



Adaptando la media montaña
al cambio climático

Con el apoyo de



LIFE18 CCA/ES/001099

POTENTIAL FOR REPLICABILITY IN PRESPA TERRITORY – GREECE

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COORDINACIÓN



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Purpose

LIFE MIDMACC is a project that promotes adaptation to climate change in mid-mountain areas. It is developed into four major themes (actions) of significant socio-economic and environmental interest:

1. Recovery of pastures in mid-mountain scrubland areas for the subsequent introduction of extensive livestock farming
 2. Forest management for fire risk prevention and maintenance with extensive livestock farming
 3. Optimization of vine production and the introduction of vineyards in mid-mountain areas
 4. Scaling up of climate change adaptation measures at regional level through river basin modelling
- **The first two actions can potentially be replicated in the basin of Prespa, located in northwest Greece, within a mid-term time frame.**
 - Vine production isn't common in Prespa due to unfavorable climatic conditions.
 - In order to replicate action 4, it's essential to conduct landscape analysis and studies on the evolution of land use, as well as, monitoring a pilot area over a sufficient duration. This approach is more suitable for a long-term time horizon and could be envisioned for implementation in both the Prespa Basin and the broader region of Western Macedonia.

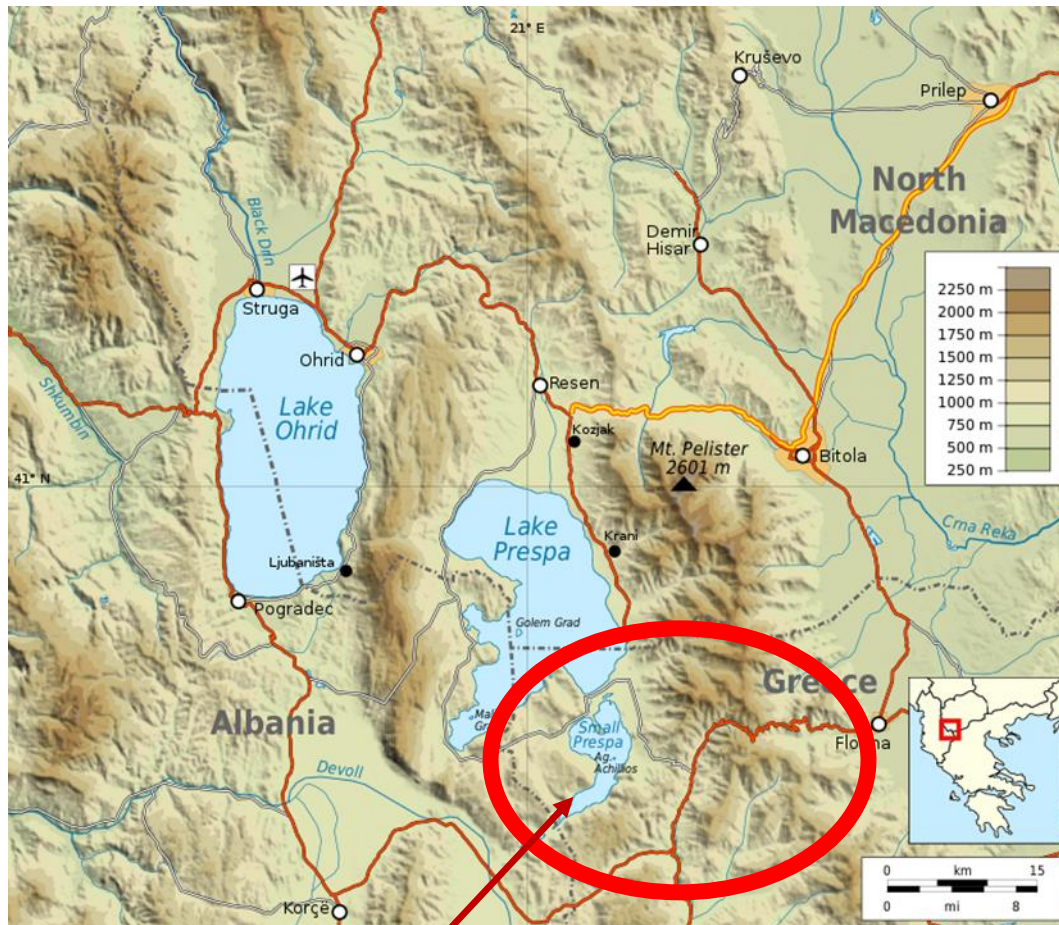
Area of Prespa

Location:

- In the northwestern part of Greece; the Greek part covers an area of 251,910 Ha.
- It is characterized by the collective lake basins of Megali Prespa (253,600 Ha in area, with a maximum depth of 53 m) and Mikri Prespa (4700 Ha in area, with a maximum depth of 8.4 m).
- The lakes reflect at an altitude of 850 m above sea level.

Geology:

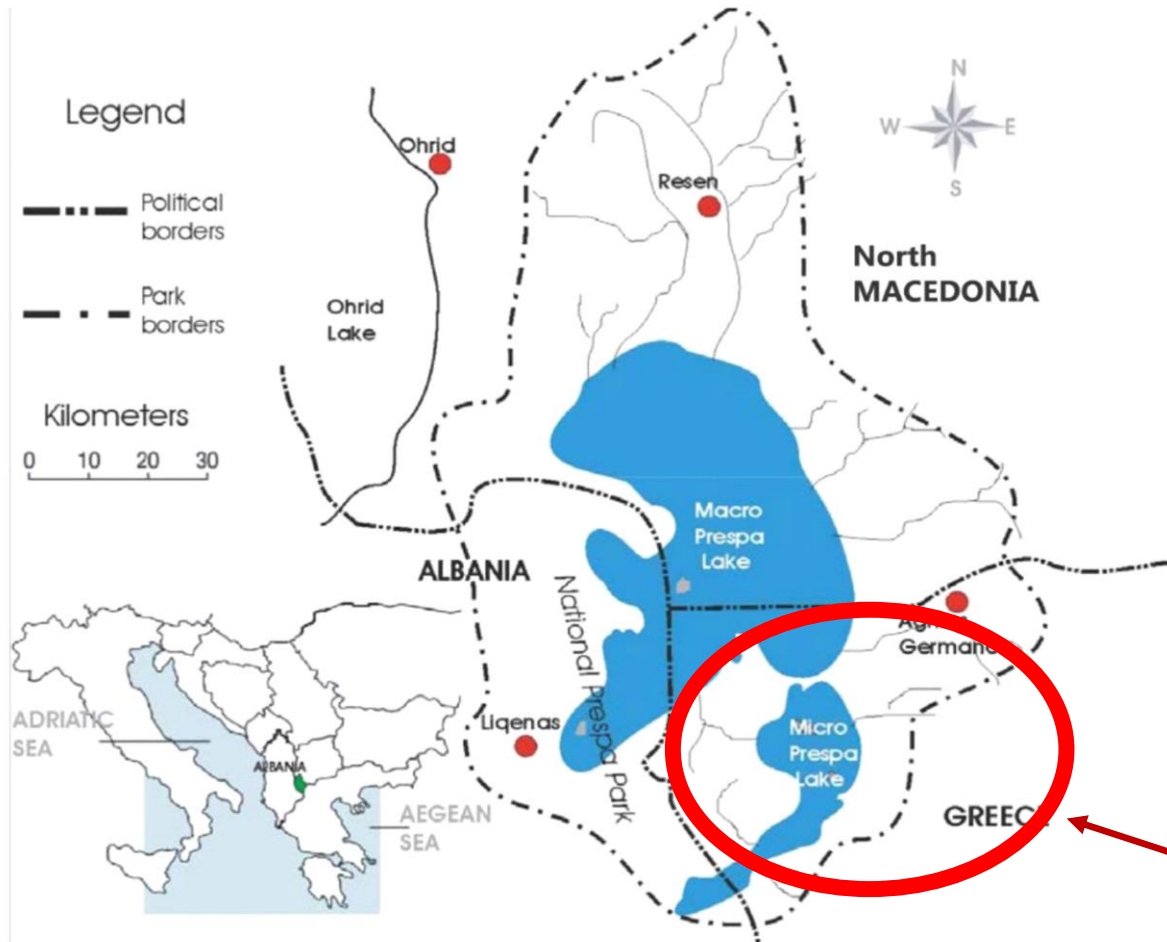
- The western sector consists mainly of limestone, while the eastern sector is characterized by granite and flysch formations.



The Prespa
basin

Area of Prespa

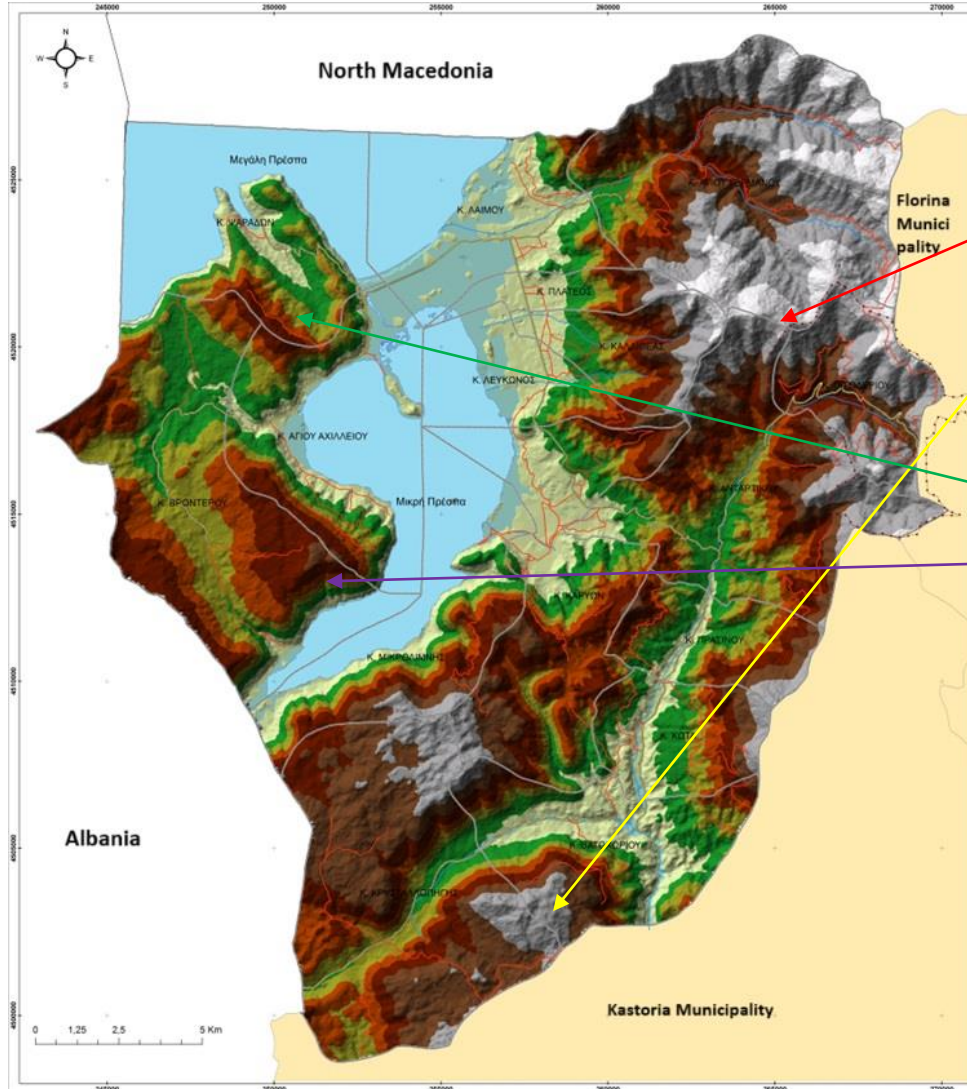
Transboundary Prespa Park



Relief:

- The highest point is the peak of Kalo Nero (2,156 m) in Mt. Varnous in the east.
- Mt. Triklarion (1,756 m) stands to the south, and
- Mt. Vrontero (1,456 m) to the west.
- Between the two lakes is Mt. Devas (1,373 m).

- arable land 2,170 ha (6.48%),
- pastures 12,260 ha (36.62%),
- forests 12,400 ha (37.04%), and
- surface water and settlements 10,050 ha (30.01%)



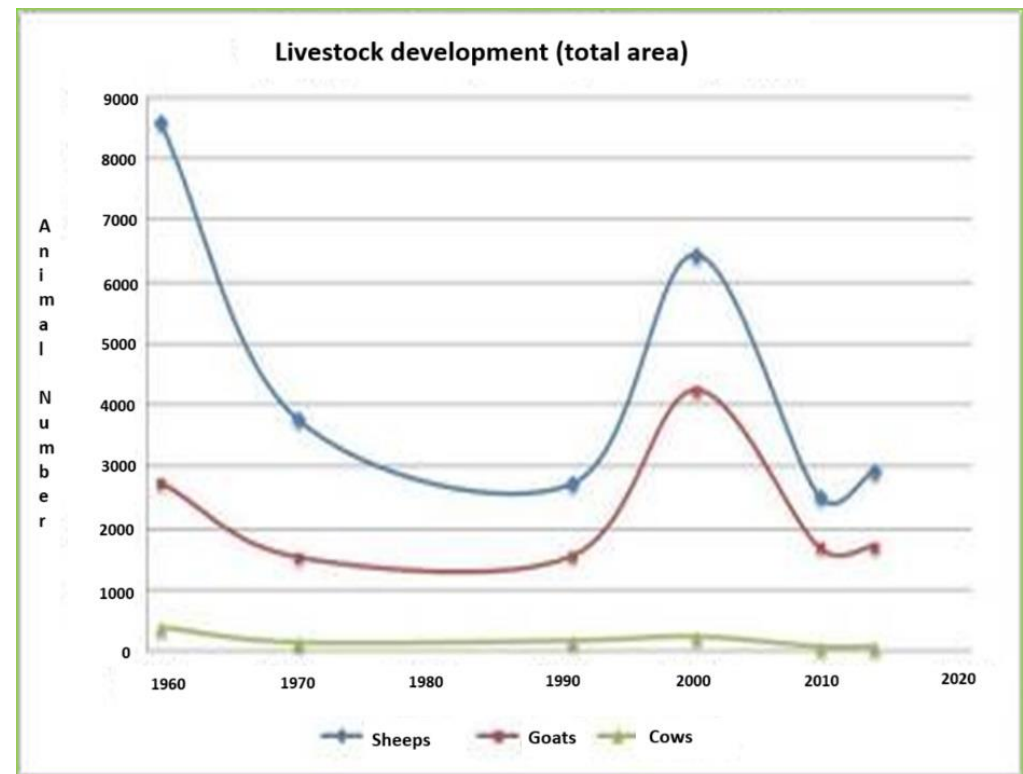
Area of Prespa



Abandonment of traditional livestock husbandry is the major threat for the physiognomy and ecological stability of Prespa.

Similar to other Mediterranean regions, abandonment leads to the following outcomes:

- Increased density of woody vegetation
- Mobilization of the mechanisms of secondary succession
- Loss of EU priority habitat types (such as the *9562 Grecian juniper woods)
- Decrease of biodiversity
- Accumulation of flammable organic matter – increasing fire risk
- Slowing down of the nutrient cycles
- Changes of hydrological regime at watershed level.



Degradation of *9562 Grecian juniper woods



LIFE12 NAT/GR/000539 project «Restoration and Conservation of the Priority Habitat Type *9562 Grecian Juniper Woods in Prespa National Park, Greece»

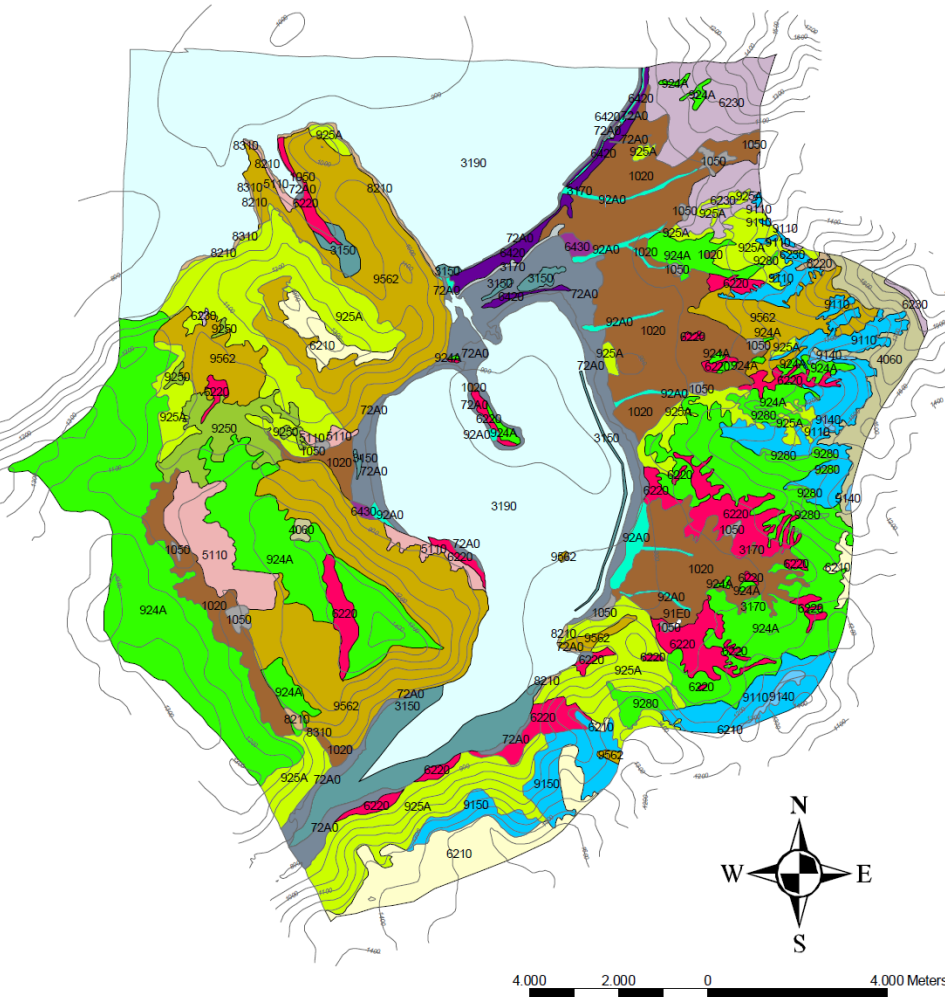
Criteria applied to analyze the potential degree of reproducibility of MIDMACC results in **Prespa basin**

1. **Habitat types of** increasing importance, either ecological (e.g. EU priority habitat types) or socio-economic (e.g. high *Abies* forest)
2. **Habitat types** associated with extensified livestock husbandry (grasslands, shrublands, woodland pastures)
3. **Habitat types of** increasing degradation risk due to the lack of grazing (e.g. Grecian juniper woods with very low reproduction potential of the characteristic species *Juniperus excelsa* and *Juniperus foetidissima*)
4. **Habitat types of** decreasing biodiversity (mostly those of increasing risk of homogeneity)
5. **Habitat types of** increasing fire risk (mostly those in the vicinity of settlements)



Location of replicative experiments

GR1340001 - PRESPA NATIONAL FOREST



-  **4060.** + Alpine and subalpine heaths
-  **5110.** + Stable *Buxus sempervirens* formations on calcareous rock slopes
-  **6210.** * Semi-natural dry grasslands on calcareous substrates (*Festuco Brometalia*)
-  **6220.** * Pseudo-steppe with grasses and annuals (*Thero-Brachypodietea*)
-  **6230.** * Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas
-  **6420.** + Mediterranean tall-herb and rush meadows (*Molinio-Holoschoenion*)
-  **6430.** + Eutrophic tall herbs
-  **72A0.** - Reed beds
-  **924A.** - Eastern white oak woods and balkanic thermophilous oak woods
-  **9250.** + *Quercus trojana* woods (Italy and Greece)
-  **9280.** + *Quercus frainetto* woods
-  **9562.** * Grecian juniper woods

+ Habitats included in 92/43/EEC Directive

* Priority Habitats in 92/43/EEC Directive

- Habitats not in Directive

Pointers for shaping public policies to support the implementation of the project's proposed actions.

- Deviation from grazing capacity of natural pastures
- Radical changes of species composition
- Degradation of habitat types, important at EU and national level
- Changes of livestock capital
- Reduction of grazing period due to climate change and alterations of species composition
- Expansion of cultivated areas
- Decrease in the local populations
- Increase of number and severity of wildfires
- Changes in water balance
- Variations in the water levels of lakes



THANK
YOU!