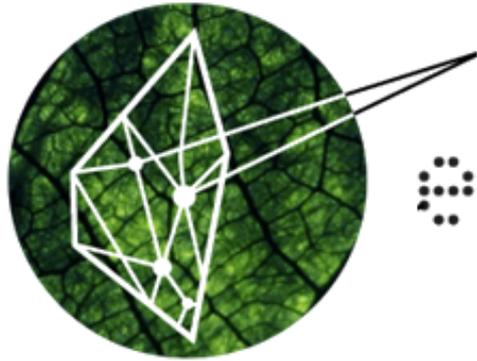




The map is not the territory

Xavier POUX, EFNCP-AScA

S24 - High nature value farmland: towards more effective conservation and monitoring of biodiversity across European landscapes



#ef/SITE

ECOLOGY AT THE INTERFACE
21 | 25 SEPTEMBER 2015 ROME



Context of the presentation

AScA and EFNCP:

- bringing biodiversity management in the policy agenda and accompanying its implementation

A long term reflexion on the approach for HNV at different levels:

- From characterization to decision making

A study for the French Ministry of Agriculture (AScA and Solagro, 2013)

- What is HNV farming?
- How to define an appropriate indicator for the CEMF (“area of HNV farming”)



“The map is not the territory” (Alfred Korzybski)

The territories of HNV farming

- Complex
- Various
- Multi-functional
- Evolving

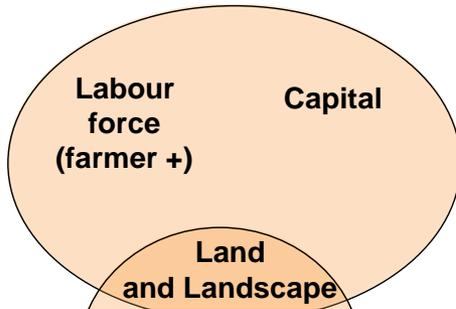
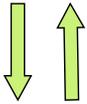
We need a map: but what for?

- Awareness: HNV farming exists at large scale, it is fragile...
- Action: targeting policy instruments

If targeting, need to understand the dynamic at play, what most mapping does not do

A dynamic agrarian system analysis

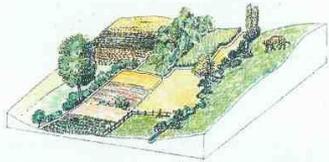
HNV farming systems



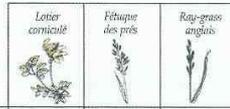
HNV farming

HNV area

HIER

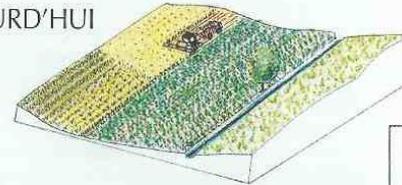


Paysage rural du XIX^e siècle, une biodiversité remarquable





AUJOURD'HUI



Culture intensive avec remembrement, recalibrage du cours d'eau et épandage de pesticides et d'engrais.

Les impératifs de la culture intensive conduisent à l'élimination de la plupart des niches écologiques et à l'effondrement de la biodiversité.



In an ideal world...

- **A comprehensive nature survey allowing the characterisation of agricultural ecosystems and landscapes and their dynamics**
- **The identification of key farming practices (sensu lato) driving the nature value at landscape level**
- **A comprehensive survey of those practices**
- **A comprehensive survey of farming systems implementing those practices**
- **Regular surveys showing the co-evolution of the above points**
- **But datasets do not exist in a consistent way, need for proxies**

A three steps approach for the MoAg study

Describing the variety of HNV agrarian systems in France :

- Crossing maps for identifying spatial entities, reflecting regional features
- Explaining the HNV characteristics

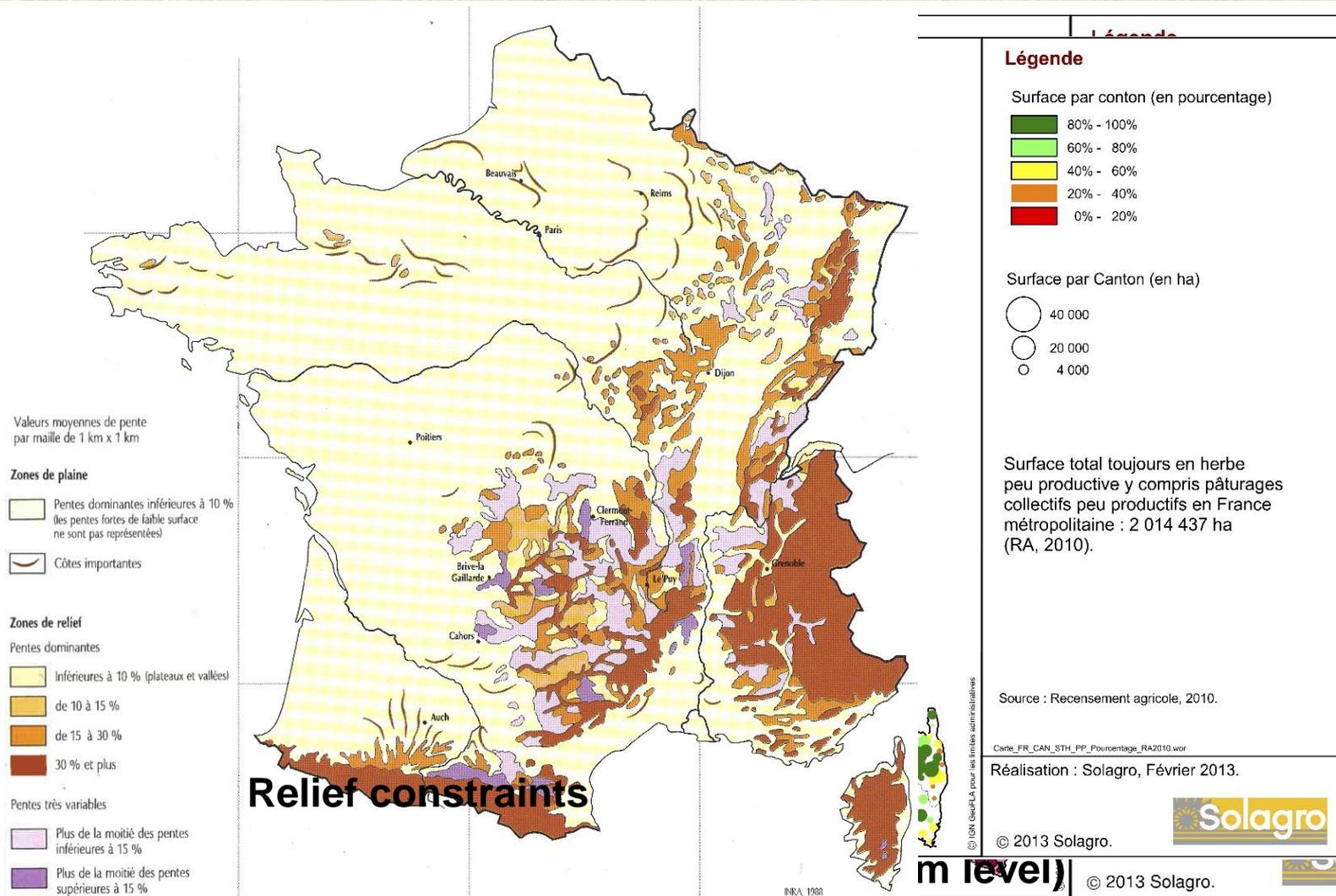
Characterizing the dynamics at play

- Mostly in the “farming systems” component

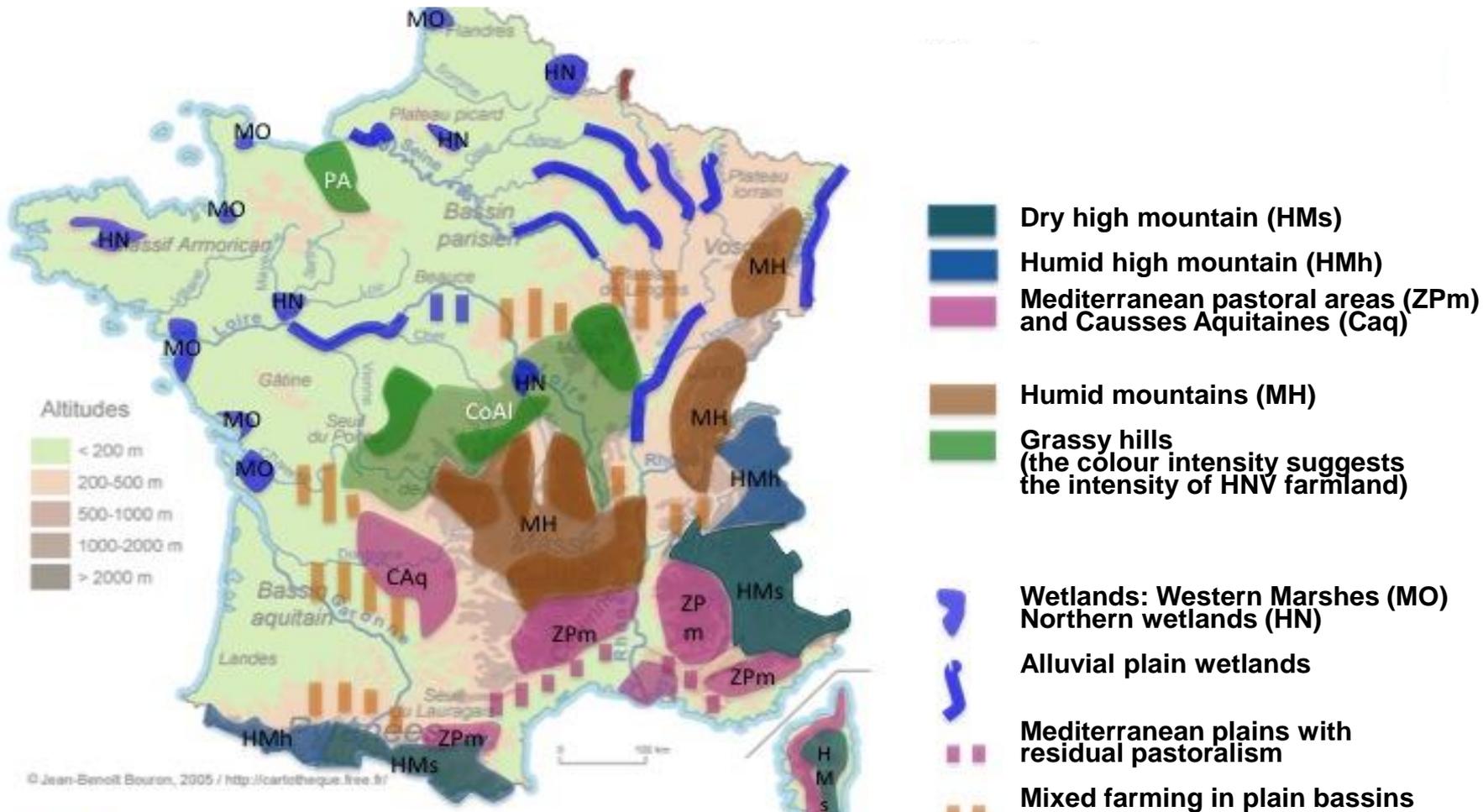
Understanding the explanatory variables at play –

- A focus on public policies

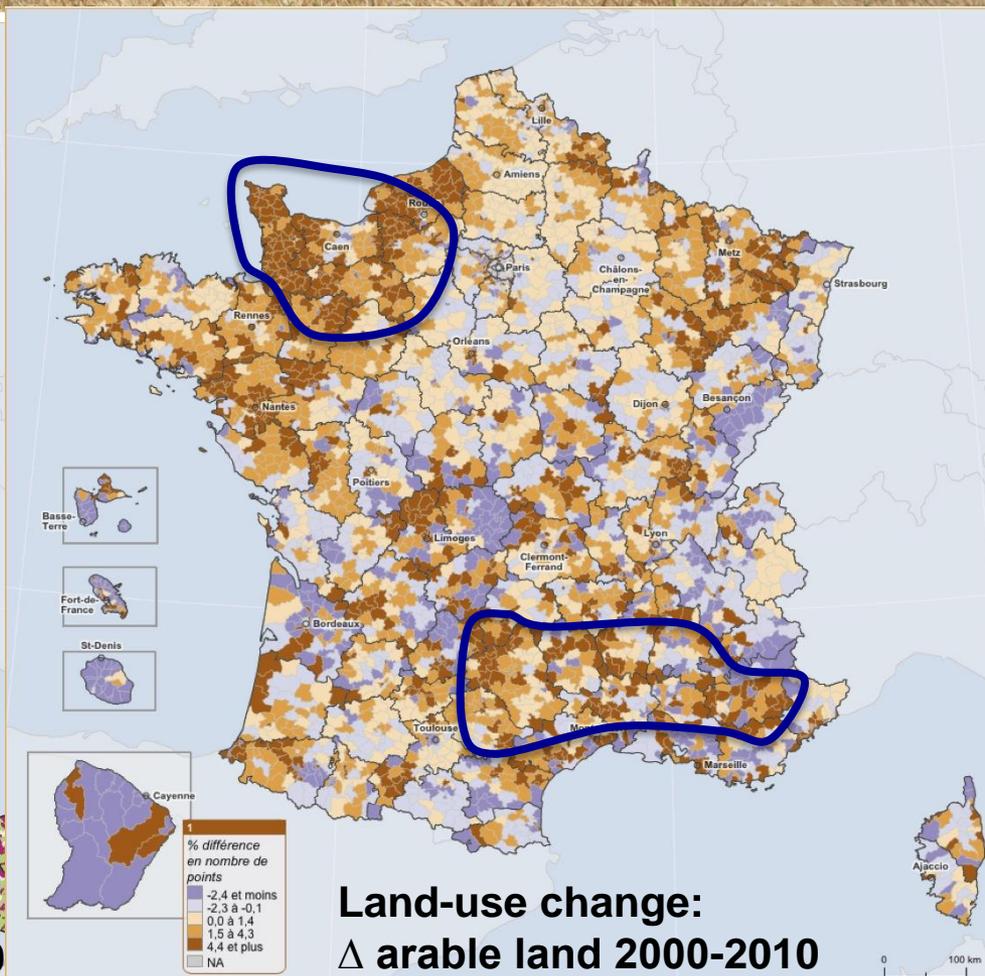
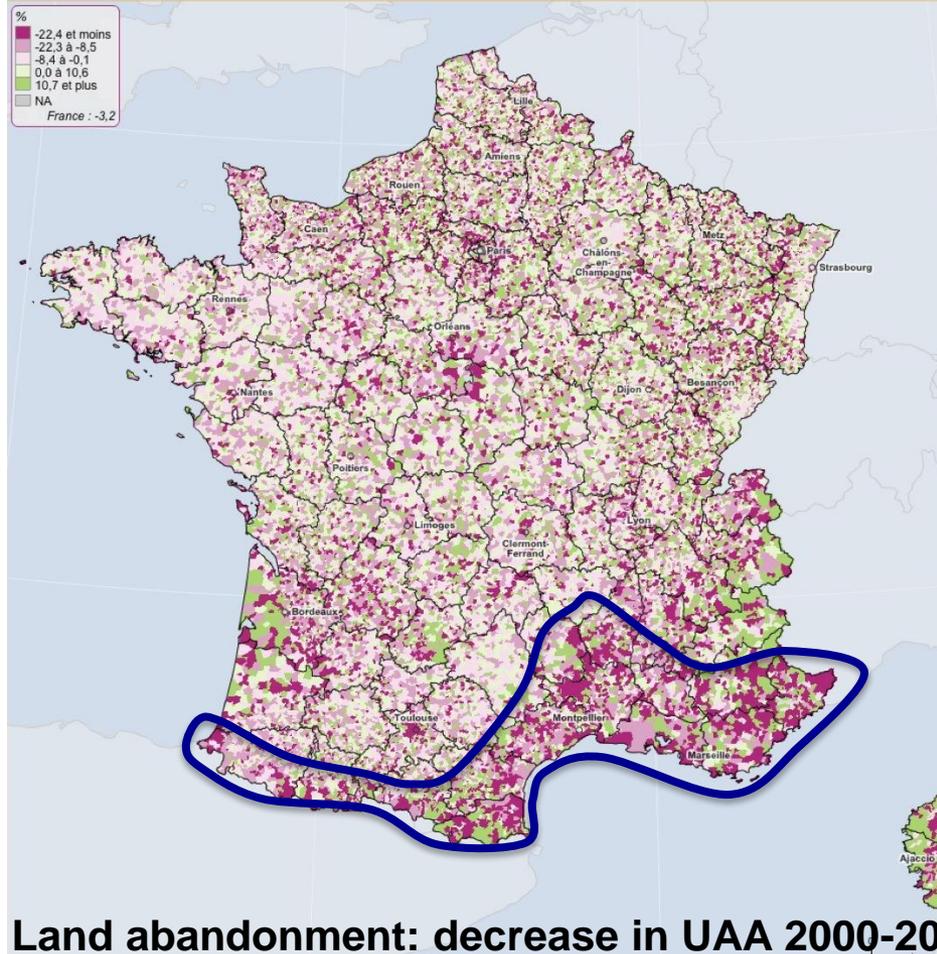
Crossing maps for a synthetic map



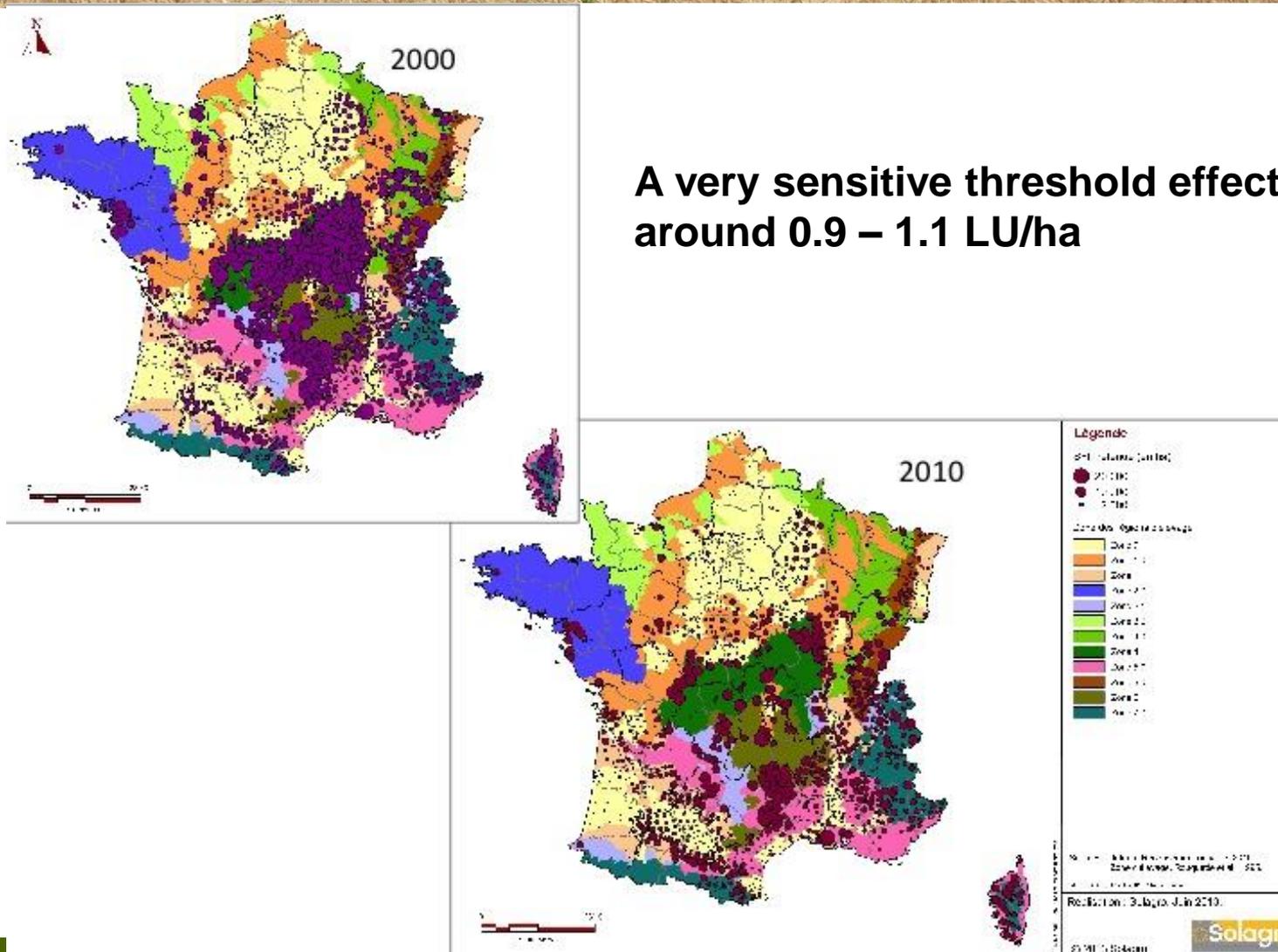
The resulting map



Understanding the dynamics



Change in permanent grassland livestock density (farm level calculation)



A very sensitive threshold effect around 0.9 – 1.1 LU/ha

Characterizing the land-use dynamics

Région	Sous-région	Principales évolutions notables 2000-2010	Type de dynamique observable
Hautes montagnes	Influence sèche	Recul de la SAU et des UGB. Maintien du caractère extensif (SFP extensive)	HVN riche, soumis à risque de déprise.
	Humides		HVN riche qui se maintient
Zones pastorales méditerranéennes des collines sèches	1. Alpes du Sud 2. Cévennes		HVN riche, soumis à risque de déprise.
Montagne humides	Jura et Vosges	Restructuration* des surfaces et des UGB. Recul de la SFP extensive.	HVN riche, soumis à risque d'intensification de la végétation semi-naturelle
Montagne humides (suite)	Massif-Central	Restructuration* des surfaces et augmentation d'ensemble des UGB Recul significatif de la SFP extensive.	HVN hétérogène, soumis à une dynamique d'intensification diffuse de la végétation semi-naturelle
Zones pastorales Causses aquitains		Maintien de la SAU et des UGB.	HVN qui se maintient globalement
Collines allaitantes			HVN hétérogène, soumis à une dynamique d'intensification diffuse de la végétation semi-naturelle
Pays d'Auge		Recul significatif de la SFP extensive. Maintien de la SAU et des UGB. Maintien du caractère extensif (SFP extensive)	HVN qui se maintient globalement
Marais de l'Ouest (sens large)	Zone littorale de Poitou-Charentes au Nord	Maintien de la SAU, extension des terres labourables. Recul de la SFP extensive	HVN en recul d'enveloppe spatiale
Les plaines méditerranéennes avec pastoralisme résiduel	Arrières pays languedociens et provençaux + étangs		HVN en recul d'enveloppe spatiale (déprise et front urbain) - maintien du caractère extensif sur la fraction spatiale qui demeure
Les vallées alluviales de la France du Nord	Vallées inondables des grands fleuves : Seine et grands affluents, Loire, Saône, Rhin	Recul des UGB et des SFP extensives. Augmentation des terres labourables (évolution contrastée)	HVN en régression par recul de l'élevage, intensification laitière (est/Lorraine) et avancée des grandes cultures
Les ensembles herbagers humides du Nord	Pays de Bray, Avernois, Audernois	Augmentation modérée des UGB. Augmentation des terres labourables (évolution contrastée)	HVN en régression par avancée des grandes cultures
Les coteaux aquitains et lyonnais		Recul modéré des UGB et recul modéré de la SFP extensive. Augmentation des terres labourables	HVN en régression modérée par recul de l'élevage et avancée des grandes cultures
Les zones polyculture élevage du grand bassin parisien	Diverses zones à faible potentiel pédologique et contraintes de mécanisation	Recul des UGB et des SFP extensives. Augmentation des terres labourables (évolution contrastée)	HVN en régression par recul de l'élevage et avancée des grandes cultures

Land abandonment

Maintenance of favourable status

Intensification of SNV

Decrease herbivores, increase crops



An evaluation matrix of the main public policies on land-use

	Land abandonment	SNV intensification	PP to crop (ploughing)	Other (landscape features)
SFP	+ / - -	∅	+ in principle ∅ in reality	± GAEC
Coupled livestock payments	±	∅ (-)	∅	∅
LFA	+	∅	+	some
Grassland AEM premium	+	∅	+	∅
Territorial AEM	(+)	some	∅	some
Organic AEM	∅	(+)	∅	∅

Considering the effects of combined schemes (LFA and Grassland premium)
 Combination of public policies explain quite well the dynamics of HNV regions
 Some good work is done through good use of AEM

Conclusion: from maps to territories

A study that did not change the vision of the ministry of agriculture re HNV

- An inappropriate timing (?)
- A focus on the HNV indicator in the CEMF
- A poor understanding of landscape ecology and biodiversity conservation – a “command and control” vision

Convergence with “grass and pastoral system” AE operating at farming system level (2015-2020 RDPs)

- Addressing the same threats categories as the ones used for the study
- A result-oriented measure
- Too soon for assessment (budget?; implementation?)

The map should reveal the emergency to focus on a wide range of territories

- The importance of territorial projects with human means and targeted schemes

We know enough to upscale the good practices



Thank you for your attention

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