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Organic Farming and European Rural Development

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Theme 2: European Policy Initiatives
C2 - Policy Initiatives for Organic Farming

An integrated methodology for the evaluation of organic farming aid scheme environmental effects supported by Geographic Information Systems (GIS)

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Outline

- Preliminary remarks and motivations
- Research aims
- The case study
    - *RDP in Campania (organic farming)*
    - *Methodology*
    - *Procedure*
- Results
- Concluding remarks

Preliminary remarks and motivations

- ✥ EU member states are now obliged to evaluate

  Rural Develpment Plans (RDPs)

  - ✦ verify the effectiveness of the implementation process

    - ✥ The evaluation:

      - ✥ must be based on quantitative indicators

      - ✦ must consider both spatial and geographic

        context

Research aims

Proposing an integrated evaluation methodology for analysing a RDP agro-environmental measure (organic farming)

⊕ Evaluate whether the implementation of this measure matches local needs of environment improvement

GIS (Geographic Information Systems)

GIS are systems able to store, manage and display spatially referenced data

They support evaluation methodologies

- spatial analysis tools
- quantitative indicators calculation on spatial basis

The case study: RDP organic measure of Campania

Figure 2 - European and Italian Map with indication of the Italian Regions

EUROPE

Trentino-Alto Adige

Valle d'Aosta

Friuli-Venezia Giulia

Lombardia — Veneto

Piemonte

Emilia-Romagna

Liguria

Toscana — Marche

Umbria

Lazio — Abruzzi

Molise

Campania

Puglia

Basilicata

Sardegna

Calabria

ITALY

Sicilia

A snapshot of organic farming in Campania

R. 2078/92 has played a key role in fostering organic farming in Campania

At the end of the program implementation (2003):

- 1.955 farms
- 15.000 ha

- Cereals (23% UAA)
- Fruit and olive trees (18% UAA)
- Chestnut trees (15% UAA)
- Forages (14% UAA)

2003: organic farming state faced by the new aid scheme under the RDP

Increasing of:

- Farms
- Products available
- Stores
- Processing and marketing holdings
- Consumers

Flaws:

- Mainly inland and less-favoured areas
- Mostly focused on production side rather than processing, marketing and demand side

The case study: methodology

With the support of GIS, economic data (aid

scheme beneficiaries) has been analysed
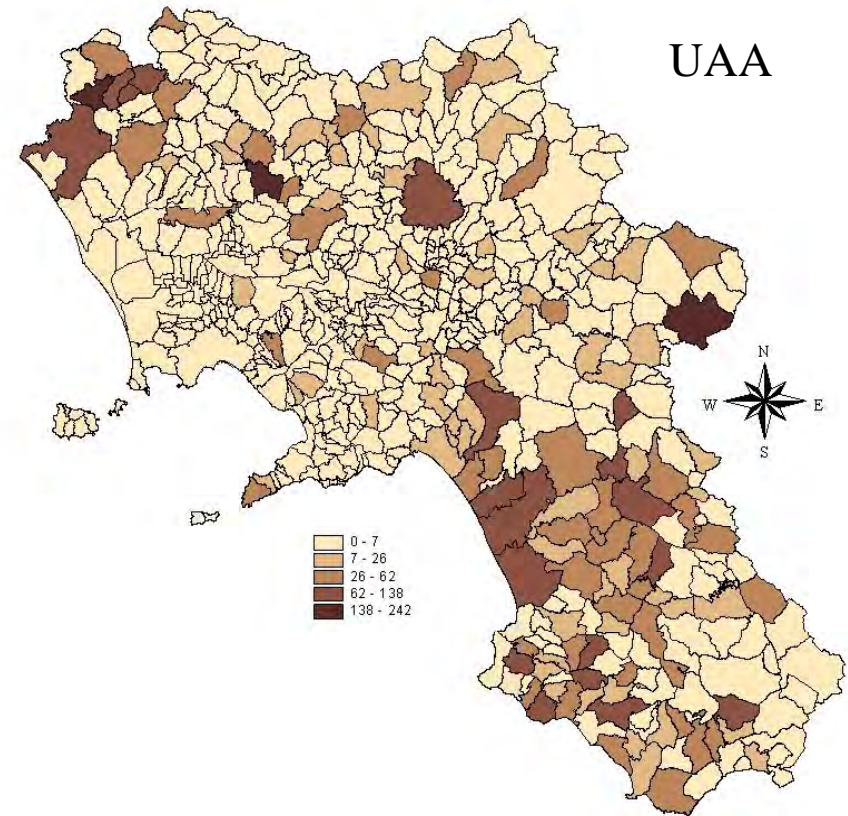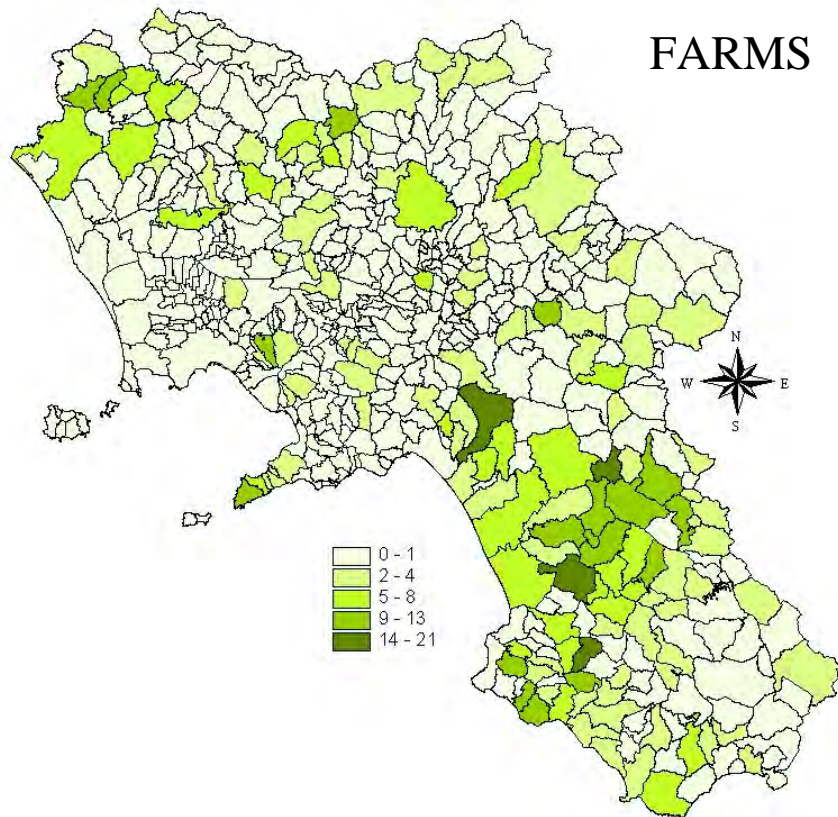
with respect to its spatial context

The case study: procedure
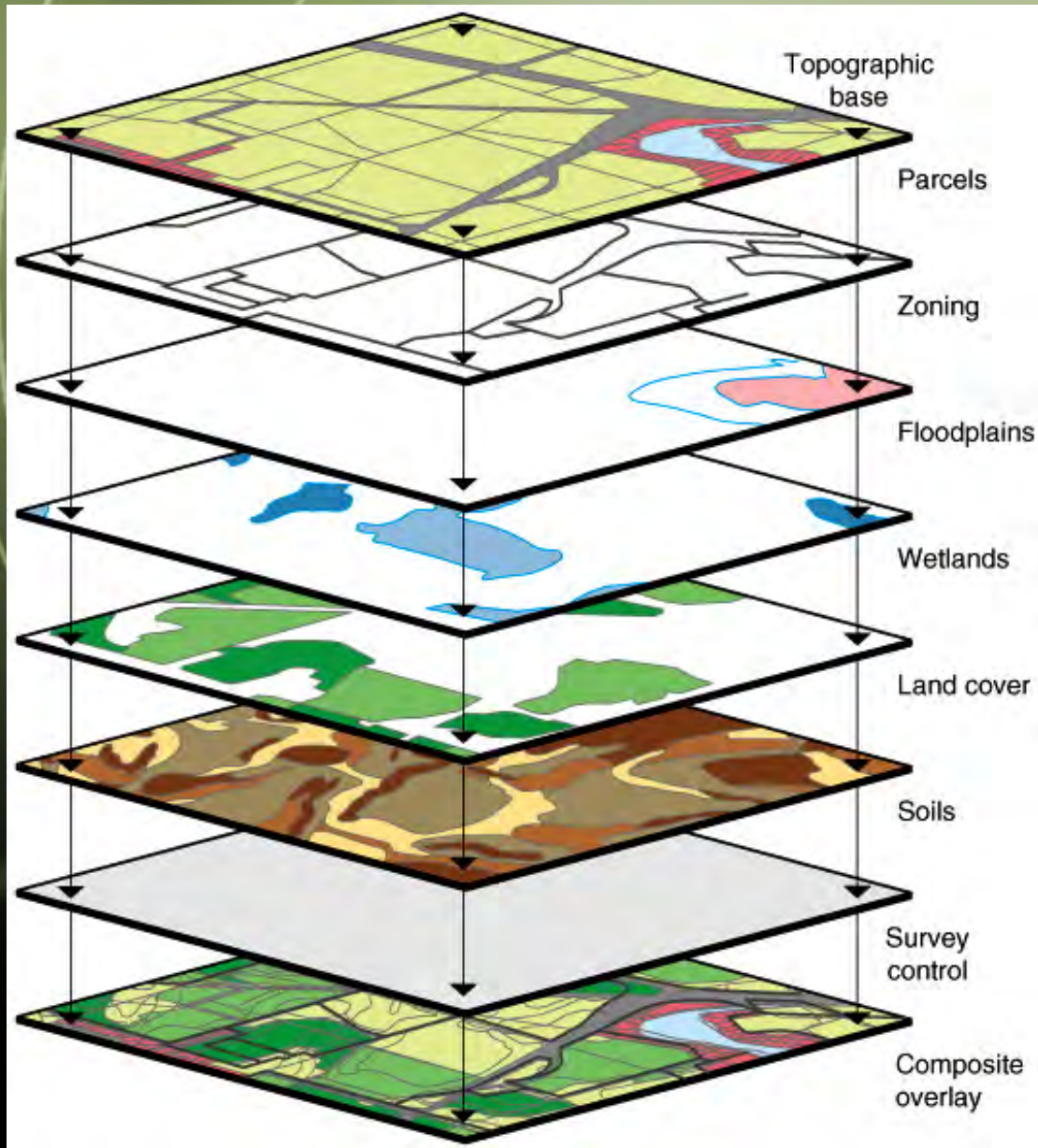
Each kind of data is elaborated in informative layer, then integrated and intersected with other informative layers
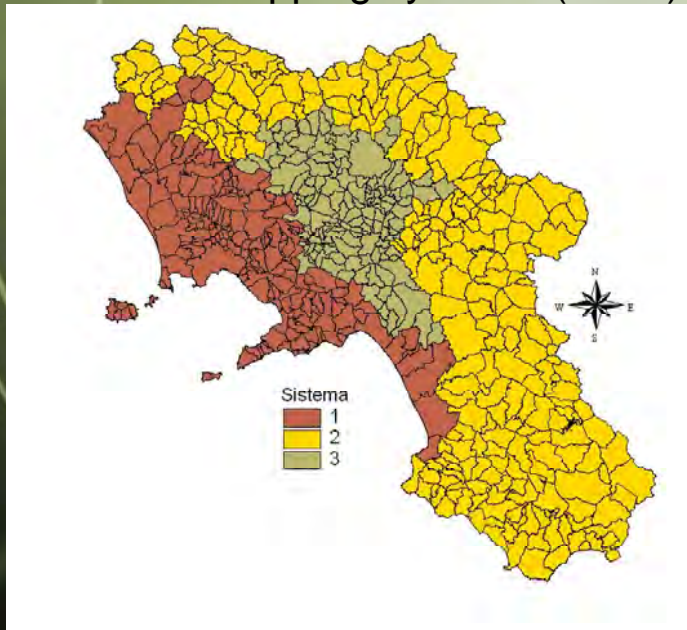
First informative layer

Intervention distribution and concentration map
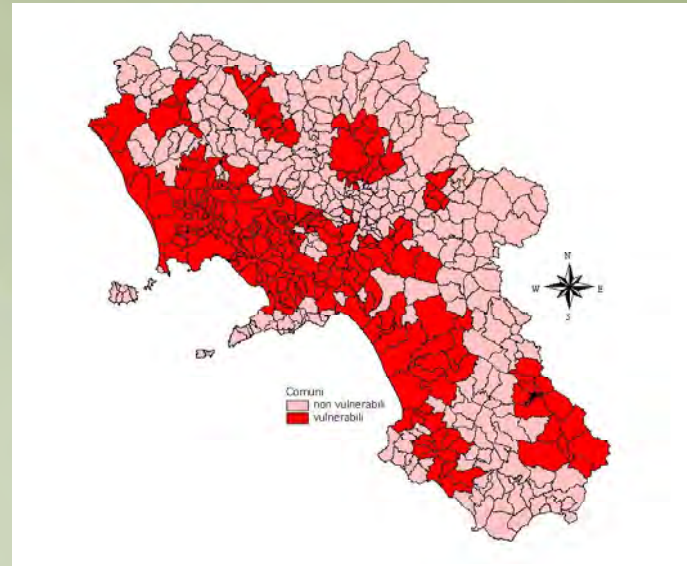(organic/total) in terms of farms and UAA

FARMS

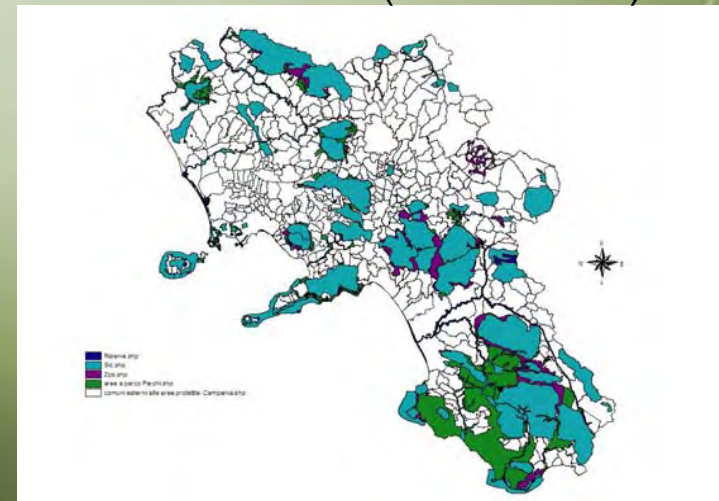|	
	0 - 1
	2 - 4
	5 - 8
	9 - 13
	14 - 21

UAA

	0 - 7
	7 - 26
	26 - 62
	62 - 138
	138 - 242

Other informative layers

Nitrates Vulnerable Zones (VZ)

Intensive cropping systems (1-2-3)

Protected areas (Natura 2000)

Results: key notes (1/2)

Organic farms in Vulnerable Zones

Total number	317
% All farms	0,2

Organic farms out Vulnerable Zones

Total number	447
% All farms	0,4
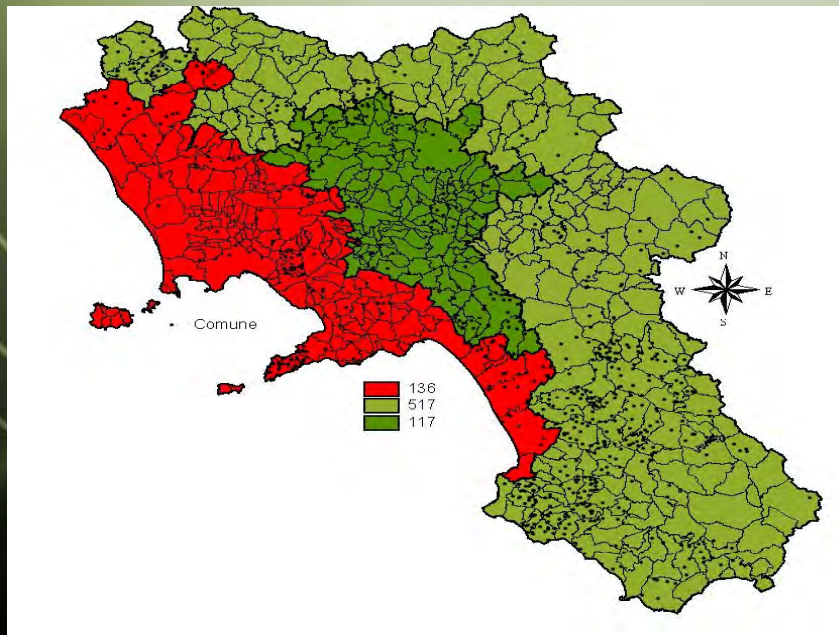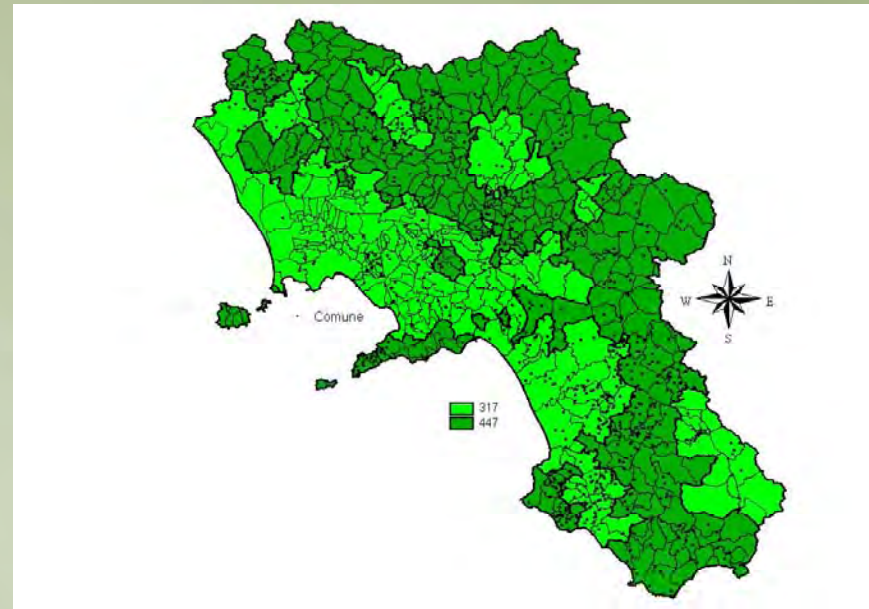
Organic farms in the most intensive cropping system areas (1)

Total number	136
% All farms	0,2

Organic farms in the least intensive cropping system areas (3)

Total number	517
% All farms	0,5

Organic farms in the medium intensive cropping systems (2)

Total number	117
% All farms	0,2

Results: key notes *(2/2)*

Organic farms in protected areas	
Total number	650
% All farms	0,38

Organic farms out protected areas	
Total number	120
% All farms	0,16

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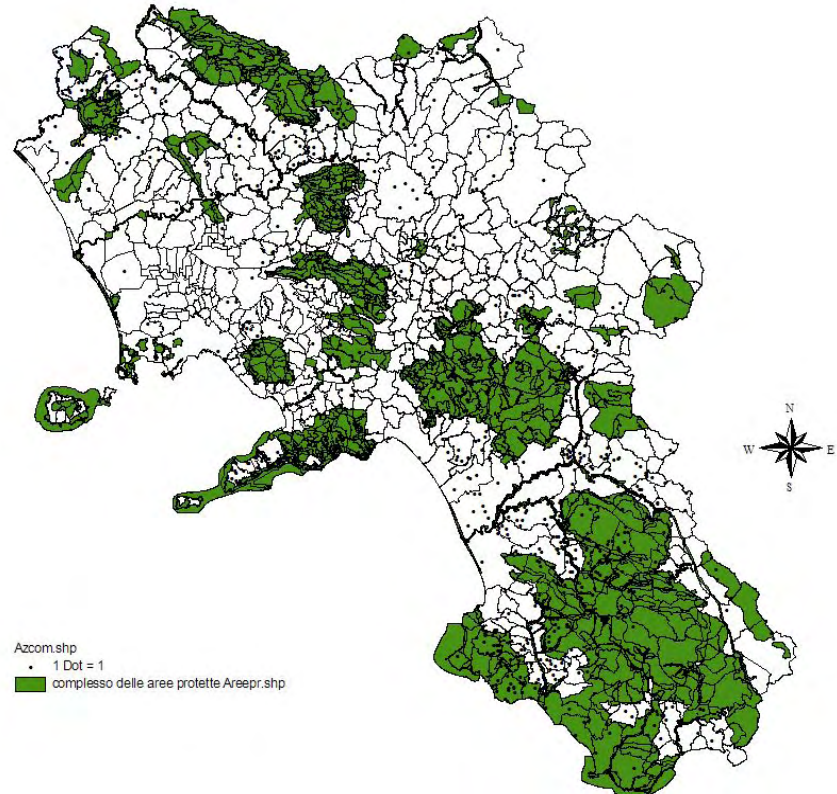
Results

In spite of the regional RDP strategy aiming to concentrate the organic farming intervention on the critical areas from an environmental point of view, there is no significant difference in the distribution of organic farms and land between nitrates VZs and non VZs, and between more and less intensive agriculture areas

Results

A major concentration transpires to be

in the protected areas.

They mostly overlap regional less-

favoured areas.

Organic farming confirms to be a

convenient alternative where a low

impact agriculture already exists

Concluding remarks

The effectiveness in achieving environmental benefits from organic farming aid scheme has been reduced by implementation not focusing on the regional areas more in need of environmental improvements