



Implementation of High Nature Value farmland in agri-environmental policies

What can be learned from other EU member states?

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agri-environmental policies

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Abstract

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The term High Nature Value farmland (HNV) refers to types of farmland that are important for biodiversity. In the European agri-environmental policy arena HNV is gaining interest, especially in the ongoing debate about the greening of the Common Agricultural Policy. At present The Netherlands lags behind in terms of HNV policy adoption. This report describes in what way three EU member states implement HNV farmland in their agri-environmental policy and discusses which lessons can be drawn from the cases. The report concludes with a roadmap on how The Netherlands could proceed in the further integration of HNV farmland in its agri-environmental policy.

Keywords: High Nature Value farmland, agri-environmental policy, CAP.

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Uitgebreide samenvatting

High Nature Value farmland, een Europees belang

Landbouwgrond met hoge natuurwaarden wordt, zeker in EU-verband, als waardevol en belangrijk gezien. De Europese Commissie is van mening dat het behoud van biodiversiteit niet kan worden bereikt door alleen Natura 2000-gebieden te beschermen. Ook de gebieden met hoge natuurwaarden buiten het Natura 2000-netwerk, veelal landbouwgebied, moeten beschermd en goed beheerd worden.

De EC raadt lidstaten aan om de bescherming van landbouwgrond met hoge natuurwaarden, ook wel High Nature Value farmland (HNV) genoemd, op te nemen in hun plattelands-ontwikkelingsprogramma. Het behoud van HNV is één van de doelstellingen van het Europees landbouwfonds voor plattelandsontwikkeling (ELFPO) waarop ook wordt gemonitord. Verder staat het behoud van natuurwaarden in landbouwgebieden als doelstelling genoemd in het EU *Biodiversity action plan* (EC, 2006) en ook in de recentelijk verschenen *Biodiversity strategy to 2020* (EC, 2011).

De toenemende relevantie binnen de Europese beleidsagenda is een reden om te verkennen hoe binnen het Nederlandse beleid met het HNV-concept kan worden omgegaan. Het gaat dan zowel om het identificeren en monitoren van HNV als het richten van nieuw en bestaand beleid op deze gebieden.

Daarnaast is het interessant om het beleid voor HNV te plaatsen in het kader van de te verwachten hervorming van het GLB. Hierbij komt de nadruk steeds meer te liggen op *support for public goods* (zoals hoge natuurwaarden) en in die context zou het kunnen zijn dat de inzet van middelen voor behoud van HNV prioriteit krijgt.

Doel en werkwijze

In het voorliggend rapport wordt verkend hoe HNV op een goede manier ingepast kan worden in het bestaande Nederlandse beleid. Aangezien alle lidstaten voor dezelfde opdracht staan, is het van belang om hierin samen op te trekken en van elkaar te leren.

Het doel van dit rapport is om inzicht te krijgen in de beleidssituatie in een aantal geselecteerde lidstaten. De manier waarop omgegaan wordt met de verplichting om HNV te identificeren en te monitoren wordt geanalyseerd, waarbij het zogenaamde Guidance document (European Evaluation Network for Rural development, 2008) als leidraad geldt. Eveneens wordt de mate waarin HNV is geïntegreerd in bestaand agrarisch natuurbeleid geanalyseerd. Tenslotte wordt bekijken op welke manier de resultaten in de Nederlandse context kunnen worden ingepast.

HNV in Nederland

Hoewel de landbouw in Nederland behoorlijk intensief is en natuurwaarden veelal te lijden hebben onder de verder gaande intensivering van de landbouw, komen op de Nederlandse landbouwgronden nog steeds belangrijke natuurwaarden voor. Bijvoorbeeld de veenweidegebieden die een habitat vormen voor populaties van akker- en weidevogels zoals de grutto, kievit en veldleeuwerik, maar ook bijvoorbeeld schraalgraslanden die van belang zijn voor amfibieën. Elbersen en Van Eupen (2008) hebben voor Nederland HNV in kaart gebracht en schatten in dat ongeveer 16% van de gebruikte landbouwgrond beschouwd kan worden als HNV. Het grootste areaal HNV ligt in het westen (de veenweiden van het Groene Hart en Laag-Holland, in het noorden in de provincies Drenthe en Friesland en het noorden van Overijssel).

De methode die Elbersen en Van Eupen (2008) hebben toegepast is gebaseerd op de systematiek die internationaal gebruikt wordt om HNV te identificeren (Andersen et al., 2003, EEA, 2004 and Cooper et al., 2007). Deze systematiek gaat uit van drie typen HNV.

HNV type 1 is landbouwgrond met een hoog aandeel half-natuurlijke vegetatie zoals schraalgrasland en heide. Dit type komt nauwelijks voor in Nederland (minder dan een paar procent). Heide en overige semi-natuurlijke habitats worden veelal niet door boeren beheerd, maar door terreinbeherende organisaties en kunnen dus niet meer echt als landbouwgrond beschouwd worden. Deze gebieden worden wel extensief (agraris) beheerd, begrazing, maaien en branden (heide) en zijn in een aantal gevallen aangewezen als Natura- 2000-gebied.

HNV type 2 is landbouwgrond gedomineerd door extensieve landbouw en/of een mozaïek van meer en minder intensief gebruikte land en landschaps elementen. Dit type komt met name voor in de kleinschalige zandlandschappen met veel groene landschapselementen (heggen, bomenrijen, etc.) en gevarieerd, gematigd intensief landgebruik. Het belang voor biodiversiteit in deze gebieden is vooral gerelateerd aan het voorkomen van bepaalde weidevogels, overwinterende trekvogels en bepaalde typen vegetatie zoals schraalgraslanden in beekdalen. Deze kleinschalige landschappen zijn ook van belang voor het voorkomen van bepaalde soorten broedvogels, insecten, reptielen en amfibieën, alleen zijn deze diergroepen nog niet meegenomen bij deze identificering van HNV.

Tenslotte **HNV type 3**, dit is landbouwgrond met zeldzame soorten of met een hoog aandeel van Europese of wereldpopulaties van soorten. Dit type is het belangrijkst in Nederland en het zijn met name veenweidegebieden, gekarakteriseerd door een hoge dichtheid aan sloten en hoge waterstanden. De kwalificatie HNV hangt samen met het feit dat dit belangrijke broedgebieden zijn voor weide- en trekvogels die internationaal beschermd worden. De landbouw in deze gebieden is minder geïntensiverend dan in andere delen van Nederland, doordat de hoge grondwaterstanden en de venige grond intensivering van de melkveehouderij, de sector die in deze gebieden het meest voorkomt, belemmerden.

Integratie van HNV in Nederlandse agrarisch natuurgebeleid

In de natuurbalans van 2009 wordt geconcludeerd dat HNV een belangrijk Europees beleidsbegrip is, dat in Nederland aanzetend wordt opgepakt: *Er wordt in Nederland onvoldoende gestuurd op het beheer van de in EU-verband belangrijke High Nature Value farmland. Het gevolg is een verdere achteruitgang van natuurkwaliteit op het platteland waardoor Nederland niet aan de verplichtingen voldoet.*

De EU stimuleert goed beheer door cofinanciering uit het Plattelandontwikkelings Programma daarvoor beschikbaar te stellen. De Subsidieregeling Natuur & landschap (SNL, voor 2010 Subsidieregeling Agrarisch Natuurgebeleid (SAN), is op dit moment het belangrijkste instrument voor natuur en landschap in agrarisch gebied en maakt onderdeel uit van het Plattelandontwikkelingsprogramma. Voor de verdeling van deze subsidiestroom wordt op provinciaal niveau de Rijks prioritaire gebieden (weidevogelgebieden, de EHS en de Nationale Landschappen) verder in kaart gebracht. De provincie bepaalt in welke gebieden beheerders subsidie kunnen krijgen voor (agraris) natuur- en landschapsbeheer via SNL. Echter de gebieden met SNL-subsidiemogelijkheden zijn veelal omwille van de bestuurlijke uitvoerbaarheid en het draagvlak bij grondgebruikers ruim begrensd. Immers, als het zoekgebied ruim is er minder sturing vanuit de overheid nodig en is de kans groter dat grondbezitters contracten willen afsluiten dan wanneer het zoekgebied nauw begrensd is. Echter, hoe ruimer het begrensde gebied, des te minder provincies sturen op ruimtelijke samenhang van natuur en landschap en algemene milieukwaliteit, terwijl onderzoek heeft vastgesteld dat juist ruimtelijke samenhang de ecologische effectiviteit van agrarisch natuurgebeleid vergroot. Wanneer de ruimtelijke samenhang achterblijft en bovendien het juiste beheer niet wordt ingezet op de meest kansrijke locaties, met de hoogste natuurkwaliteit, dan is het agrarisch natuurgebeleid weinig effectief voor het behouden van de meest waardevolle natuurwaarden op landbouwgrond, de door Elbersen en Van Epen geïdentificeerde HNV-landbouwgronden.

Het gevolg hiervan is tweeledig: enerzijds worden Europese middelen daardoor onvoldoende gericht ingezet waardoor de effectiviteit verminderd. Anderzijds is de consequentie van de ruime jas-begrenzingen van SNL dat de *high nature values* onvoldoende worden beheerd en in kwaliteit achteruit gaan waardoor Nederland niet aan de Europese verplichtingen voldoet.

Beleid voor HNV: waarom en hoe ?

Zoals bovenbeschreven wordt dus geadviseerd om beleid voor agrarische biodiversiteit te richten op kansrijke gebieden, zoals HNV. Hierdoor neemt de kans dat agrarisch natuurbeheer succesvoller wordt toe. Wanneer de integratie van HNV in het Nederlandse beleid gewenst is, dan zijn er drie stappen noodzakelijk:

1) Identificeren van HNV

Voor het identificeren van HNV is een methodologie ontwikkeld die gebaseerd is op de al genoemde drie typen HNV en internationaal toegepast wordt. Op Europees niveau heeft het JRC in 2008 in samenwerking met de EEA een Europese kaart van HNV gepubliceerd (Paracchini et al., 2008). Deze kaart geeft een indicatie van het areaal HNV in heel Europa en is gebaseerd op de Europese landgebruikskaart Corine (CLC, 2006).

Nederland is één van de lidstaten die HNV op nationaal niveau heeft geïdentificeerd (Elbersen en Van Epen, 2008). De Nederlandse HNV-kaart geeft eveneens een indicatie van het areaal HNV en zou verder ontwikkeld moeten worden om toegepast te kunnen worden voor beleidsdoeleinden.

Een aantal lidstaten heeft bij het identificeren van HNV direct rekening gehouden met de monitoringsverplichting. Daardoor waren herhaalbaarheid en beheersing van kosten belangrijke voorwaarden voor het ontwikkelen van een methode. In het geval van de Nederlandse identificering van HNV, speelde monitoringsdoeleinden nog geen rol.

2) Ondersteunen van goed beheer van HNV

Het belangrijkste doel van het HNV-concept is om boerenland met hoge natuurwaarden te beschermen. Het is van belang om vanuit het beleid goed beheer te ondersteunen. Zo kunnen lidstaten binnen hun agro-milieuprogramma maatregelen opnemen die specifiek voor HNV ingezet worden.

Een punt van discussie, in internationale kring, is echter nog of het HNV-concept toegepast moet worden op gebiedsniveau of bedrijfsniveau. Het eerder genoemde Guidance document vermeldt dat er geen beleidsintentie is om HNV als nieuwe gebiedscategorie te hanteren om waardevolle gebieden te begrenzen. Er wordt gesteld dat het bedrijfsniveau het meest geschikt is om beleid op aan te sluiten. Aan de andere kant genereert een extensief landbouwbedrijf niet per se hoge natuurwaarden, zeker niet in gebieden waar de landbouw in hoge mate geïntensiveerd is zoals in Nederland. Tegelijkertijd heeft agrarisch natuurbeheer wel een grotere kans op succes als het gericht wordt op kansrijke gebieden in combinatie met een hoge participatie-graad onder boeren.

In het Nederlandse POP programma wordt HNV (nog) niet genoemd. Wel zijn er diverse maatregelen opgenomen ter bescherming van agrarische biodiversiteit. Maar voorgaande studies hebben aangetoond dat deze vaak niet terecht komen in de meest kansrijke gebieden, zoals HNV.

3) Monitoren van de staat van HNV

De impact van de plattelands ontwikkelings programma's op de biodiversiteit wordt gemeten aan de hand van twee indicatoren¹: 1) het keren van de achteruitgang van biodiversiteit (verandering in trend achteruitgang biodiversiteit gemeten aan de populaties van de weidevogelsoorten) en 2) het behoud van land- en bosbouwgrond met hoge natuurwaarden (HNV). Deze laatste bestaat uit een base-line, een output- en een impact-indicator die alle drie aan Brussel gerapporteerd moeten worden. Deze rapporteringsverplichting legt

¹ Deze maken deel uit van een algemeen protocol: het zogeheten CMEF (*Common Monitoring and Evaluation Framework*). Op programma-niveau zijn er gemeenschappelijke impactindicatoren, deze geven een indicatie van de nationale impact van POP2. Op maatregel niveau zijn er output- en resultaatindicatoren. Voor de indicatoren zijn doelen gesteld met bijbehorende streefwaarden voor de situatie eind 2013.

druk op de lidstaten om HNV te monitoren en te behouden. Wanneer doelstellingen voor biodiversiteit niet gehaald worden, zouden lidstaten hier op termijn op afgerekend kunnen worden door middel van boetes.

De manier waarop op dit moment de HNV-indicatoren voor Nederland worden gerapporteerd naar Brussel kan verbeterd worden. Zo is de waarde van de baseline indicator gebaseerd op de eerder genoemde Europese HNV-kaart (Oltmer et al., 2010) en voor de streefwaarde in 2013 wordt vermeldt dat het huidige niveau dat gehandhaafd moet worden slechts 2% van de totale oppervlakte landbouwgrond is. Dit percentage is nog gebaseerd op een verouderde versie van de Europese HNV-kaart.

Tabel 3

Doelstelling en voortgang van de impact indicator Behoud land- en bosbouwgebied met hoge natuurwaarde zoals beschreven in het Strategisch Monitoringsrapport POP2 (Oltmer et al., 2010).

Gemeenschappelijke impact indicatoren a)					
	Baseline indicator	2006 a)	2006 b)	2009Doele	2013
Behoud land- en bosbouwgebieden met hoge natuur waarde (verandering in land- en bosbouwgebieden met hoge natuurwaarden)	Landbouwgrond met hoge natuurwaarde (% van totale oppervlakte landbouwgrond)	14,1	14,1	x	Handhaven oppervlakte landbouwgrond en bos met hoge natuurwaarde op het huidige niveau van 2% van het totale oppervlakte landbouwgrond

a: bron: JRC http://agrienv.jrc.ec.europa.eu/publications/pdfs/HNV_Final_Report.pdf, b: meest recente cijfers,

Wat doen andere lidstaten?

Om te leren van andere lidstaten zijn drie case studies gekozen. Eerst is een quick scan uitgevoerd om een beeld te krijgen van de situatie in een aantal deelstaten. Vervolgens zijn die deelstaten uitgekozen op basis van 1) gelijkenis met Nederlandse omgevingsfactoren, 2) de voortgang in de identificatie van HNV, 3) de mate waarin HNV is geïntegreerd met bestaand beleid 4) de mate waarin monitorings activiteiten zijn ontwikkeld. Het HNV beleid in Estland Oostenrijk en Duitsland, deelstaat NoordRijn/Westfalen, is geanalyseerd.

In **Estland** is HNV in eerste instantie volledig binnen bestaand beleid geïdentificeerd. Alleen de semi natuurlijke graslanden (HNV type1) binnen Natura 2000-gebieden worden als HNV beschouwd. Het voortbestaan van deze graslanden wordt bedreigt door extensivering en landverlating waardoor deze gebieden verruigen en dichtgroeien. Het is dus van belang dat de semi-natuurlijke graslanden begraasd en/of gemaaid worden. Dit wordt vanuit het plattelandsontwikkelingsbeleid ondersteund door is een subsidiemaatregel specifiek voor HNV- gebieden.

In tweede instantie is verruiming van de aanwijzing van HNV noodzakelijk omdat er èn meer semi natuurlijk grasland is buiten Natura 2000, en er ook HNV type 2 en 3 aanwezig zijn. Hiervoor is een werkgroep bezig. Monitoring van HNV is volledig geïntegreerd met het bestaande monitoringsprogramma van het plattelandsontwikkelingsprogramma.

In **Oostenrijk** zijn HNVtype 1 en 2 geïdentificeerd op basis van gegevens met betrekking tot habitattypen, landschapsstructuur en agrarisch beheer. Hierbij is gebruik gemaakt van het perceelsregistratie systeem. HNV speelt geen rol in het gericht inzetten van de middelen uit het agrarisch natuurbeheer programma (OPÜL). In principe komt elke hectare landbouwgrond in aanmerking voor de middelen uit OPÜL, al dan niet HNV. Met een totaal budget van 550 miljoen Euro valt 87% van het agrarische areaal onder een agrarisch natuurbeheer contract. Gemiddeld komt dit neer op 220 €/ ha en 4.200 € / bedrijf.

Het monitoren van HNV gebeurt op basis van de gegevens die zijn gebruikt voor de identificering van HNV. Door het gebruik van het perceelsregistratiesysteem is men verzekerd van gedetailleerde en betrouwbare data.

In Duitsland, deelstaat Noordrijn-Westfalen vindt de identificatie en monitoring van HNV plaats via een gestratificeerde steekproef². Op de steekproefsgewijs geselecteerde plots wordt aan de hand van vegetatiekenmerken en landschapselementen beoordeeld of er wel of geen sprake is van HNV. Het integreren van ondersteunende maatregelen voor het beheer van HNV gebeurt separaat in de verschillende deelstaten. Agro-milieumaatregelen worden niet specifiek gericht op HNV-gebieden.

In de tabel hieronder worden de verschillende benaderingswijzen per case study samengevat.

Tabel 4

Overzicht van de verschillende manieren waarop de case studies zijn omgegaan met de identificering en monitoring en in welke mate het beleid is gericht op HNV

	Identificering	Beleidsondersteuning	Monitoring	
			Baseline	Impact
Netherlands	Gebaseerd op landgebruik, biodiversiteits data en agrarisch beheer.	Zoekgebieden SNL overlappen gedeeltelijk met HNV, maar er is EEA/JRC kaart geen specifiek gericht HNV beleid	Referentie naar	?
Estonia	HNV is gedefinieerd als alle semi-natuurlijk graslanden binnen Natura 2000-gebieden. Bredere definitie van HNV in ontwikkeling.	Ondersteuning geregeld via agrarisch natuurbeleid, met gerichte maatregelen voor beheer van HNV-type 1.	Zie identificatie	Geïntegreerd in het monitorings-programma van het POP.
Austria	Gebaseerd op habitat informatie, agrarisch beheer, deelname aan agrarisch natuurbeheer indicatoren van landschapsstructuur.	Hoge deelnemingsgraad aan agrarisch natuurbeheerprogramma, maar geen specifiek beleid gericht op HNV-gebieden.	Zie identificatie	Zie identificatie
Germany	Veldonderzoek van vegetatie en landschapselementen op basis van een gestratificeerde steekproef	Geen specifiek beleid voor HNV-gebieden	Zie identificatie	Idem

Geleerde lessen

Voordat uit de bovenbeschreven case studies lessen getrokken kunnen worden voor Nederland, moet worden gerealiseerd dat de context in elke lidstaat, in elk gebied weer anders is. Eén van de opvallendste verschillen is de aard van de bedreiging van HNV: in Estland is extensivering en landverlating een probleem en is het beleid gericht op het behoud van agrarische activiteiten in het gebied. In de andere case studies, en ook in Nederland, vormt intensivering van de landbouw juist de belangrijkste bedreiging voor HNV. Hier zou het beleid er op gericht moeten zijn om extensief beheer te ondersteunen. Verder zijn er dan nog verschillen ten aanzien

² In een gestratificeerde steekproef wordt de totale populatie (hier: totale areaal landbouwgrond) in subcategorieën verdeeld en per categorie een steekproef getrokken.

van landbouwpraktijk, fysieke omstandigheden, landgebruik geschiedenis, beleidscontext etcetera. Deze verschillen maken dat de ervaringen op het gebied van HNV niet zonder meer één op één vertaald kunnen worden naar de Nederlandse situatie. Wel kunnen de verschillende benaderingen ideeën opleveren over de te volgen aanpak voor Nederland.

Bij de identificering en monitoring van HNV is het interessant te zien dat in de drie casestudies het identificeren van HNV en het ontwikkelen van een monitoringssysteem voor HNV gecombineerd werden tot één beleidsinspanning. Daardoor waren herhaalbaarheid en beheersing van kosten belangrijke voorwaarden voor het ontwikkelen van een methode. In het geval van de Nederlandse identificering van HNV, speelden monitoringsdoeleinden nog geen rol.

Het harmoniseren van HNV met andere (gebiedsgerichte) beleidscategorieën, zoals gebeurt in Estland, kan goed in Nederland toegepast worden. Natura 2000 is dan niet bij uitstek geschikt omdat er nauwelijks landbouwgrond binnen HNV is. Andere beleidscategorieën, zoals de weidevogelgebieden, sommige nationale landschappen, bestaan wel voor een belangrijk deel uit landbouwgebied en komen dus eerder in aanmerking.

Van de Oostenrijkse en Duitse benadering kunnen lessen getrokken worden voor het gebruik van data. De Oostenrijkse benadering voor de identificatie en monitoring van HNV is interessant voor het gebruik van gegevens uit de basisregistratie percelen en de mei-telling. Deze databronnen zijn verzekerd van regelmatige updates en gedetailleerde informatie, en dus zeer bruikbaar voor monitoringsdoeleinden.

Met de Duitse benadering van de steekproefsgewijze analyse van vegetatie en landschapselementen zou de informatie over indicatorsoorten en habitats voor HNV benut kunnen worden voor Nederlandse monitoring. Echter, op de Duitse manier wordt geen informatie ingewonnen over het agrarische beheer, waardoor er geen relatie gelegd kan worden tussen het voorkomen van HNV en het agrarisch beheer, en is het moeilijker om vanuit het beleid te sturen. Het is ook de vraag of de statistische benadering werkelijk een reëel beeld geeft over het areaal HNV.

Een aantal lessen die over de identificering en monitoring geleerd kunnen worden zijn:

1. In Duitsland worden alleen gegevens over biodiversiteit gebruikt, in Oostenrijk alleen gegevens over beheersactiviteiten. Het meeste geschikt voor identificering van HNV lijkt een combinatie van beide typen gegevens.
2. Idealiter ontwikkelt Nederland een monitoringssysteem dat zowel gebruikt kan worden voor de rapportage-verplichting naar Brussel als om agrarisch natuurbeleid effectief te richten op de meest kansrijke gebieden.
3. Een efficiëntieslag kan gemaakt worden door het benutten van bestaande monitoringssystemen (eventueel met specifieke aanpassingen).

Over beleidsondersteuning kunnen we concluderen dat dit nog geen duidelijke prioriteit heeft in de casestudiegebieden. Het Estse agrarisch-natuurbeheerprogramma bevat een maatregel specifiek voor semi-natuurlijke graslanden en is dus specifiek gericht op de gebieden geïdentificeerd als HNV. Voor de Nederlandse situatie is het ook raadzaam om zo veel mogelijk aan te sluiten bij bestaand gebiedsgericht beleid. In Oostenrijk en Duitsland zijn er geen maatregelen specifiek voor HNV en wordt HNV ook niet gebruikt om agro-milieumaatregelen in te zetten in specifieke gebieden. In Oostenrijk heeft een groot gedeelte van de boeren al een agrarisch natuurbeheerscontract en er wordt aangenomen dat HNV op deze manier voldoende ondersteund wordt. Echter, ook hier geldt dat een hoge deelname aan het agrarische natuurbeheer programma niet automatisch een ruimtelijke samenhang garandeert.

Een aantal lessen die voor wat betreft de beleidsondersteuning geleerd kunnen worden zijn:

1. In Oostenrijk en Duitsland ligt de nadruk van de beleidsinspanning op monitoring en de rapportage verplichting maar er is geen samenhang is met het beleid gericht op behoud van HNV. Deze samenhang is voor het daadwerkelijk behouden van HNV wel van belang
2. In hoeverre HNV al wordt ondersteund vanuit wet- en regelgeving kan onderzocht worden door de overlap met andere beleid categorieën na te gaan.
3. Een stapsgewijze implementatie zoals in Estland is uitgevoerd lijkt laagdrempelig bij het introduceren van een nieuw concept. Zo kan worden begonnen bij klein gebied: in Estland was dat de semi-natuurlijke graslanden binnen Natura 2000, in Nederland zouden het bijvoorbeeld de kerngebieden voor bepaalde soorten weidevogels kunnen zijn. Stapsgewijs kan het begrenzen van HNV vervolgens uitgebreid worden.
4. HNV biedt de mogelijkheid om beleid sterker te richten op kansrijke gebieden, dus is het van belang om niet te ruim te begrenzen (en zo minder kansrijke gebieden uit te sluiten), en niet alleen te kijken naar de natuurwaarden, maar ook naar de participatie- graad van boeren.
5. In dat kader is het zinvol om HNV mee te nemen in de discussie rondom de hervorming van het Gemeenschappelijk Landbouw Beleid, en dan zowel de 1^e als 2^e pijler. Te denken valt dan aan de mogelijkheden binnen het vergroenen van de 1^e pijler en de extra top-ups voor gebieden met natuurlijke handicaps.
6. Door zorg voor HNV ook via andere beleidswegen, anders dan POP-maatregelen, te borgen (zoals in Estland HNV gekoppeld wordt aan Natura 2000) wordt een betere verankering van de overige wet- en regelgeving bereikt, zodat zorg voor lange termijn beheer beter gewaarborgd kan worden.

Aanbevelingen voor integratie van HNV in Nederlandse beleid

Om het HNV-concept beter te integreren in het Nederlandse beleid is enerzijds meer aandacht nodig voor de identificatie en monitoring van HNV en anderzijds voor integratie van HNV in het bestaande beleid. Een opmaat kan er als volgt uit zien:

Identificeren en monitoren

Aangezien biodiversiteitsdoelen steeds belangrijker worden voor het Europese beleid, en dus ook voor het plattelandsontwikkelingsbeleid, en in de toekomst wellicht voor het hele GLB, wordt het meten van de impact van beleid op biodiversiteit ook steeds belangrijker. De volgende stappen worden aangeraden om HNV-identificatie en -monitoring in Nederland verder te ontwikkelen:

- De bestaande kaart is vrij grofmazig (1 km²). Om de kaart te gebruiken bij de verdere integratie van HNV in het huidige beleid, zou deze verder gedetailleerd moeten worden. De verdere ontwikkeling van de kaart hangt af van het doel waarvoor deze gebruikt gaat worden. De kaart kan dienen als nulmeting van HNV, waaraan monitoringsresultaten gespiegeld kunnen worden. Op die manier kunnen de veranderingen in areaal HNV gemeten worden. Tevens kan de HNV-kaart gebruikt worden om beleid gerichter in te zetten. Op dit moment wordt de kaart op geen van beide manieren gebruikt.
- Voor verdere detaillering van de HNV-kaart is informatie over het huidige agrarisch beheer nodig per HNV-type. Aanvullend is voor HNV-type 1 vooral informatie over natuurdoeltypen gewenst. Voor HNV-type 2 is gedetailleerde informatie over landschapselementen nodig, bijvoorbeeld van de Monitor Kleine Landschaps Elementen, maar ook informatie over de verspreiding van enkele vlindersoorten en zoogdieren. Tenslotte is voor HNV-type 3 informatie over de kerngebieden van akker- en weidevogels nodig, evenals informatie over de verspreiding van enkele vlindersoorten en zoogdieren. Verder staat de kaart nu nog los van al bestaande agrarische natuurkarteringen. Dit kan opgelost worden door aansluiting te zoeken bij bestaande (agrarische) natuurkarteringen zoals de agrarische beheertypenkaart (IMNAB) via een GIS-procedure.
- Analyseren in hoeverre aansluiting plaats kan vinden bij bestaande monitoringsactiviteiten.

Ondersteuning vanuit beleid voor goed beheer

De ontwikkelingen rondom de hervorming van het Gemeenschappelijk Landbouw Beleid bieden een aantal interessante mogelijkheden voor de bescherming van HNV. In recente beleidsplannen is de regering voornemens om prestaties voor groene diensten extra te belonen. Het HNV-concept zou hier als aanknopingspunt kunnen dienen om beleid in te richten voor de ondersteuning van goed beheer. Idealiter zou dat zowel op bedrijfsniveau als op gebiedsniveau gedaan moeten worden.

Op bedrijfsniveau kan bijvoorbeeld gedacht worden aan het extra belonen van bedrijven die voldoen aan een aantal kenmerken van extensieve landbouw die positief zijn voor instandhouding van natuurwaarden.

Indicatoren voor HNV-bedrijfssystemen zoals toegepast in Oostenrijk (zoals een veebezetting van <1 GVE/ha, meer dan 10% braakliggend land) kunnen hier ook gebruikt worden om bedrijven te identificeren als HNV-bedrijf en dus als kansrijk voor de levering van groene diensten.

Daarnaast is het raadzaam HNV ook te integreren in gebiedsgericht beleid. Zodoende kan gewaarborgd worden dat geld vanuit het GLB voor agrarisch natuurbeheer gebruikt wordt voor de meest kansrijke gebieden vanuit biodiversiteitsperspectief. De inventarisatie van HNV-gebieden zoals uitgevoerd door Elbersen en Van Epen kan dan gehanteerd worden om de zoekgebieden van SNL meer te laten aansluiten op de kansrijke gebieden vanuit het oogpunt van biodiversiteit. Binnen deze kansrijke gebieden zouden boeren in aanmerking komen voor extra inkomensondersteuning, mits ze een bedrijfsvoering voeren die rekening houdt met de hoge natuurwaarden. Echter, de keuze om HNV op bedrijfs- of gebiedsniveau toe te passen is een beleidsmatige kwestie. In elk geval zijn de volgende stappen nodig om tot verdere integratie van HNV in het beleid te komen:

- Het combineren van de bestaande HNV-kaart met de rijks-prioritaire gebieden zoals de EHS, Natura 2000, Nationale Landschappen, gebieden die vallen onder de Probleemgebieden regeling). Maar ook met de huidige pogingen om agrarisch natuurbeheer effectiever in te zetten (zoals de grutto-kansenkaart). De kans is aanwezig dat de gebieden die geïdentificeerd zijn als type HNV (1, 2 of 3) onder een reeds bestaande gebiedscategorie vallen.
- Vaststellen waar HNV aansluit bij bestaande gebiedscategorieën en waar dat niet het geval is.
- Nagaan welke gedeelten van de zoekgebieden SNL niet vallen binnen de als HNV geïdentificeerde gebieden, maar ook door de overlap tussen gebieden met daadwerkelijk afgesloten SNL-contracten en HNV te analyseren.
- Analyseren van bestaande beheersmaatregelen, en evalueren in welke mate deze bijdragen aan het behoud van HNV.
- Evalueren van bedrijfstypen binnen HNV-gebieden en de deelnemingsgraad van boeren aan SNL.

Het veiligstellen van de hoge natuurwaarden van HNV vraagt om een bedrijfsvoering waarbij agrarisch natuurbeheer geïntegreerd is. Een aantal bedrijfstypen zijn hier met name geschikt voor, bijvoorbeeld Boeren voor Natuur (zie kader), extensieve melkveehouderij, etc.

Het concept ‘Boeren voor Natuur’ biedt hier interessante aanknopingspunten. Boeren voor Natuur is een bedrijfsconcept waarbij agrarische bedrijven, landbouwproductie, natuur- en landschapsbeheer en waterbeheer integraal combineren. Door deze integrale aanpak op bedrijfsniveau onderscheidt Boeren voor Natuur zich van agrarisch natuurbeheer zoals dat geregeld wordt via de SNL (Subsidieregeling Natuur en Landschap). Dit vraagt een forse bedrijfsomschakeling, waarvoor een substantiële vergoeding nodig is. Boeren voor Natuur kan daarom het best gericht worden ingezet (Stortelder en Kiers, 2011). Synergie tussen het bedrijfsconcept Boeren voor Natuur en High Nature Value lijkt dan ook veel belovend

Vanuit het oogpunt van efficiëntie en draagvlak is het van belang om bij elke beschreven stap zo veel mogelijk aansluiting te zoeken bij bestaande activiteiten en beleid. De indeling in de drie verschillende typen HNV maakt het mogelijk deze aansluiting per type HNV te specificeren. In de onderstaande tabel staat een overzicht hoe deze aansluiting in de praktijk kan uitwerken.

Tabel 5

Overzicht van aansluiting bij bestaand beleid per HNV type.

		HNV type		
		1	2	3
Ondersteuning goed beheer	Beleid / beheers maatregelen	Wettelijke bescherming vanuit vogel- en habitat richtlijn. SNL- maatregelen voor semi-natuurlijke vegetatie	SNL-maatregelen voor landschapselementen. Vanuit Nationale landschappen status: minimale sturing	Wettelijke bescherming SNL-maatregelen voor weidevogelbeheer.
	Mate van ondersteuning voor HNV	+	-	++
Monitoring		Verplichte monitoring in het kader van VHR (zie Schmidt et al., 2008). Ook mogelijkheden via meitelling en perceelsregistratie	Nulmeting nationale mogelijkheden via meitelling en perceelsregistratie.	Habitat monitor akker- en weidevogel. Ook mogelijkheden via meitelling en perceelsregistratie.

List of abbreviations

AES	Agri-environmental Scheme
CAP	Common Agricultural Policy
CMEF	Common Monitoring and Evaluation Framework
EAFRD	European Fund for Rural Development
EC	European Commission
EEA	European Environmental Agency
EU	European Union
GAEC	Good Agricultural and Environmental Condition
HNV	High Nature Value farmland
IACS	Integrated Administration and Control System
JRC	Joint Research Centre
LFA	Less Favoured Area
LSU	Livestock Unit
LPIS	Land Parcel Information System
RDP	Rural Development Program
SAPS	Single Area Payment Scheme
SMR	Statutory and Mandatory Requirements
UAA	Utilised Agricultural Area

1 Introduction

1.1 High Nature Value farmland, an European concern

Some types of farmland are, because of their characteristics, inherently high in biodiversity. These farm lands are called High Nature Value farmlands (HNV, see box 1.1 for the definition of the concept). The conservation of this biodiversity depends on low intensity farming practices. Typical examples include semi-natural grasslands, olive trees and vines under traditional management, traditional orchards, fallow land, wood pastures and bocage³.

It is estimated that an average of 30% of the European Utilised Agricultural Area can be considered HNV. HNV shares range strongly per EU country from over 50% to less than 2% (see Figure 1). The Netherlands was estimated to have a share of around 14% of the Utilised Agricultural Area (UAA).

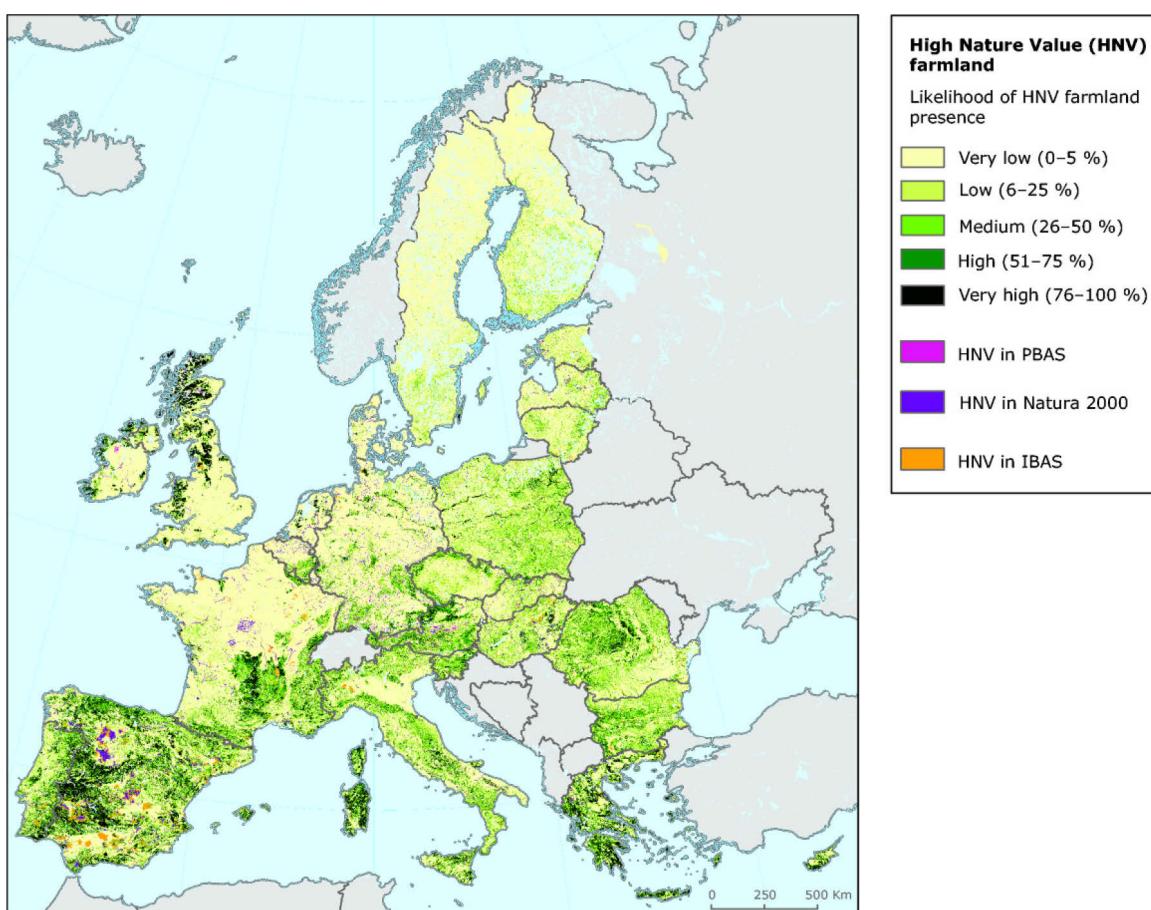


Figure 1
Distribution of HNV farmland in the EU-27 (Paracchini et al., 2008).

³ Bocage = a terrain of mixed woodland and pasture (in Dutch: coulissen landschap)

The European Commission (EC) argues that preservation of biodiversity associated with agricultural land will be essential to meet the 2020 targets to halt biodiversity losses. HNV should therefore be well managed and policy support targeted at preserving agro-biodiversity is urgently needed.

Conservation of HNV is one of the objectives of the EU-Rural Development Policy and the EC has now recommended member states to make HNV farming eligible for support under the Rural Development Programme (RDP). Impact assessment of RDP plans is carried out regularly, and the state and change of HNV is one of the biodiversity indicators (see Chapter 2 for more details).

Some Member States have now started to identify HNV farmland and develop a monitoring system. This is a first step in targeting policy support towards HNV. At the same time Member States have to explore possibilities of implementing the concept of HNV into their own rural development programme (including the agri-environmental scheme).

Box 1.1 Definition of High Nature Value farmland

In the 1990s a common definition of High Nature Value (HNV) farmland emerged: *farmland that comprises those areas in Europe where agriculture is a major (usually the dominant) land use and where agriculture supports or is associated with either a high species and habitat diversity or the presence of species of European conservation concern or both* (Andersen et al., 2003 and EEA/UNEP, 2004).

The dominant characteristic of HNV farming is its low-intensity with a significant presence of semi-natural vegetation (e.g. Baldock et al., 1993 and Bignal and McCracken, 2000). In certain situations more intensive farmlands in low land western Europe with a high density of green and wet (linear) landscape elements and/or areas that harbour important populations of species of European conservation interest can be considered HNV.

Since 2003, the concept of HNV is used to describe three types of farmland that are rich in biodiversity:

Type 1: Farmland with a high proportion of semi-natural vegetation.

Type 2: Farmland dominated by a mosaic of cultivated land and small-scale features.

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

(Based on Andersen et al., 2003; EEA, 2004 and Cooper et al., 2007)

1.2 Goals and objects of the study

The increased attention for HNV in the EU agricultural and rural development policy agenda, also in the light of the on-going discussion on greening the CAP, is the reason to explore in what way the concept of HNV can be integrated in Dutch policies. Integration concerns identification and monitoring of HNV as well as targeting new and existing policies to HNV farmlands.

As all member states face the same challenge it can be very useful to share experiences between Member States. Therefore, the goal of this study is to gain insight into the integration of HNV in the agri-environmental policy of other member states. The way MS deal with the requirement to report the state and change of HNV to the EC will be analysed, following the directives of the so-called Guidance document (European Evaluation Network for Rural Development, 2008). Also the extent to which HNV is integrated in the current agri-

environment scheme will be assessed. Eventually the way how the lessons learned from the other member states could be used in the Dutch situation will be examined.

This study therefore aims at providing answers to the following questions:

1. What different approaches are followed by EU MS to identify HNV farmland? (To report the area of HNV to the EC, a MS has to identify the current area of HNV farmland. The three types of HNV are directing the identification, but each member state used different data sources and methodologies).
2. What approaches are followed to monitor HNV farmland? (To report on the changes in area HNV to the EC, a MS has to identify the changes in HNV farmland. Also in this case methodologies of monitoring differ among member states).
3. What ways are explored to target HNV farming in RDP policy? (In order to conserve HNV it could be favourable to target agri-environmental measures to (certain types of) HNV farmland. To what extent has a member state progressed in this?).
4. What can we learn from experiences in other MS for implementation of HNV policy support in the Netherlands? (Although the context of HNV farming differs among MS in terms of land use history, policies, farm structure, bio-physical factors etc., the experiences concerning HNV policy implementation can be useful to draw lessons on and use best case examples to further develop HNV policy in The Netherlands).
5. To what extend would HNV fit into the current Dutch agri-environmental policy? As many agri-environmental policy structures have already been implemented in The Netherlands, it is recommendable to ally HNV as much as possible with existing policies, but to what extent is this possible?).

1.3 Approach and selection of case studies

The material to answer the five questions as presented in the former section is derived from a case study approach. The selection of the cases was done on the following criteria: 1) similarities with the Dutch agricultural circumstances, 2) the progress made until now with identification of HNVF, 3) the extent to which the concept is integrated in existing policies, 4) the extent to which monitoring activities have been developed and finally 5) the originality of the approach to identification and policy targeting. This ensures the coverage of the diversity of approaches (purely based on biodiversity targets vs steered through farm practices) to be covered in this study.

A quick-scan of the policy situation in other EU member states concerning these *vijf* criteria resulted in the selection of three case study areas: Estonia, North Rhein Westphalia (DE) and Austria.

Table 1

Area of HNV in the case studies (EEA/JRC, 2008).

Country	HNV farmland area	Agricultural area	Area share of HNV farmland (%)
Austria	2447292	3578621	68.4
Germany	3162699	21607362	14.6
Estonia	380879	1695820	22.5
The Netherlands	368788	2621717	14.1

Estonia is the member states where the HNV concept is already integrated into existing RD-policies. The agricultural sector in the North Rhein Westphalia region shows many overlapping characteristics with farms in

several Dutch agricultural regions. Furthermore this region has shown to be quite pro-active in developing policies targeted at HNVF. The overall identification of HNV farmland has been done in all German Länder, including North Rhein Westphalia, and further monitoring approaches are also in a far elaborated stage.

Austria has a different approach to identifying HNVF from what is seen in Estonia and Germany. While the latter two have a more territorial approach the Austrian approach tries to identify the HNVF through identification of extensive farming practices. This approach seems to be of interest for The Netherlands, especially as involves the use of the Land Use Parcel Information System (LPIS).

For these case studies in-depth material and information on the approach to HNV policy implementation has been gathered through interviews, visits to policy makers, literature study and other data mining.

In the next chapter the importance, status and practical issues concerning the implementation of the High Nature Value farmland concept will be discussed in general terms, following the European framework. Chapter three discusses the implementation in subsequently Estonia, Lower Saxony and Austria. Chapter four discusses how the lessons learned can be translated to the Dutch situation and the last chapter presents recommendation on how to proceed with HNVF identification and targeting in the RDP programme. It is presented in a so-called road-map towards HNVF monitoring for the CMEF and implementation in the Dutch RDP.

1.4 Reading guide

After the introduction the report starts in Chapter 2 with setting out the different policy aspects of the HNV concept. The importance, the status and practical issues concerning implementation will be discussed. In Chapter 3 high nature value farmland in The Netherlands will be discussed. The chapter presents the characterisation and distribution of HNV and the integration into Dutch agri-environmental policies. In Chapter 4 the case studies are presented and in Chapter 5 the lessons learned from the case studies are discussed. Finally, Chapter 6 presents a road-map towards implementation of HNV into the Dutch agri-environmental policy.

2 Implementation of the High Nature Value farmland concept: importance, status and practical issues

2.1 Policy effort for HNV: Why and how?

In the European Strategy for Sustainable Development of 2006 member states have declared to halt the decline of the loss of biodiversity by 2010. This target has not been met, indeed the loss of biodiversity continues at an increased rate. This loss remains one of the most pressing environmental concerns in the EU, potentially leading to substantial economic and welfare losses. Recently (autumn 2010) a new declaration has been signed to halt biodiversity loss by 2020 (EP resolution INI/2009/2108). The need to take measures to prevent further loss of biodiversity is now widely acknowledged and the EU and the individual Member States, amongst which The Netherlands, have committed themselves to halt biodiversity loss in and outside farmland in several Conventions, Action Plans and Policy instruments (see Box 2.1).

To meet the biodiversity targets it is of overriding importance to also protect biodiversity on agricultural lands. Only protecting biodiversity in Natura 2000 is not enough, as, this network⁴ only covers a fifth of the EU territory and overlaps with ca. 18% of the total agricultural area of the EU 15 (EEA, 2005)⁵. This means that many European agricultural habitats outside Natura 2000 support a substantial part of populations of priority bird species.

Policy intervention is necessary, therefore the EC encourages member states to conserve and enhance High Nature Value farmland. Already in 2003 European Environment ministers committed themselves in the Kiev resolution on Biodiversity to identifying HNV farmland areas by 2006, and to introducing favourable management of a large proportion of these by 2008.

While Member States have relatively free reign to develop national or regional rural development programmes under the CAP, the EU has set six common strategic guidelines for these. The Council Decision (2006/144/EC) on Community Strategic Guidelines for Rural development explicitly specifies that resources devoted to axis 2 should contribute to 3 EU level priority areas of which the first is 'biodiversity and the preservation and development of High nature value farming and forestry systems and traditional agricultural landscapes' (the other two are water and climate change).

Member States are now encouraged to explore the possibilities of implementing the concept of HNV into their own rural development (including agri-environmental) programmes. The European Commission provides guidelines and supports this process.

⁴ Comprising i) Special Protection Areas (SPAs) for listed bird species and for regularly occurring migratory species of birds and ii) Special Areas of Conservation (SACs) for listed plant and animal species, and habitats.

⁵ See also IRENA Indicator N°4: Proportion of Natura 2000 sites covered by Natura 2000 habitats that depend on a continuation of extensive farming practices.

Box 2.1 Policy process in relation to farmland biodiversity and High Nature Value farmland

In the *6th Environmental Action Programme* (2001-2010), the *EU Biodiversity strategy* and the *Pan-European Biological and landscape Diversity Strategy (PEBLS)* clear aims are formulated for conservation and restoration of the environmental state and of natural habitats, landscapes, flora and fauna. The *European Sustainable Development Strategy (EU-SDS)* emphasizes the importance to combat a further decline of biodiversity, the necessity of a sustainable management of natural resources and to stop climate change. Also the *Bern Convention*, the *European Landscape Convention*, and, at EU level, the *Habitats and Birds Directives* and *Rural Development Policy* (Community Strategic Guidelines for Rural Development, Programming Period 2007-2013) have set conservation of biodiversity on agricultural land as an explicit objective. This is in line with the Kyiv Resolution on Biodiversity, published in 2003, in which all European Environment Ministers declared that by 2008, a substantial proportion of HNV farmland would be under biodiversity sensitive management with rural development measures in place to support the ecological and economic viability of the associated farming systems.

2.2 HNV in Rural Development Policy

2.2.1 CMEF

For the programming period 2007-2013 a new tool for the assessment of the rural development policy was introduced: the Common Monitoring and Evaluation Framework (CMEF). This framework provides a common basis to assess progress, results and impacts. The obligation to carry out monitoring within the framework of the CMEF puts pressure on member states to take the identification and monitoring requirements seriously.

Along with the farmland bird indicator, the HNV impact indicator is the indicator that assesses the impact of the RDP on biodiversity. To apply this indicator, HNV should be identified and subsequently monitored to measure changes in both the extent and condition.

1) Identification and mapping of the three types of HNV

For identification of HNV a common methodology has been developed and internationally adopted. The methodology is based on the three types of HNV. However, Member states are free to choose the adequate indicators and datasets, and therefore a great variety of approaches exist (Peppiette, 2011). On European level the JRC / EEA has published a map that gives an impression of the spatial distribution of HNV over Europe (Paracchini, 2008). The map is based on Corine land cover data (CLC, 2006) and other auxiliary data sources.

The Netherlands is one of the member states that has identified HNV on national level (Elbersen en Van Eupen, 2008). De Dutch HNV map gives also an impression of the areas of HNV and eventually should be enhanced to be suited for policy application. A couple of member states took into account the monitoring requirements while identifying HNV. In the Dutch case monitoring purposes were not taken into account when identifying HNV.

2) Monitoring

The CMEF contains three HNV indicators (see Table 2): a baseline indicator, a result indicator and an impact indicator. They are designed to assess whether the HNV resource is being maintained over the programming period (2007-2013).

Table 2

Overview of HNV indicators integrated in the CMEF.

Indicator	Indicator Title	Measurement
Baseline	Biodiversity: HNV farmland and forestry	UAA of HNV Farmland, hectares
Indicator 18		
Result	Area under successful land management contributing to biodiversity and HNV farming / forestry	Total area of HNV farming and forestry under successful land management, hectares
Indicator 6		
Impact	Maintenance of HNV farmland and forestry	Changes in HNV farmland and forestry defined in terms of quantitative and qualitative changes
Indicator 5		

The Baseline indicator describes the situation at the beginning of the RDP programming period. As such it functions as a baseline against which the impact of RDP support, in this case support to HNV farming, can be assessed.

The Result indicator measures the total amount of hectares under successful land management. Successful land management is defined as the completion of land management actions aimed at conservation of agro-biodiversity.

The Impact indicator measures the changes in HNV farmland both in extent and condition. It assists in determining what has *really* been achieved, in terms of HNV protection, with the resources used.

In 2008 a *Guidance Document on the Application of the HNV impact indicator* was published (European Evaluation Network for Rural development, 2008) to provide support to the Member States on how to identify HNV farming in order to direct support to it under the RDP. However MS are free to choose data sources, methodology and whether indicators are also being used to target RDP resources to HNV.

In many member states the implementation of HNV is still in the starting-up phase. Member states are mainly focused on the identification and requirements for monitoring. Streamlining with the existing agri-environmental policies, in order to really provide policy support for the maintenance of HNV is hardly being developed (source: presentation Zélie Peppiette

Rural Development Evaluation Manager, DG-Agri).

2.2.2 Tuning and support of management

The main objective of the HNV concept is clear: to conserve the nature values in those areas in Europe where agriculture maintains or contributes to a high level of biodiversity.

It is of importance that agri-environmental policies support management of HNV. In that way member states could adopt agri-environmental measures that are especially targeted to HNV.

An important topic in the on-going debate is the most suitable level for the implementation of HNV. The formerly mentioned Guidance document argues that there is no policy intention to use HNV as a new territorial policy category to bound valuable areas. The level of the farming system seems to be the appropriate level for

policy intervention. After all, inherent to the HNV concept is that certain biodiversity values are maintained because of the application of specific (often traditional) management practices (e.g. grazing at low density, extensive and mixed cropping systems, limited use of (external) inputs such as concentrates, artificial fertilisers, phyto-sanitary products, etc.). It is therefore essential to identify of HNV farming according to farm-level criteria. Examples of such criteria could be livestock density (e.g. < 1 LSU/ha), fallow land share (> 10% fallow land), parcel size etc.

On the other side, low intensity management does not produce biodiversity in any case. This is especially true in intensively farmed countries like The Netherlands where the overall environmental quality of resources like water (e.g. nitrate levels) air (e.g. ammonia levels) and soil (e.g. phosphates and heavy metals) are often sub-optimal. Furthermore, in intensive farmland areas where species of conservation value have already disappeared for several years the chances of bringing them back are very small. A combination of steering on actions and steering on outputs seems to be an appropriate approach.

In the Dutch RDP HNV is not (yet) specifically mentioned. The agri-environment schemes does include several measures to protect agro-biodiversity. However, recent publications have shown that the measures do often not target the most promising areas (see e.g. Melman et al., 2008).

2.3 Expectation

In spite of the moderate progression on policy response to HNV in rural development programs it is to be expected that conservation of biodiversity in farmed areas, will gain importance over the next years in the light of reform of the CAP (see Box 2.1).

The justification for the payments done under the Common Agricultural Policy, both first and second pillar, is a hot topic of discussion. Justification of taxpayer's resources calls for a CAP that is targeted towards new challenges like climate change, biodiversity and water. Also the post 2013 rural development plans should be more streamlined according to EU policy targets with regard to climate change and biodiversity.

In the current discussion on the reform of the CAP, the debate focuses on the one hand on targeting CAP payments for support for public goods (like environmental goals). On the other hand the distribution of CAP payments should follow a more territorial approach, by targeting money to areas where specific challenges call for financial support. Given these two issues in the CAP debate, it is expected that areas with a high proportion of High Nature Value farmland will be given extra policy priority. What this implies in terms of support to HNV farming is to become clear over the next years. The communication from the Commission about the future CAP published in November 2010 (EC, 2010), expresses clearly that environmental concerns will steer the policy. HNV is explicitly mentioned for targeting RDP support and in a latest communication of the commission ecological focus areas (which could be HNV) are mentioned as a considerable measure for greening the first pillar (Agrafacts, 2011).

In a recently published position paper, NGO's like EFNCP, WWF, BirdLife international and the butterfly Conservation propose to give support to HNV via the 1st Pillar by adding an extra top-up to direct payments in HNV areas in the post 2013 CAP (Beaufoy and Marsden, 2010).

Box 2.2 Reform of the CAP

At this moment the lion's share of CAP funding still goes to the 1st pillar which, in contrast to pillar 2, does not require national co-financing, is largely on historic entitlements, covers a high share of the entire agricultural area and has only minimal links between support payments and specific management requirements. In the EU-15 Pillar 1 consumes up to 85% of total CAP expenditures, while in the EU-12 the Pillar 1 budget is around 60% of the total CAP expenditures (EEA, 2009).

A major reform of the CAP in 2003 (EC 1782/2003) introduced the decoupled payments that no longer rely on the volume of production (with exception for areas threatened by abandonment). The new single farm payment scheme replaced most of the existing premia under different common market organizations. These 'single farm payments' as well as other direct payments were linked to the respect of environmental, food safety and animal welfare standards, the so called compulsory cross-compliance. Further significant changes to the first pillar of the CAP were introduced under CAP Health Check (2009) *inter alia* the abolishment of arable set-aside, increased modulation rate (in favour of the Rural Development Fund) and adding new requirements to the GAEC-standards to retain the environmental benefits of set-aside and improve water management (EC 72/2009, EC 73/2009).

Protection of biodiversity was integrated among other issues (climate change, bioenergy, sustainable water management etc.) as a new challenge in the area of agriculture as part of the results of the CAP Health Check in 2009. This underlines the important relation between farming practices and biodiversity and was linked with the provision of additional funding for Rural development programmes.

Rural development programmes financed under the 2nd CAP pillar represent a key policy instrument currently available to protect and enhance natural resources, including farmland biodiversity, as well as preserving forestry systems and cultural landscapes in rural areas. With the CAP 2003 reform a more strategic approach for rural development was introduced and developed on the basis of four axes⁶ (EC/1698/2005), financed by the newly established European Agricultural Fund for Rural Development (EAFRD). Four years later, the CAP Health Check reinforced the importance of biodiversity as a challenge for agriculture underlining the important link between farming practices and biodiversity. Additional funding for rural development programmes was made available by increased modulation rates.

Most important (Axis 2 Improving the environment and supporting land management) are the agri-environment schemes, which are the only compulsory rural development measures in the EU and represent the most important tool for delivering farming practices supporting biodiversity objectives (Oñate et al., 2007; Keenleyside et al., 2006). In addition, measures supporting farming in areas of natural handicap (*i.e.* the Less Favoured Areas), as well as measures targeting farming in Natura 2000 and WFD sites, plus selected non-productive investment measures, can all help to support management practices beneficial for biodiversity and habitats.

In terms of actual budget allocation, relatively little money is spent on areas with a high proportion of HNV farmland and support measures aimed at maintaining HNV farming are inconsistently applied across Member States. Spending on agri-environment schemes, as a percentage of total CAP spending is also low (currently only up to 4%) and intuitively, this would seem insufficient to provide substantial support to HNV farming (EEA, 2009).

⁶ Axis 1 Competitiveness, Axis 2 Improving the environment and the countryside, Axis 3 Quality of life in rural areas and diversification of the rural economy and Axis 4 Implementation of the LEADER approach

The subsidiarity principle allows Member States significant autonomy and flexibility in the design of their national RDP programmes. This results in great diversity of approaches and the subsequent potential for positive or negative impact on biodiversity. Broadly speaking, the impact of rural development programmes on biodiversity depends on the priority given to specific objectives, the funding allocation among the axes and individual measures, the specific design and implementation of the measures and their uptake by farmers.

3 HNV in The Netherlands

3.1 Characterisation and distribution

The agricultural landscape in The Netherlands has changed significantly in the last century. Continuous intensification, rationalisation and lowering of ground water levels have led to a tremendous decrease of High Nature Value farmland. The decline in permanent pastures, especially wet grasslands, arable field with rye and oats and the increase in maize and temporary grassland have generally had very adverse effects on biodiversity in agricultural lands.

In spite of this, several farmland areas in The Netherlands can still be considered as HNV. In a study by Elbersen and Van Eupen (2006) a first approach was presented to identifying and mapping HNV farmland in The Netherlands. It was estimated that HNV farmland could cover up to 16% of the utilized agricultural area. The largest concentration of HNV farmland is in the western parts, provinces of North and South Holland, and northern parts, provinces of Drenthe, Friesland and northern Overijssel (see Figure 3).

In their approach Elbersen and Van Eupen (2006) tried to identify HNV farmland according to the three types of HNV. They show that the present HNV areas in The Netherlands are mostly concentrated in grassland areas, mostly the wetter peat land parts, as these provide breeding, wintering, roosting and foraging opportunities to breeding and migratory birds of European and global conservation concern (HNV type 2 and 3). Small areas of semi-natural habitats typical for the HNV farmland type 1 are generally of minor importance in terms of area coverage and are mostly concentrated in protected natural areas. The role of The Netherlands in conserving these type of semi-natural habitats is relatively small from a European perspective, certainly in comparison to the conservation responsibility it has for the large colonies of Red list and European conservation concern meadow and wintering bird species still living in Dutch farmlands.

HNV farmland type 1 includes semi-natural vegetation (grasslands, dune grasslands, saltmarshes) within and outside protected natural areas if managed by extensive farmland practices (grazing, burning, cutting).



Figure 2

HNV type 1, Dune meadow near the coast (Oostvoorne).

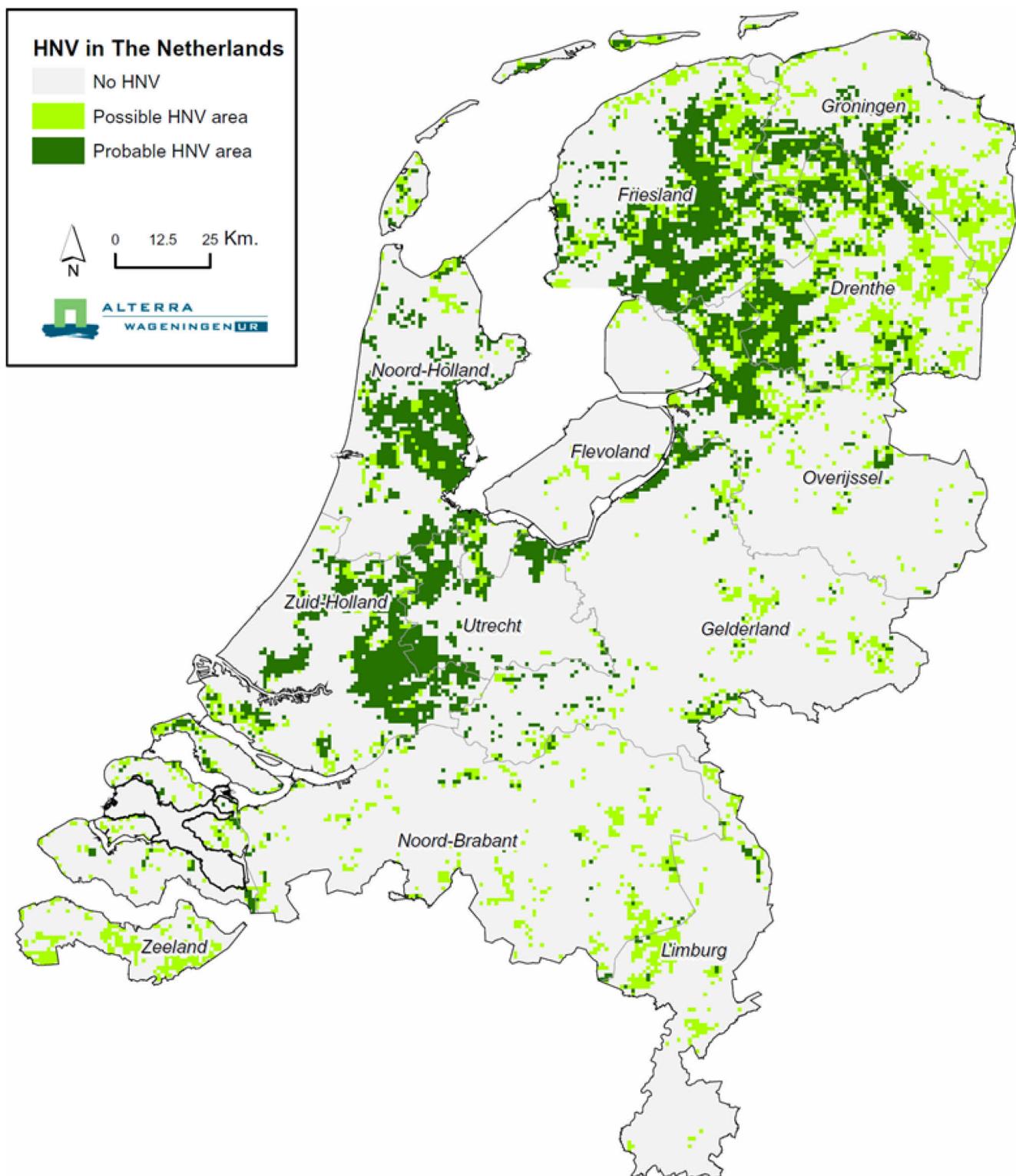


Figure 3

Map of the spatial distribution of HNV farmland in The Netherlands (based on Elbersen and Van Epen, 2008).

However, as these areas are mostly managed by nature conservation organizations instead of farmers, it can be questioned whether they can be considered HNV farmland. On the other hand some form of extensive

management is usually applied such as grazing, with semi-wild free-ranging cattle or herded sheep, grass cutting and burning (heather).

HNV farmland Type 2 is mostly concentrated in the peat land areas in the west and the higher sandy soil regions in the northeast and east of the country. These areas are usually still farmed, although relatively extensive according to Dutch standards (not European), and usually do not correspond to Natura 2000 areas. They are characterized by a relatively high density of ditches and greenveins (e.g. tree lines, field boundaries, hedges). They have in many cases already obtained some national designation such as 'Nationale Landschappen'. They are relatively rich in biodiversity, especially meadow and wintering birds and some typical vegetation. The type of meadow and wintering birds occurring in these Type 2 areas are usually similar to that occurring in Type 3, but the density of these birds is usually higher and the very rare species are more likely to be found here.



Figure 4
HNV type 2, Mosaic landscape in the east of The Netherlands (Winterswijk).

HNV Type 3 farmland is the most wide spread category in The Netherlands. It includes large patches of agricultural grassland and to a lower extent also some arable lands, which are intensively farmed. Their qualification as HNV farmland areas is based on the fact that they are important habitats for farmland birds (meadow and wintering birds) often hosting important shares of populations of European and international conservation status. This type of HNV includes those farmland areas which are not HNV Type 2, but still host a large share of meadow and/or wintering birds populations. In The Netherlands this will include the more large scale pasture peat land areas and a small selection of the arable lands where agriculture has not been intensified to the maximum, e.g. mostly in the North of the country. The spatial identification was based on the use of a combination of bird-count information on indicative meadow and wintering birds (SOVON) and farming practice information (GIAB).



Figure 5

HNV type 3: Habitat of the black tailed godwit (*Limosa limosa*).

In the study of Elbersen and Van Epen (2006) a comparison of final HNV farmland indicator with EEA-JRC-HNV farmland indicator from Paracchini et al. (2008) was also made. It showed that in terms of relative land use there is not a big difference between both maps, the HNV share in total Utilised Agricultural Area (UAA) is 16% for the Dutch approach and 14% for the EEA-JRC approach. But the physical overlay shows that the overlap is only 52% as related to the HNV total in the Dutch approach and only 40% as related to total HNV area in EEA-JRC approach (see Table 4). Differences are explained by three points:

- 1) The data used by the EEA-JRC approach are much more coarse in comparison to the data sources used in the Dutch approach.
- 2) The EEA-JRC approach involved as an important data layer for identification protected areas under Natura 2000 and important Bird Areas. In the Dutch approach most of these areas were excluded as they were not managed by farmers.
- 3) In the Dutch approach bird count and farm management information was used for identification while the EEA-JRC approach only relied on EU wide data on land cover (Corine), soil and protection status. Biodiversity data on species distribution were not used.

3.2 Integration of HNV in the Dutch agri-environmental policy

The 2009 Outlook on Dutch Nature (Natuurbalans, PBL 2009) states that HNV farmland is an important European concept for the biodiversity of farmlands. The implementation of the concept in The Netherlands is still in its infancy. For example, the requirement of reporting the status of HNV to the EC, has up to now been addressed by referring to the area under agri-environmental measurements. From the former it is clear that this way of reporting does not correspond to the definitions of HNV farmland provided in the CMEF or to the specifications provided in the *Guidance Document on the Application of the HNV impact indicator* (European Evaluation Network for Rural Development, 2008).

It is clear that until now there is no harmonisation in the way HNV farmland is identified in The Netherlands. At European level the EEA/JRC approach has identified this category and the EC has also provided guidelines on the reporting on HNV farmland through the CMEF indicators. However, there has not yet an initiative been taken by the Dutch national and regional governments to jointly develop the HNV concept in The Netherlands (Elbersen and Eupen, 2008; Beaufoy and Cooper, 2009).

This is also why at the moment the baseline indicator for HNV in The Netherlands is reported to Brussels by referring to the before mentioned European HNV map published by EEA/JRC (Oltmer et al., 2010) (see Table underneath).

Table 3

Target and progress of the impact indicator conservation of High Nature Value farmland as described in the strategic monitoring report of the Dutch RDP 2 (Oltmer et al., 2010).

Common impact indicator a)		Baseline indicator	2006 a)	2006 b)	2009	Target 2013
Conservation of High Nature Value farmland	Farmland with high nature values (% of total utilized agricultural area)		14,1	14,1	x	Maintain the area of High Nature value farmland

a: identified in 2009, b: most recent numbers.

At present Agri-environmental payments (*Subsidieregeling natuur en landschap (SNL)*) are the most important instrument to finance nature and landscape management in rural areas, and this is part of the rural development plan of The Netherlands (*POP*). Only farmers that have their lands in so called 'environmental target areas' (e.g. *Weidevogelgebieden*, *Ecologische Hoofdstructuur (EHS)*, *Nationale Landschappen*) can apply for agri-environmental payments. Harmonisation in the identification of HNV farmland is especially needed to down scale the European and national map with the provincial maps of these 'environmental target areas' where agri-environmental subsidies (*SAN/SNL*) can be spent. At this moment these 'environmental target areas' are quite broadly defined for reasons of administrative feasibility and public support. In these broadly defined 'environmental target areas' (agricultural) nature values can be realised on different locations. However these areas also include intensive farmland areas with low biodiversity values that do not match with the definition of HNV farmland. The more broadly these areas are defined the lower the chance that agri-environmental measures reach farmland areas with the highest potential for agro-biodiversity conservation. Agri-environmental management support will then be little effective in conserving nature values on farmland. This will increase the risk that high nature values in rural areas are not managed sufficiently, European resources are spent ineffectively and The Netherlands do not meet the European commitments in relation to conservation of biodiversity (e.g. Elbersen and Van Doorn, 2009).

Therefore it is important to integrate the concept of HNV in the current Dutch agri-environment policy. As all EU member states face this assignment, relying on experiences in other member states and learning from each other could be mutually beneficial. To guide the Dutch ministry on how to integrate HNV within the CAP, this benchmarking study is carried out. In the next Chapter the experiences of three other member states are reported and in Chapter 5 the lessons learned for the Dutch situation are reported. These have been translated into recommendations in Chapter 6 on how to further identify, monitor and target HNV farmland through policy in The Netherlands.

4 Implementation of HNV in other member states

4.1 Estoni

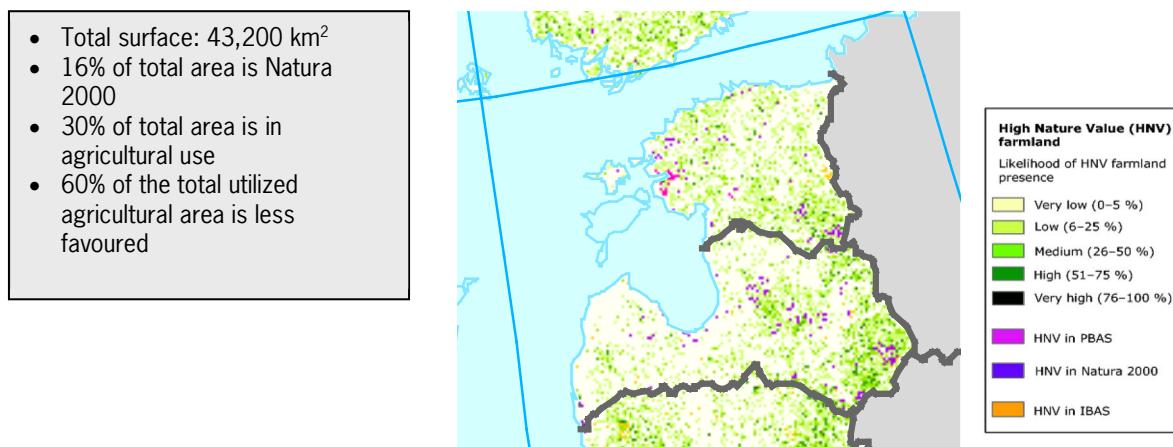


Figure 6

Detail of European HNV map: Estonia (EEA/JRC, 2008).

4.1.1 General⁷

Estonia has a total land area of 43,200 km², making it one of the smallest countries in Europe with one of the lowest population densities (31.2 p/km²) within the EU. More than half of it is covered by forests, one third by agricultural land, and one fifth by mires and bogs. There are approximately 23,000 farms in Estonia, but only some 7,000 are included in the Farm Accountancy Database Network (FADN)⁸ as professional, commercial farms. There is a big variation in farm size: just 1% of farms represents 28% of production and occupies 19% of the agricultural land. The Estonian utilised agricultural area covers 1.4 million hectares, this is less than a third of the territory. 1.1 million hectares is arable land and 0.3 million hectares permanent grassland. The rest is permanent crops. Further statistical information on agricultural land management is hard to find, as only part of the land used by farmers is administered as agricultural and included in national data bases such as in the Land Parcel Information System (LPIS). Since there are many parcels, especially wooded pastures used for

7 General information based on ENRD Country profiles: <http://enrd.ec.europa.eu/>

8 Farm Accountancy Data Network (FADN) (sample of holdings, representing a large share of agricultural production, with information on costs and revenues, income generated from agriculture, also including subsidies). A database, provided by the Commission of the European Communities. Figures are available on an annual basis for the European Union as a whole, distinguishing FADN regions representative for the main farm types. FADN is based on a representative sample of holdings. Users of this database can work with individual farm data. Special permission is needed to work with this database.

grazing, which are not registered as agricultural (>50 trees/ ha is the threshold above which land is registered as forest), a large share of the agriculturally managed land is excluded from agricultural statistics and from CAP payments.

In general, production levels are generally low because of the widespread occurrence of limiting soil conditions and the short growing season. An important factor in the development of the agricultural sector is the privatisation of the agricultural lands.

According to the European HNV map (EEA/JRC, 2008) it is estimated that there is 380,880 ha HNV in Estonia, which is estimated to amount to 22% of agricultural land (i.e. land cover classified in an agricultural class according to Corine Land Cover⁹). However, the latter is difficult to estimate in terms of area share of land that is officially reported as agricultural as large parts of the areas classified as HNV farmland in the European HNV farmland map cover lands that are classified as non agricultural (e.g. forest) in national statistics and the LPIS.

4.1.2 Towards a HNV policy

In 2008 a special sub-measure for the management of semi-natural habitats in Natura 2000 areas was introduced in the Estonian Rural Development Program as an agri-environmental measure. As the semi-natural habitats are an important element of HNV and the best cases are largely included in Natura 2000 network, the AE sub-measure for management of semi-natural habitats in Natura 2000 sites was considered to be dedicated to protection of HNV farmland. In 2009 a workgroup was installed to further elaborate the HNV concept in Estonia. This group was leaded by the institute for agricultural research (ARC), and included delegates from the ministry of agriculture (MOA) environment (MOE), and experts of the Estonian University of Life Sciences. The main goal was to develop a policy to support the conservation of HNV. Three working stages have been passed through:

The first part - identifying and working out HNV base criteria consisted of:

- Determining which approach suites best to the Estonian conditions.
- Describing HNV farming systems in Estonia.
- Identifying HNV environmental values.

The second part - evaluation of the application possibilities sought answers to questions like:

- Which farmers would be characterised as HNV farmers?
- What might be the extent and impact of the application?

The third part formulated proposals for HNV implementation (e.g. support measures, combination of measures, etc.) in the RDP context.

⁹ Corine Land Cover (European Environment Agency and European Topic Centre on Terrestrial Environment) divides the land cover into 44 classes. It is produced by combining information from visual interpretation of satellite images and ancillary data (e.g. aerial photographs and topographic maps). The present CLC covers all EU-27 countries.

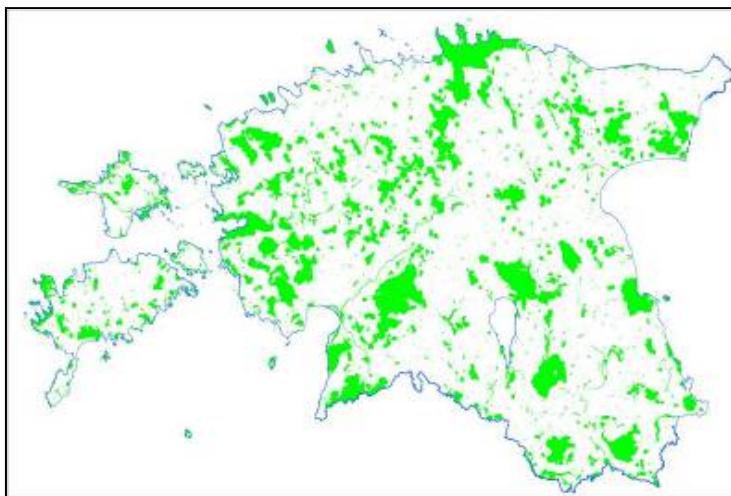


Figure 7

Map of HNV farmland in Estonia published by ARC.

4.1.3 Identification of HNV farmland

Identification and mapping of HNV is an on-going process in Estonia. At the moment only the semi-natural grasslands within Natura 2000 areas are being considered as HNV. This concerns an area of about 57,000 hectares. However quite a large area of HNV falls outside the scope of the current policy. Only 10% of the semi-natural grasslands are Natura 2000 area's, so a larger area of HNV type 1 is not yet identified. Subsequently, HNV type 2 (mosaic landscapes with green/blue elements) and HNV type 3 (habitats for priority species) are not yet part of the HNV policy.

So, currently the working group on HNV farmland in Estonia works on a more complete grid-based map of HNV. They started to capture this diversity by means of a grid approach. Each grid cell containing information on a range of HNV indicators. To use the map for targeting the HNV policy to the right areas, an overlay was made with the farm parcel structure. In case more than 50% of the parcel is classified as HNV, it becomes eligible for HNV support.

For the monitoring of the Estonian Rural Development Programme (RDP) the Agricultural Research Centre (ARC) was assigned to provide the Ministry of Agriculture with the relevant data and to act as an independent evaluator. ARC collects data on five evaluation topics - soil, water, biodiversity, landscape and socio-economics. The necessary data for monitoring/evaluation is collected from different sources - from support registers, different statistical databases etc. Also special farm visits are arranged to collect environmental data on changes in agricultural land.

This existing monitoring system is also used for reporting the EC on HNV farmland indicators included in the CMEF.

4.1.4 Policy support for HNV management

HNV is well embedded in current Estonian (agri)environmental policies. Only semi natural grasslands within Natura 2000 areas are considered HNV, so HNV profits from the European protection status of Natura 2000 areas. Secondly, in the agri-environmental policy there is a special HNV measure for the maintenance of semi natural areas that targets the semi natural grasslands. By applying for this support farmers are automatically

excluded from receiving any other CAP area based support for the same land, see Figure 8. Most of the semi natural habitats are not eligible for direct income support (Single Area Payment Scheme SAPS), as these areas were not agriculturally managed (as defined by the European Commission) before the entrance into the EU.

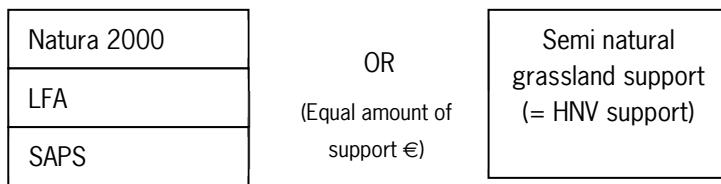


Figure 8

Scheme of CAP payments to Estonian farmers. A farmer can opt for the direct income support through the SAPS, and, in case he is eligible apply for the Less Favoured Area (LFA) payment and for the Natura 2000 payments. In case a farmer applies for the support for semi natural grassland support, this HNV payment substitutes all other CAP payments.

4.2 Austria

- Total surface: 84000 km².
- 11 % of total area is Natura 2000.
- 33% of total land area is in agricultural use.
- 70 % of the total utilized agricultural area is less favoured

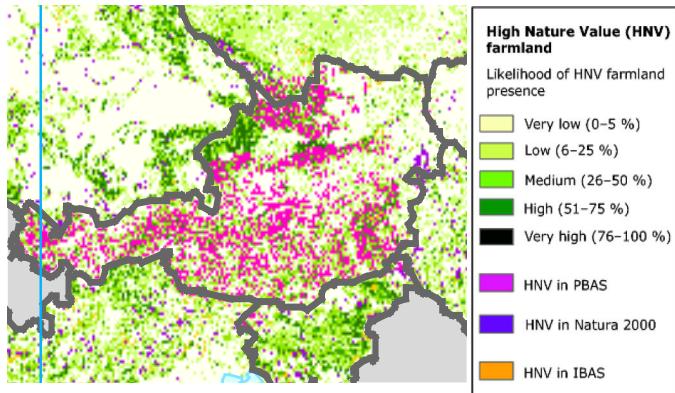


Figure 9

Detail of European HNVmap: Austria (EEA/JRC 2008).

4.2.1 General

Austria is a hilly country of 84,000 km² with 8 million people, divided in nine regions. 78% of the total land area is rural according to OECD standards (<150 inh./km²) and 67% of the utilized agricultural area is designated as a less favoured area (LFA). More than 50% of the land is forested; while 47% is in agricultural use (of which 54% grassland). There are 187,000 agricultural enterprises in Austria (2/3 located in LFA's), the majority (136,000) are registered in IACS. There is a large share of small and medium sized enterprises, the average farm size is 19 ha and 56% of the farmers is a part-time farmer. The agricultural production value covers 1,5% of the GDP.

The Rural Development Program (RDP) consumes two thirds of the total Austrian CAP budget, equivalent to 1,4 billion Euro (including national co-financing and top-ups). Historically, Austria has invested in the rural area by means of a national RDP before entrance in the EC. When Austria entered the EU, the high share of RDP payments in the total CAP budget for Austria was continued, explaining why Austria has a much larger part of total CAP budget spend in the 2nd pillar, including the agri-environmental payments. The large expenditure on

agri-environmental issues is related to the high appreciation of the cultural landscape of Austria. Tourism is to a great extent dependent on the environmental quality of the rural area and tourism is a main source of income in this country.

Of the total RDP, 73% of the budget is spent under the 2nd axis (environment and landscape), with agri-environmental program (OPUL) and support to Less Favoured Areas (LFA) taking the lion share.

The CAP payments form a considerable part of the income of Austrian farmers. As for mountain farmers, only 20% of their income comes from the market, but also non-mountain farmers depend for more than 50% of their income on the agricultural payments.

According to the EU HNV map (EEA/JRC, 2008), HNV farmland in Austria amounts to 2.45 million ha, representing a share of 68,4 % of farmland.

4.2.2 Identification and monitoring of HNV farmland

The identification of HNV farmland is currently carried out on a 1km² resolution and has been done for HNV type 1 and 2 based on data concerning farming practices, habitat types and landscape structure.

Identifying HNV type 1 (semi-natural areas) started with selecting the biotope types with a high nature value and that are depended of farming practices. From each biotope type the management requirements were listed and subsequently a relation was made with the current agri-environmental regime (i.e. a category in the OPUL programme was related to a certain level of livestock density etc.). Based on the farm practice a distinction was made between HNV-very valuable and 'normal' HNV. This option of the distinction between two levels of HNV was made to make the concept flexible for changes in policy.

The identification of HNV type 2 (mosaic landscapes) is based on the assumption that the chance of greenveining of rural areas is higher in areas where there is a large structural diversity. The structural diversity of an area is calculated by taking into account the parcel size and the crop diversity. The smaller the parcel size and the greater the crop diversity, the higher the score for structural diversity will be. A minimal score is needed to appoint it as HNV type2.

HNV type3 has not been mapped yet. But based on the mapping exercise including HNV type 1 and 2, 40% of the total UAA is 'normal' HNV and about 12% of the total UAA is especially valuable HNV.

The identification of HNV as described above served as input for the base line indicator as reported to the EC. The approach, methodology and required data have been selected by taking into account suitability for efficient monitoring.

According to the government, Austria has just started to discuss 'HNV' from a scientific perspective. Therefore, major changes to existing figures are still possible. The HNV area estimated by the EEA might be too large as the analysis includes a land cover category which is in reality not really farmed.

High Nature Value Farmland in Österreich 2009

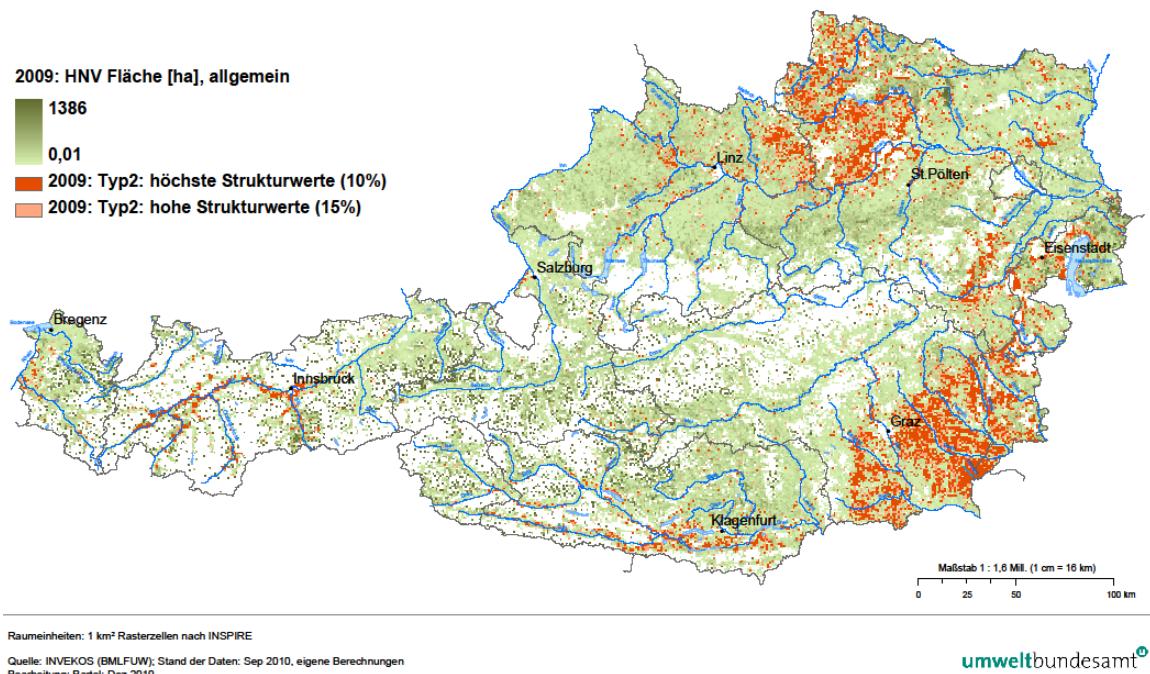


Figure 10
HNV map of Austria 2009 published by the Austrian environment agency.

4.2.3 Policy support for HNV farmland

The reason for identifying HNV farmland in Austria is primarily to fulfil the reporting obligations to the EC. HNV is not yet used to target resources of the Rural Development Program. In 2008 the work on HNV started as a reaction on EEA work based on Corine land cover, trying to find out if this work fits in the Austrian idea of distribution of HNV farmland.

In Austria the agri-environmental program (OPUL) is quite popular. The total annual budget of OPUL is 550 million euro. On average this amounts to 220 €/ ha UAA and 4,200 € / farmer. Almost 73% of the agricultural enterprises has an OPUL contract, and the area covered by OPUL is app. 2.2 million ha, which is 87% of the total agricultural area. In Austria HNV is not used to target OPUL measures. The majority of the registered farmers does already implement agri-environmental measures, so it is assumed that a large part of the area of HNV is managed in an environmentally friendly way. However, it remains unclear to what extent the agri-environmental measures do indeed support the specific characteristics of each HNV type. The area of HNV seems to overlap to a great extend with LFAs, and there might be some overlap with Natura 2000.

4.3 Germany: Nordrhein Westfalen

- Total surface: 34,085 km²
- 8% of total area is Natura 2000
- 80% of total land area is in use for primary production (forestry and agriculture)
- 5% of the total utilized agricultural area is less favoured

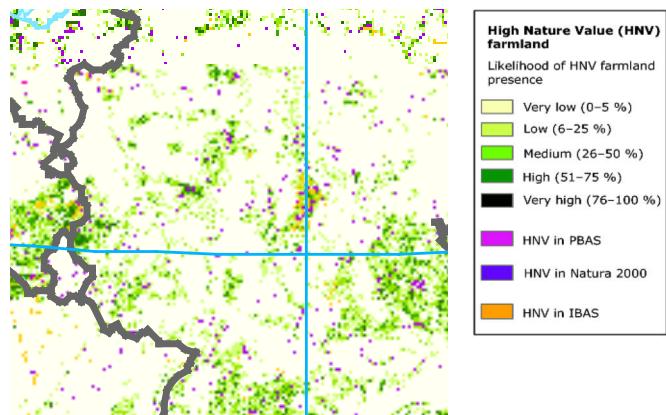


Figure 11

Detail of European HNV map: NordRhein Westfalen (EEA/JRC, 2008).

4.3.1 General

Nordrein-Westfalen (NRW) has an area of 34,085 km², of which approximately 39% is used for agriculture. A total of 43.3% of the population live in rural and peripheral areas. There are more than 54,000 agricultural holdings and more than 4,200 forestry holdings in NRW with an even distribution between part-time and full-time farmers. Agriculture and forestry make up approximately 0.7% of total GDP in NRW, which is below the national average of 1%. There are 145,000 ha of Less Favoured Area (LFA) and more than 278,000 ha of Natura 2000 area.

In the 2007-2013 Rural Development Programme of NRW called Länlicher Raum' a total of 909 million Euro is available (including national co-financing). Approximately 32% of the overall RDP budget is allocated to axis 2, the agri-environmental scheme.

4.3.2 Identification and monitoring of HNV farmland

HNV farmland is identified through field data collection using a stratified random sampling approach. The stratification was done at national level (900 random agricultural squares for the whole of Germany), for NRW this would mean 74 squares as the minimal number needed to provide a representative result at national level. However, NRW monitors 170 squares (covering 0,5% UAA in NRW). In addition there are also 29 reference squares covered in nature protection areas (mostly Natura 2000). These reference squares are also in agricultural use, but low intensively providing a reference for an ideal (maximum biodiversity value) situation. The nature protection areas data are then regarded as the best achievable ecological situation. In this way the reference squares derive information against which the data collected in the random squares can be compared. Squares have a size of 100 ha.

In order to categorize the biotopes in HNV or non HNV farmland, information on the following indicators is collected: Structural elements, Vegetation, Biotope characteristics and Fauna species

The results show until that 12% of the UAA is covered by HNV farmland in NRW. Three quality levels of HNV farmland are distinguished covering NRW as follows:

HNV 1: Extremely high nature value HNV: 1,9%

HNV 2: Very high nature value HNV: 3,8%

HNV 3: Average nature value HNV: 6,2%

The most dominant biotope types making up HNV farmland are grassland areas which cover a total of 63% of the total HNV area (17,3% biodiversity rich dry grassland, 16,9% biodiversity rich wet grasslands, 16,1% biodiversity rich poor grasslands and 13,0% hay meadows). In the arable category the most important biotopes are the biodiversity rich fallow lands (8,9%) and the biodiversity rich arable fields (2,4%). For the whole German territory it is estimated that 13% of the UAA can be considered as HNV.

The assessment of the baseline indicator has been done in 2010 and will be done another time in 2011. Then the impact indicator will be done at Lander level. The aim is that the percentage of plots that are identified as HNV should not decrease (statistical approach). The data originates from what could be seen during fieldwork, nothing more (no farm practices included).

4.3.3 Policy support for HNV farmland

It should be clear that the German sampling approach was only developed to provide a good baseline indicator and monitoring framework for HNV farmland in Germany. The results are useful to make an estimate of HNV farmland share and development in state at a regional and national level, but do not deliver a clear spatial distribution pattern of HNV farmland. This implies that they do not provide a basis for policy targeting of HNV farmland. On the other hand the monitoring procedure can be used to do an output control of possible payments targeting HNV farmland.

The policy effort has mainly been made as response to the reporting obligations towards Brussels. There are no special measures targeted to HNV included in the RDP and it remains unknown whether there is any overlap with Natura 2000 areas.

5 Lessons learned

In the previous Chapter the different approaches to identify, monitor and target HNV farmland areas in rural development policy have been explored for Estonia, Austria and the Nordrein-Westfalen region in Germany.

In this Chapter we translate the findings into lessons learned for the Dutch situation. However, before doing that, it is important to emphasize that the context of each region and member state is different. One of the most important differences is the kind of threat to HNV farmland. In Estonia, but also in many parts of the Mediterranean and of central and eastern Europe, HNV is threatened by extensification and abandonment of farmland, while this is not really an issue in The Netherlands, nor in most parts of western Europe. Agri-environmental policies are aimed at the continuation of the agricultural management of the land. In Nordrein-Westfalen, and also in The Netherlands, it is intensification of agriculture that threatens the subsistence of HNV. In these regions policies should aim at supporting low-intensive management. Moreover there are differences concerning agricultural practices, physical conditions, land use history, policy context et cetera. Therefore, an approach to HNV cannot directly be translated to one for the Dutch reality. Nevertheless, best case examples of methodological aspects concerning identifying and monitoring HNV and policy targeting strategies can be extracted.

As a start, Table 4 gives an overview of how the different commitments concerning HNV have been put in place in the case studies.

Table 4

Overview of how the different commitments concerning HNV have been put in place in the case studies.

	Identification	Policy support	Monitoring	
			Baseline	Impact
Netherlands	Based on land cover, biodiversity data and farm practices	Target areas of AEM overlap to a certain extend with HNV, but no specific targeting	Reference to EEA map	Reference to EEA map
Estonia	Definition of HNV areas = semi natural areas within Natura 2000 Currently progress on broader identification of HNV	Support for management secured by AE measures specifically targeted to HNV type 1	See identification	Integrated in the monitoring program for the Estonian RDP
Austria	Based on biotope information, farm practices, AEM uptake and structural diversity	Broad up take of AEM by farmers but no specific targeting of AEM to HNV	As identification	As identification
Germany	Field survey of stratified sampled plots, vegetation and landscape elements	HNV is not used to target AEM	As identification	As identification

As for **identification and monitoring of HNV**, we observed that in the three case study areas the identification of HNV and the development of a monitoring system for HNV were combined into one joint effort. While for identification factors like reliability and validity are guiding, cost-efficiency and repeatability are important for monitoring purposes. Therefore, combining identification and monitoring into a concerted action could be an efficient way to deal with the HNV indicator but might also imply loss of data quality. In the Dutch study of identification of HNV (Elbersen and Van Eupen, 2008), monitoring purposes were not taken into account.

The approach to identification of HNV in Estonia, which designates HNV only within Natura 2000 areas, is interesting in terms of matching HNV farmland with agri-environmental policy target areas. In that way HNV will be harmonized with existing target areas and well embedded in agri-environmental policy. For the Dutch situation this would however not be a useful approach, as in The Netherlands most HNV farmland is located outside Natura 2000 areas (see Elbersen and Van Eupen, 2008). Only the small area of HNV type 1 could possibly be matched with Natura 2000 areas. Instead, other types of agri-environmental policy target areas could be considered, like farmland bird areas and some National Landscapes which consist to a large extent of agricultural areas.

Monitoring HNV in Estonia is completely integrated with the RDP monitoring program that evaluates the quantity and quality of semi-natural habitats in Natura 2000 areas. In The Netherlands it would also be possible to connect to established monitoring systems (see for more information Schmidt et al., 2008) and this will be further elaborated upon in Chapter 6.

The Austrian approach for identification of HNV is interesting for the Dutch situation in terms of use of IACS/LPIS data. In this approach HNV biotope types are related to management requirements and subsequently to current farming practices. The information on farming practices originates from the IACS/LPIS system and is regularly updated. In The Netherlands a similar system, as required by the EU, is in force. Profiting from this information source ensures regularly up-dated, detailed information, which is beneficial for monitoring purposes and addresses the farm management in HNV farmland.

Finally the German case, the pragmatic approach of vegetation and landscape elements analysis at stratified sampled plots, could provide information on how to use indicators species and habitats for HNV for Dutch monitoring purposes. However, as no information on the farm management is collected, no link can be made between the occurrence of HNV and agricultural practices which makes targeting of policies to protect HNV difficult. On the other hand the monitoring procedure can be used to do an output control of possible payments targeting HNV farmland.

A couple of lessons that can be learned for the identification and monitoring of HNV are:

1. In Germany only data concerning biodiversity are use, in Austria it is mostly data concerning farming practices. Most appropriate for identification seems a combination of both types of data.
2. Ideally, The Netherlands will develop a monitoring system of which the results can be used for inclusion in the CMEF and for targeting agri-environmental policies to the most valuable HNV areas and/or where up-take of measures are most likely to result in improved farmland biodiversity status.
3. A step-wise approach, like has been adopted in Estonia, seems to be a low-profile way to introduce a new concept. In this way one can start with a small area. In Estonia initially semi-natural grasslands within Natura 2000 have been designated as HNV. In The Netherlands this could also be done and core-areas for farmland birds could be targeted first, also given the large number of farmland birds of European and global conservation status still present in Dutch farmlands. Subsequently, the area of HNV could be expanded step wise.

4. For efficiency reasons, the potential of using existing monitoring systems (possibly with some adaptations) should be explored.

In terms of specific policy support for HNV, it can be concluded that this is not yet a priority in all case studies. Member states cope differently with the implementation and integration of HNV in their RDPs and with the obligation to monitor. Roughly two approaches can be distinguished:

1. the short term pragmatic solution. MS comply purely with the obligation to monitor and report to the EC under the CMEF. The results of the monitoring results of monitoring do not feed into the design of RDP instruments to support the management of HNV farmland.
2. the long term approach, where policy support for management and monitoring are supplementary. The policy cycle is closed, i.e. results of monitoring efforts steer the targeting of policies and the design of the instruments to protect HNV.

In Estonia there is a specific measure within the agri-environmental program that targets semi natural habitats. In this way HNV type 1 is automatically targeted. For the other types of HNV no specific measures exist. For the Dutch situation it would be recommendable to ally with established area-based policies, and within these specific targeting of HNV areas could be investigated.

As for the Austrian case there is no link established (yet) with the identification of HNV and the agri-environmental programme. According to the Austrian Ministry of Agriculture the HNV concept will not be used to target environmental measures. The assumption is that, as 80% of the registered farmers is integrated in the agri-environmental program, HNV is sufficiently supported by agri-environmental policy. However it remains uncertain to what extent the measures are targeted to the right areas. As for the Dutch reality, only 22% of the registered farmers receives support from the agri-environmental program, so the rationale as followed by the Austrian government cannot be applied. Moreover, the allocation of environmental target areas for the agri-environmental programme have to be more strictly defined to effectively target HNV areas.

A couple of lessons that can be learned for policy support are:

1. In Austria and Germany the policy effort is aimed at monitoring to fulfil the reporting requirements to the EC. Design of monitoring and identification approach did not take into consideration the possible link to agri-environmental policies. For the Dutch situation it is recommended that this link is considered from the start in order to leave options open and strive for protection of HNV in the long term.
2. To what extent HNV already is supported through policies should be explored by assessing the overlap with other policy types.
3. HNV offers the opportunity to target agri-environmental policies to most valuable HNV areas and/or where up-take of measures are most likely to result in improved farmland biodiversity status.
4. Within this scope it is useful to consider HNV in the on-going policy process on the CAP post 2013. What the role of HNV could be in greening of the first pillar as well as the possibilities to target HNV in the second pillar should be discussed.
5. Take care of long-term management. The effectiveness on nature and biodiversity will only be visible after a long period. Therefore, coupling HNV with other environmental policies, is important.

6 Towards integration of HNV in the Dutch agri-environmental policy

Whereas environmental objectives become increasingly important for European policies and also for both pillars of the CAP, it can be expected that measuring the impact of policies on biodiversity also gains importance. Assessment of the extent and condition of HNV farmland will remain an important element to describe the impact of agriculture on the environment (Peppiette, 2011). Therefore, progress should be made for integration of HNV within the Dutch agri-environmental policy both in terms of identification and monitoring as in terms of policy support for maintenance of HNV.

The current developments concerning the reform of the CAP offer interesting possibilities for the conservation of HNV farmland. According to the current policy direction the Dutch government intends directing CAP payments to remunerate green public services. The HNV concept could serve as the point of departure for the further elaboration of this intention. It could be used on parcel, farm and regional level. Indicators for farms supporting HNV farmland, such as applied in the Austrian system, could also be used to identify HNV farms. The identification of HNV farmland as elaborated by Elbersen van Eupen (2008) can be used as a starting point to ally the target areas of the agri-environmental measures with favourable areas for the development of agro-biodiversity.

However, the present study showed that supporting HNV through AEM was not a primary concern in Austria and Northrhein Westfahlen, but it was the commitment to the EC to report under the CMEF. Estonia seemed to be an exception as here HNV identification was done with the intention to both report on the indicator, but also to target it with AEM. Yet, also for other EU countries it seems that this reporting obligation forms the primary driving force to implement the HNV farmland indicator. As HNV is one of the indicators to measure the impact of the RDP on biodiversity, and biodiversity conservation is becoming increasingly integrated into European policies, it is expected that HNV will also gain importance in European agri-environmental policies.

In our recommendations we will focus both on the further integration of HNV within the current Dutch agri-environmental policy and on the way to deal with the monitoring obligation within the framework of the CMEF.

A road-map towards HNV farmland monitoring for the CMEF and implementation in the Dutch RDP should at least incorporate the following main points. In our opinion it is of importance to ally as much as possible with established activities and policies. The distinction between the three types of HNV allows to elaborate this association per HNV type. In Table 6 the relations with established policies and monitoring activities are listed, as well as the degree of support to HNV farmland.

Tabel 5

Overview of associations with established policies per HNV type.

		HNV type		
		1	2	3
Support for good agricultural management	Area oriented policy	Natura 2000, LFA	National Landscapes	Farmland bird areas
	% overlap¹⁰	3%	30%	36%
	Policies & measures	Habitats and bird directive: Protection by law. AEM for management of semi natural grasslands.	AEM for maintenance of landscape elements. For NL: Minimal interference from policies.	Protection by law, AEM for bird-friendly management.
Degree of support for HNV	+		-	++
Monitoring		Obligatory monitoring for birds and habitat directive (see Schmidt et al., 2008).	Baseline national landscapes Monitor small landscape elements.	Habitat monitor farm land birds.

The further integration of the HNV concept into Dutch agri-environmental policy requires actions on both the identification / monitoring aspects of HNV and the safeguarding of policy support for HNV farm management.

Identification / Monitoring:

- As the identification of HNV of Elbersen and Van Eupen (2008) is quite coarse (1 km²), the map has to be elaborated before it can be used as basis for the development of an HNV policy. Such a further development of the HNV map depends on the purpose it would be used for: on the one hand the map could serve as a baseline for monitoring purposes and on the other hand the map could be used to target agri-environmental policies. At the moment it is not used in either way. For a further elaboration of the HNV map, detailed farm practice information is necessary and additional information for the three HNV types. For HNV type 1 the existing HNV map could be enriched with biotope information. For HNV type 2 more detailed information on landscape elements can be drawn from the monitor for small landscape elements and additional information of farm management could be derived from the IACS/LPIS system. Finally for HNV type 3 information on farmlands bird core area should be integrated together with farm management information from the IACS/LPIS system. Also a connection with existing agro-biodiversity mapping activities is recommended.
- To develop a cost-effective and reliable monitoring of HNV farmland it is advisable to profit from joint efforts, e.g. seek for connection with the monitoring obligations for the habitat and bird directive, farmland bird monitoring, national landscapes etc. (See Schmidt et al., 2008).

Policy support for HNV friendly management

- To gear policy support for HNV friendly management with existing (agri)environmental policies one could start with analysing the overlap between the HNV farmland areas with Environmental target areas of AES and other relevant area based policy categories (Natura 2000, Nationale Landschappen, LFA, etc) see the map below. But also with on-going efforts towards a more effective targeting of AEM like the 'best chance' map for the black tailed godwit (*grutto kansenkaart*). It would be possible that certain types of HNV are already covered by an area-based category. In this way it is also possible to identify the agri-environmental target areas that are not identified as HNV.
- Review current agri-environmental measures and evaluate to what extent they support HNV farmland and investigate the degree of uptake of agri-environmental measures by farmers in HNV areas.
- Safeguarding the nature values of HNV farmland requires ideally a management that integrates nature conservation with agricultural practices. A promising approach would be to apply farming business models that successfully combine environmental aspects with agricultural production in HNV areas. An examples of such a model is described in the textbox below.

Farming with Nature is a farming business model that integrates agricultural production with management of nature, landscape and water. This integrated approach requires a thorough reversal in agricultural management and needs to be supported by substantial financial incentive. Therefore, a targeted implementation of Farming with Nature would be the best (Stortelder and Kiers, 2011).

As Farming with Nature requires a target implementation and at the same time HNV management requires a tailor made approach, synergy between both concepts seems to be a promising way forward to ensure optimal management and conservation of those farmland areas that harbor high nature values often involving species and habitats for which Dutch international commitments apply to conserve and maintain their numbers.

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Annex 1 Background HNV policy Estonia

The implementation of HNV policy and outlook on the CAP reform

The initial driving force of the Estonian government for the implementation of the HNV concept was to comply with the reporting requirement for the EC. However now it is used as a tool to protect valuable farmland. The semi-natural habitats are really depended of the CAP support, without support there will not be any semi-natural habitats anymore. Most of the semi natural habitats are not eligible for SAPS, because at the moment of entrance into the EU they did not comply with the definition of the EU as being in use by agriculture. Moreover, in case these parcels receive the special support for semi-natural habitats, the parcel is not eligible to receive also SAPS or any other kind of CAP-support.

The challenge for the Estonian HNV areas is to find new ways to make (and keep) livestock farming in these areas profitable. Grazing is necessary to avoid shrub encroachment. An approach may be to reintroduce coupled payments or to enhance regional obligations (for instance maximum and minimum number of animals). As for the new CAP the Estonian government takes into consideration a system with different layers: one for basic (uniform) income support, one for Natura 2000 support and or for LFA etc. They also aim at a more targeted support so the right farmers / right areas are really profiting from agri-environmental measures. So, basically the Estonian government would like to have more liberty in the distribution of agri-environmental support:

1. It should be possible for farmers outside Natura 2000 to apply.
2. More targeted support by a bottom-up approach of regional groups of farmers.

The attention to HNV in the current Estonian agricultural debate

The HNV issue is not broadly recognized as important in Estonia, it is not a political hot topic and not a subject of public debate. According to a critical mass there are a couple of weaknesses in the present HNV policy:

- 1) It is too much focused on the maintenance of semi-natural grasslands; within the new CAP a more diversified policy would be useful.
- 2) Due to lack budget deficiencies only areas in Natura 2000 are designated, but this approach excludes other valuable areas.

For some farmers the HNV policy is difficult to cope with as they get confused when filling out the forms. Intensive farmers consider HNV in general as hobby farming and also the farmers union considers it as a marginal activity. However, the farmers who are farming semi natural habitats do appreciate the policy.

Facts and figures on HNV farmland in Estonia

At the moment there is about 100,000 ha of semi natural grasslands, and there is 73,000 ha of Natura 2000 area. There is around 23,000 ha semi-natural grassland within Natura 2000, and thus at present designated as HNV. In case a semi-natural grassland has more than 50 trees / ha, than it is not considered as an agricultural area by the EU and consequently it is not possible to apply for SAPS, but it is possible to apply for the HNV support. Around 20,000 ha semi-natural grasslands are supported by the specific HNV support. The management of semi-natural habitats is carried out by the following types of farms: 63% plant production, 27% mixed farming and 27% livestock farming. Dairy farming has disappeared from the semi-natural habitats, instead there is cattle for beef production. In Estonia there is about 75,000 ha of semi-natural habitat, only 23,000 ha is managed (13,500 ha is grazed, 8,500 is mowed and 1,500 is mowed and grazed), the rest is abandoned.

The national support of restoration of semi-natural grasslands is declining.

A very important element of the HNV policy is that it is obligatory for the farmers to follow a one-day course about the policy, discussing the management practices, the goal of the policy and nature conservation issues.

Mapping HNV farmland in Estonia

The biggest challenge while mapping HNV was to deal with a very diversified countryside. By means of a grid approach this diversity has been tried to capture. Each grid cell of the HNV map contained information on a range of HNV indicators. The identification of HNV was depended on existing data sources, and data availability on farm practices was indispensable. The map can be used for two purposes:

- 1) Targeting the HNV policy to the right areas
- 2) Monitoring the quantity and quality of HNV

For the first purpose, an overlay was done with the pattern of the parcel structure. In case the parcel is more than 50% considered as HNV than the area is eligible to apply for HNV support. In case a parcel is for less than 50% considered as HNV, than it is not eligible.

Annex 2 Background HNV policy Austria

Austrians rural area

Austria is a hilly country of 84,000 km² with 8 mln people, divided in nine regions. 78% of the total land area is rural according to OECD standards (<150 inh/km²) and 67% of the utilized agricultural area is designated as a less favoured area (LFA). More than 50% of the land is forested; while 47% is in agricultural use (of which 54% grassland). There are 187,000 agricultural enterprises in Austria (2/3 located in LFA's), the majority (136,000) are registered in IACS. There is a large share of small and medium sized enterprises, the average farm size is 19 ha and 56% of the farmers is a part-time farmer. The agricultural production value covers 1,5% of the GDP. This seems not much, but it supports the tourism sector (which covers 13,5% of the GDP) very strongly. The (agricultural) landscape is one of the unique selling points of Austrian tourism.

The rural development plan of Austria

The RDP consumes 2/3 of the total Austrian CAP budget, equivalent to 1,4 billion Euro (including national co-financing and top-ups). Historically, Austria has invested in the rural area by means of a national RDP before entrance in the EC. When Austria entered the EU, the height of the financial support to the rural area continued and was extended with EU money. The large expenditure on agri-environmental issues is directly related to the fact that the cultural landscape of Austria is the capital of the rural area. Tourism is to a great extent depended on the environmental quality of the rural area.

Of the total RDP budget, 73% of the budget is spent under the 2nd axis (environment and landscape), being the agri-environmental program (OPUL) and LFA the largest measures.

The CAP payments form a considerable part of the income of Austrian farmers. As for mountain farmers, only 20% of their income comes from the market, but also normal farmers depend for more than 50% of their income on the agricultural subsidies.

As the rural area of Austria is mountainous, small scaled, highly diverse, extensively managed with a large share of less favoured areas, known of its cultural landscape, rich alpine meadows and regional food specialities, the agri-environmental program OPUL takes into account all these characteristics. OPUL consists of 29 integrated and targeted measures, for which seven year contracts are signed by the farmers. Measures include e.g.: support for biological farming, integrated management, field margin management etc. The conditions for OPUL are e.g. participation is on voluntary basis only, there has to be a clear distinction between the requirements under cross compliance and the ones under Opul, it should be possible to control the output of the measures and payments should be based on cost incurred / income foregone and does not contain therefore an incentive component.

The total annual budget of OPUL is 550 million euro (EU covering 50% of the budget, National authority 30% and regional authority 20%). On average this is 220 €/ ha UAA and 4,200 € / farmer. Almost 73% of the agricultural enterprises has an OPUL contract, and the area covered by OPUL is app. 2,2 mln ha which is 87% of the total agricultural area and is over the last fifteen years rather constant.

The HNV indicator in Austria

The mid-term evaluation of the RDP has just been completed. One of the most problematic indicators was the HNV indicator, caused a lot of discussion. In general there is a positive attitude towards OPUL among farmers. OPUL and its evaluation will be further enhanced in the years to come, especially regarding: baseline indicators, targeted regionalisation and integration with spatial planning instruments.

Austria is afraid the after finishing the new CAP/RDP of the EU, time will be to short to translate this into national measures and has therefore informed the EU to extend the current OPUL program with another year.

HNV in Austria is related to the alpine meadows, the small scaled cultural landscapes, extensive arable land. Mapping these areas was based on information coming from IACS (the Integrated administration and control system), the biotope catalogue and aerial photographs and was done for 2007 and 2009.

Identifying HNV type 1 (semi-natural areas) started with selecting the biotope types with a high nature value and that are depended of farming practices. From each biotope type the management requirements were listed and subsequently a relation was made with the current agri-environmental regime (i.e. kind of OPUL measure put in practice, livestock density etc.). Based on the farm practice a distinction was made between HNV-very valuable and 'normal' HNV. This option of the distinction between two levels of HNV was made to make the concept flexible for changes in policy.

The identification of HNV type 2 (mosaic landscapes) is based on the assumption that the chance of green veining of rural areas is higher in areas where there is a large structural diversity. The structural diversity of an area is calculated by taking into account the parcel size and the crop diversity. The smaller the parcel size and the greater the crop diversity is, the higher will be the score for structural diversity. HNV type3 has not been mapped yet. According to the mapping exercise, 40% of the total UAA is 'normal' HNV and about 12% of the total UAA is especially valuable HNV.

Validation of the HNV map was done by cross checking with aerial photographs and literature study. As 87% of the farmers registered under IACS is applying agri-environmental measures, it is assumed that HNV is sufficiently supported by the agri-environmental policy. However spatial targeting of tailor made measures to certain types of HNV is probably still desirable.

Annex 3 Background HNV policy Germany: Nordrhein Westphalia

HNV indicator development methodology and baseline results

HNV farmland is identified through field data collection using a stratified random sampling approach. The stratification was done at national level (900 random agricultural squares for the whole of Germany), for NRW this would mean 74 squares as the minimal number needed to provide a representative result at national level. However, NRW monitors 170 squares (covering 0.5% UAA in NRW). In addition there are also 29 reference squares covered in nature protection areas (Natura 2000). These reference squares are also in agricultural use, but low intensively providing a reference for an ideal (maximum biodiversity value) situation. The nature protection areas data are then regarded as the best achievable ecological situation. In this way the reference squares derive information against which the data collected in the random squares can be compared. Squares have a size of 100 ha.

Collection of data in the squares started last year and results at national level on the baseline HNV farmland indicator are now available for the whole of Germany (including the 74 squares in NRW). At the end of 2011 the HNV indicator for NRW is also available for the 170 squares. This will provide a more accurate indicator. It is expected that the area extent of HNV farmland in NRW which is now estimate at 11,9% will come out a bit higher in a larger sample.

The situation in NRW is quite unique in comparison to rest of the Bundesländer since there is already a wider ecological random stratified sampling approach in place since 1997. This approach was used to evaluate the agri-environmental support measures. When a national working group was established to develop a method to identify HNV per Bundesland (four years ago) NRW made a lot of effort to convince the other fifteen Bundesländer to use this same approach for HNV farmland monitoring. Reaching consensus between the Länder on the approach took long but indeed resulted in quite a similar approach. NRW could continue with their own monitoring collection method and only a couple of additional variables were added and for other existing variables conversion tables were developed to translate to the national classifications.

It should be clear that this German sampling approach was only developed to provide a good baseline indicator and monitoring framework for HNV farmland in Germany. The result is spatially specific information for the 900 squares and aggregated data at national and Länder level about the area share of HNV farmland and the changes in HNV farmland (CMEF indicators 5, 6 and 18). However it does not provide a detailed spatial overview of the full area coverage with HNV farmland in Germany. Of course from the sampled squares there are digitized results available, but these are not publicly available.

In order to categorize the biotopes within the 100 ha squares in HNV (in three quality categories) or non HNV farmland, information on the following indicators is collected:

- Use and biotope types based on: Structural elements, Community of plants
- *Biotopwert* (Biotope value based on rareness, replaceability, anthropological influence, threat status). Value for biotopes range from 1 to 10. The higher values automatically translate into HNV farmland.
- *Massnahmen flache (Vertragspaket)*: e.g. type of Pillar 2 support category
- *Flora Fauna Habitat Erhaltungszustand*. This refers to the conservation status of species and habitats included in the Annex I of the Birds and Habitats Directives.

But additional information is also collected in the squares, which is not used for the categorization in HNV-non-HNV, but only for further characterization of the identified (HNV) farmland.

The reason for not taking bird parameters into account for the identification of HNV farmland is that it does not lead to exclusion of intensive farmlands. Furthermore, bird presence data can be very much influenced by other parameters outside agricultural management (e.g. climate change, hunting etc.).

For more details about the field data collection procedures there are two handbooks available¹¹.

The first results from the 74 squares sampled show that the present HNV area coverage is 11,9% of the Utilised Agricultural Area. But it could turn out to be higher in a larger sample. This will become clear by the end of 2011 when results become available for the 174 squares in NRW.

ATKIS (Automatisches Topografisches Karten System) was used in the whole of Germany to relate the agricultural HNV area coverage to biotopes. This system includes all biotypes and categorizes them as agricultural and non-agricultural. The HNV monitoring programme coordinator institute PAN provided this digital data layer for all Bundesländer. However, NRW uses a more accurate data layer instead for its own territory.

The results based on the 74 squares show until now that 11,9% of the UAA is covered by HNV farmland in Nordrhein Westfalia. For the whole of Germany this reference is 13.0%. Three quality levels of HNV farmland are distinguished covering NRW as follows:

HNV 1: Extremely high nature value HNV: 1.9%

HNV 2: Very high nature value HNV: 3.8%

HNV 3: Average nature value HNV: 6.2%

The most dominant biotope types making up HNV farmland are grassland areas which cover a total of 63% of the total HNV area (17,3% biodiversity rich dry grassland, 16,9% biodiversity rich wet grasslands, 16,1% biodiversity rich poor grasslands and 13,0% hay meadows). In the arable category the most important biotopes are the biodiversity rich fallow lands (8.9%) and the biodiversity rich arable fields (2,4%).

The share of HNV farmland is much higher among livestock farms with large grassland area shares than among arable, horticultural or granivore production systems. More than 60% of HNV farmland is found in grassland areas which are more strongly concentrated in the hilly and mountainous regions of NRW.

For HNV monitoring there is either every one or two years a repetition of data collection in ¼ or 1/6 of the total squares in order to come to a full repetition of all squares every four years.

The data collection in field is done by specialized agencies which are hired by LANUV. Cost for NRW for field work part is 150,000 Euro per year. Many different bureaus are involved as most only get two to three squares to cover. LANUV tries to keep the same people with the same squares over as long period of time as possible. Landowners are informed before about the monitoring activity and are usually very cooperative.

¹¹ Handbooks field data collection NRW for HNV farmland and wider landscape monitoring:

König, H. en J. Werking Radtke, 2010. Biodiversitätsmonitoring NRW, Biotoptmonitoring (BM), Ökologische Flächestichprobe (Öfs). Landesamt für Natur, Umwelt und Verbraucherschutz NRW, Leibnizstr. 10 45659 Recklinghausen Fachbereich Monitoring, Effizienzkontrolle in Naturschutz und Landschaftspflege.

Biodiversitätsmonitoring NRW Ökologische Flächestichprobe (ÖFS) - Arbeitsanleitung - Brutvogelkartierung. Landesamt für Natur, Umwelt und Verbraucherschutz NRW, Leibnizstr. 10 45659 Recklinghausen Fachbereich Monitoring, Effizienzkontrolle in Naturschutz und Landschaftspflege.

The results are only useful to make an estimate of HNV farmland share and development in state at a regional and national level, but do not deliver a clear spatial distribution pattern of HNV farmland. This implies that they do not provide a clear basis for policy targeting of HNV farmland. On the other hand the monitoring procedure can be used to do an output control of possible payments targeting HNV farmland.

Agriculture and rural development policy in Nordrhein Westfalia

In the 2007-2013 Rural Development Programme of NRW called Länlicher Raum' a total of 369 million Euro of EU financing is available. This implies that together with the co-financing coming from national regional and communal agencies the total budget amounts to 909 million Euro until 2013. Between 2000-2006 money available for RDP increased, but since 2006 the payments decreased which led to a lower participation of farmers. Also some measures were left out, which led to a loss of participation.

All measures relevant for agriculture and thus HNV farmland fall in the RDP-Axis field 'Improvement of the environment and landscape' (*Verbesserung der Umwelt und Landschaft*) to which 71% of the RDP budget is targeted. The measures falling under this priority field of which most are relevant for HNV farmland include:

- 1) Animal health measure for the maintenance of outside grazing practice for dairy cattle.
- 2) Agri-environmental payments (*Agrarumweltmassnahmen*) which include.
- 3) Nature conservation agreements (*Vertragsnaturschutz*)

In addition there are also premia in this RDP priority paid for *FFH-Ausgleich: Ausgleichzahlungen für Gebiete mit umweltspezifischen Einschränkungen*. This involves compensation payments for areas officially targeted under the Birds and Habitat directives. Payments are given for maintaining the present status of these areas e.g. no ploughing up of grasslands, no reclamation etc.

Table 1

Main environmental objectives of the RDP schemes being part of the priority field 'Improvement of the environment and landscape'.

Measures	Resources				
	Biodiversity	Water	Climate	Soil	Landscape
Ecological farming support	(X)	X	(X)	X	(X)
Grassland extensification support	(X)	X	(X)	(X)	X
Increased crop rotation support	(X)		(X)	X	(X)
Creation of flower rich verges	X				X
Intercropping support		X			
Uferrandstreifen	(X)	X			(X)
Nature conservation agreements (<i>Vertragsnaturschutz</i>)	X	(X)			X
X: Main objective					
(X): Integrated objective					

The measures are applicable to a target area of 250,000 ha, which is 17% of the UAA of NRW. A total budget of 382 mln Euro is available in the 2007-2013 period for the priority field of 'Improvement of the environment and landscape'. This amounts to 42% of the total RDP programme budget and 55% of the total EU budget. The support measure for stimulation of outside grazing is presently applied to 125,000 livestock units. In total there are already 12,500 farms participating in one or more of the above mentioned schemes. The most

important schemes in terms of budget are support to ecological farming, nature conservation agreements, grassland extensification and maintenance of outside grazing for dairy cattle.

Measures that are most suitable to support HNV farmland are those in that directly or indirectly support biodiversity as shown in Table 1.

The intensity in the use of the schemes increases towards the Southeast of NRW which coincides with the hilly and mountain landscapes, while, not surprisingly, low participation levels are found in the lowland areas to the Northwest where intensive pig and poultry production is concentrated. Clear overlap was also found between areas to which AES is targeted, Natura 2000 areas and most likely HNV farmland areas. At least the monitoring results showed that the occurrence of a high number of typical vegetation species linked to HNV farmland also increases with coverage by AES schemes. The highest number of indicative vegetation species are found in areas targeted by nature conservation agreement and grassland extensification schemes. At this moment an overlay is made between HNV information collected in squares and targeted area categories for AES to further investigate the overlap. However, in general it is already clear that the present AEM are already going to the more extensive agricultural areas in NRW (mountain/hilly areas) having the highest concentration of HNV farmland. At square level this needs to be investigated further however. Outcome of this assessment might give rise to improve the targeting, but this however is not expected in the short run.

A further understanding on the effects of the AES measures and the Nature conservation agreements was obtained from the mid-term review of these measures done by Entera. The objective of the review was to assess the contribution of the RDP measures to stop decline of biodiversity (Goteburg obligation). More specifically it was investigated how these measures contributed to changes in farmland birds and HNV farmland. Results show that in the large majority of the agreement there is a positive contribution to biodiversity. Presently the measures cover 13,5% of the UAA. So the support measures indeed contribute to reversing the decline of biodiversity. The quality of the evaluation programme to monitor results is also positively evaluated as it involves long time monitoring, comparison with non-supported areas, statistically robust, well published and link to HNV farmland indicator is made. The link to farmland bird indicator was assessed as 'unclear'.

Some further changes have been proposed to the RDP-axis 'Improvement of the environment and landscape' (*Verbesserung der Umwelt und Landschaft*) as from 2011. They include:

- 1) Higher support to farms shifting to ecological farming in the first years and increase in control costs.
- 2) Wider access to support for increased crop rotation measures (for ecological farms and when >10% grain legumes are introduced).
- 3) More measures introduced in programme regarding erosion protection.
- 4) Additional measures under nature conservation agreements for arable agriculture aiming at better support to the Hamster like increased distance between rows of summer cereals.
- 5) Stimulation measure to maintain ecological resources in the fruit cultivation.

As for the post-2013 CAP, NRW aims at increased in support under the 2nd Pillar as will be further explained in the following Section.

HNV in Future of CAP policy

Originally the setting up of the HNV identification and monitoring system was a direct response to the EU obligation to report on the three HNV farmland indicators under the CMEF of the RDP. Development of the monitoring methodology in Germany was therefore not intended to be used as instrument to support the (re)targeting of RDP support towards HNV farmland.

Also in NRW HNV farmland is not (yet) seen as an instrument to target CAP support to. This is clearly the position of the NRW Ministry. They are of the opinion that with the present measures farmland biodiversity is

already well targeted. The up-take of schemes will determine eventually the success. So there is no need for an additional area category.

However, at national level it seems like views are gradually changing as a national working group (*Bundesarbeitsgruppe für Beibehaltung der biodiversität*) has proposed to aim for 19% HNV farmland in 2015. NRW does not support this proposal as they don't think it is realistic. Maintaining the HNV farmland at a stable level will already be a challenge. The reason behind this conservative view is related to developments observed in the last years related to increased forage maize production for biogas. It is seen that increased maize production lead to overall decrease in farmland biodiversity as it often replaced arable lands that have been in under agri-environmental agreements for a long time or grasslands.

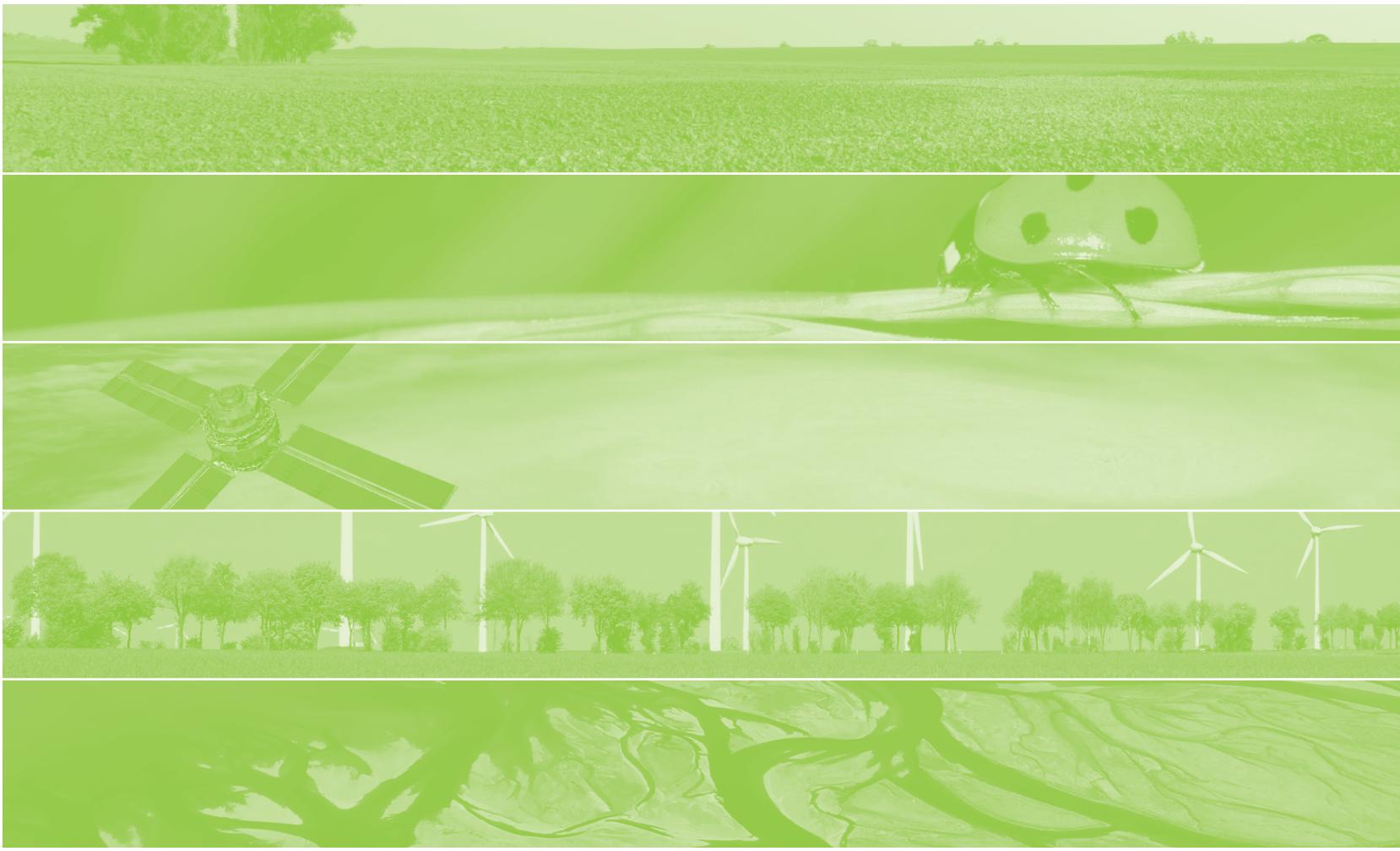
NRW also has formulated an official view on Post-2013 CAP:

- 1) Reform is needed and want to take a pro-active approach.
- 2) Agricultural budget should be maintained.
- 3) Starting point should be that public money should go to public goods.
- 4) Stricter environmental restrictions needed under 1st Pillar:
 - a. Creation of a 10% UAA existing of ecological production zones (ökologische Vorrangfläche).
 - b. Maintenance of 3-crop rotation system.
 - c. Introduction of obligatory climate and environmental check for middle and large scale farms.
 - d. Additional payments for additional performance e.g. grain legumes, maintenance of permanent grassland, economic use of Natura 2000 areas.
- 5) Strengthening of 2nd Pillar support.
- 6) Decline in direct payments.

In the reform ideas no specific HNV policy measures are included. Furthermore HNV is not the only issue that needs to be addressed under the 2nd Pillar. There are also obligations for WFD, Climate Policy, etc.

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