APPROACH TO IMPLEMENTING THE HNV INDICATOR IN NAVARRA (NORTHERN SPAIN)

Good Practice Workshop
Preparing the assessment of High Nature Value Farming in Rural Development Programmes 2014-2020

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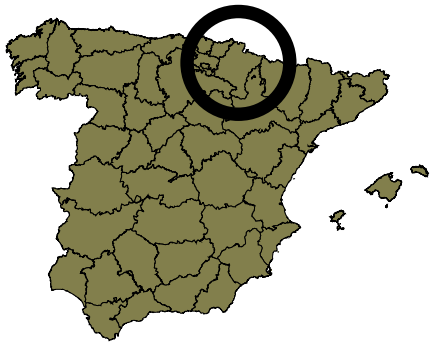
INTRODUCTION

- With the aim of monitoring the Rural Development Programme of Navarra 2007-2013:



- The regional Government of Navarra (Northern Spain), implemented two studies: "**Identification**, **characterization** and **monitoring** of High Natural value Farming Systems in Navarra":

  - The first study in 2009 to calculate the indicator of the year **2008**
  - The second one in 2016 to recalculate the indicator of the year **2013** (currently in progress, using the methodology of 2008)

IDENTIFICATION OF HNVF IN NAVARRA

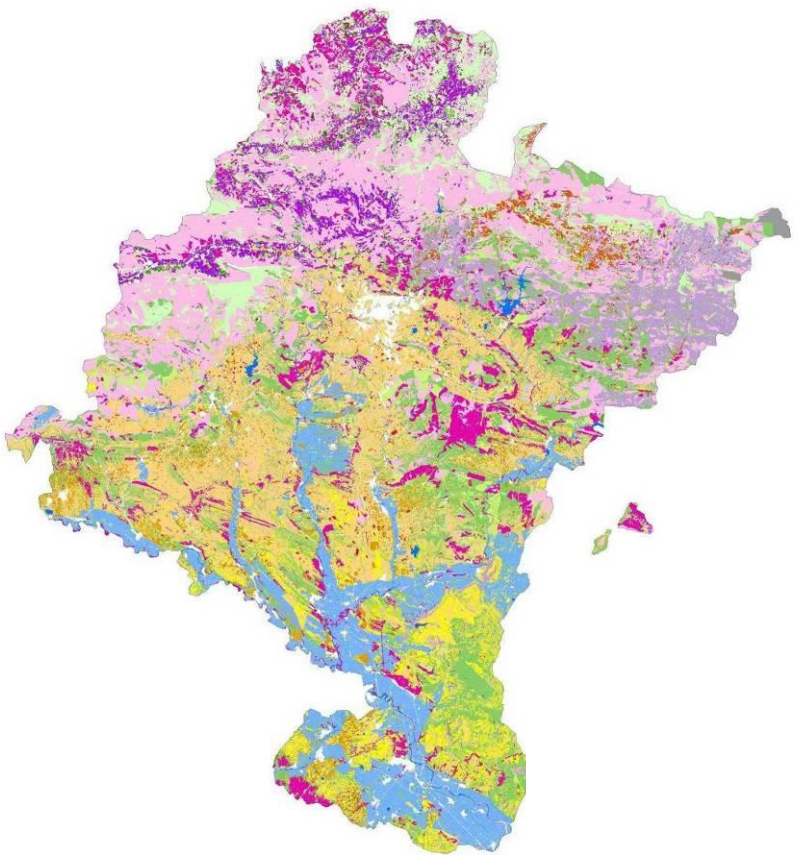
- HVNF were assumed to be as defined in the documents from the *European Evaluation Network for Rural Development (2008):*
    - TYPE 1: areas with a high proportion of **semi-natural vegetation**.
    - TYPE 2: areas in a **mosaic structure** with low level of intensification.
    - TYPE 3: areas that support **rare species** or a high proportion of European or World **populations**.

IDENTIFICATION OF HNVF IN NAVARRA

- **Land use map** created specifically for this project, at a 1:5.000 scale.

- Sources of information used:
  - **SIGPAC**
    (plot limits, ~1M plots)
  - **CAP declaration**
    (annual crops)
  - **Land Use map**, 1:25.000
    (pastures and meadows)

- Division of Navarra in cells of 1km^2, to work at a landscape rather than plot level.

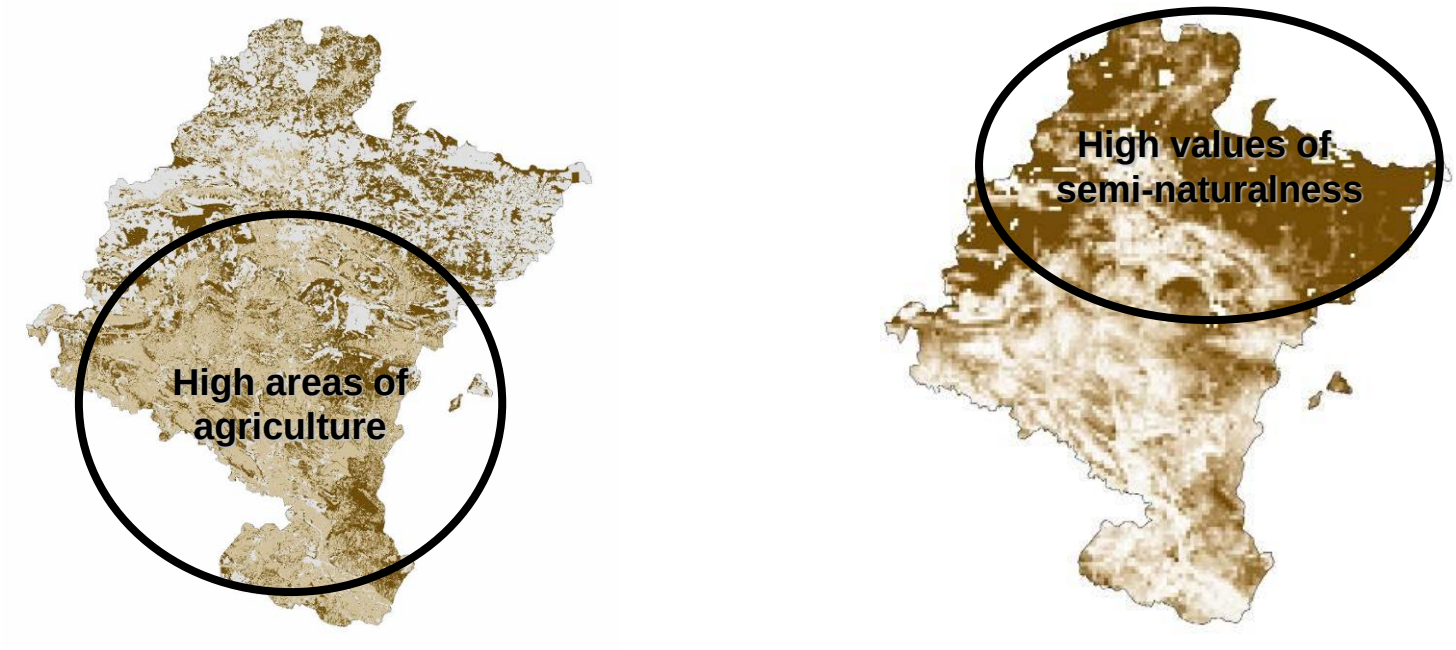


IDENTIFICATION OF HNVF IN NAVARRA

- TYPE 1 areas:

  - Agrarian semi-natural land uses (grassland), and non semi-natural (meadows, crops...)

  - % of semi-natural agrarian use in each 1km^2 cell

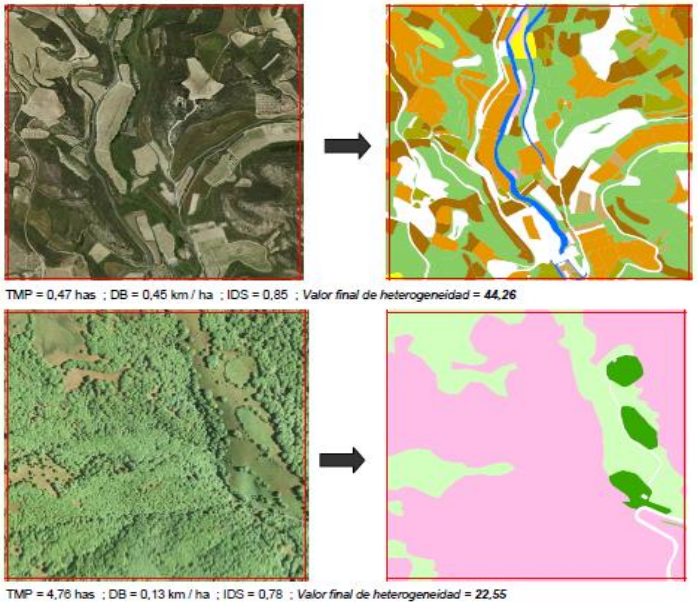


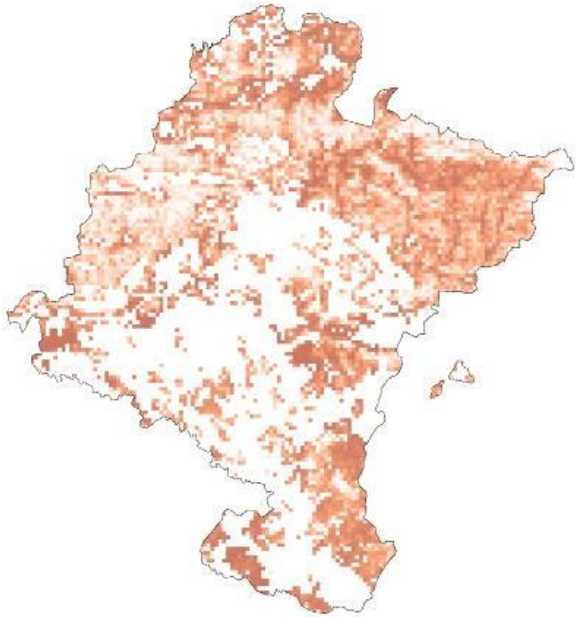
IDENTIFICATION OF HNVF IN NAVARRA

- TYPE 2 areas:

  - Mosaic of crops under extensive farming practices

- ↓ Low average patch size (ha)
- ↑ High density of borders (km/ha)
- ↑ High index of diversity of Simpson



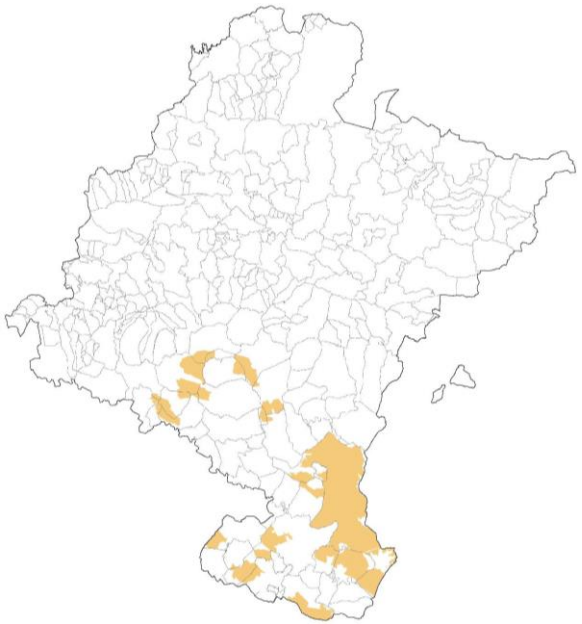


IDENTIFICATION OF HNVF IN NAVARRA

- TYPE 3 areas:

  - 11 experts in flora and fauna were consulted, to know whether the survival of different species depended on a farming activity type

  - The answer was positive in the case of **STEPPE LAND BIRDS**

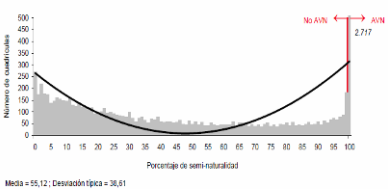


IDENTIFICATION OF HNVF IN NAVARRA

- HNV areas: selection of the most valuable areas

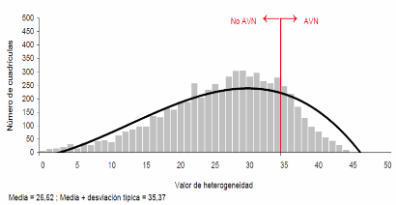
TYPE 1

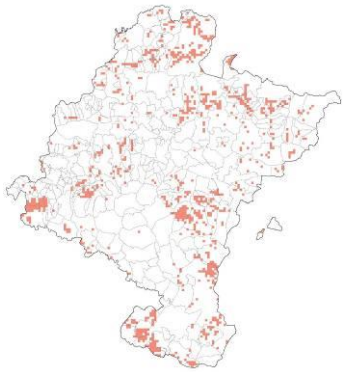
Cells of 100% of the agrarian land use semi-natural



TYPE 2

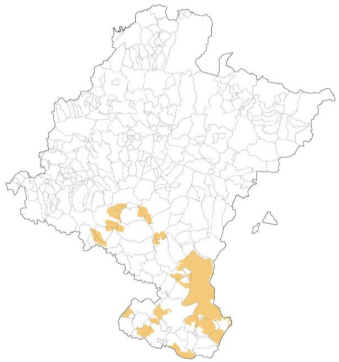
Cells with high values of mosaic indexes: >x+σ





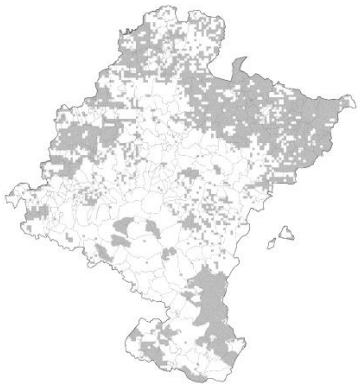
TYPE 3

Existing cartography of steppe land birds



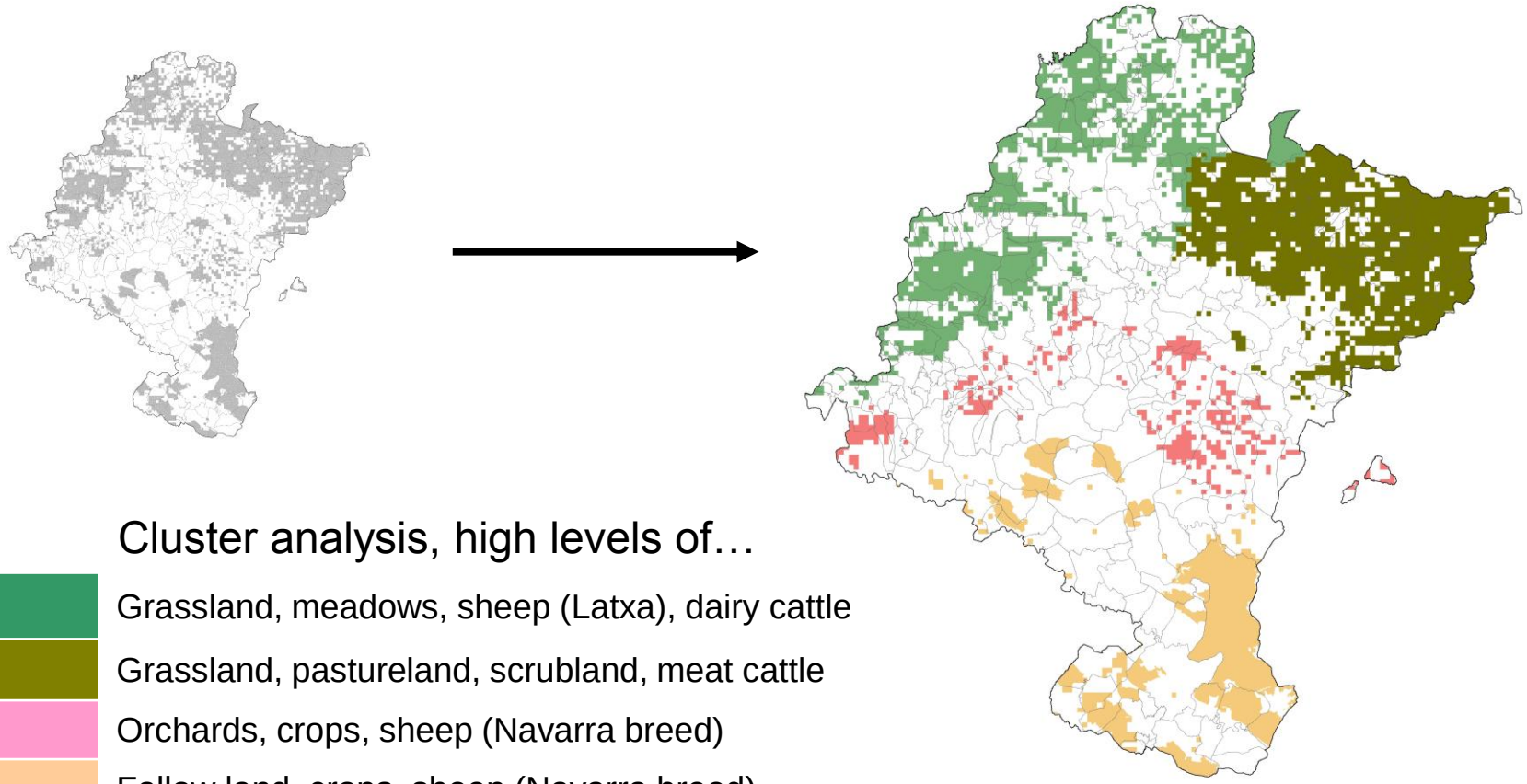
HNV areas Navarra

Type 1 + 2 + 3

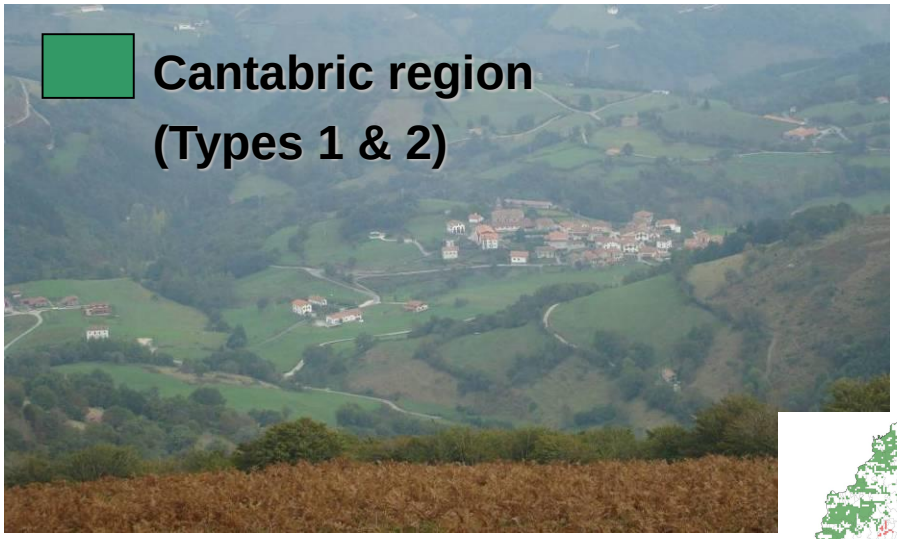


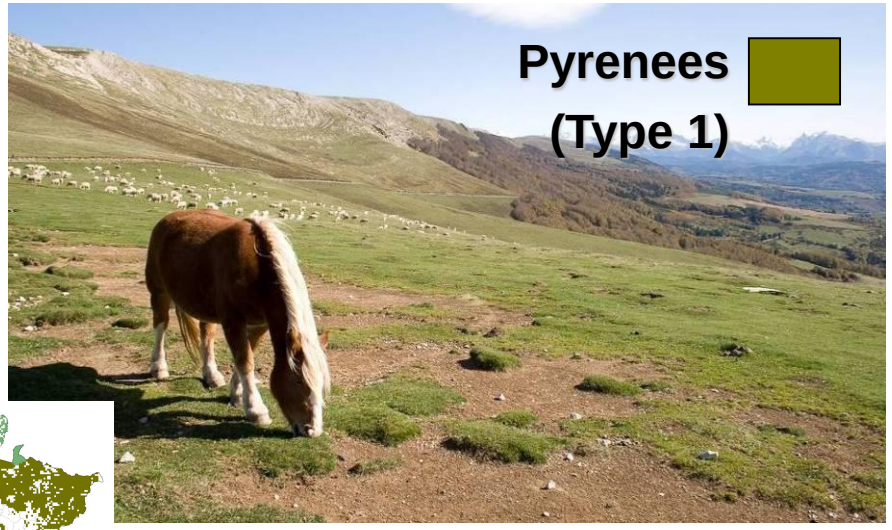
IDENTIFICATION OF HNVF IN NAVARRA

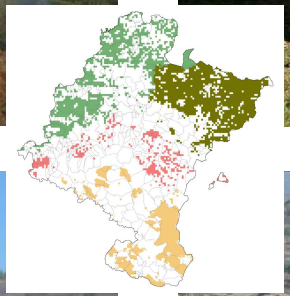
- From HNV areas to **HNV systems**: CLUSTER analysis

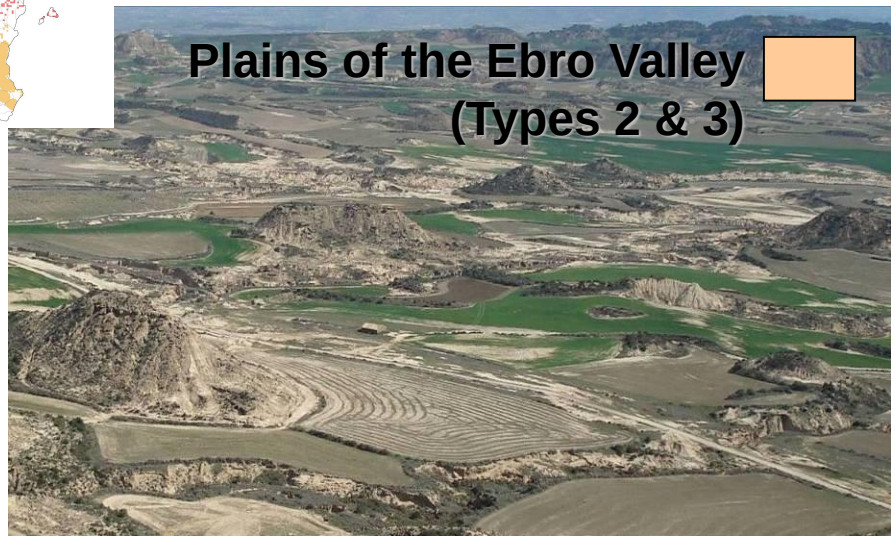


IDENTIFICATION OF HNVF IN NAVARRA









MONITORING HNVF:
At level of region (or country)

- The Government of Navarra is going to monitor the RDP 2007-2013 at the beginning and the end (2008 and 2013). The methodology is the same in both years of calculation

- In 2008, not one but a net of indicators were calculated →

Field	Indicator	Value in Navarra (2008)	Units
Extension	HNVF hectares	332.329	has
	% over the total territory	31,98	%
Characteristics of farms	Number of autochthonous livestock units Sheep Cattle Horse	124.261 88.562 30.618 5.081	LU
	% over the total LU Sheep Cattle Horse	54,97 91,53 27,65 27,39	%
	Average patch size	4,90	has
	Edge density	0,20	km/ha
	Simpson Diversity Index	0,72	*No units (from 0 to 1)*
Census of the target species	Great bustard (*Otis tarda*) Black-bellied Sandgrouse (*Pterocles orientalis*) Pin-tailed Sandgrouse (*Pterocles alchata*)	30 450 - 750 400 - 450	Number of individuals

- The indicators of 2013 will be the baseline for the RDP 2014-2020

MONITORING HNVF:
At a farming SYSTEM level

- Not one, but several indicators

- In 2011 the Cantabric HVN system was studied, and currently the Mediterranean mountains

- Typical HNV farm in the Cantabric area:

  ……. farmer of about 50 years old, with a farm size of 14,5 has and Latxa sheep breed. He maintains a livestock density of about 1 LU/ha, he mows brackens, low use of inputs, he keeps landscape elements in his plots, ...

- Useful to design future management schemes. For example, currently a pilot project is taking place to maintain the HNV areas of the Mediterranean mountains

SOME REFLECTIONS

- **Information required to assess trends**:

  - Monitoring several years allow to assess changes. To compare data from two different years, the **same methodology** should be used

  - **Spatial distribution** of the information in all the territory allows to know WHAT changes WHERE. In Navarra, we will know how much the semi-naturalness changed in which cells (Type 1), and how the mosaic values evolved in the last years

SOME REFLECTIONS

- **Challenges and gaps:**

  - In Navarra we haven't done a final map with a GRADIENT of values from low to high. **How to combine** the values of Type 1, Type 2 and Type 3 in a single gradient map?

  - There is no common methodology at a European level, so the data between countries or regions are **not comparable** at the moment

  - We know about HNV areas / plots / systems, but is it difficult to characterize the **FARMS** that support HNV

SOME REFLECTIONS

- **Main lessons learned:**

  - The Type 1, 2, 3 apprach is suitable to Navarra
  - The initial brainstorming can be high. The approach taken in Navarra cost **1.200 hours in 2008**, and **400 hours in 2013**
  - A **non-complicated methodology** is prefereable to understand and interpret the results. For example in Navarra the combination of 3 indexes in Type 2 identification worked well, but in some cells the results were difficult to interpret
  - Using data that is **updated frequently for all the territory** allows to repeat the process whenever needed. In Navarra, the data used is updated every year for all the territory


¡¡GRACIAS!!
VIELEN DANK!!