High Nature Value farming: introduction to policy workshops

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Workshop topics:

A. What is the added value for policy of the HNV farming concept, in relation to other concepts (agri-environment, LFA, Natura 2000, etc.)?

B. What model of support payments for HNV farming should be used to close the “income gap”?

C. Monitoring HNV farmland and farming – which approaches are best, and for which purposes?

Origins of HNV farming policy concept (not a scientific discovery)

- Major cause of biodiversity decline is farming intensification and rationalisation, and loss of semi-natural farmland.
- But large areas of Europe are still under farming that is not (fully) intensified (more in some regions, less in others).
- Key characteristics that make this farming valuable for biodiversity are:
  - Semi-natural farmland on relatively large scale, or smaller patches in mosaic with low-intensity cropping
  - Large landscape areas predominantly under these uses

Socio-economic considerations are central to the concept

- The same characteristics that make this farming valuable for biodiversity, make it difficult to be economically viable:
  - By definition, semi-natural farmland is not managed for high yields
  - Where crops are still produced at low intensity it is because soil and climate do not allow for more intensive systems.
  - Small-scale mosaic structures restrict the rationalisation of farming and landscape systems

HNV farming systems will only continue to conserve biodiversity at a large scale if

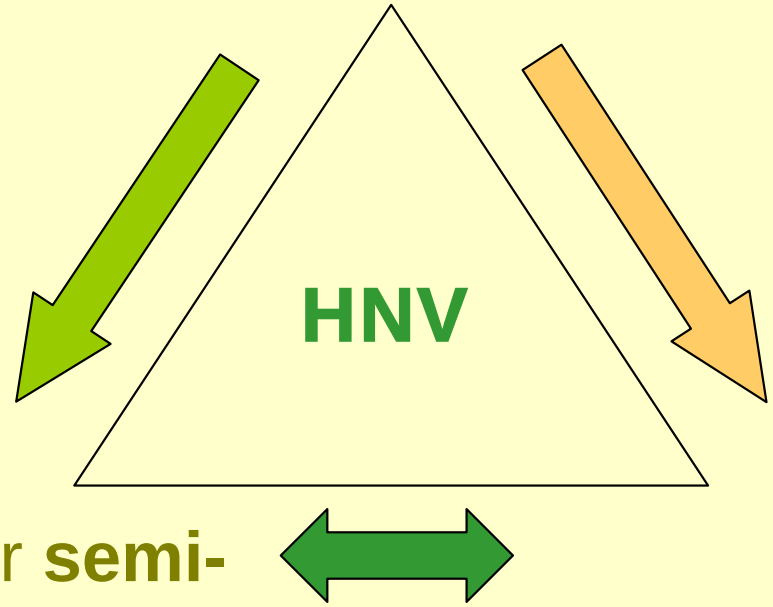
- Incomes are acceptable, and farmers and their successors are motivated to continue.
- The HNV policy idea is to define the **broad** farming systems that contribute most to biodiversity and to:
  - Tackle their basic needs in terms of income through payment schemes using simple farm-level criteria
  - Tackle more specific needs through targeted local action (advice, associations, marketing projects, etc.)
  - Encourage ecological and farming improvements through incentives e.g. agri-environment.

Farming system = land cover + how it is farmed

Low-intensity farming:

- Livestock / ha
- Nitrogen / ha
- Biocides / ha

Type 1



Type 2

High % land under **semi-natural vegetation**:

- Grass, scrub
- Trees
- Field margins

High **diversity** of land cover:

- Crops
- Fallows
- Grass, scrub
- Trees
- Water bodies

Semi-natural farmland (without grazing), not economically viable, how to support?

Can broad distinctions between intensive and low-intensity farming help to redirect income support?

	Intensive irrigated olives € / ha	Marginal non-irrigated olives € / ha
Net income without CAP	1 400	- 400
Flat-rate payment	450	450
LFA	20	0
Net income with CAP	1 870	50

Type 1 HNV system at farm scale – does it need to be on a map? Data on practices?

Semi-natural pasture

Farr

Low-intensity oat crop

Grazing regime

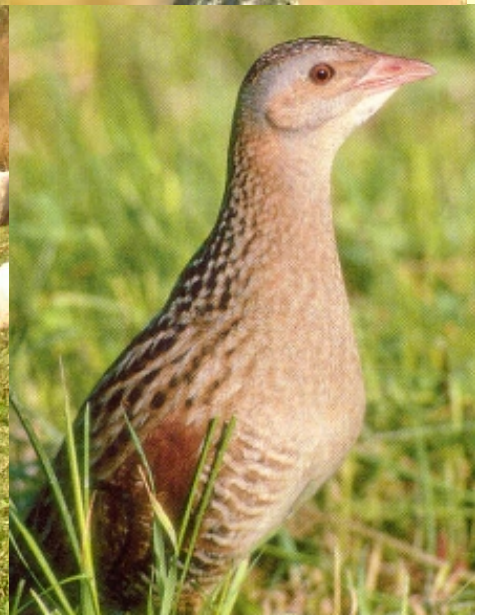
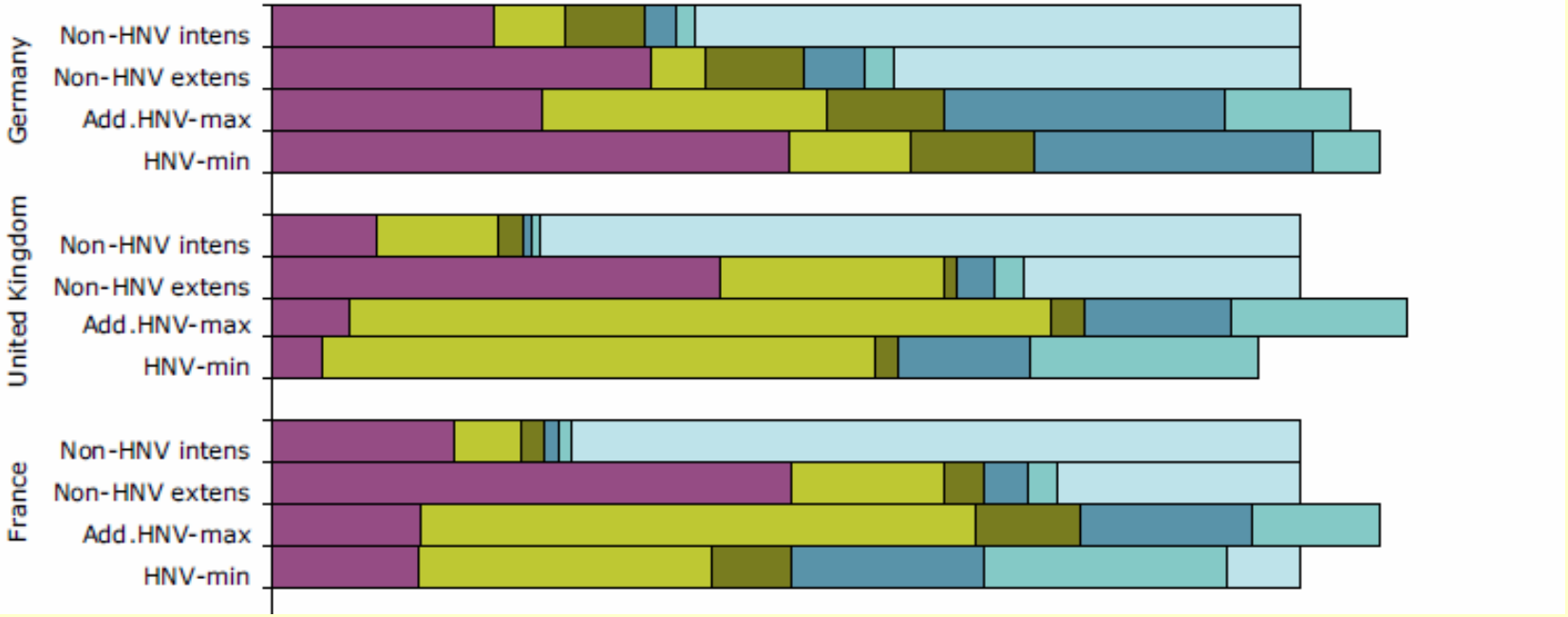


Figure 4.2 CAP payments as percentage of net farm income in HNV and non-HNV farms



Box 4.2 Key points on the income situation of HNV farms (EU-15, 2003) – results from the MEACAP analysis

- HNV farms have lower net incomes than non-HNV farms. In many cases, HNV farms have a negative net income if CAP support is excluded.
- HNV farms receive lower levels of support from the CAP than non-HNV farms, especially from Pillar 1.
- In some cases, the net income on HNV farms is negative even when CAP support is included. Such farms are sustained because family farm labour is costed below the legal minimum wage.

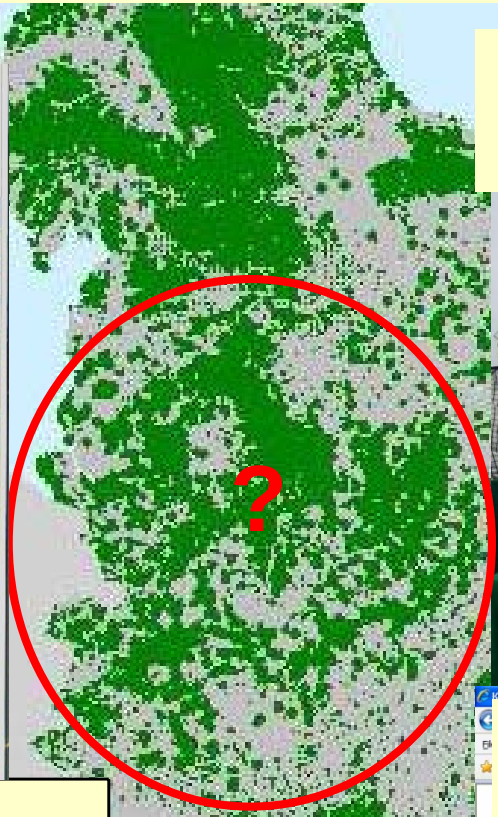
How does semi-natural forage relate to Permanent Grassland / Permanent Pasture in EU data bases?

Scrubby and/or wooded pasture of native species, grazed and/or browsed.	Permanent grassland that has not been reseeded or fertilised.	Traditional hay meadows, not reseeded. May receive low levels of manure.	Permanent grassland that may be reseeded after 5 years and/or fertilised.	Multi-annual sown forage - grass, lucerne - reseeded after < 5 years.	Annual sown forage - grass leys, forage maize etc.
<0.1 LU/ha ----------1LU/ha---------- >5 LU/ha					
Semi-natural forage					
Depends on national rules	Rough grazing – FSS – Pasture and meadow				
Depends on national rules	Permanent Pasture (CAP definition R796/2004)				
Depends on national rules	LPIS – all parcels eligible for CAP, and those not eligible (e.g. forest) IACS - all parcels on which payment claimed or which justify forage area				
← 3.2.2-4 Moors/Scrub 3.2.1 Natural grassland – CORINE – 2.3.1 Pastures					

Type 2 HNV system at landscape scale – Navarra mosaic of crops and landless graziers. Farm level or landscape criteria?

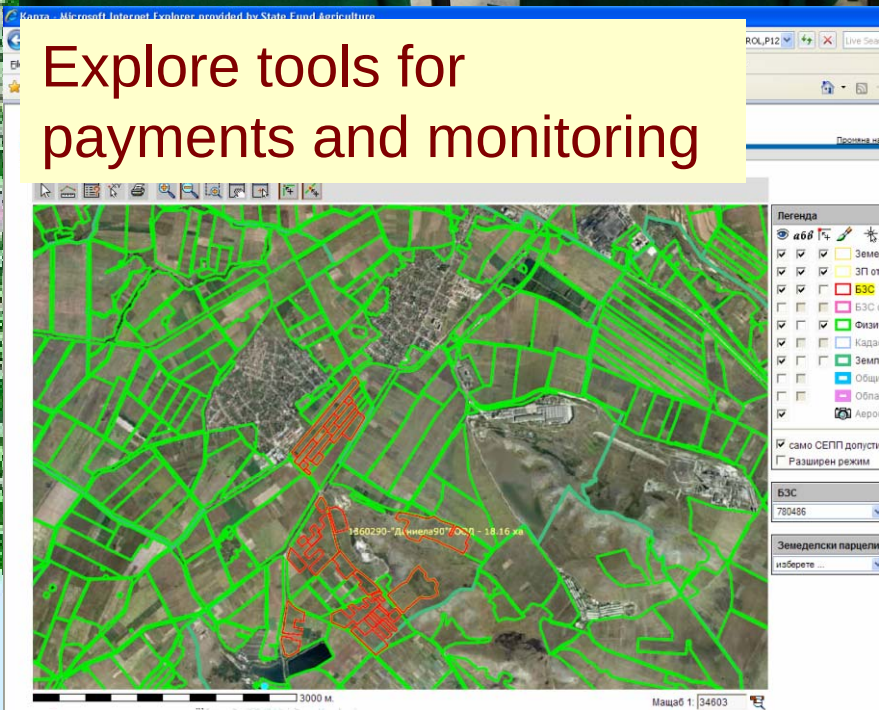
Mapping the approx extent and distribution of HNV farmland is only one part of the process

Identify the systems and practices



Combine ecological and farming expertise and data

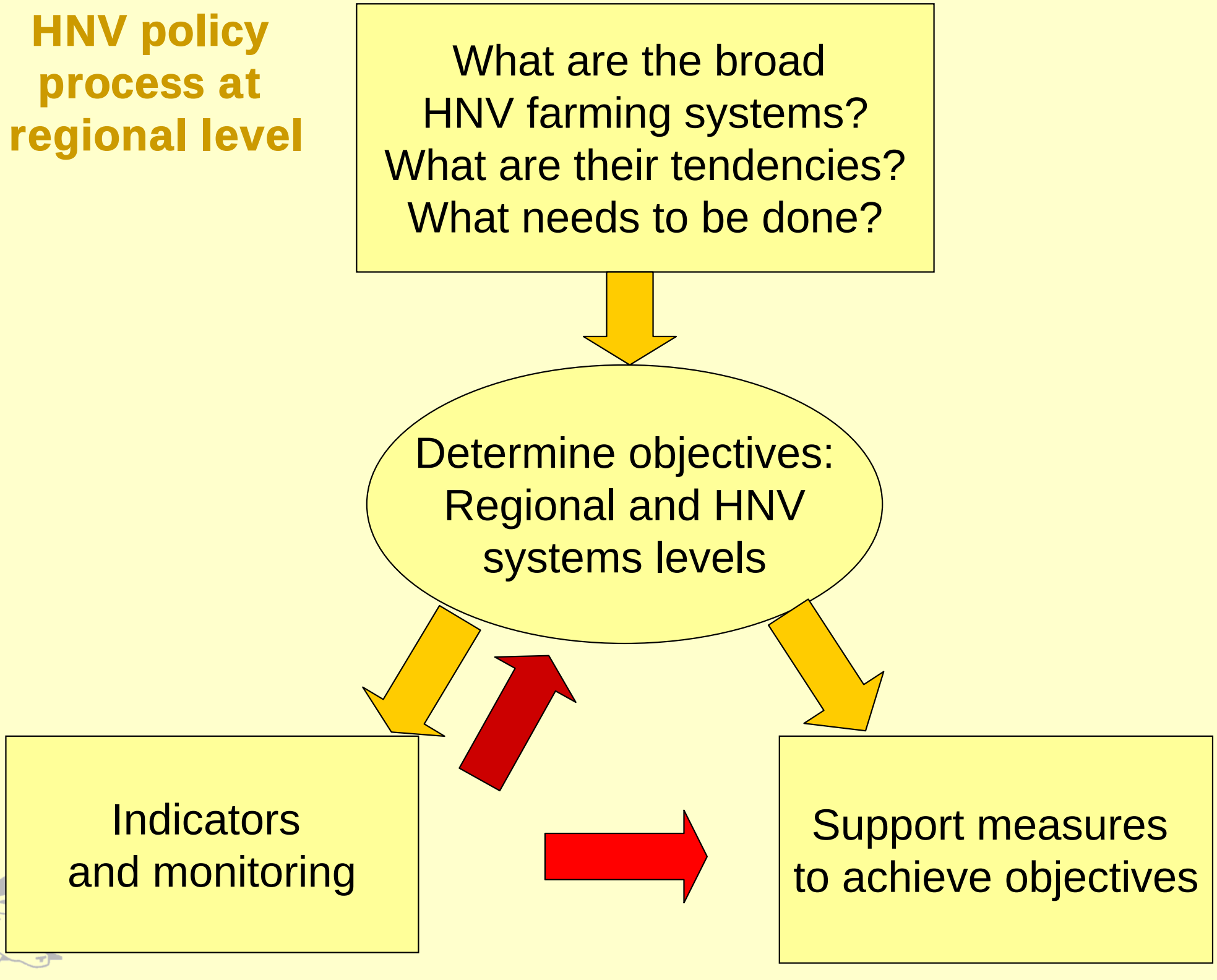
Explore tools for payments and monitoring



Understand pressures

)	Dairy payments (EUR)	Beef/sheep Premia (EUR)	d premium) (EUR)	EUR / holding	EUR / ha UAA	EUR / Annual Work Unit (AWU)
525	-	642	572	1 739	183	3 622
172	923	727	2 484	5 305	136	3 467
358		20 286	3 566	25 711	476	19 045
388	1 917	968		15 773	225	7 583
151		4 398		7 549	184	4 934

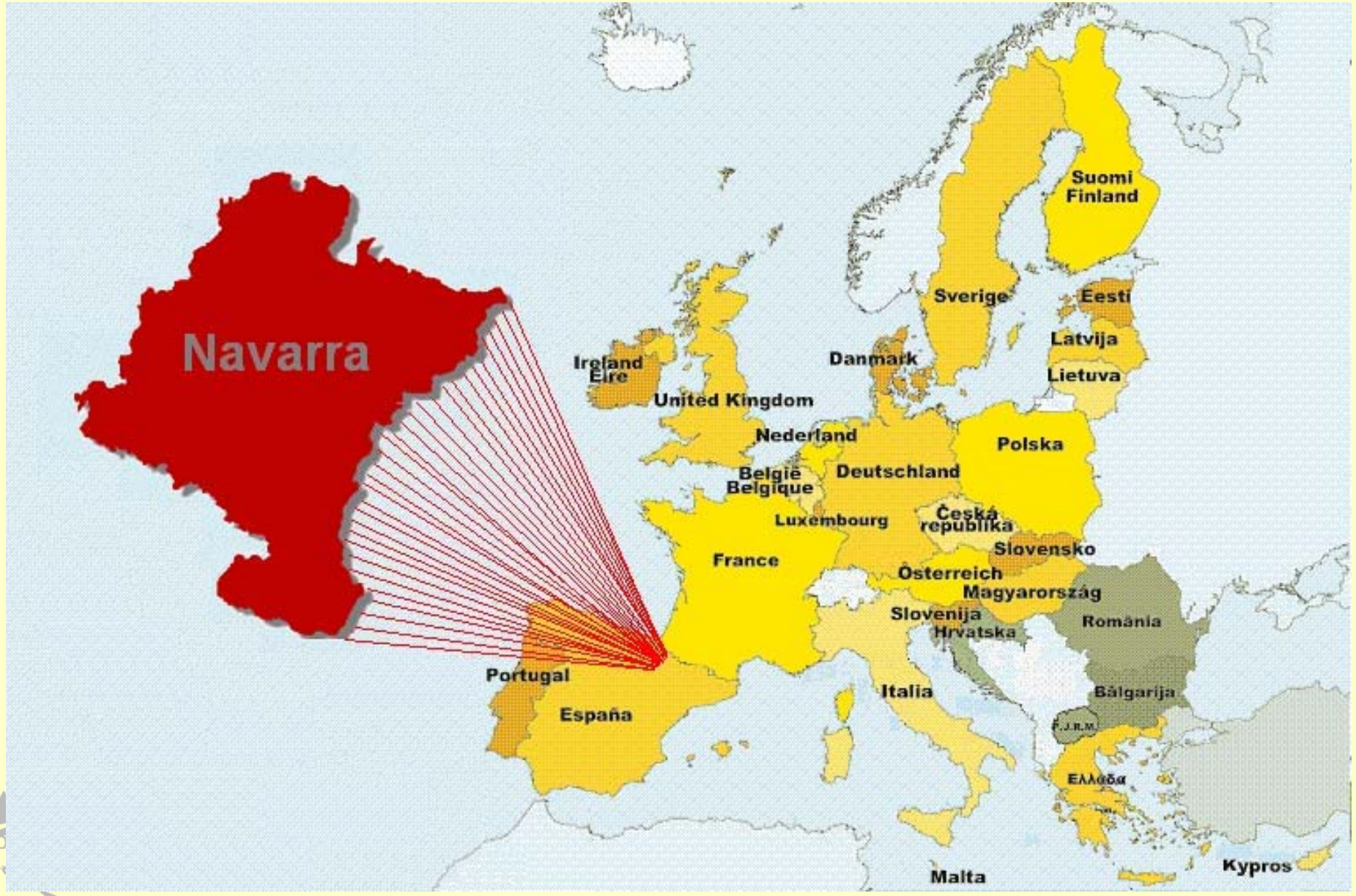
HNV policy process at regional level



What is the **purpose** of monitoring HNV farmland and farming systems?

- Provide **meaningful** information on changes on the ground that are most relevant for:
  - Biodiversity
  - Continuation of key farming practices
  - Viability of the HNV farming systems
- Assess to what extent, and how, these changes have been **influenced** by the RDP
- Evaluate **effectiveness** of RDP in achieving policy **objectives** for HNV farming at RDP scale, and for individual HNV farming systems or areas

Examples from Navarra – indicators at the regional and systems levels

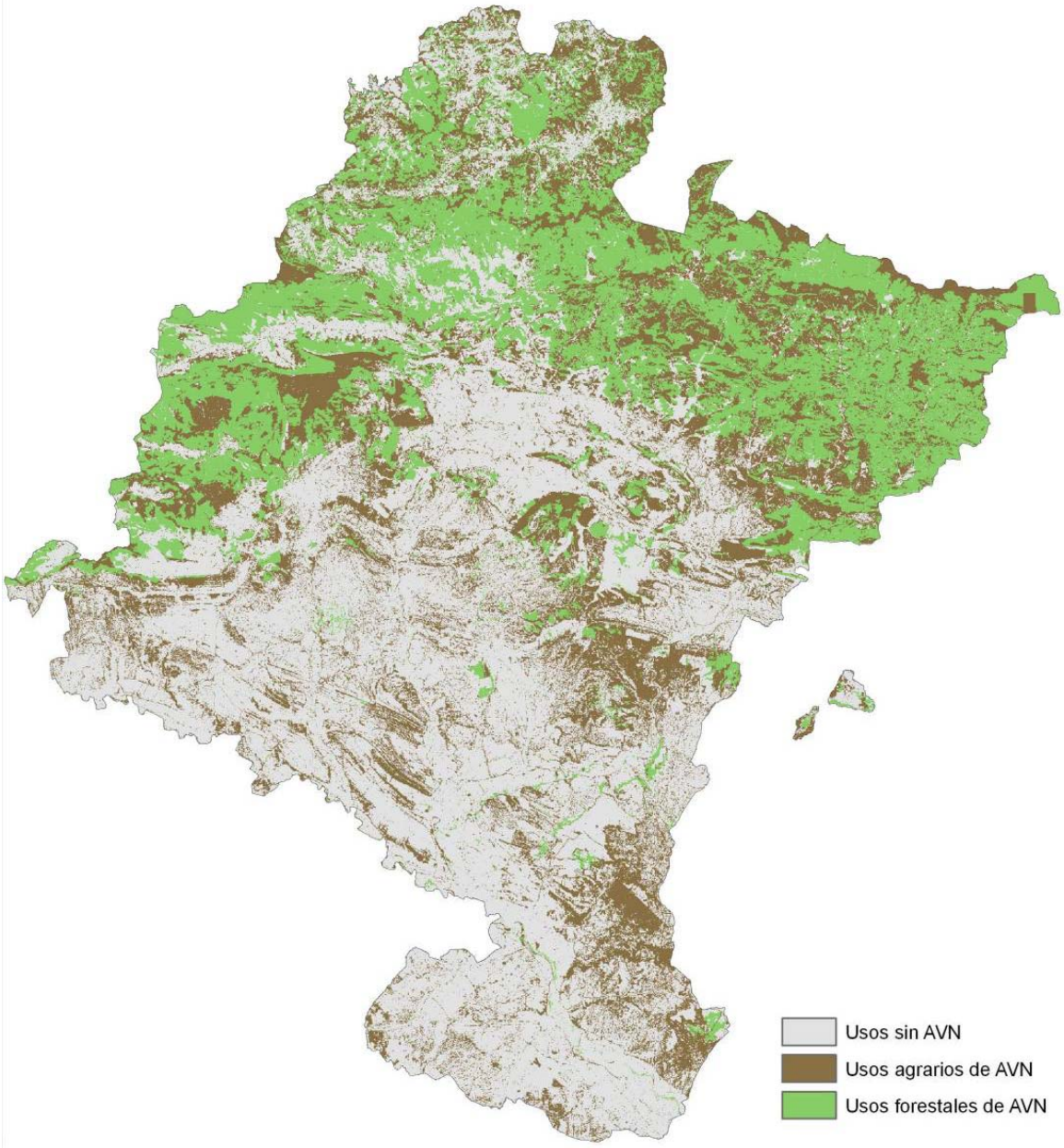


Selection of semi-natural land-cover types

Land-cover categories	Farmland		Forest	
	Not semi-natural	Semi-natural	Not semi-natural	Semi-natural
Crops (fallows)	X			
Crops (cereals)	X			
Crops (legumes)	X			
Crops (other)	X			
Almonds	X			
Dryland fruit trees	X			
Dryland olives	X			
Dryland vines	X			
Irrigated crops	X			
Patches (pasture-olive)	X			
Meadows	X			
Pyrenean traditional meadows		**X**		
Non improved meadows		**X**		
Bracken pastures		**X**		
Rough grazing		**X**		
Pasture		**X**		
Pasture with scrub		**X**		
Afloramientos rocosos y roquedo				X
Forestal arbolado (frondosas semi-natural)				X
Forestal arbolado (coníferas semi-natural)				X
Forestal arbolado (reforestaciones)			X	

Mapping semi-natural land-cover. How useful is this?

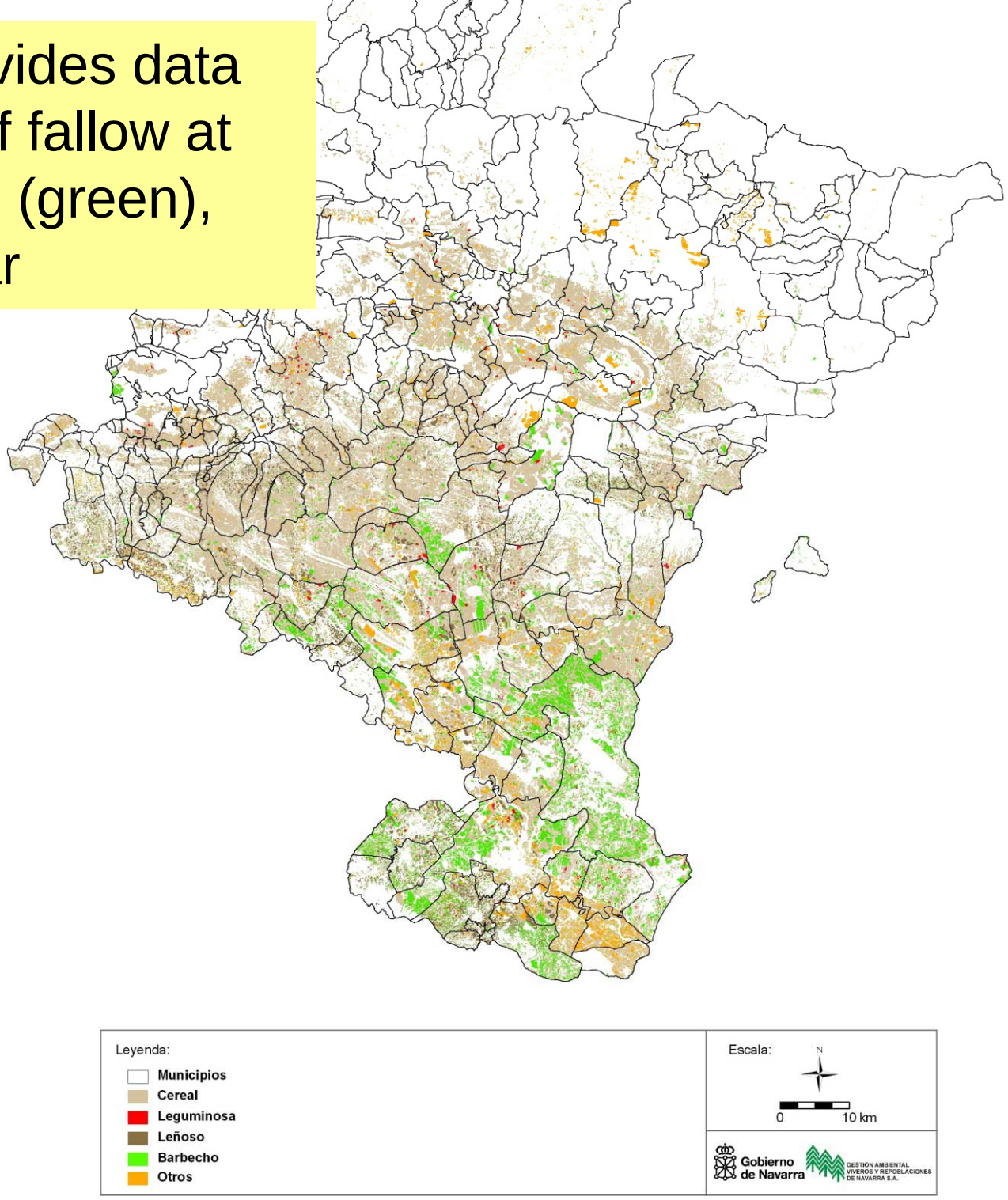
Map of land-cover types that are approximately semi-natural



Selection of low-intensity land-cover types for Type 2

Land-cover categories	Land-cover type	
	Not low-intensity	Low-intensity
Crops (cereals)	X	
Crops (legumes)	X	
Crops (irrigated)	X	
Fallow in arable rotation		
Almonds		**X**
Dryland fruit trees		**X**
Dryland olives		**X**
Dryland vines		**X**
Patches (pasture-olive)		**X**
Meadows		
Pyrenean traditional meadows		**X**
Non improved meadows		**X**
Bracken pastures		**X**
Rough grazing		**X**
Pasture		**X**
Pasture with scrub		**X**
Afloramientos rocosos y roquedo		**X**
Forestal arbolado (frondosas semi-natural)		**X**
Forestal arbolado (coníferas semi-natural)		**X**
Forestal arbolado (reforestaciones)	X	
Agua		**X**

IACS provides data on area of fallow at farm level (green), every year



GIS identification of mosaic patterns dominated by low-intensity land-cover types

NumP
Número de parches

PR
Riqueza de parches

MPS
Tamaño medio del parche

ED
Densidad de bordes

LSI
Índice de agregación de clases

AWMSI
Complejidad de los parches

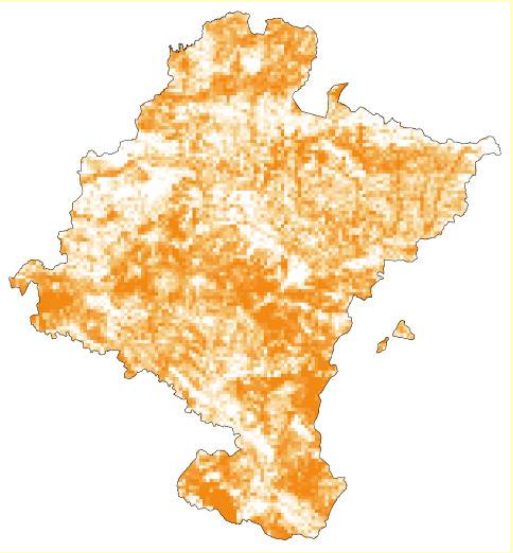
AWMPFD
Complejidad de os parches

SDI
Índice diversidad Shannon

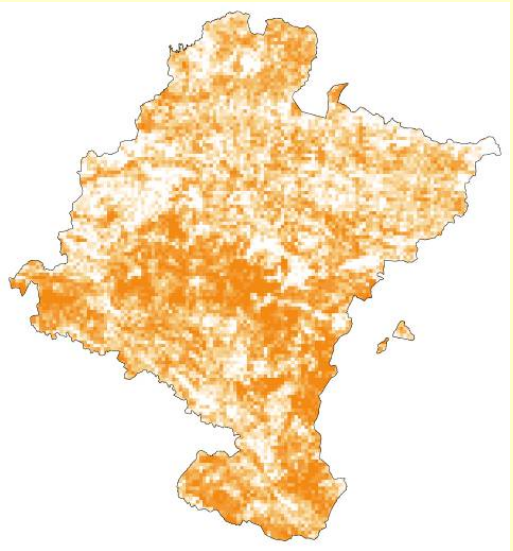
SEI
Índice uniformidad de Shannon

Análisis de Componentes Principales

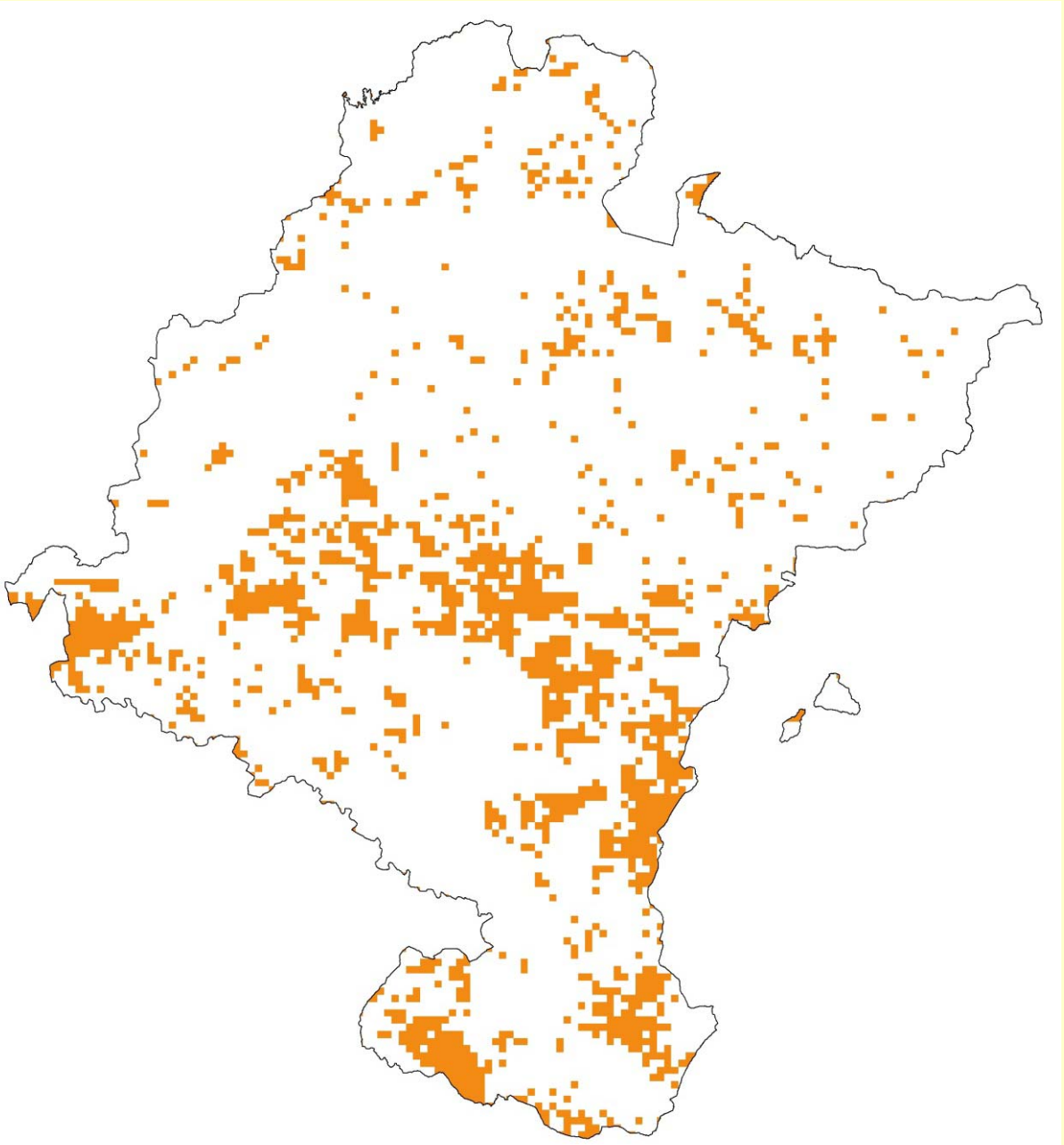
EJE 1
Perímetros



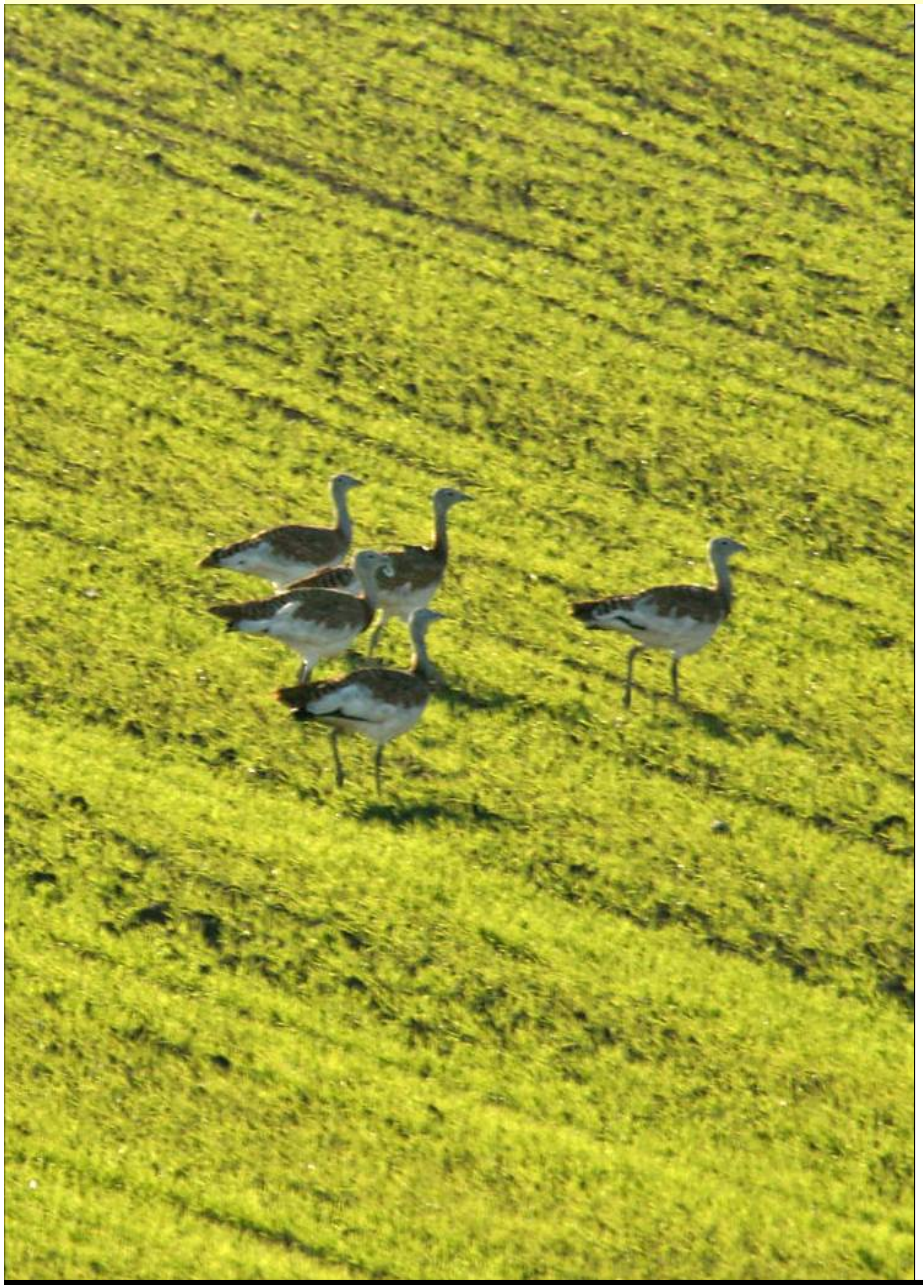
EJE 2
Complejidad

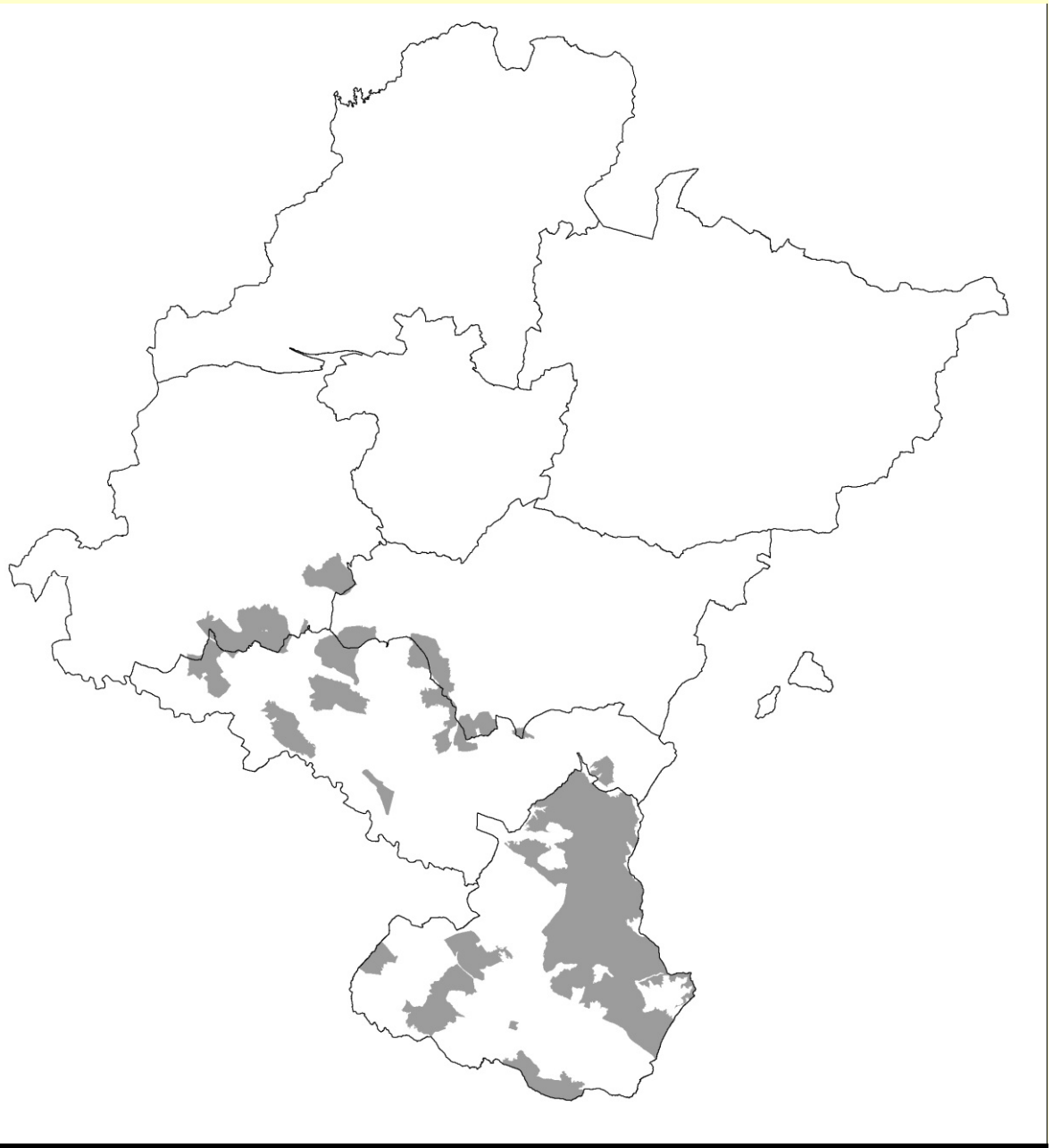


Top 20% of mosaic characteristics



Steppeland bird areas – Type 3





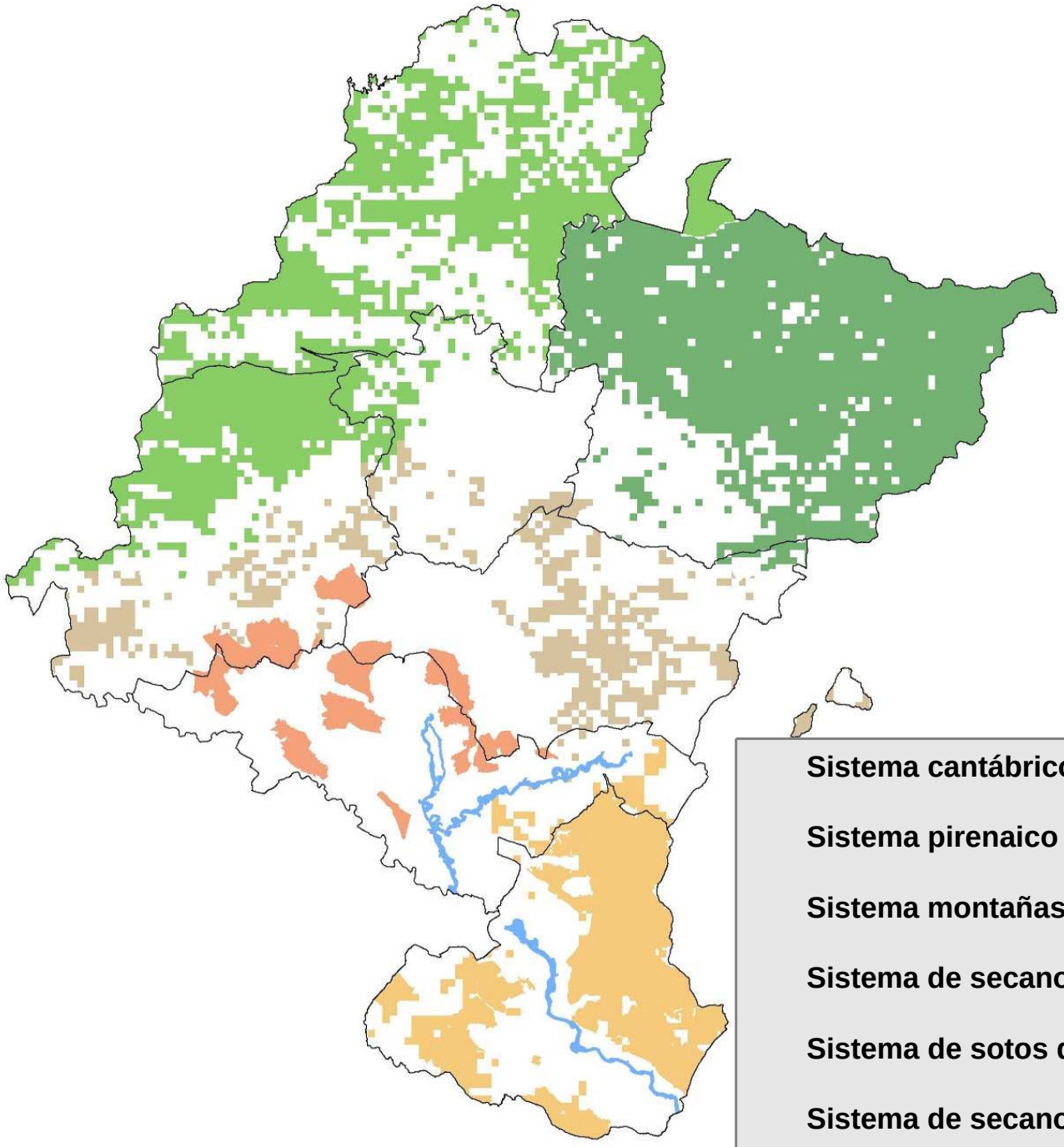
Regional HNV Baseline situation – separate maps + additional indicators:

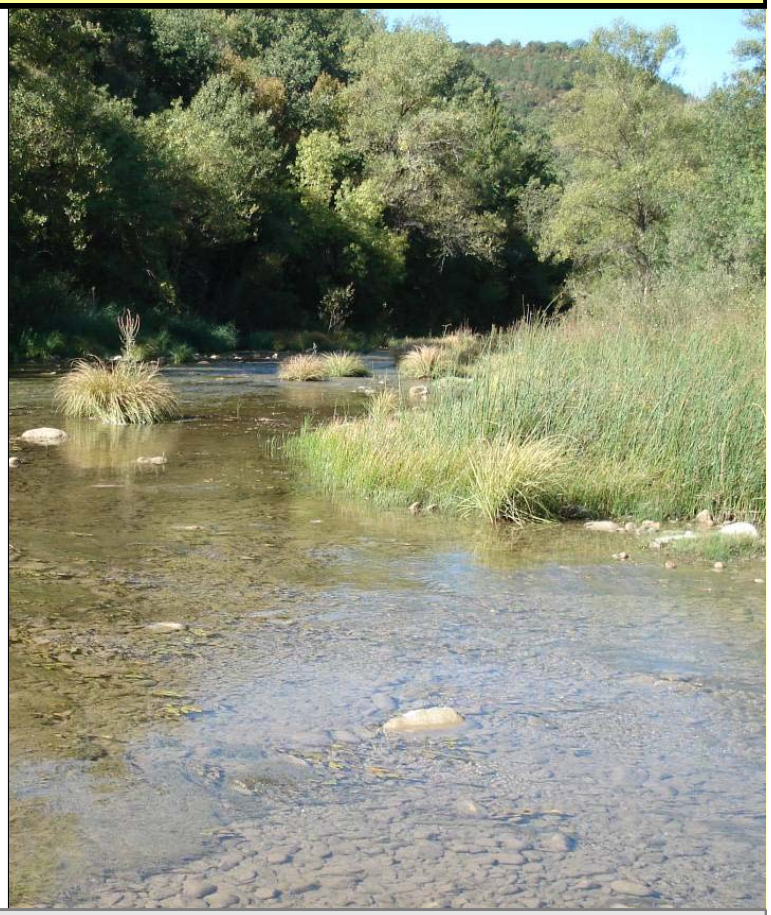
- Livestock types - native breeds
- Grazing systems – transhumance
- Species populations (Type 3)

HNV systems level – new data gathering and monitoring, using sample surveys tailored to the system and based on previous analysis

- Sample surveys of HNV systems or zones:
  - Land cover types and patterns e.g. Aerial photos
  - Farming characteristics and practices – observation, interviews
  - Socio-economic situation and pressures
  - Ecological characteristics and nature values – sample field surveys

Navarra HNV systems





Sistema cantábrico de alto valor natural (agrícola y forestal)

Sistema pirenaico de alto valor natural (agrícola y forestal)

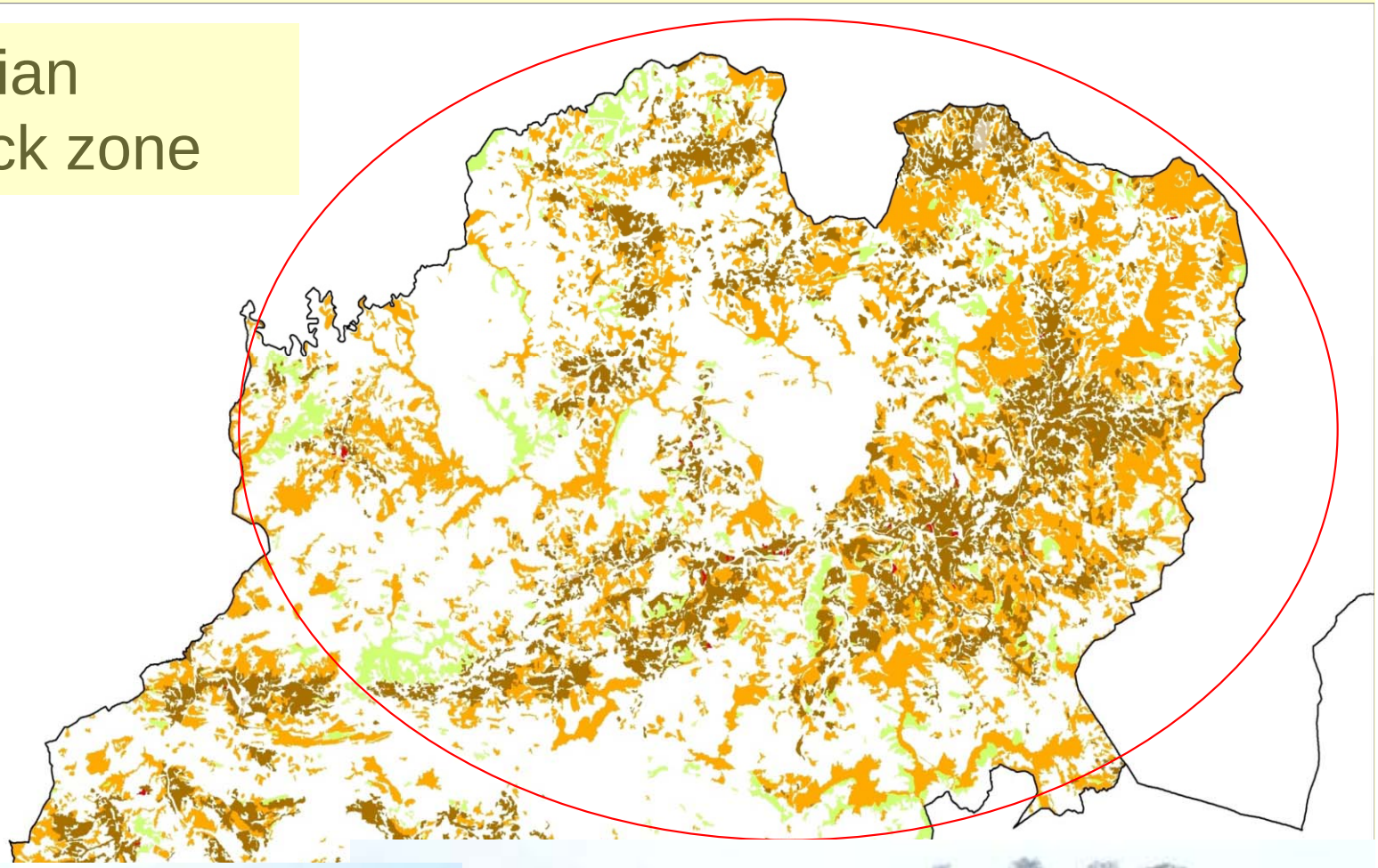
Sistema montañas mediterráneas de alto valor natural (agrícola)

Sistema de secanos semiáridos de la Ribera Baja (agrícola)

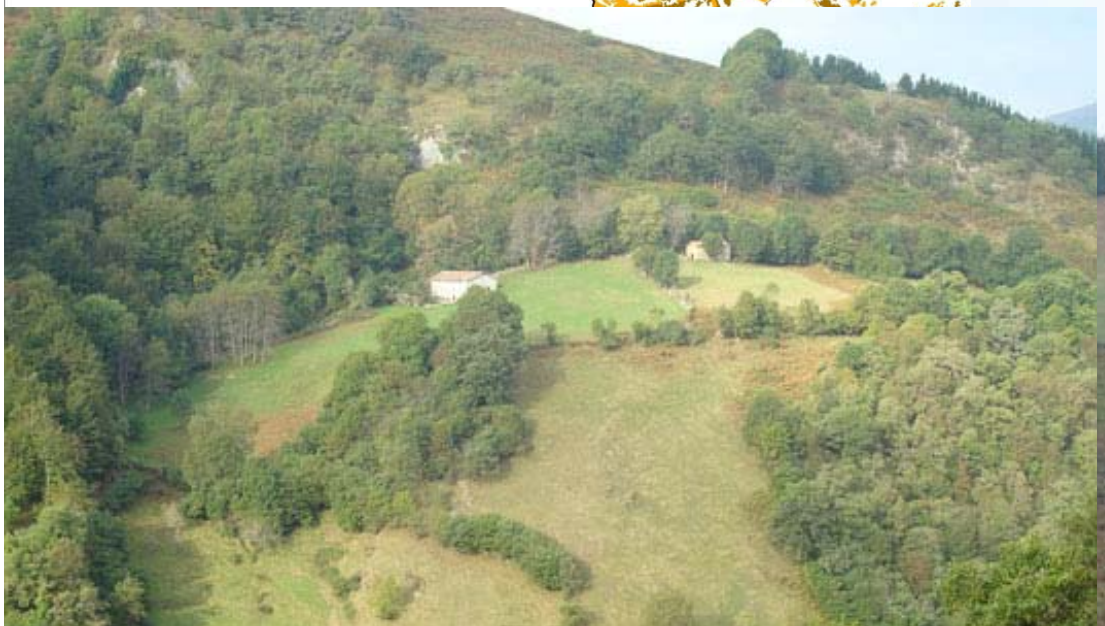
Sistema de sotos de la Ribera (forestal)

Sistema de secanos de la Ribera Alta (agrícola)

Navarra Cantabrian mountain livestock zone



Hay meadows on slopes



Bracken cutting for livestock bedding

Navarra Mediterranean mosaic zone

Mediterranean mosaic zone, abandoned almonds: Why? How to respond?

Some ideas on monitoring

- Indicators at EU level have different purpose from systems and regional levels.
- Complex systems may hide dangerous weaknesses in data and assumptions.
- Need to adapt data systems to today's policy priorities – LPIS, FSS, CORINE.
- Complete semi-natural baseline surveys are not so expensive, and can be integrated with LPIS
- This will allow more efficient and effective use of public funds for farming and nature conservation
- Sample surveys essential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