MCST Research EXPO
3-7 November 2008

e-duNatHer
training web tools 4 everyone

Educational Strategies for the Promotion of Natural Heritage

EduNatHer Pilot Project – EL/06/B/F/PP - 148207

Sponsored by the European Commission under the Leonardo da Vinci Programme

e-learning on Natural Heritage

Objective

Provide a web-based module which contains:

- **units** on different aspects of natural heritage
- **tutorials** based on
- **geographic information layers** (thematic maps)

Case studies:

Greece, Italy, Malta, Portugal, Romania, Turkey

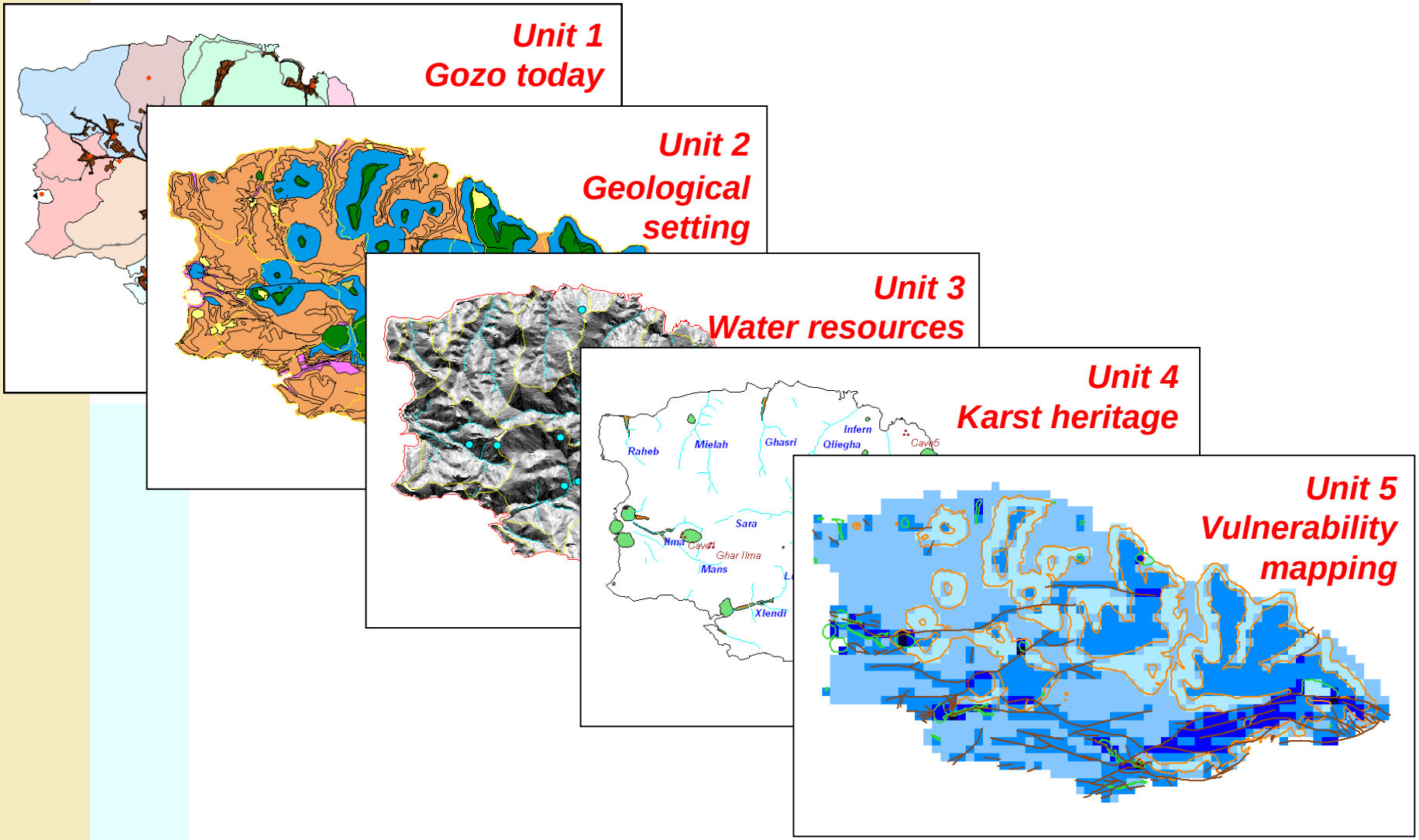
IRMCo Case Study Area

Comino

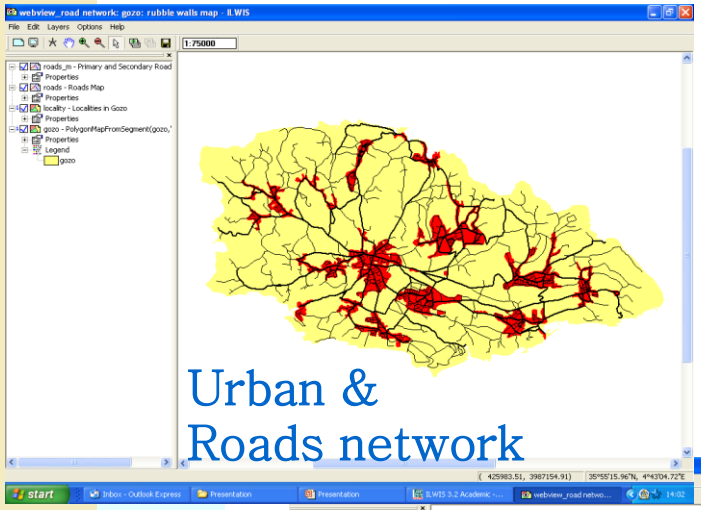
Web-GIS Module:

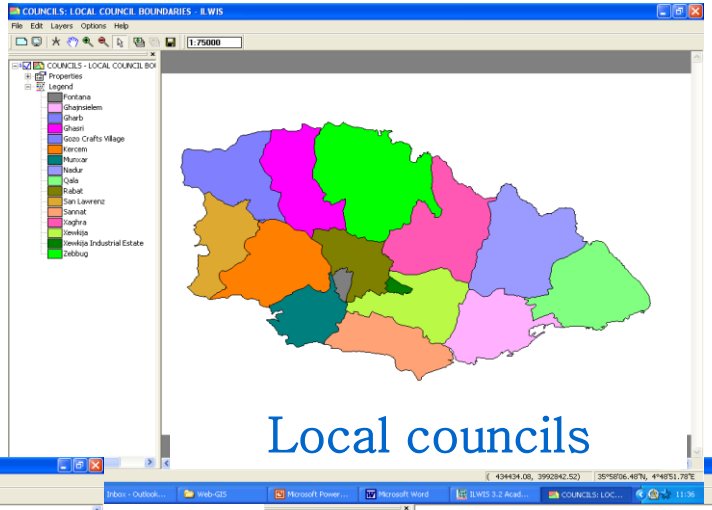
- **Gozo Today**
- **Geological Setting**
- **Water Resources**
- **Karst Heritage**
- **Vulnerability Mapping**

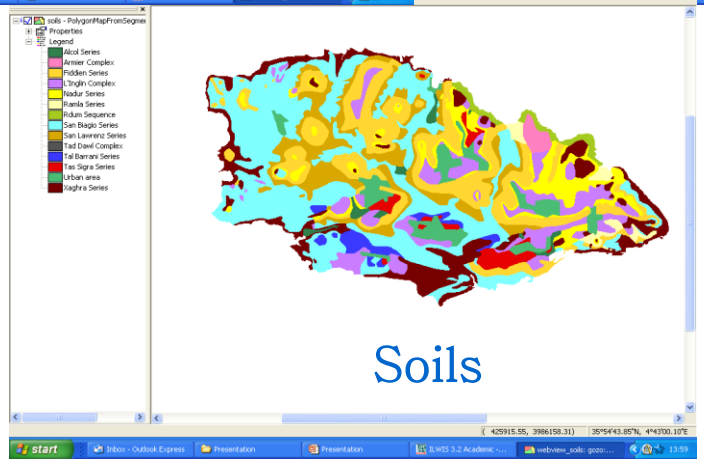
Module Units: Thematic maps

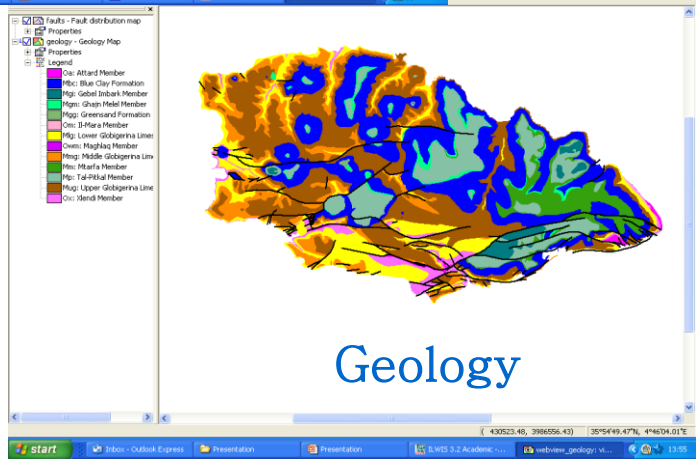


IRMCo tasks included the digitization of maps



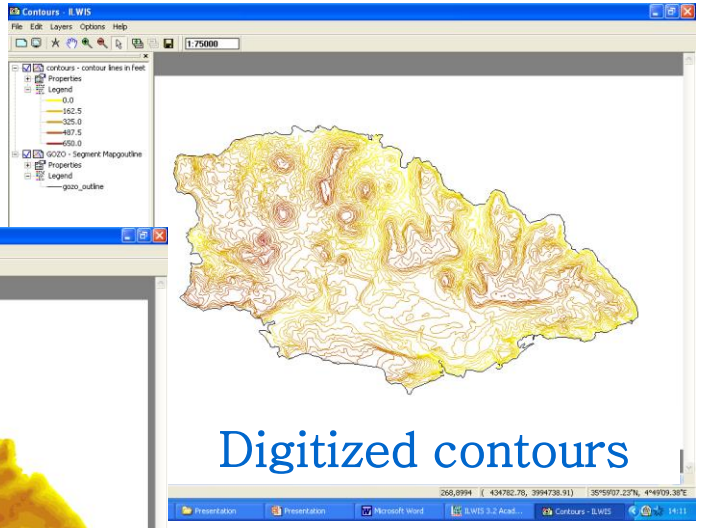


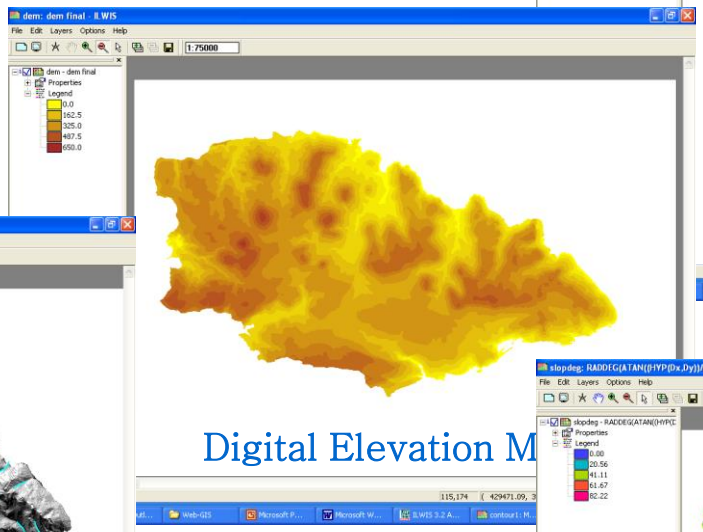


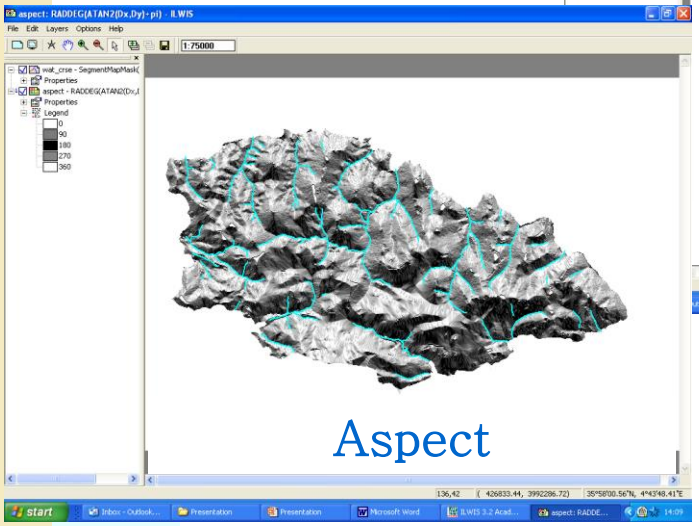


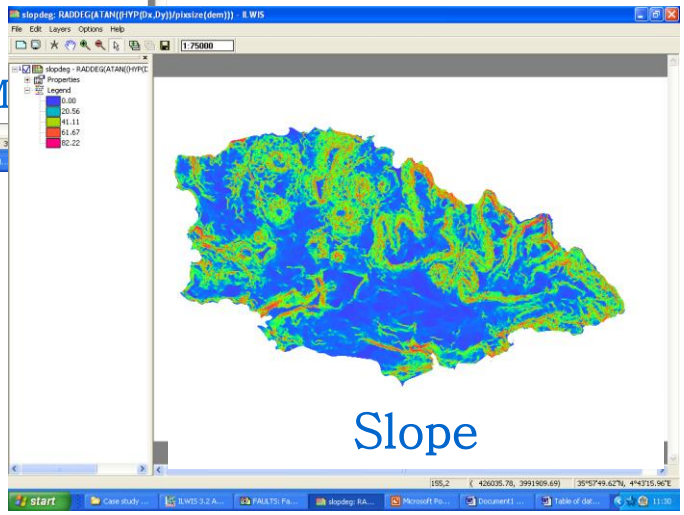
Derived maps:

DEM, Aspect & Slope maps

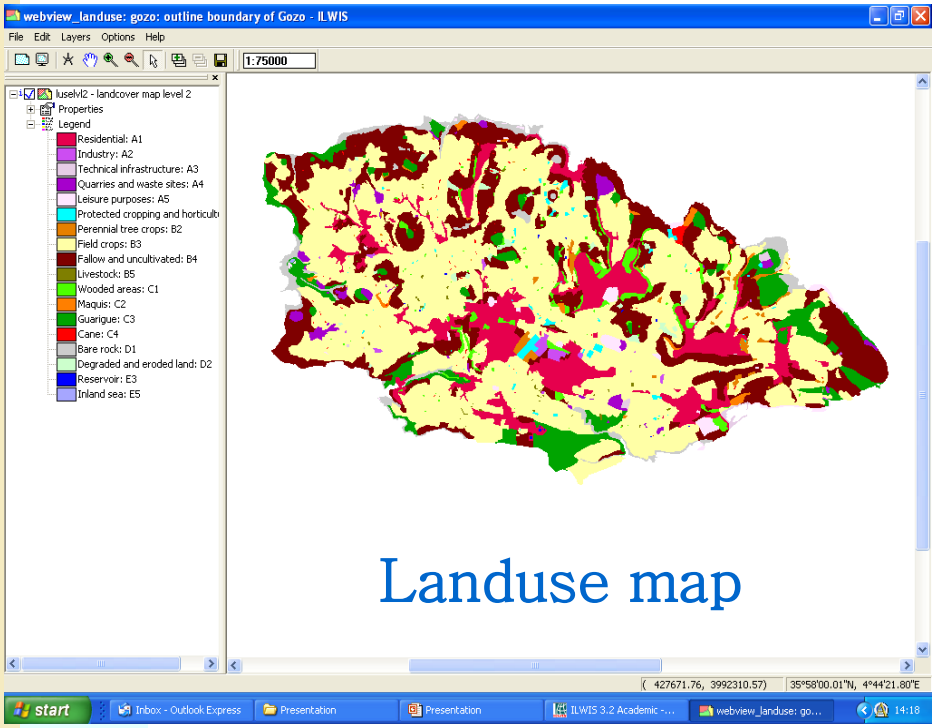








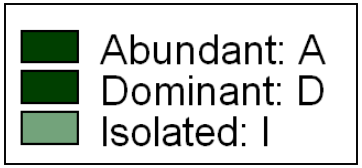
IRMCo Field Surveys

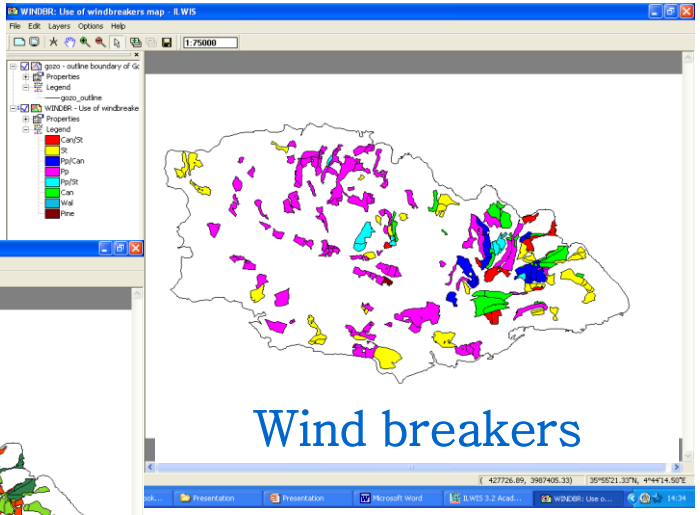


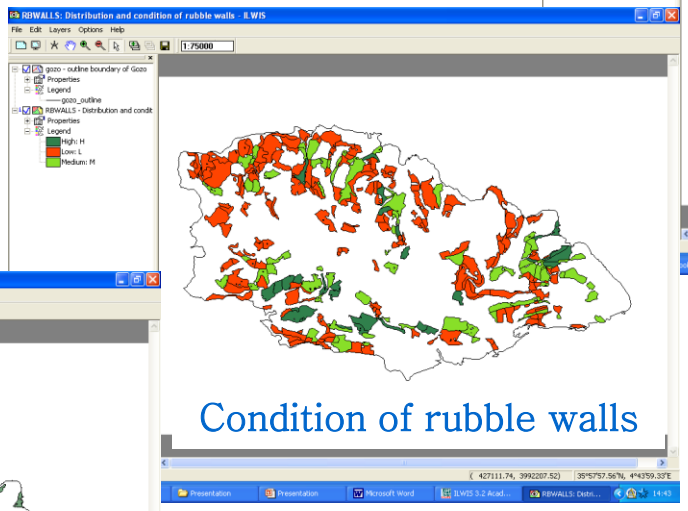
Landuse map

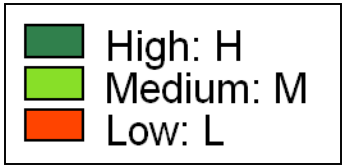
- Residential: A1
- Industry: A2
- Technical infrastructure: A3
- Quarries and waste sites: A4
- Leisure purposes: A5
- Protected cropping and horticulture: B1
- Perennial tree crops: B2
- Field crops: B3
- Fallow and uncultivated: B4
- Livestock: B5
- Wooded areas: C1
- Maquis: C2
- Guarigue: C3
- Bare rock: D1
- Degraded and eroded land: D2
- Reservoir: E3
- Inland sea: E5

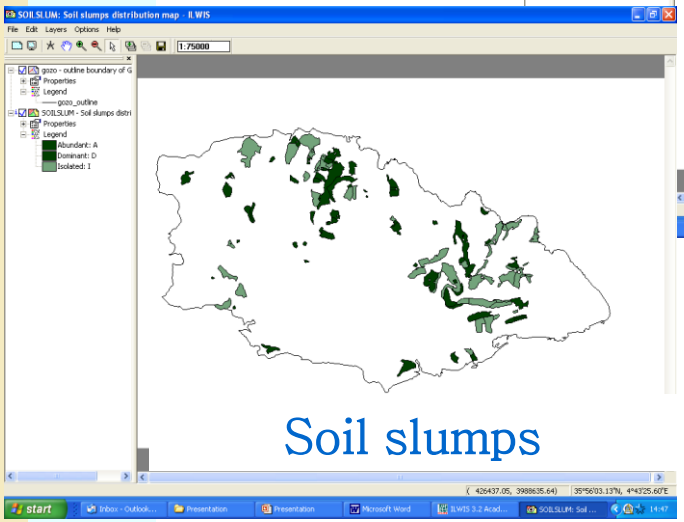
also from IRMCo Field Surveys…











Identifying Resource Interdependencies …

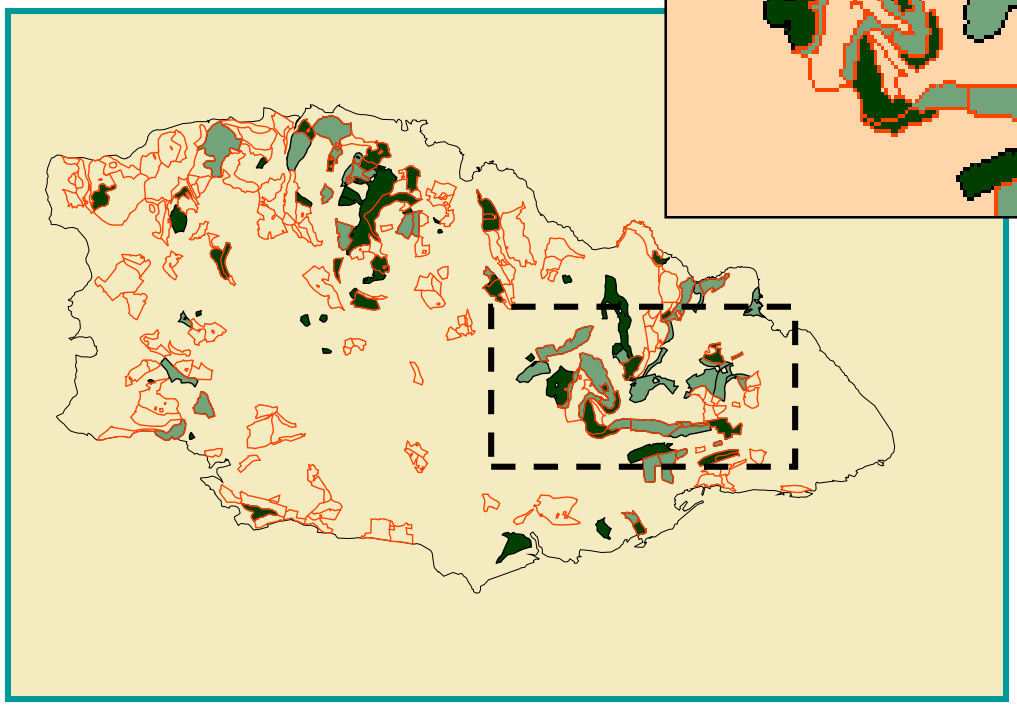
Soil erosion in relation to the condition of rubble walls

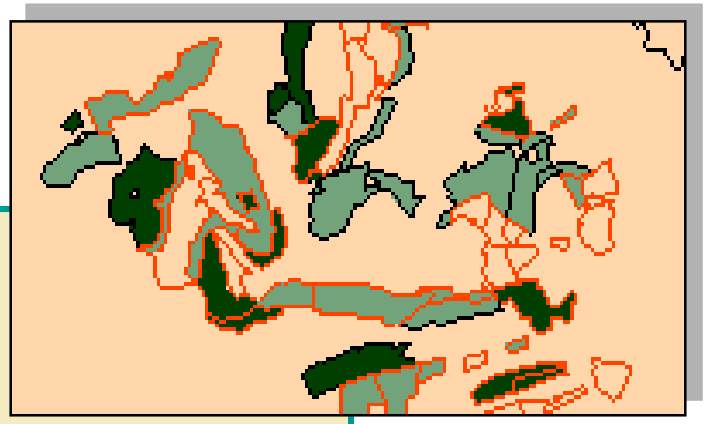
Soil slumps:

- Abundant: A
- Dominant: D
- Isolated: I

Rubble walls:

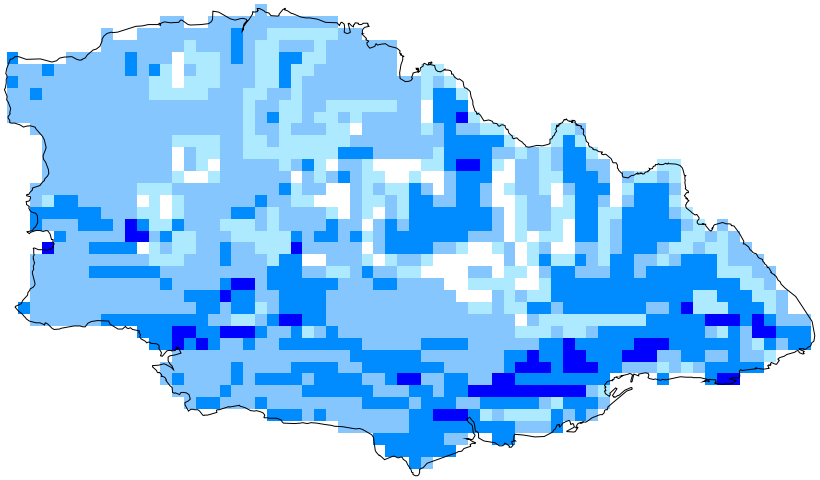
- Rubble walls in bad condition





Resource Interdependencies …

Surficial Cover Infiltration (SCI) Index Map



$$SCI = \sum_{i=1}^{4} W_i R_i$$

Weights assigned to Surficial Cover Infiltration factors

'SCI' FACTOR	WEIGHT (%)
1) Surface Lithology	35
2) Lineament	20
3) Karst Features	30
4) Drainage Density	15

- No infiltration
- Very low infiltration ability
- Low infiltration ability
- Moderate infiltration ability
- High infiltration ability
- Very high infiltration ability

SCI INDEX	Description
>0.40	No Infiltration
0.41-0.85	Very Low Infiltration Ability
0.86-1.30	Low Infiltration Ability
1.31-1.75	Moderate Infiltration Ability
1.76-2.20	High Infiltration Ability
>2.20	Very High Infiltration Ability

Resource Interdependencies …

SCI:

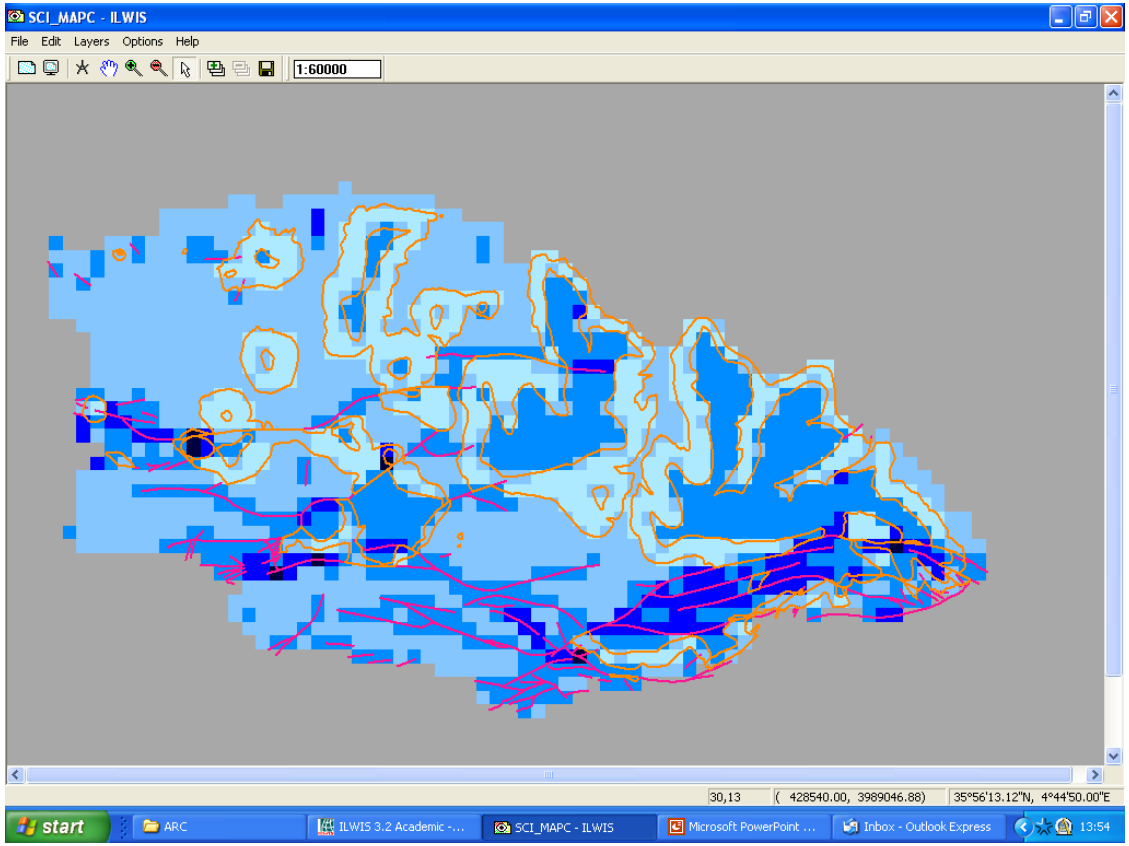
- No infiltration
- Very low infiltration ability
- Low infiltration ability
- Moderate infiltration ability
- High infiltration ability
- Very high infiltration ability

Surface lithology:

Blue clay

Lineaments:

Faults



EduNatHer project meetings

Malta

Braganca

Izmir

Athens