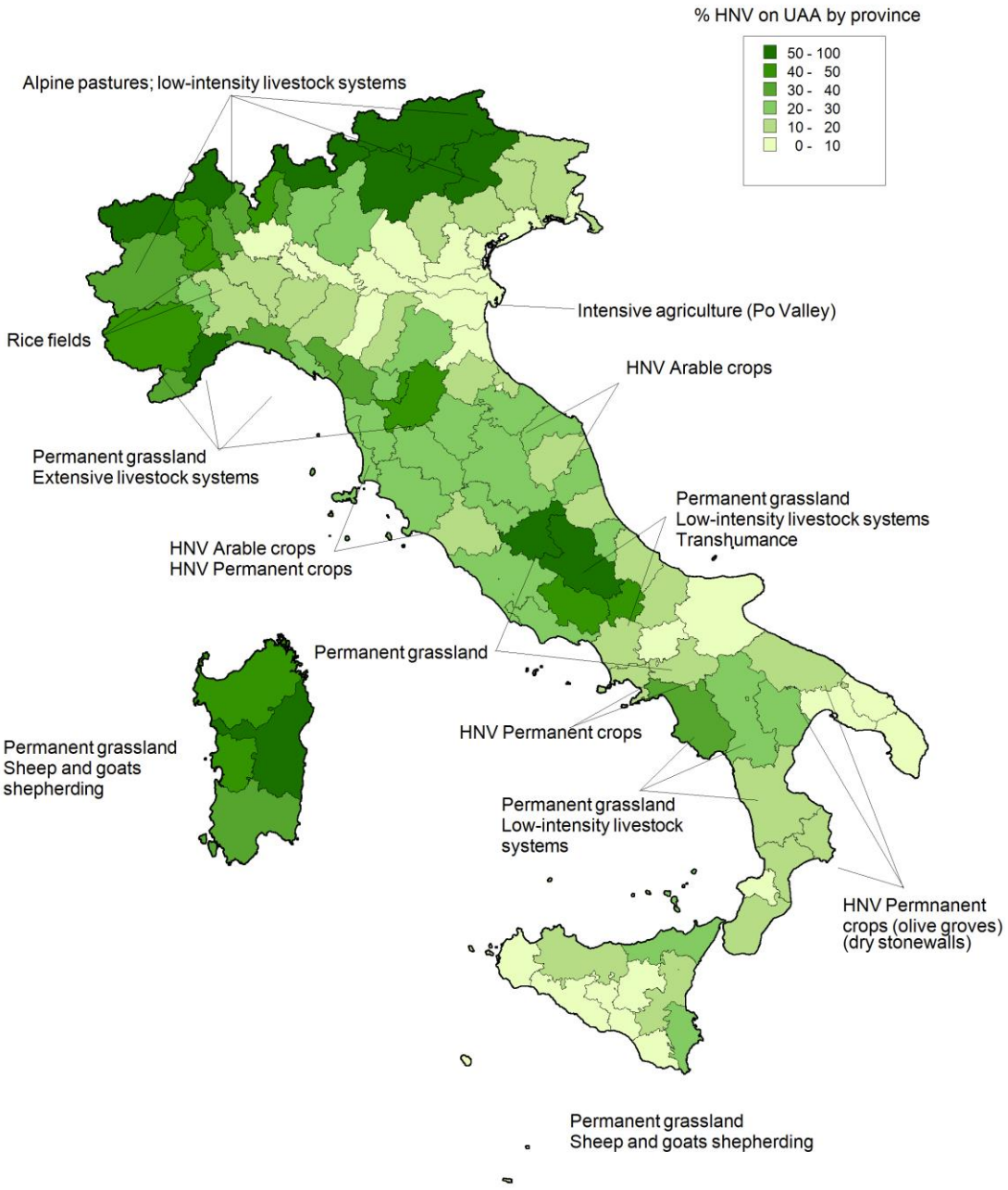
No map available

NB Oppermann *et al* (2012) include two maps, one showing livestock densities in 1970 and the other for livestock densities in 1990 (p259).

Figure 44: HNV Farming systems in Italy at NUTSIII level
Figure 45: Distribution maps of HNV farmland by type and class of nature value

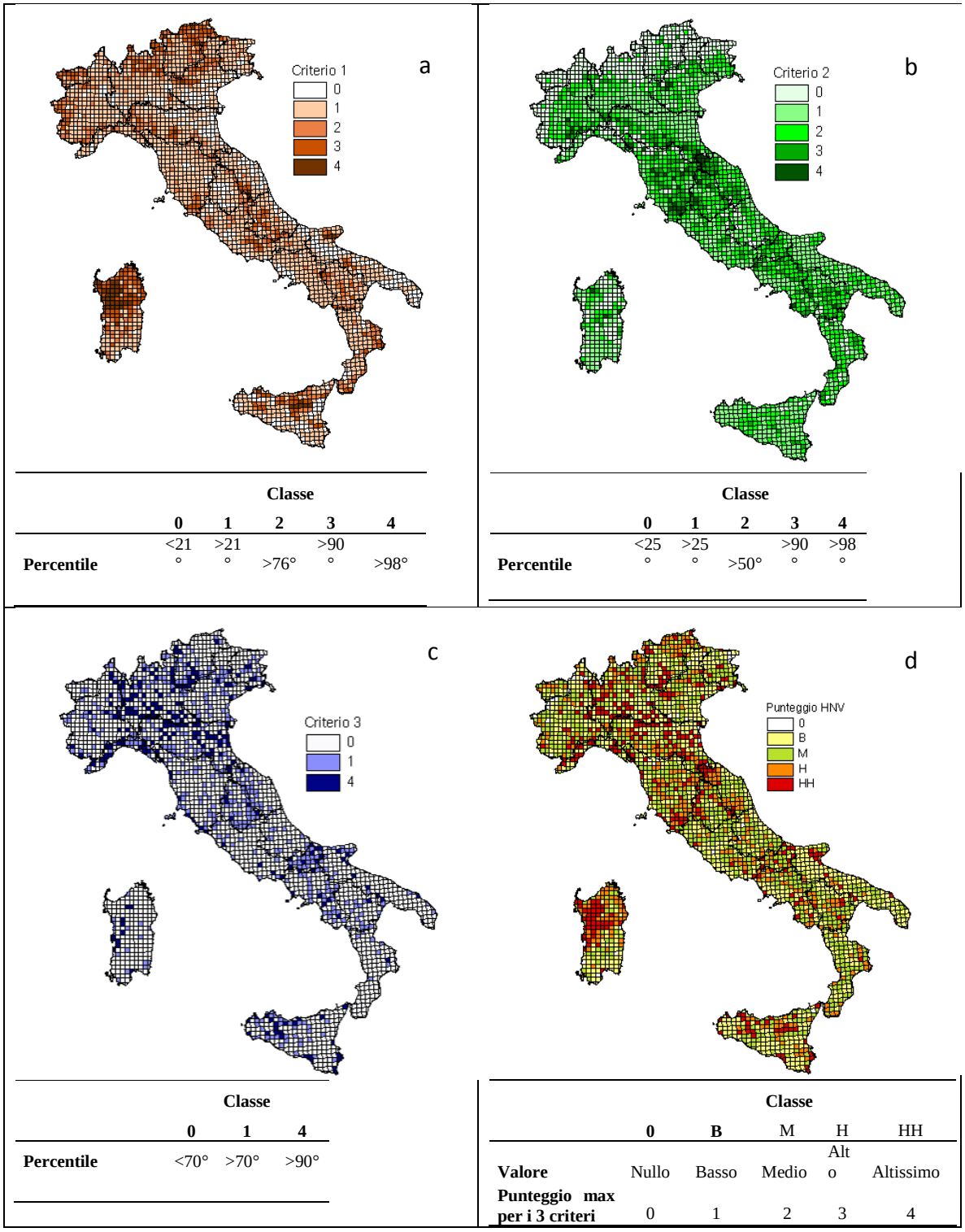
NB Oppermann *et al* (2012) include the same map as the one depicted in Figure 41.

Figure 44: HNV Farming systems in Italy at NUTSIII level



Source: *Author's elaborations on 2005 FSS data.*

Figure 45: Distribution maps of HNV farmland by type and class of nature value



Classe	0	1	2	3	4
Percentile	<21°	>21°	>76°	>90°	>98°

Classe	0	1	2	3	4
Percentile	<25°	>25°	>50°	>90°	>98°

Classe	0	1	4
Percentile	<70°	>70°	>90°

Classe	0	B	M	H	HH
Valore	Nullo	Basso	Medio	Alto	Altissimo
Punteggio max per i 3 criteri	0	1	2	3	4

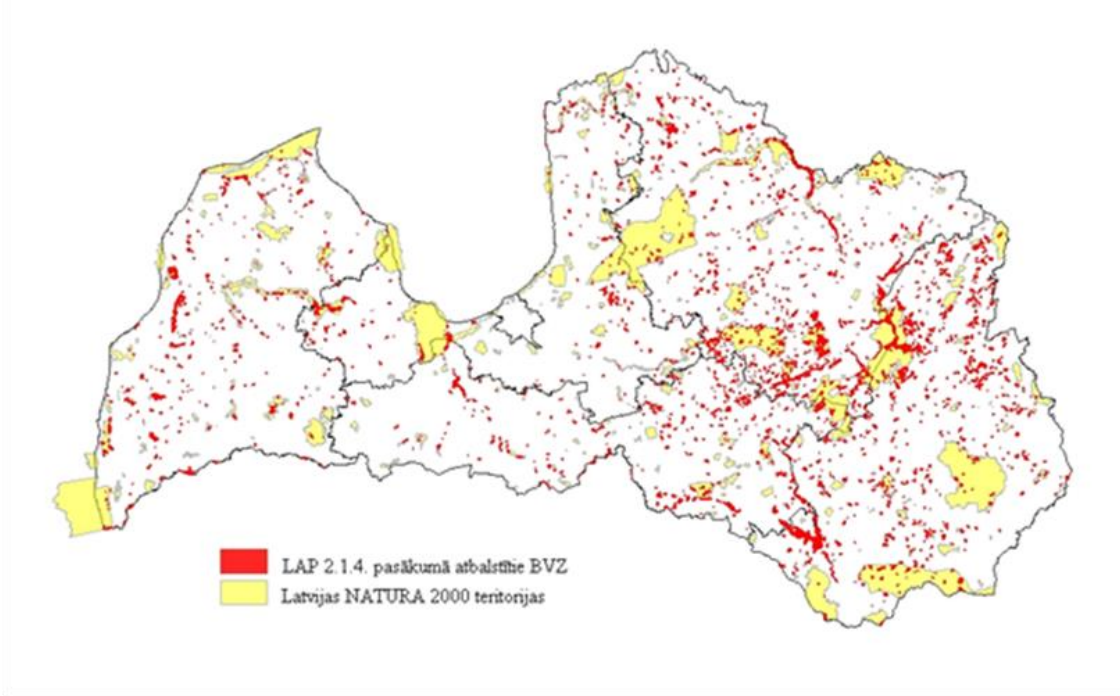
Distribution maps of HNV farmland for classes of value according to the criterion 1 (a), 2 (b) and 3 (c) and summary map (d) of the HNV farmland derived from the intersection of the three criteria. The reference unit for the classification are the AGRIT cells (10 x 10km2).
B = low; M = medium; H = high; HH = very high.

Source: Trisorio *et al* (2012)

Figure 46: Biologically Valuable Grasslands (in red) and Natura 2000 sites (in yellow) in Latvia

NB Oppermann *et al* (2012) include a map showing semi-natural grasslands (2007 data) p276

Figure 46: Biologically Valuable Grasslands (in red) and Natura 2000 sites (in yellow) in Latvia



Source: ELFLA (2010)[15]

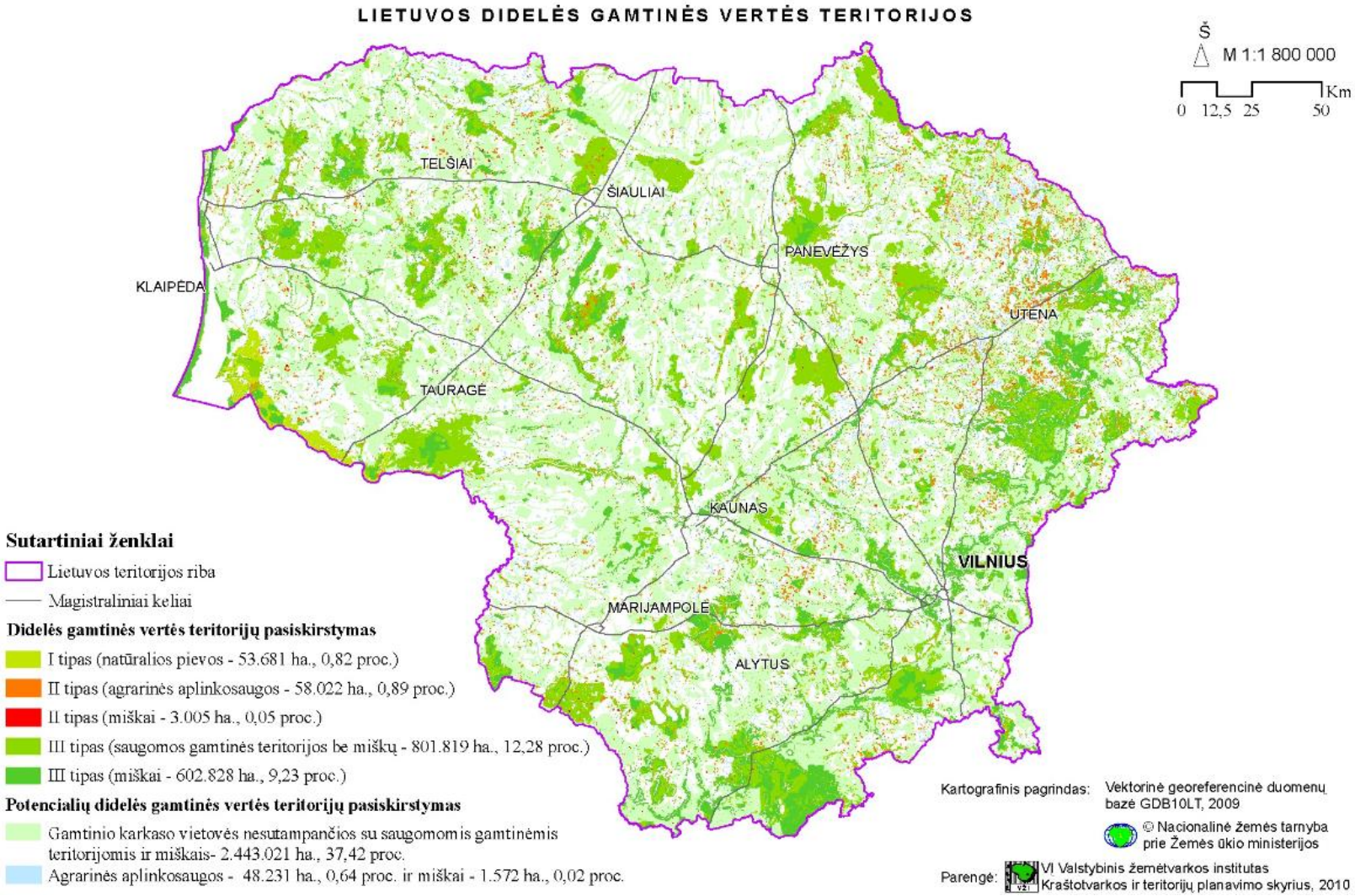
[15] ELFLA (2010) Lauku attīstības programmas 2007-2013 gadam novērtējuma vidustermiņa ziņojums (MTE), p118

Lithuania

Figure 47: Areas of high nature value in Lithuania

NB Oppermann *et al* (2012) include a map showing HNV areas which also shows areas of agro-conservation (p284). Note that there is no map in the MTE.

Figure 47: Areas of high nature value in Lithuania

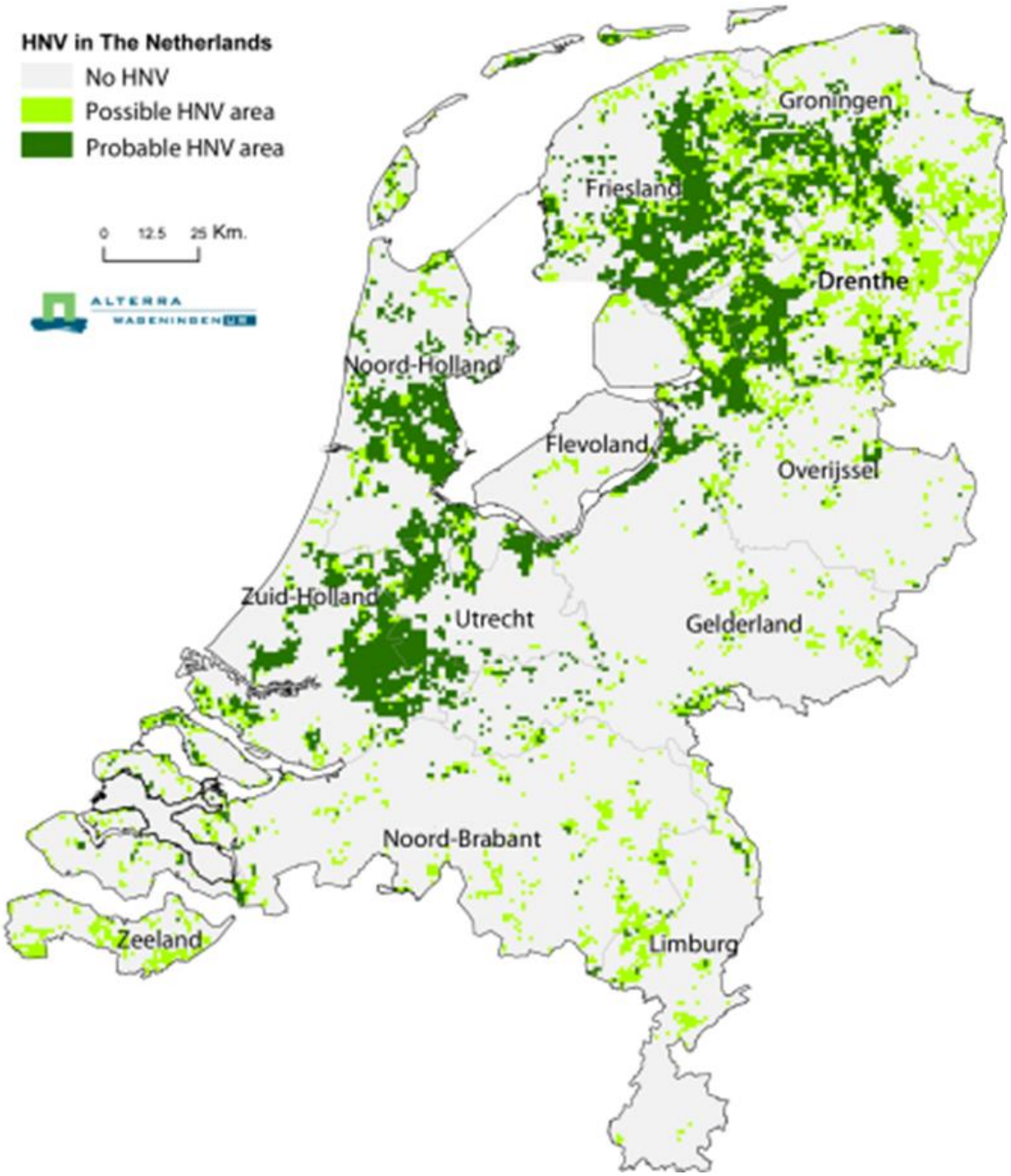


Netherlands

Figure 48: HNV farmland area in the Netherlands as identified by Elbersen et al (2008)
Figure 49: HNV farmland area as identified by Doorn et al (2013)

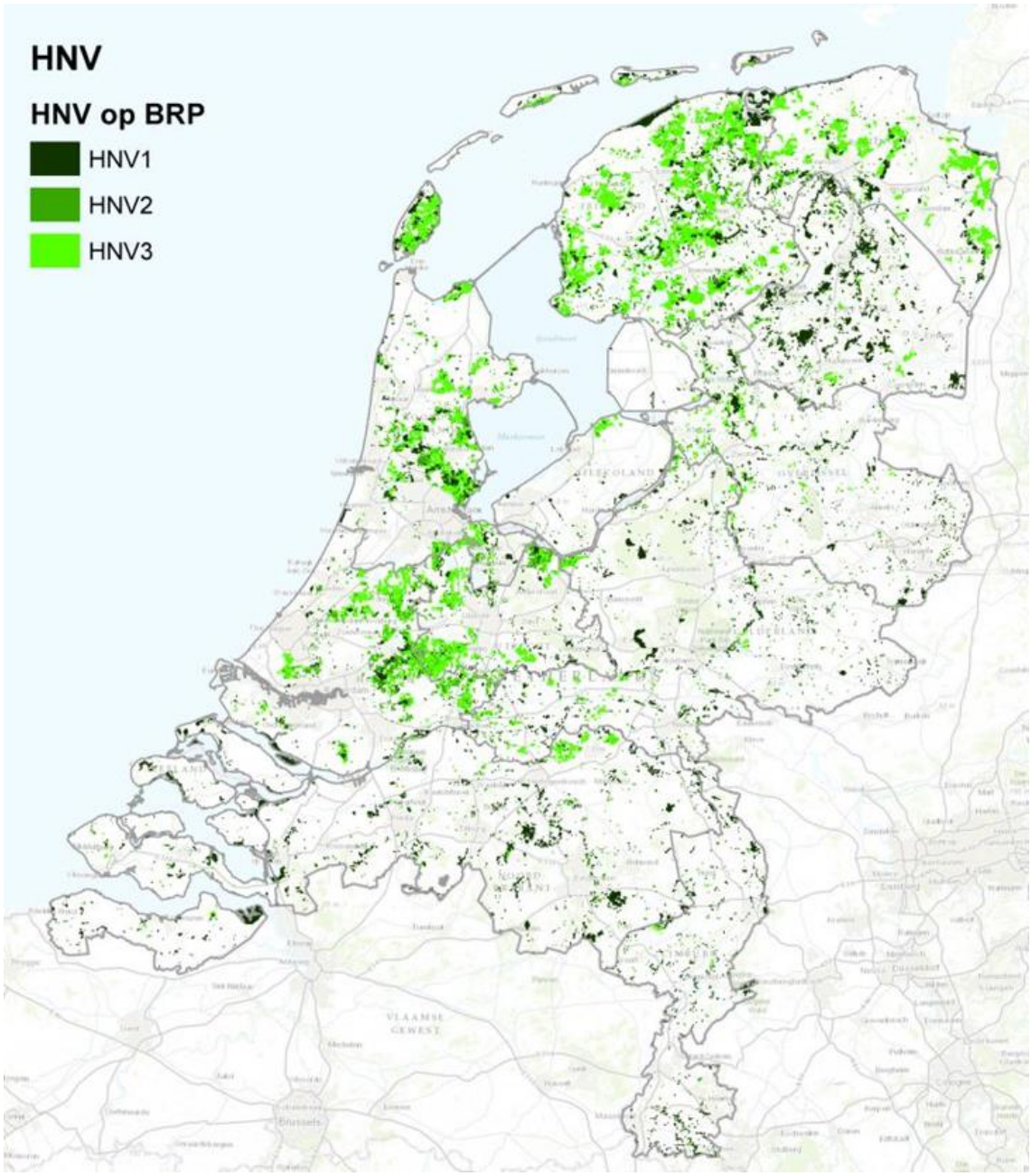
NB Oppermann *et al* (2012) include the same map as the one depicted in Figure 44.

Figure 48: HNV farmland area in the Netherlands as identified by Elbersen *et al* (2008)



Source: Elbersen *et al* (2008). Available at http://edepot.wur.nl/19884

Figure 49: HNV farmland area as identified by Doorn *et al* (2013)



Source: Doorn *et al* (2013). Available at: http://edepot.wur.nl/200676

Figure 50: Areas with high natural values in Poland

NB Oppermann *et al* (2012) include two maps showing the Natura 2000 areas (Special Protection Areas and Special Areas of Conservation) (p331) and the extensive farming municipalities (p333).

Figure 50: Areas with high natural values in Poland

Source: Institute of Surveying and Mapping http://www.igik.edu.pl/pl/wstepna-koncepcja-wyznaczenia-na-obszarach-wiejskich-polski-obszarow-o-wysokich-walorach-przyrodniczych-hnv-oraz-opracowanie-dla-nich-programu-monitoringu

Portugal

The case study is still waiting for the maps.

NB There are no maps provided in Oppermann *et al* (2012).

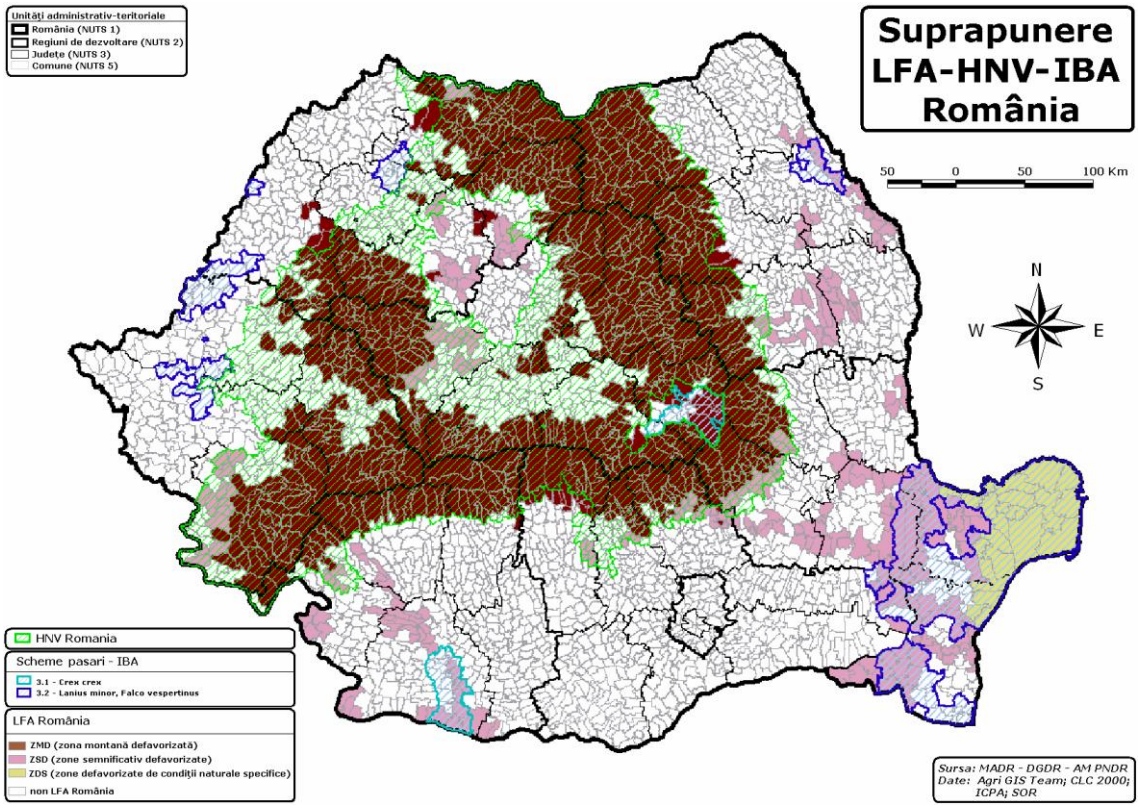
Romania

Figure 51: Map showing areas of HNV, LFA and IBA in Romania
Figure 52: A simplified indication of the distribution of farming systems in Romania
Figure 53: Map of the agri-environment packages in Romania, Packages 1, 2 and 3 and 6 (HNV Types 1 and 2)
Figure 54: Map of the agri-environment packages in Romania, Package 7 (HNV Type 3)

Additional maps are available at: http://www.fundatia-adept.org/bin/file/conference2010/HNV_conference_brochure1.pdf

NB Oppermann *et al* (2012) include the same map as the one depicted in Figure 47.

Figure 51: Map showing areas of HNV, LFA and IBA in Romania



NB In Romania the term HNV is used purely in the sense of permanent grassland. Note also that although IBA is commonly classified as type 3 HNV, it is regarded as a separate category to HNV.

Source: NRDP (2007)

Figure 52: A simplified indication of the distribution of farming systems in Romania

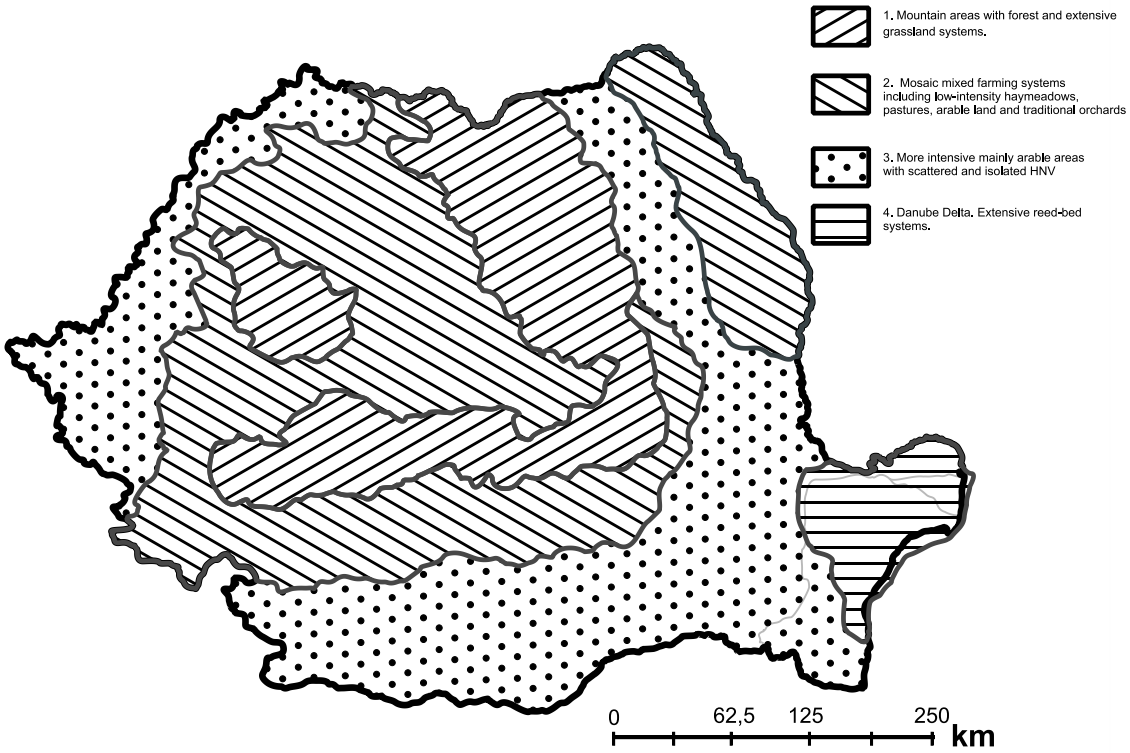
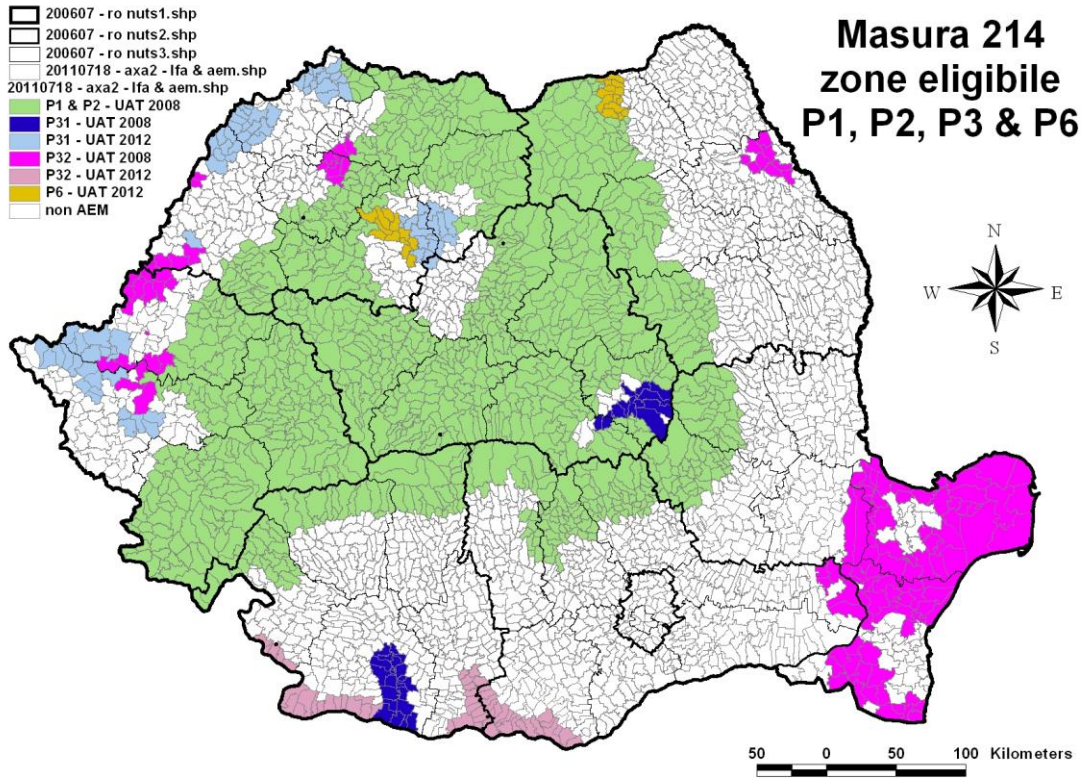
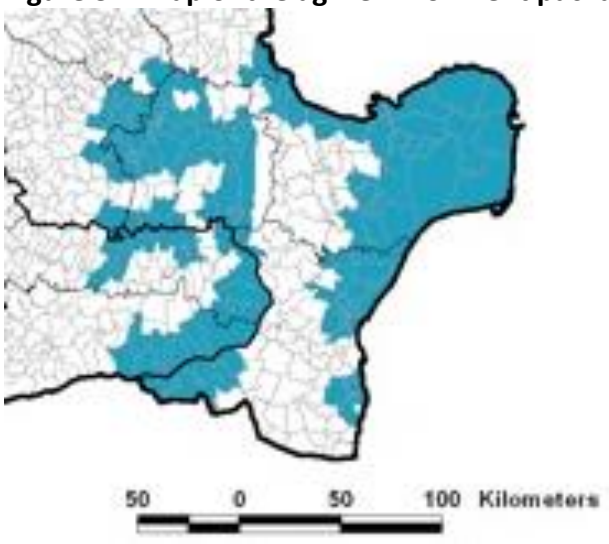


Figure 53: Map of the agri-environment packages in Romania, Packages 1, 2 and 3 and 6 (HNV Types 1 and 2)



Legend translation:
ro nuts1 = RO NUTS 1, etc.
P1 = Measure 214 Package 1, etc.
UAT = Administrative Territorial Unit (ATU) NUTS 5, or commune

Figure 54: Map of the agri-environment packages in Romania, Package 7 (HNV Type 3)

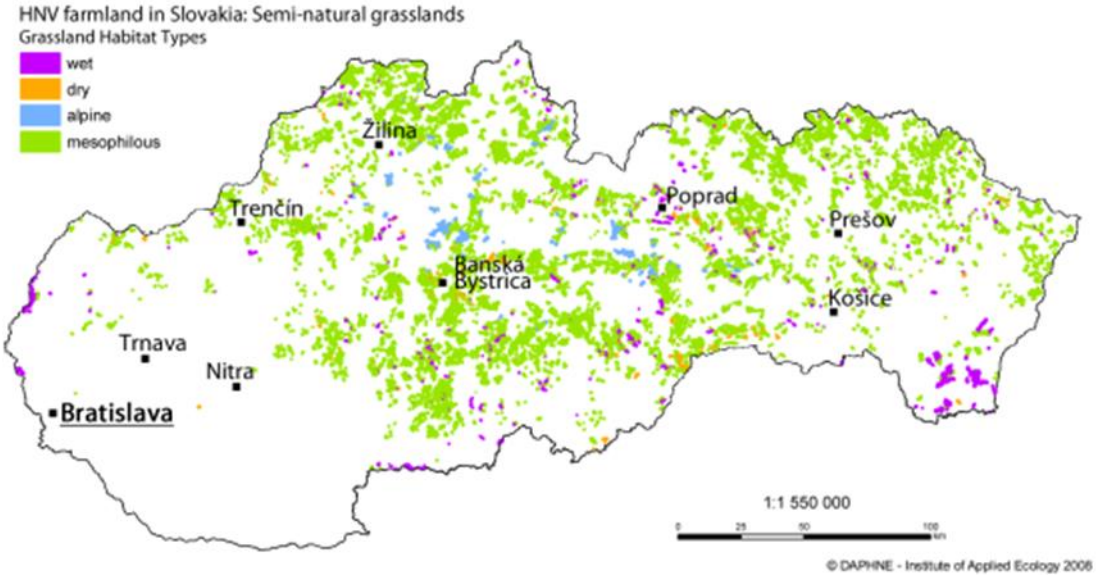


Legend translation:
ro nuts1 = RO NUTS 1, etc.
P1 = Measure 214 Package 1, etc.
UAT = Administrative Territorial Unit (ATU) NUTS 5, or commune

Figure 55: Map of HNV Type 1 in Slovakia. Extent and categories of semi-natural habitats
Figure 56: Map of potential HNV Type 2 in Slovakia. Traditional Agricultural Landscape with mosaic
Figure 57: Distribution of all four classified groups of TAL in Slovakia

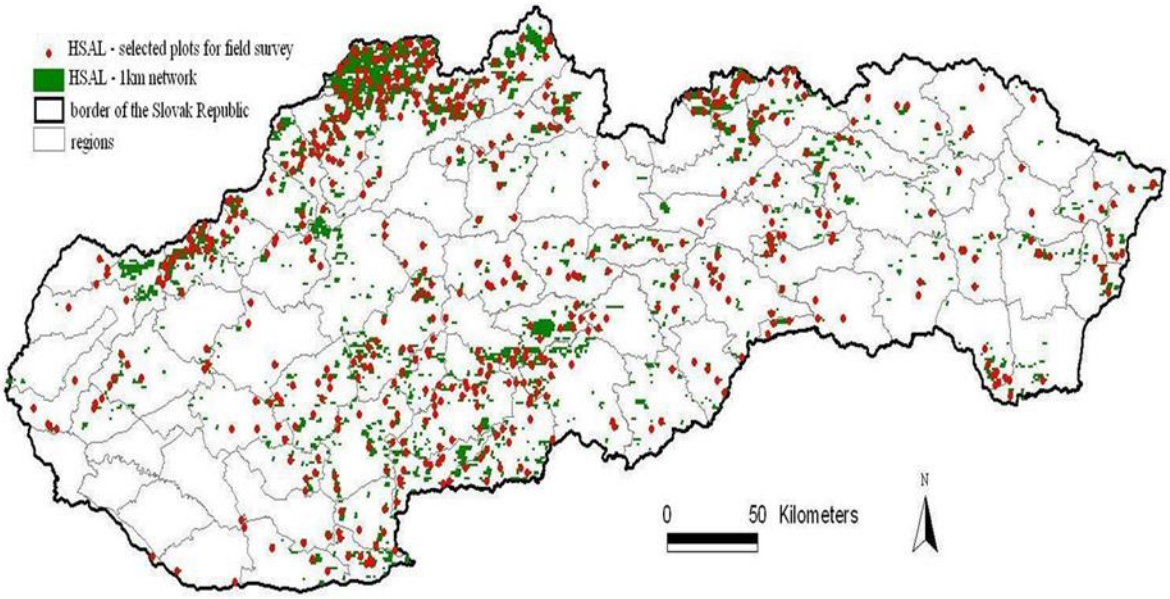
NB Oppermann *et al* (2012) include the same map as the one depicted in Figure 50.

Figure 55: Map of HNV Type 1 in Slovakia. Extent and categories of semi-natural habitats



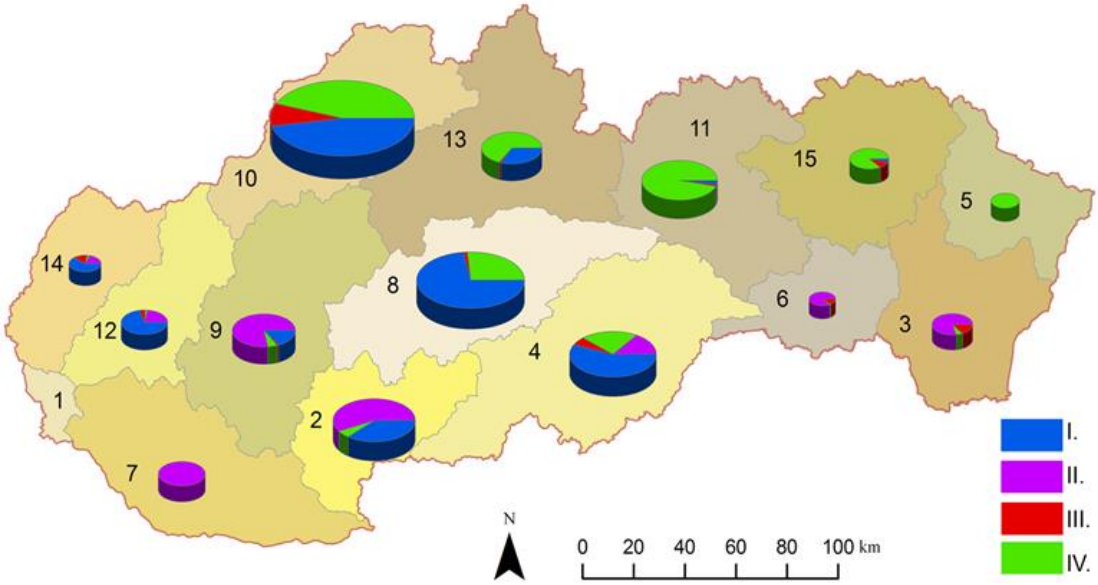
Source: DAPHNE – Institute of Applied Ecology, 2008

Figure 56: Map of potential HNV Type 2 in Slovakia. Traditional Agricultural Landscape with mosaic



Source: http://www.uke.sav.sk/hspk/typizacia/typizacia.htm

Figure 57: Distribution of all four classified groups of TAL in Slovakia



Source: http://www.uke.sav.sk/hspk/typizacia/typizacia.htm

Slovenia

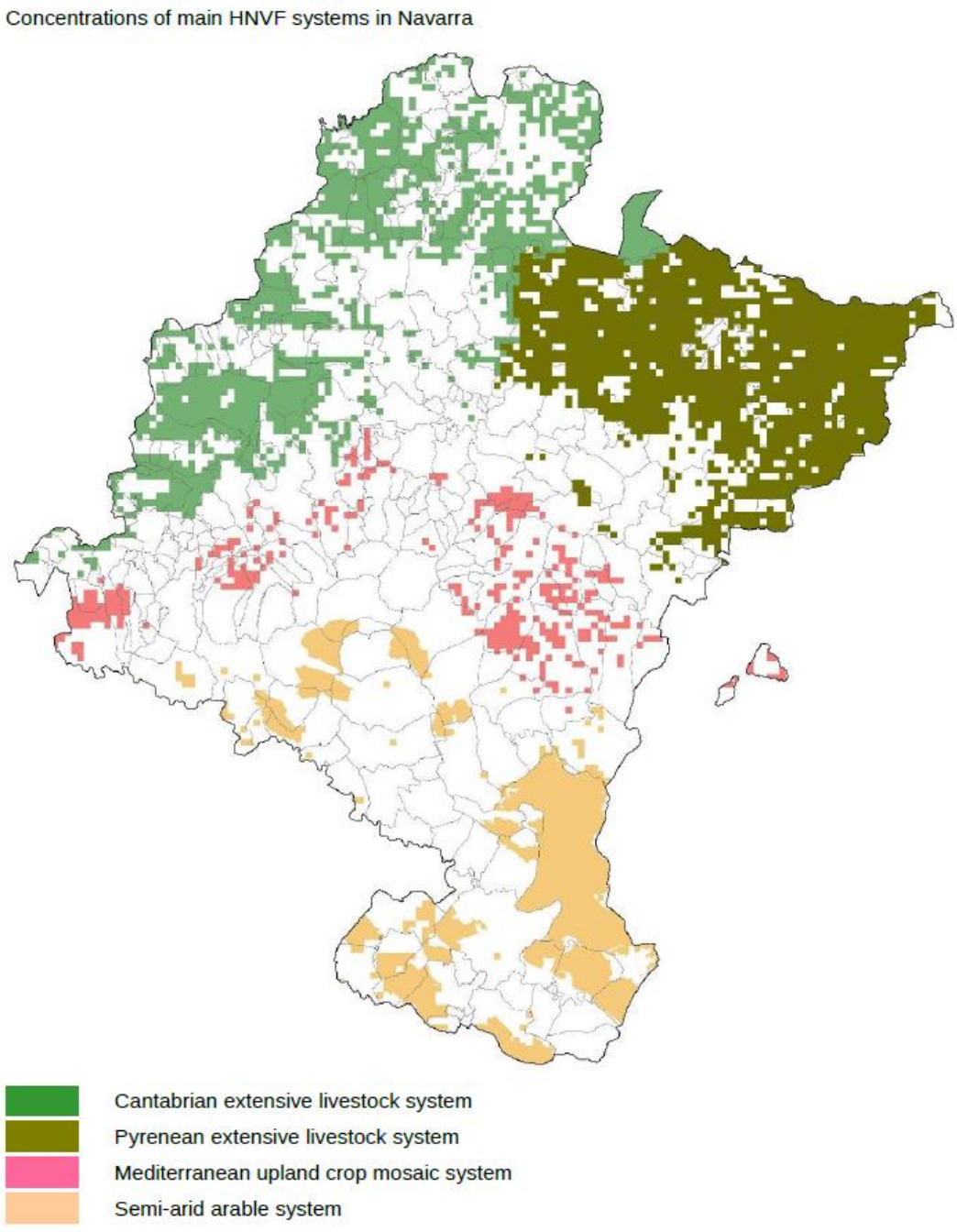
No maps available.

NB Oppermann *et al* (2012) include a map of the share of HNV areas in total agricultural land (p379).

Figure 58: The main concentration of HNV farming systems in Navarra (Map A)
Figure 59: HNV farmland and forest in Navarra (with the threshold designed to match the Map A) (Map B)

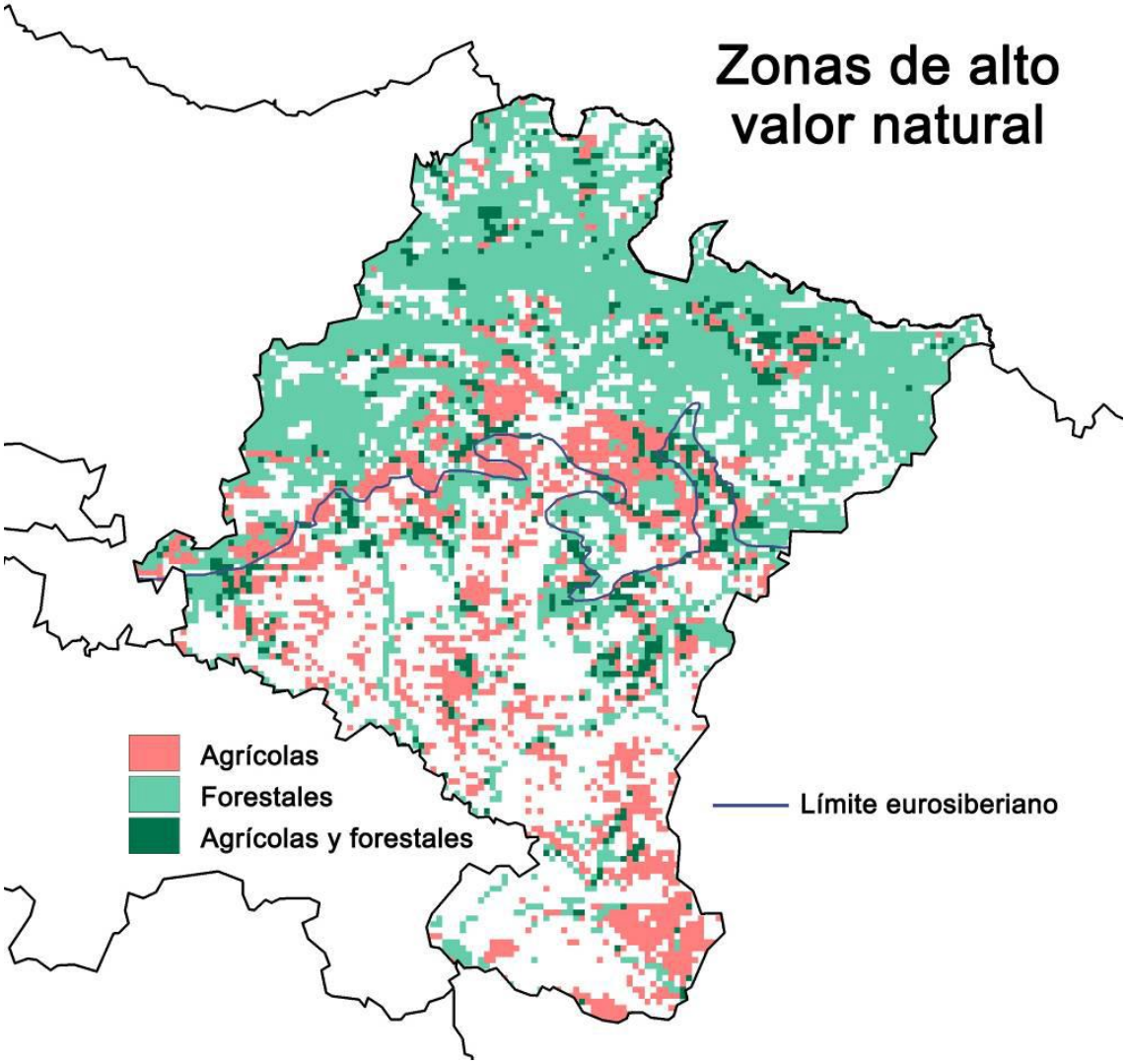
NB Oppermann *et al* (2012) include a map showing the plains in Spain for livestock and arable systems (dehesas, low intensity livestock, shrubsteppes and paste pseudosteppes) (p396).

Figure 58: The main concentration of HNV farming systems in Navarra (Map A)



Source: Navarra_SAVN_2010_2010

Figure 59: HNV farmland and forest in Navarra (with the threshold designed to match the Map A) (Map B)



Source: MARM_AVN

Figure 60: The distribution of HNV farmland according to EEA's definition and analysis[16]
Figure 61: The distribution of meadows and pasture in Sweden[17]
Figure 62: The distribution of meadows and pastures in relation to the area of potential farmland[18]
Figure 63: Environmental quality of agricultural landscape in Sweden

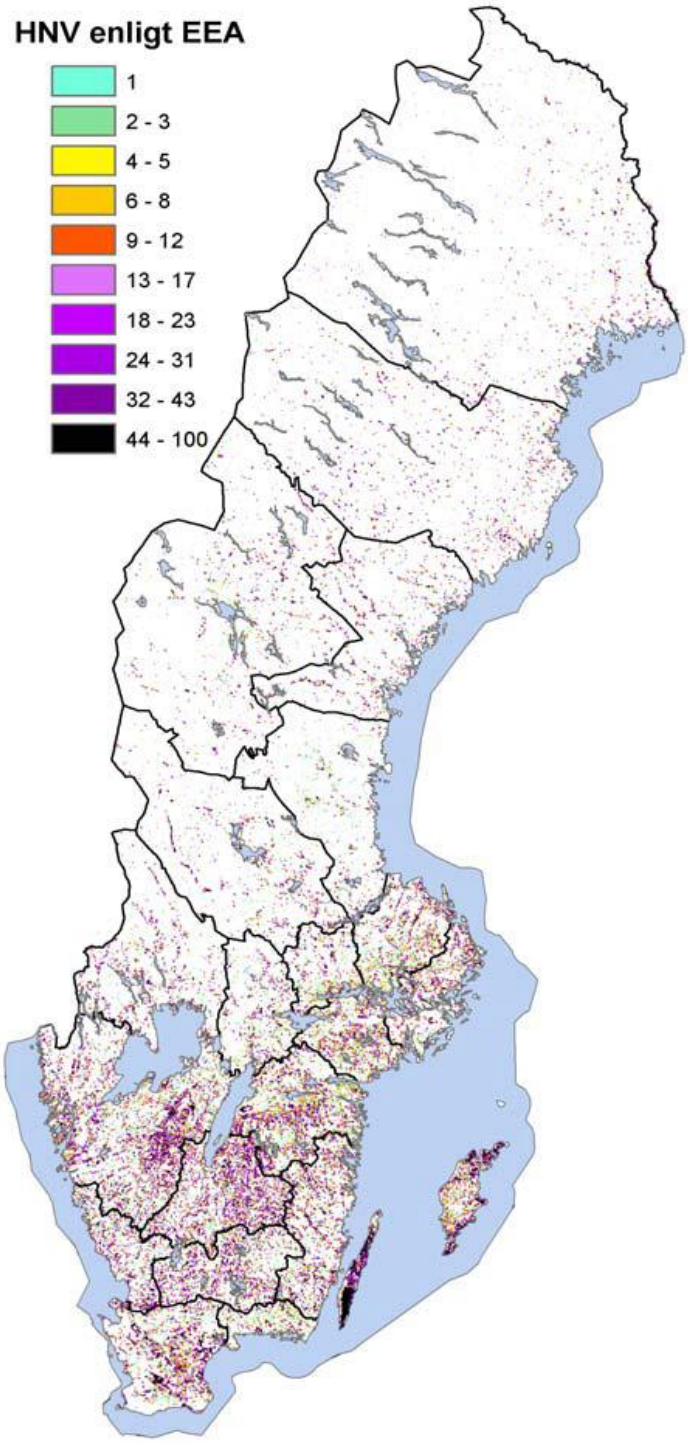
NB Oppermann *et al* (2012) provide no maps.

[16] Figur 1: a) Fördelning av HNV-jordbruksmark enligt EEA:s definitioner och analyser (CLC-klasser, Ängs- och Betesmarksobjekt, Natura 2000, PBA och IBA). HNV-areal är redovisade som andel HNV-jordbruksmark per kvadratkilometerruta (dvs. totalareal inte jordbruksareal) (Paracchini in prep.) b) Klimatzoner i Sverige använda för stratifiering av de CLC klasser som representerar HNV-jordbruksmark enligt EEA (Metzger m.fl. 2005).

[17] Figur 11 a Mönster i fördelningen av objekt i Ängs- och betesmarksinventeringen per ekoruta. Vissa områden har stora arealer ängs- och betesmarksobjekt. Det kan vara antingen som stora fäbodsobjekt i Norrland (översta rutan), mosaikartadelandskap i Götalands mellanbygder (mellersta rutan) eller som stora sammanhängande betesmarker på Öland (nedersta rutan). Det vita rutnätet är ekorutor med 5 km sida, gröna, orange och röda markeringar är olika typer av ängs- och betesmarksobjekt från Ängs- och betesmarksinventeringen.

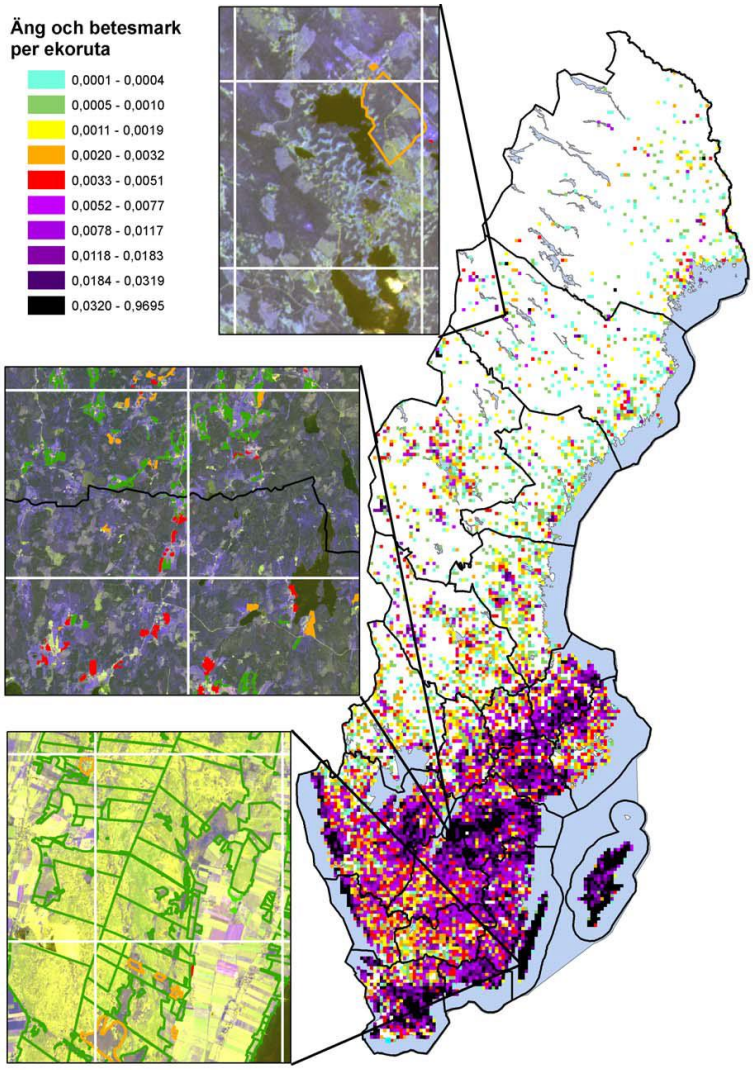
[18] Figur 11 b Mönster i fördelningen av ängs- och betesmarker i förhållande till arealen potentiell jordbruksmark. I Norrlands inland utgör ängs- och betesmarksobjekten ofta en stor andel av den potentiella jordbruksmarken (översta rutan), det samma gäller för en del skogsbygder (mellersta rutan) och i kustbandet (nedersta rutan). Det vita rutnätet är ekorutor med 5 km sida, gröna, orange och röda markeringar är olika typer av ängs- och betesmarksobjekt från Ängs- och betesmarksinventeringen.

Figure 60: The distribution of HNV farmland according to EEA's definition and analysis



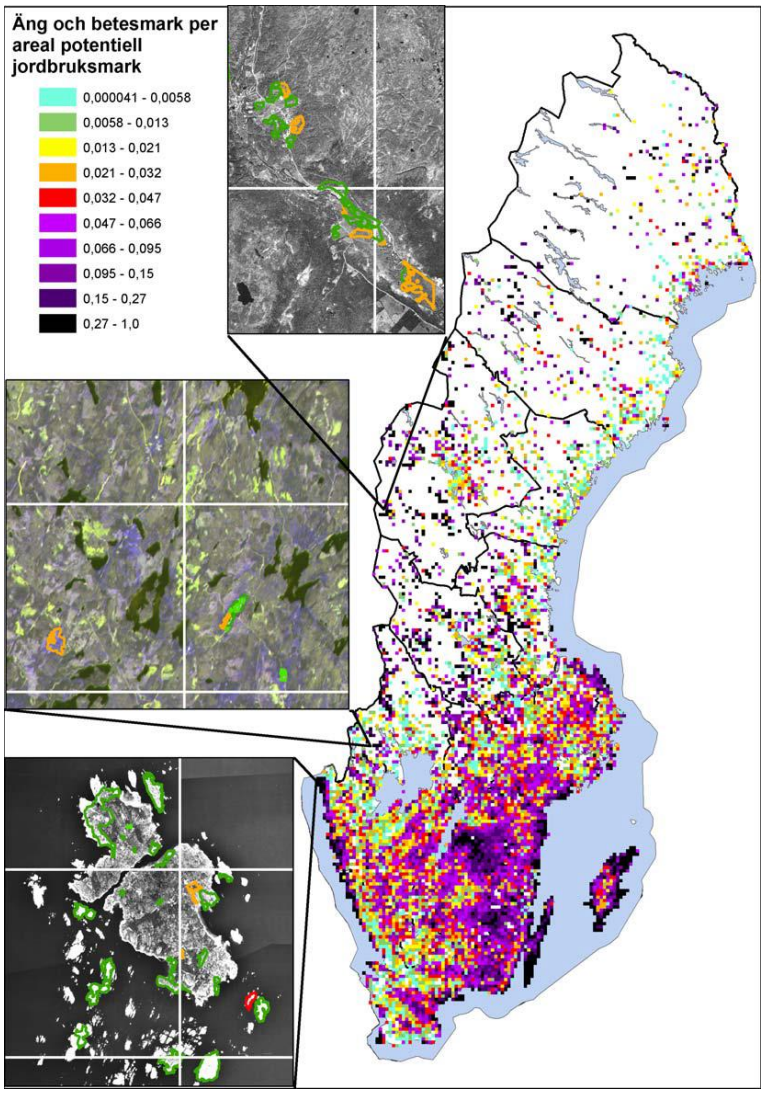
Source: Edman and Wennberg (2008), p14

Figure 61: The distribution of meadows and pasture in Sweden



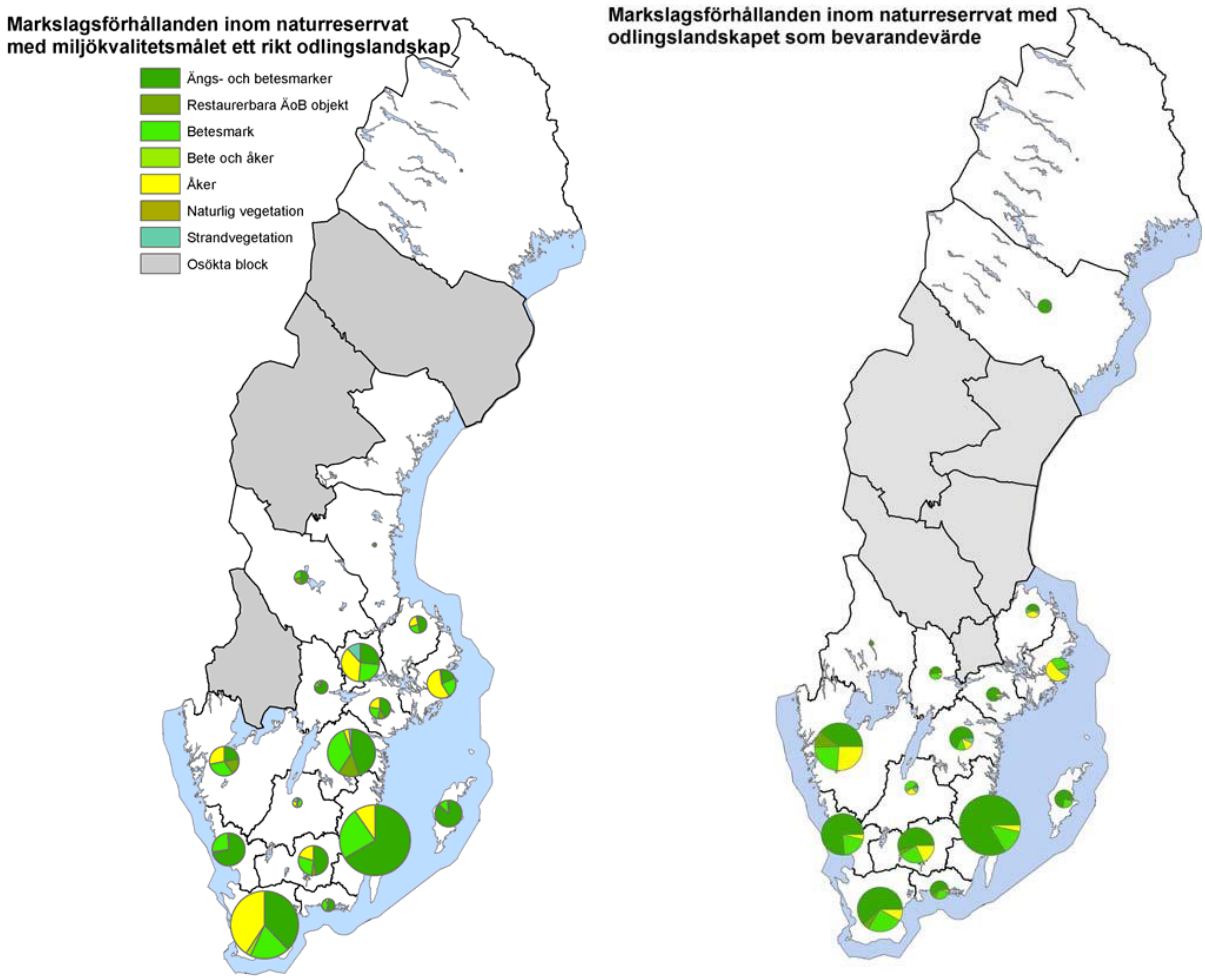
Source: Edman and Wennberg (2008) p33

Figure 62: The distribution of meadows and pastures in relation to the area of potential farmland



Source: Edman and Wennberg (2008) p34

Figure 63: Environmental quality of agricultural landscape in Sweden



[Figur 13 Det är stora skillnader mellan länen på hur man bedömer bevarandevärde och miljökvalitetsmål för reservat. Det finns stora arealer jordbruksmark inom reservat som inte har med denna i sitt utpekade bevarandevärde. Det finns även län som inte bedömer odlingslandskapet som vare sig utpekat miljökvalitetsmål eller bevarandevärde i sina reservat (grått), de kan ha satt arter och habitat som bevarandevärdet istället för det specifika sammanhanget. Cirklarnas storlek är relativ arealen (tabell 6 och 7).]

Figure 13 There are major differences between the counties on how to assess the conservation value and environmental quality objectives for Reserve. There are large areas of agricultural land in the reserves who do not have this in their designated conservation value. There is also a county that does not consider the agricultural landscape as either designated environmental quality or conservation value of their reserves (gray), they may have sat species and habitat conservation value instead of the specific context. Size of the circles is the relative area (Tables 6 and 7).

Source: Edman and Wennberg (2008) p47

United Kingdom

No maps are provided in the case study

NB Oppermann *et al* (2012) include a sketch map of HNV farming zones in the UK (p440).