

Acknowledging the role of agriculture in a differentiated European countryside: example from a typology applied to Portugal

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Mediterranean rural areas



Large scale extensive systems +
Small scale policultural mosaics

Low productivity of agriculture >>> low capacity of
competition in global market

Low capacity of innovation and investment

Vulnerability to pressures of change: abandonment
afforestation, intensification, urbanization

Still diversified and characteristic landscapes

High environmental quality + cultural values

Increased demand for amenity functions

New actors in the rural

The paths of

Agriculture

Rural Space

Community



progressively divergent

The Diversity of the Portuguese countryside

a study to the Ministry of Agriculture

WHAT IS GOING ON IN THE RURAL ?

not all functions can be maintained in all landscapes

WHAT IS THE VOCATION AND LIMITATIONS OF EACH RURAL AREA ?

non-commodity functions are not just externalities of agriculture, they

depend on many other factors WHICH ROLE CAN AGRICULTURE PLAY?

1. Analysis of rural areas according to their characteristics and dynamics along three dimensions:
 - A) Land Cover (the space): CLC
 - B) Agricultural Sector (the activity): Agricultural Statistics
 - C) Social Dynamics (the community): Demographic Census

The whole country at municipal level

Present characteristics and changes in 10 years period

Selection and construction of indicators

Specific spatial analysis: landscape metrics (within each municipality)

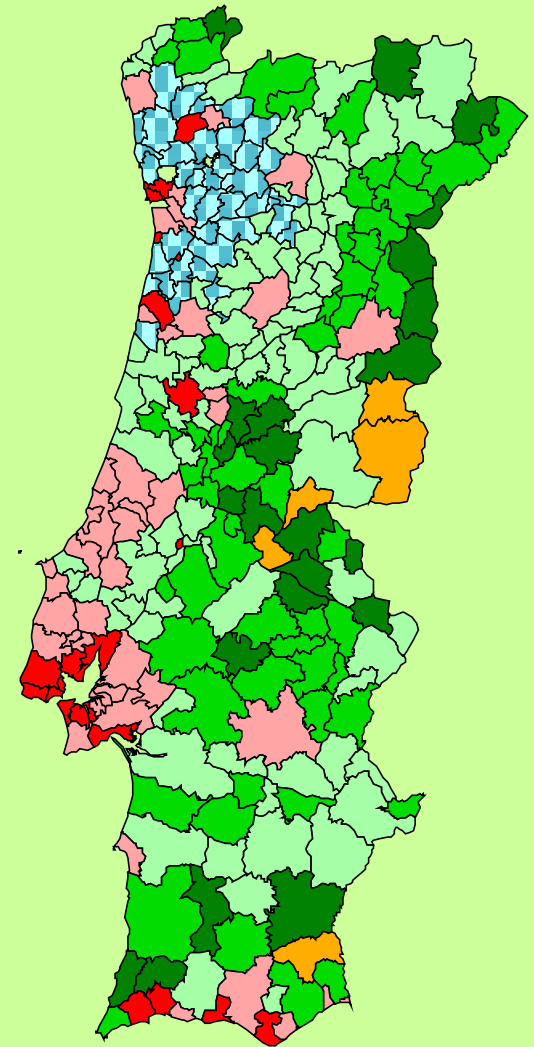
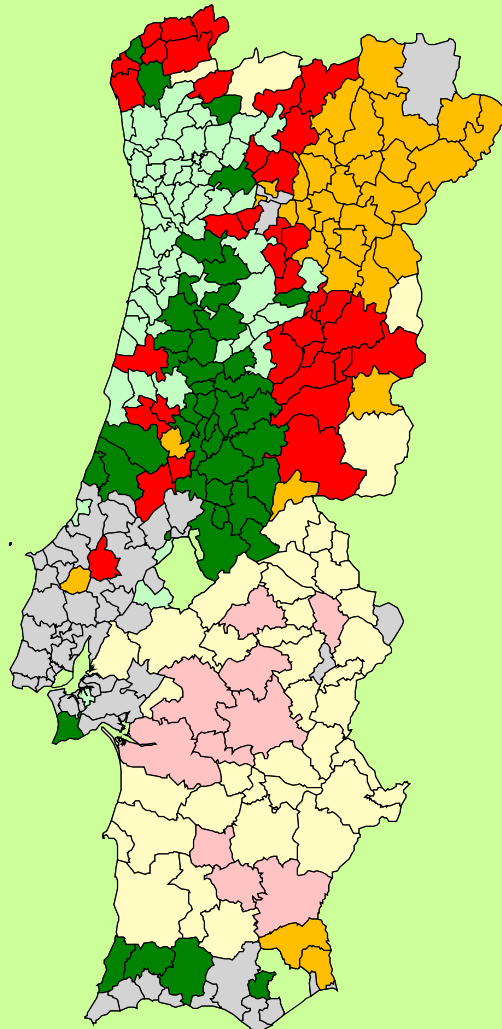
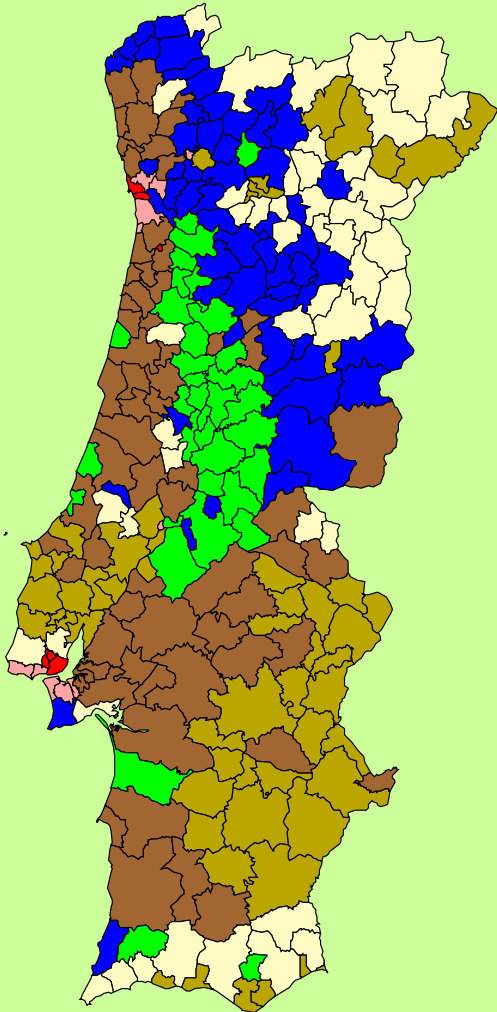
Typology of municipalities according to the dynamics 1990-2000

Land cover

Agricultural sector

Community

com a ocupação do solo



A territorial approach: evaluating the role of agriculture in rural landscapes

**>> more than the cluster analysis, questioning the data
building up a typology:**

- A) Definition of ideal types: emerging from analysis of processes and characteristics reflected in cluster analysis, and from crossing specialist knowledge about the three dimensions > expert assessment**
- B) Based on the three cluster analysis, identification of the most significant indicators for each type**
 - . Integration of other relevant data: altitude / landscape type / farming income without support**

A territorial approach: evaluating the role of agriculture in rural landscapes

C) Based on

- * the table of cluster centres
- * the illustrative municipalities with “typical” behaviour
- * discussion with expert panel within Ministry of Agriculture + specialists

>> identification of threshold values in the selected indicators, for each type.

D) Application of these thresholds and classification of the municipalities within each type

Types with utility for future management: *interaction agriculture x rural areas*

1). Specialized agriculture with high profitability

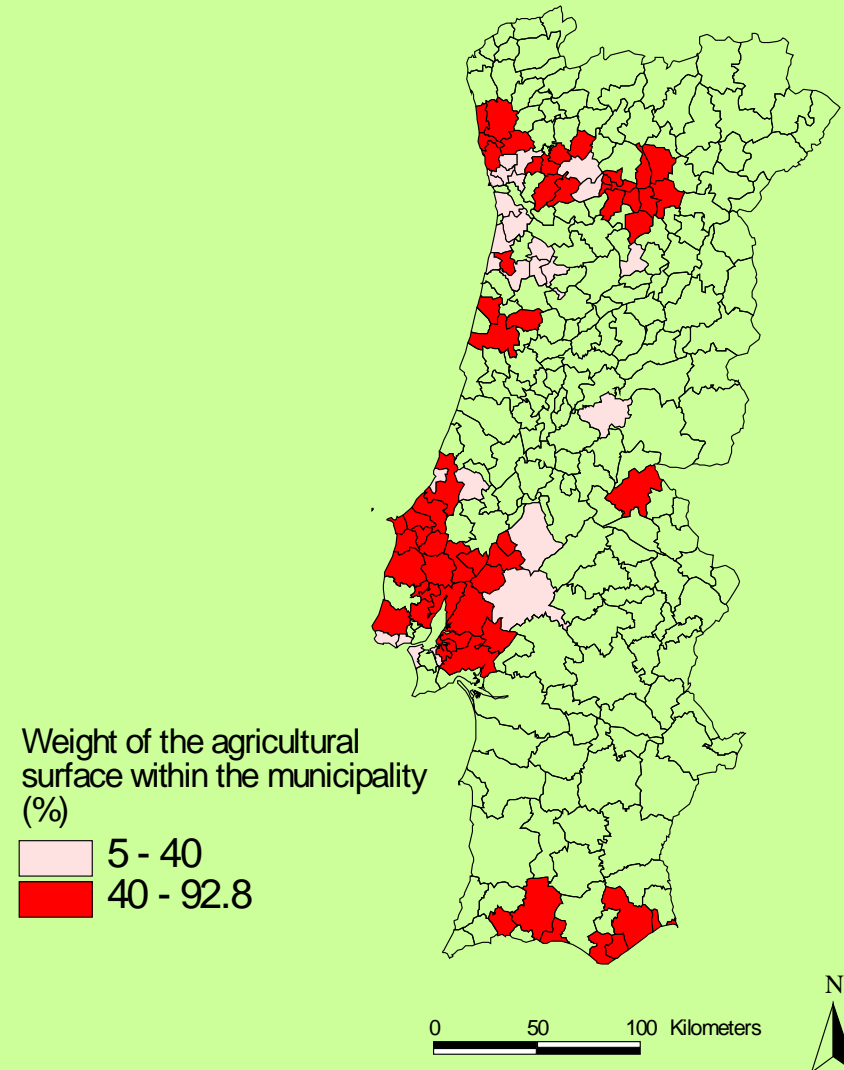
Type 1: Agriculture of specialized production and high profitability

- * High profitable agriculture, independence of subsidies.

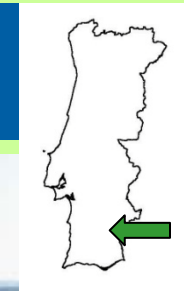
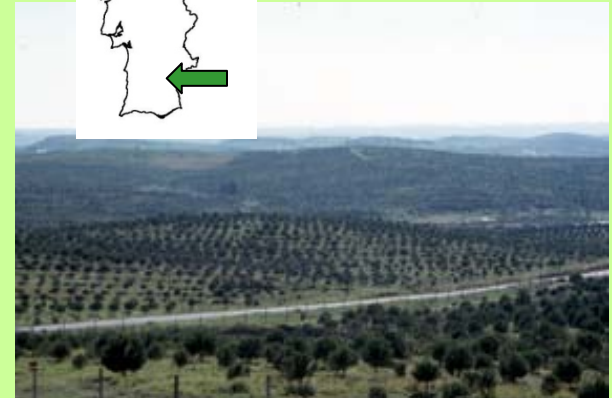
- *Landscape and identity defined by agriculture.

- *Need for environmental control

- *Rural services linked to production activity > closeness of demand.



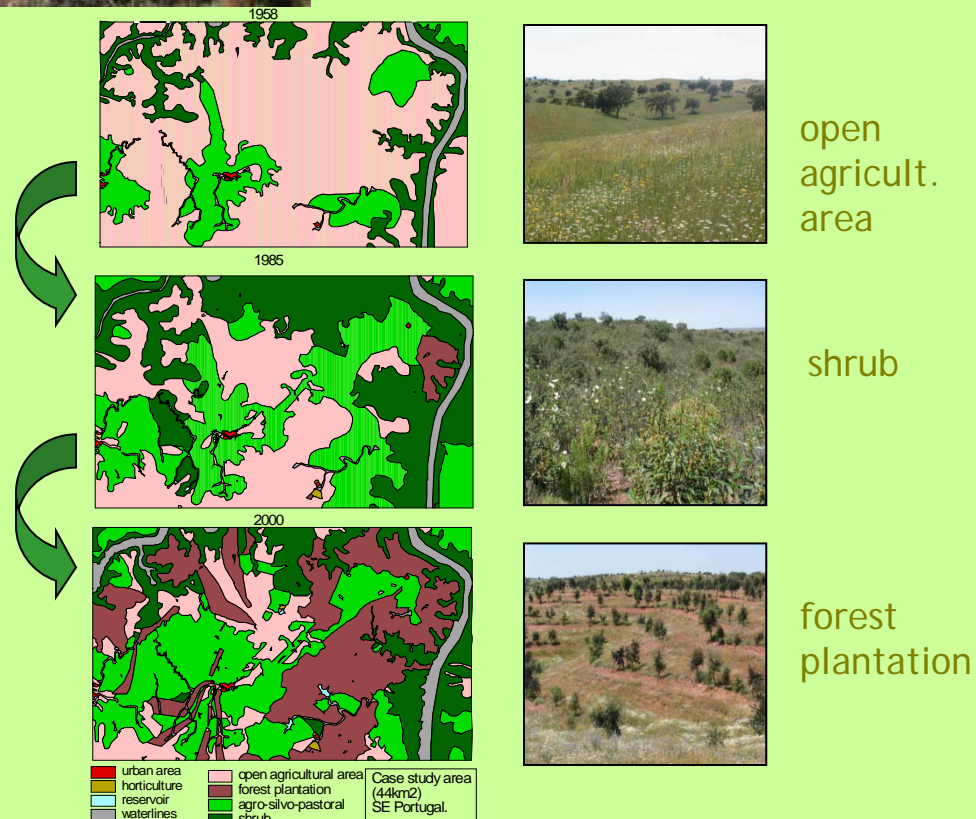
A paradigmatic case: Mértola



- Vulnerability to Desertification
- Peripheric
- Few people (7 hab/km²)
- 15% population in farming
- No alternative jobs: depopulation

Vulnerability to change in policies:

>> strong fluctuation in land use and land cover



A future with a valued landscape and nature but no farming no a valued landscape ?

**Further extensification of farming
systems**

**Valorization of environmental quality
and conservation values**

Fewer jobs in farming

**Hunting as an economic activity
combined with extensive cattle
and nature conservation**

>> already the solution for large estates

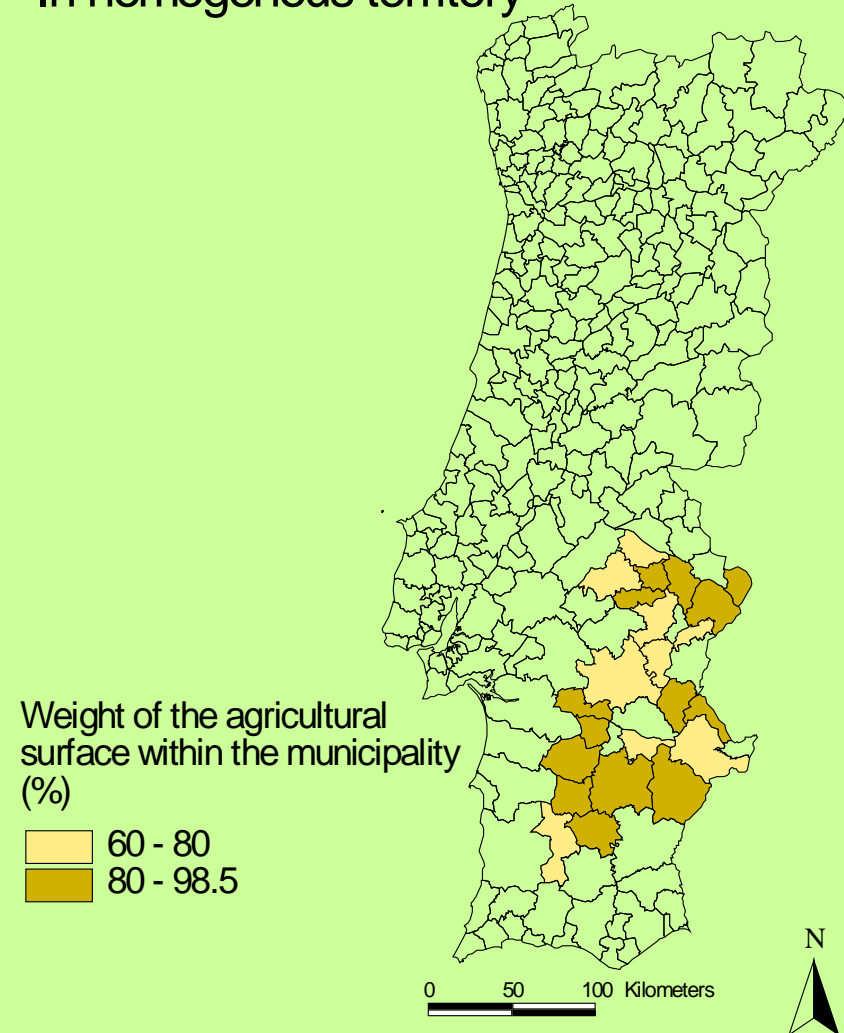
**(ex. 1200 hectares managed for hunting,
(absent) landowners, extensive management
by 2 workers, diverse landscapes with
different patches, and water reservoirs)**



2 a). Extensive agriculture with environmental benefits - in homogenous territory

- *Extensive agriculture, livestock, large scale properties and sensitive physical circumstances**
- *High environmental quality + potential for conservation**
- * Aged and not qualified population**
- * High potential for hunting**
- *Low potential for active community and rural services**

Type 2a: Extensive agriculture with environmental benefits
- In homogenous territory

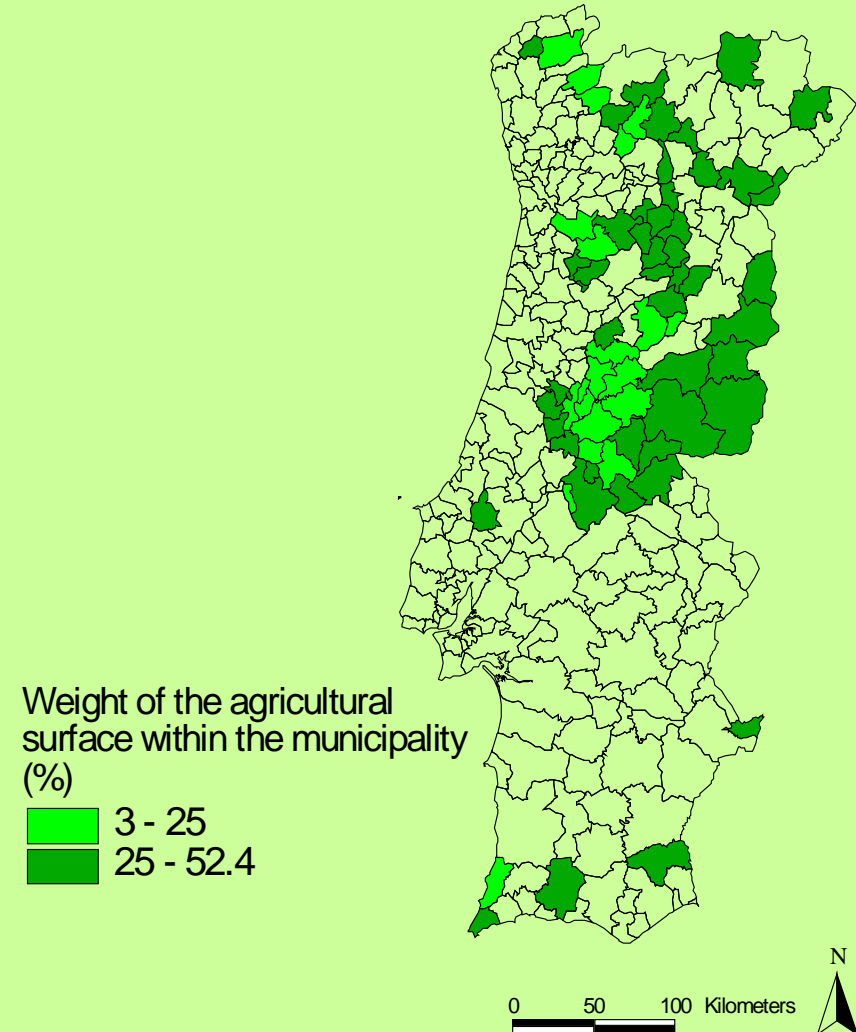


3 a). Agriculture of spatial planning and environmental quality - in forestry environment



Type 3a: Agriculture of spatial planning and environmental quality
- In a forestry environment

- *Agriculture is residual
- *Land cover dominated by forest/ shrubs
- *Low population density, aged and low qualified - low capacity of innovation and resistance to marginalization
- *Agriculture needed for forest fragmentation, reducing fire risks, and improving attractiveness



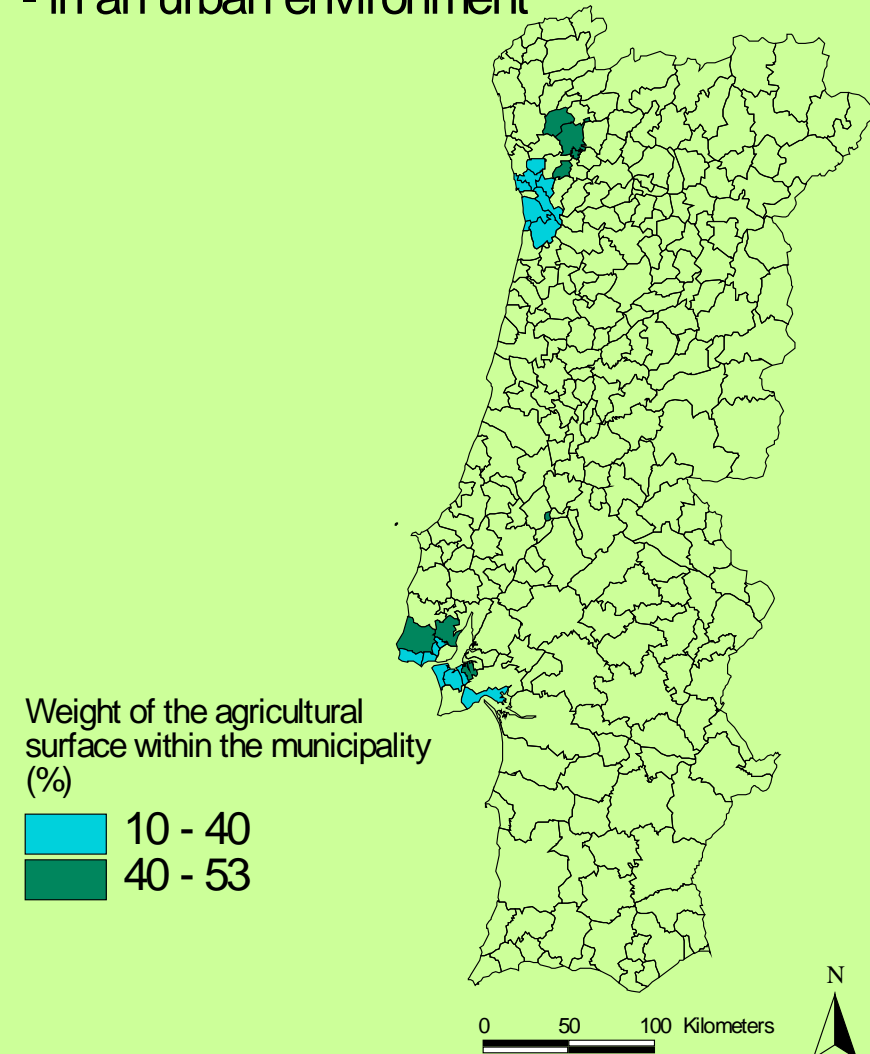
3 c). Agriculture of spatial planning and environmental quality - in urban environment

***Agriculture is residual and has been declining much.**

***Land cover and the organization of space is determined by urban use and the associated infrastructures.**

***Agriculture can play a crucial role in the maintenance of green areas with functions of recreation, ecological balance and organization of the landscape.**

Type 3c: Agriculture of spatial planning and environmental quality
- in an urban environment

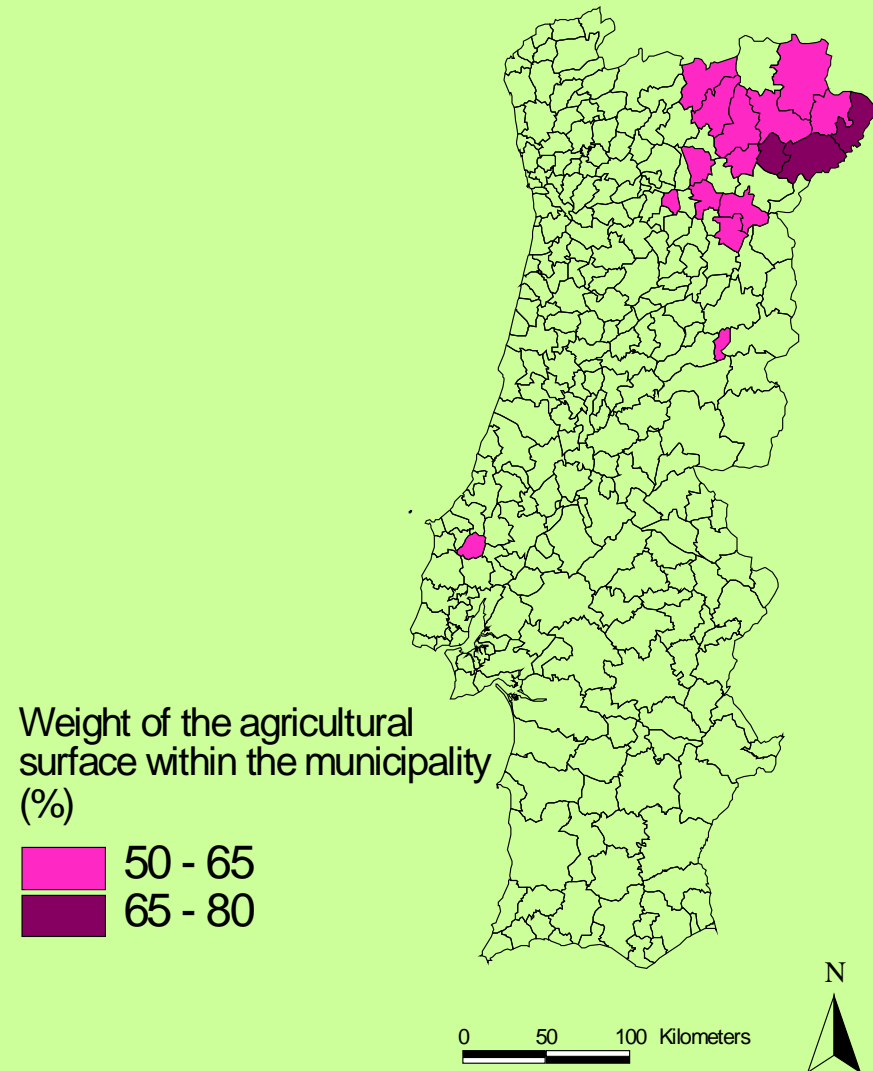


4 a). Agriculture of rural services - in peripheral areas



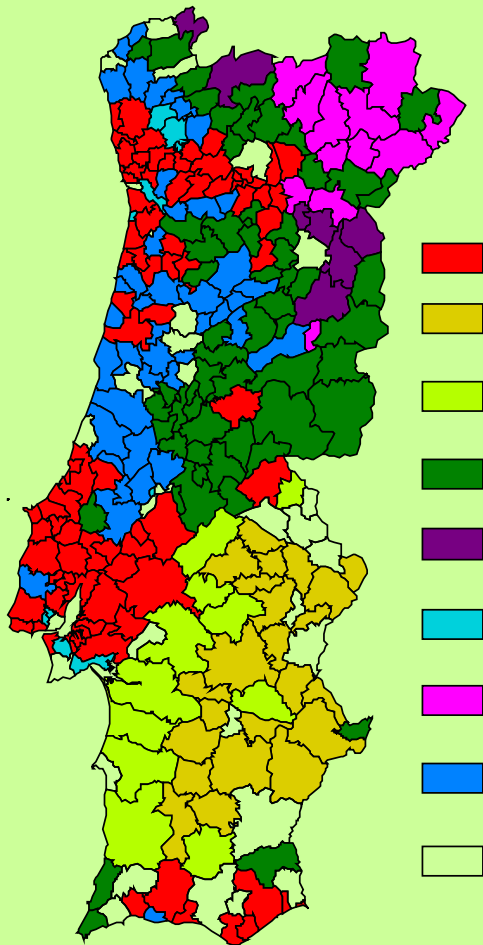
Type 4a: Agriculture of rural services - in peripheral areas

- * **Diversified agriculture > products and systems of land use medium scale property**
- * **Agriculture has important social role**
- * **High social capital, but people concentrate on towns**
- * **Local market for food and rural heritage**
- * **High value of landscape > motor for development of other functions and sources of income**
- * **Need of support for rural services**
- * **Need to maintain local communities**



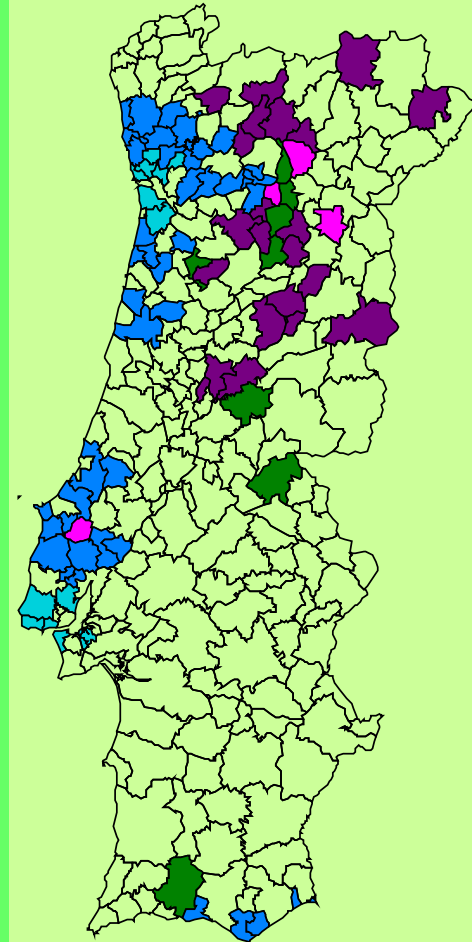
Overall Tipology: a differentiated reality

Primary vocation



- 1) Agriculture of specialized production and elevated profitability
- 2) Extensive agriculture with environmental benefit
 - a) in homogenous territory
 - b) in diversified territory
3. Agriculture of spatial planning and environmental quality
 - a) in forestry environment
 - b) in mountain environment
 - c) in urban environment
4. Agriculture of rural services
 - a) in peripheral areas
 - b) in areas dynamic and confuse

Secondary vocation



Reflections << what can this typology give us ?

- * Assess how much the countryside is differentiated
 - * Reflect and understand this differentiation
 - Define orientations for each type, considering:
 - Trends at global level: main drivers
 - . Strategies and resources at national level: need for PRIORITIES
 - . The potential at local level
 - * Redefine the role of agriculture
 - . What agriculture does make sense for the future
 - . What conditions are required for this agriculture
- further progress:
- > updating
 - > combine with other analysis, for ex. farm units economic viability,
 - > local case-studies of each type to better evaluate functions
 - > integration of global drivers



Thank You