

**Europe's hay meadows in decline
what are we losing and what can we do?**

Brussels, 8th of November 2012



The Pogány-havas Regional Association

- Founded in 1999
- Members:
 - The Harghita County Council
 - 11 NGOs
 - 6 municipalities (33 villages)
 - 9 local enterprises
- 23,000 residents
- of which 36% Székely, 64% Csángó, both Hungarian minorities
- and a very small number of Romanians and Gypsies



Goals and fields of activity

Our main goal is to initiate and execute *rural development* in the area, paying special attention to:

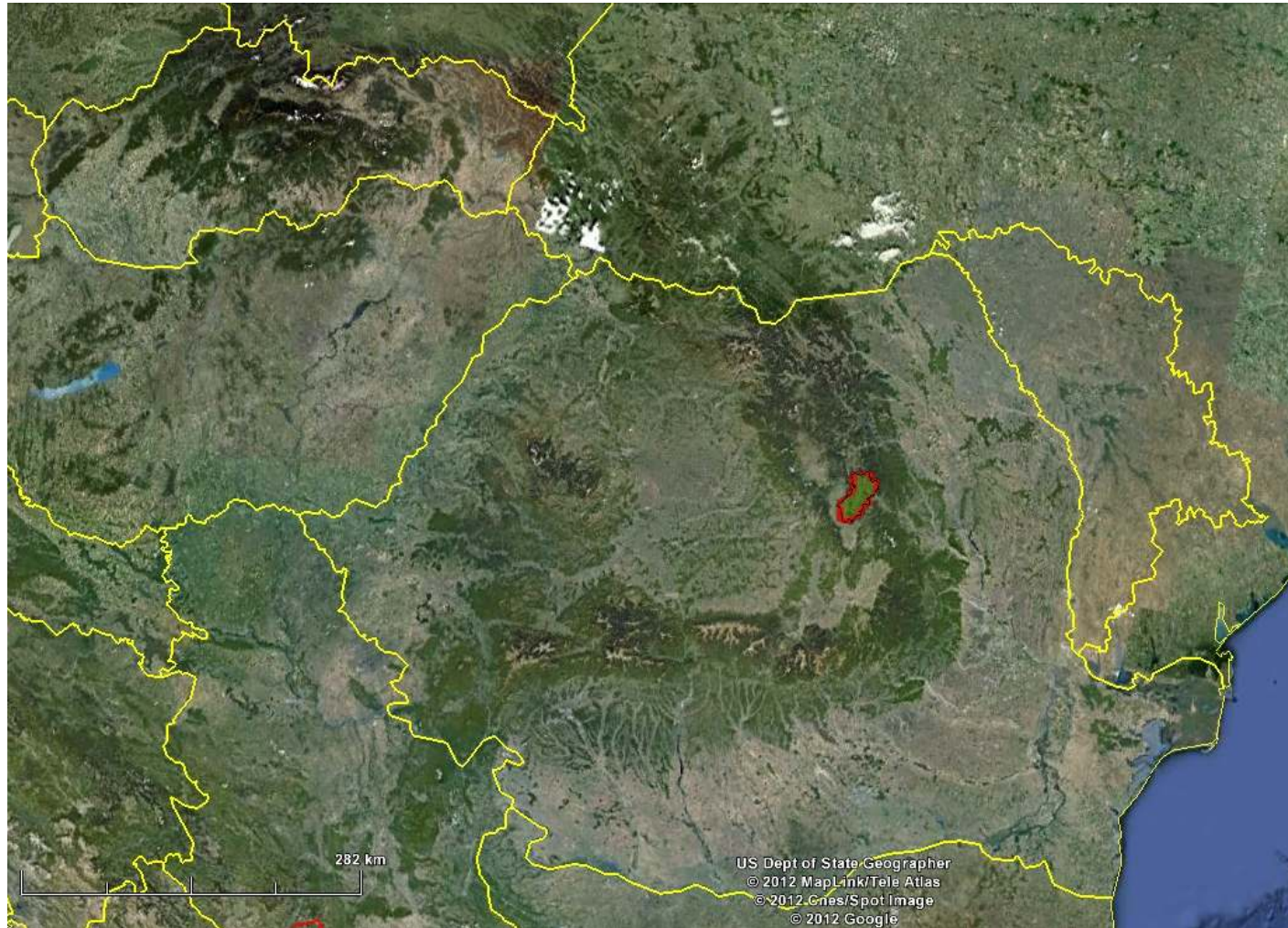
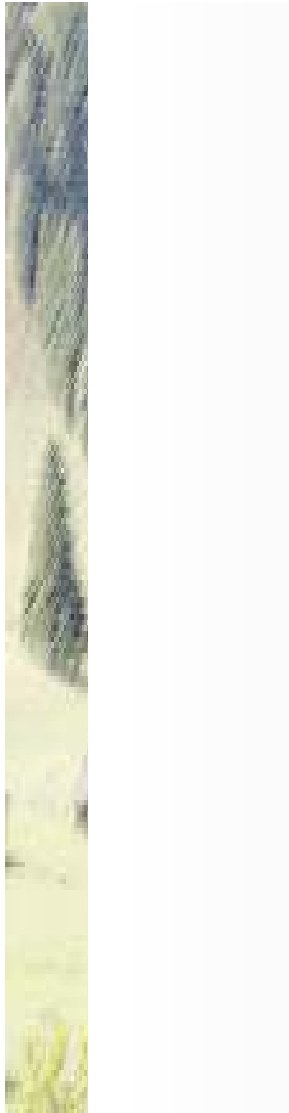
- Environment
- Agriculture
- Tourism
- Cultural heritage and traditions



in continuous co-operation with local citizens.



The area



Land management

Csík

- Csík basin: 638 to 757 m;
- Plough lands 20%
- Meadow 34%
- Pasture 22% } 47%
- Forest 25%



Gyimes

- Alpine, up to 1400 m
- Plough lands 2%
- Meadow 27%
- Pasture 33% } 71%
- Forest 38%





Uniqueness of Pogány-havas and Transylvania



- Very high species richness
- Very large areas (thousands of square kms)
- The management regime is: extensive farming, i.e. managing so vast HNV areas would not be possible by nature conservation bodies



Hay meadow biodiversity

- World record:
 - Mountain hay meadows are among the most biodiverse areas in the world:
under 100 m² scale no other habitat on Earth is as rich in vascular plants
- Pogány-havas records:
 - Local ecological knowledge: highest number in the world of distinguishing habitats in the local language
 - Number of plant species in a 16m² quadrat: third place in the EU, second in Transylvania
 - As much butterfly species on one meadow as in the whole of UK (Spring et. al., 2011)





Pogány-havas plant species numbers

- In Gyimes (12 years of research)
 - Altogether 617 plant species found so far
 - 390 species on grasslands (63% of all)
 - 81 species in a 16m² quadrat (3rd place in Europe)
- In Csík (1 year of research, june-july only)
 - Pastures: 178 plant species
 - Meadows: 307 plant species

In 1x1 m quadrats:

 - Used meadows: 40 ± 7 (average ± SD)
 - Abandoned meadows: 31 ± 7
 - Pastures: 30 ± 6
 - Maximum species no. on one pasture: 50





Pogány-havas plant species composition



- 38 internationally or nationally protected species
- 33 red listed species
- 12 endemic species
- Elevation has positive effect on species richness incl. endemic species

Threats

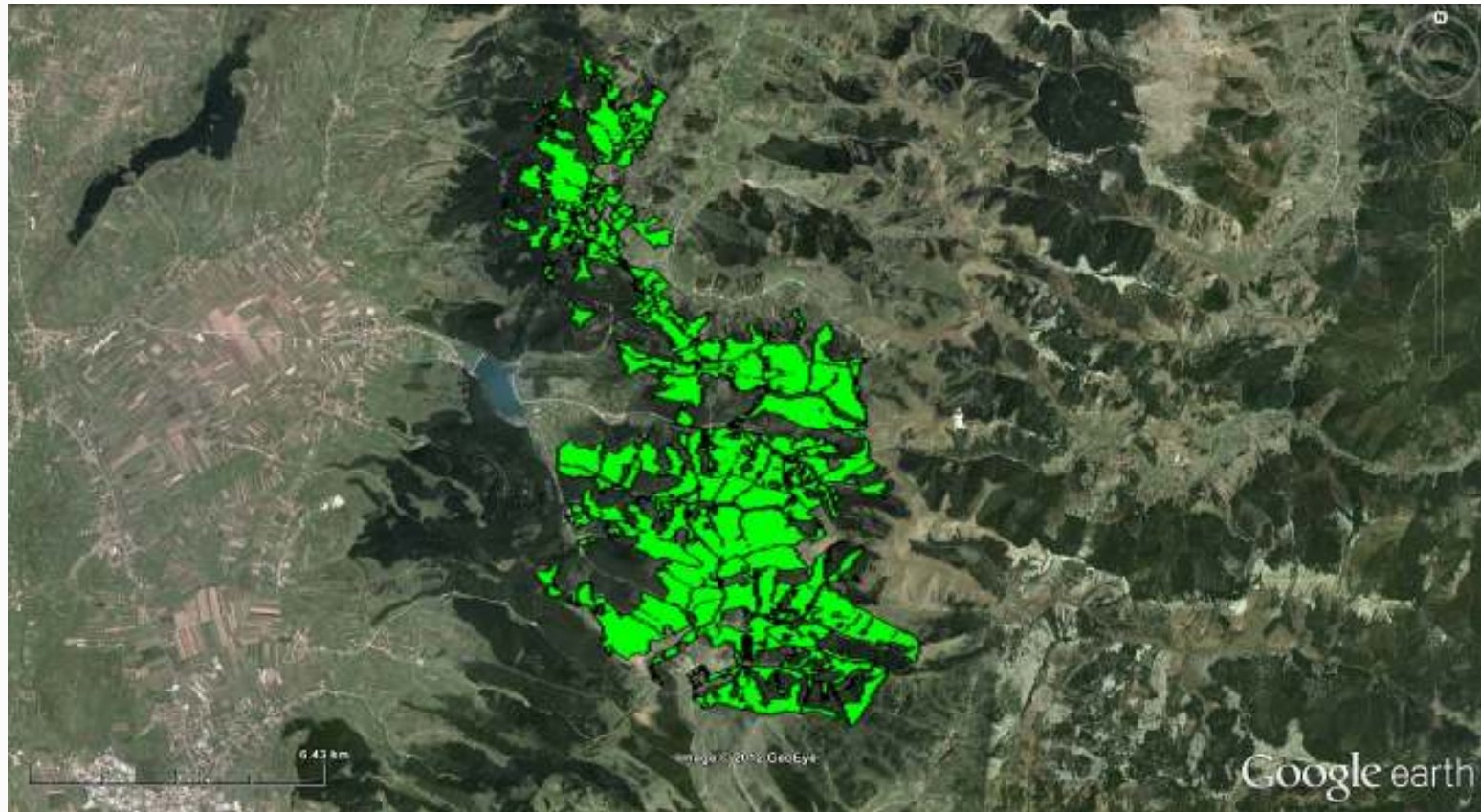
- Abandonement
- Land use change: grazing on meadows
 - The current agri-environment subsidy encourages this ecologically damaging practice by paying the same for pastures and meadows.
- Sheep numbers between 2006-2010: 31% increase
- Cattle numbers between 2006-2010: 12% decrease





Threat: Abandonement

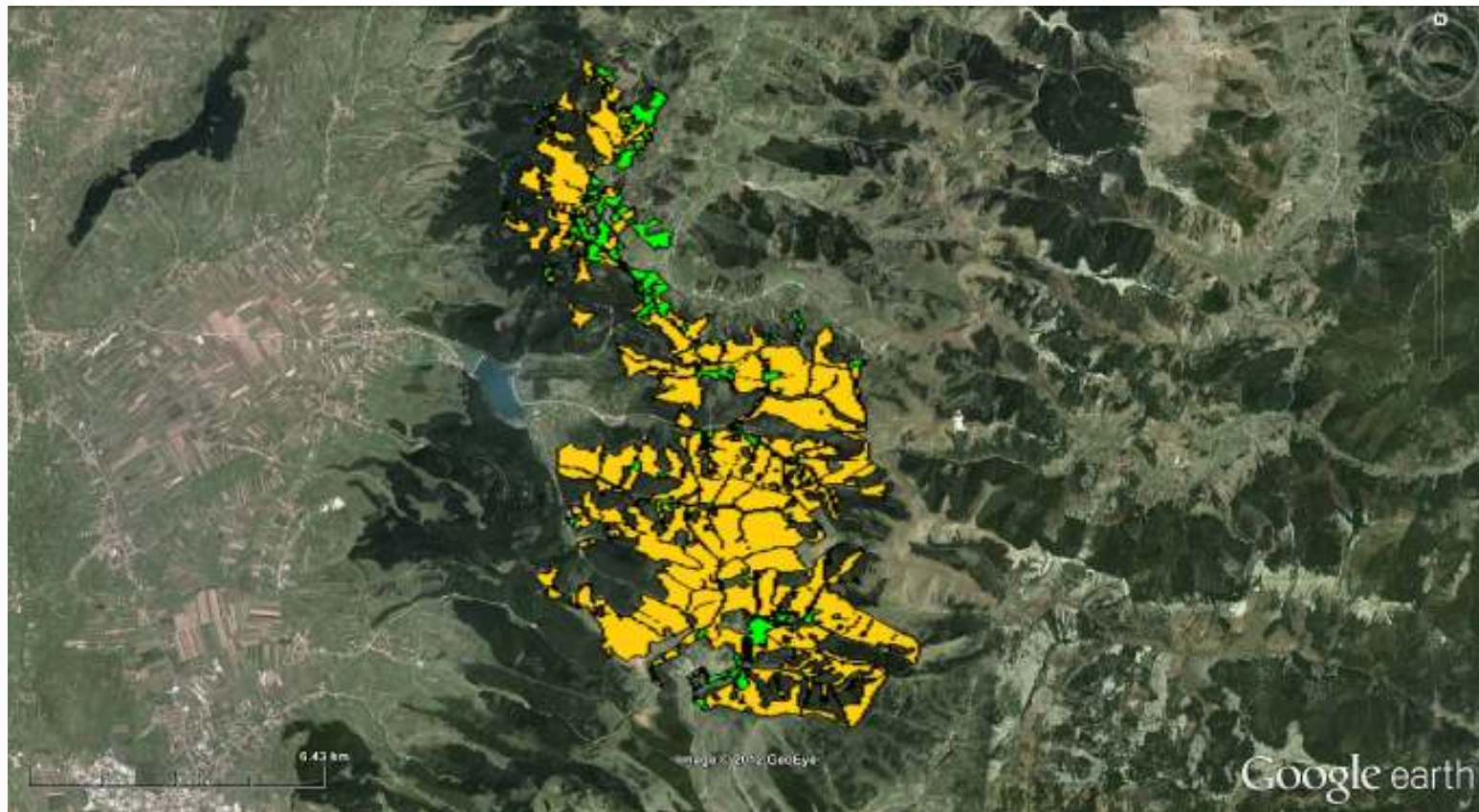
Mountain hay meadows measured in the Pogány-havas area in 2011,
35 km²





Threat: Abandonement

Mountain hay meadows mown (with green) in 2011,
4,3 km², 14% (!)





Reasons for abandonment



- conversion of arable land into hay fields near the village
- decrease of cow numbers,
- concentration of cows to fewer owners with a more intensive type of production (no grazing on pastures, high energy fodder, silage),
- large distance of the mountain meadows from the settlement, often more difficult access and way of transporting hay down the mountain,
- ageing population.



Threat: Grazing

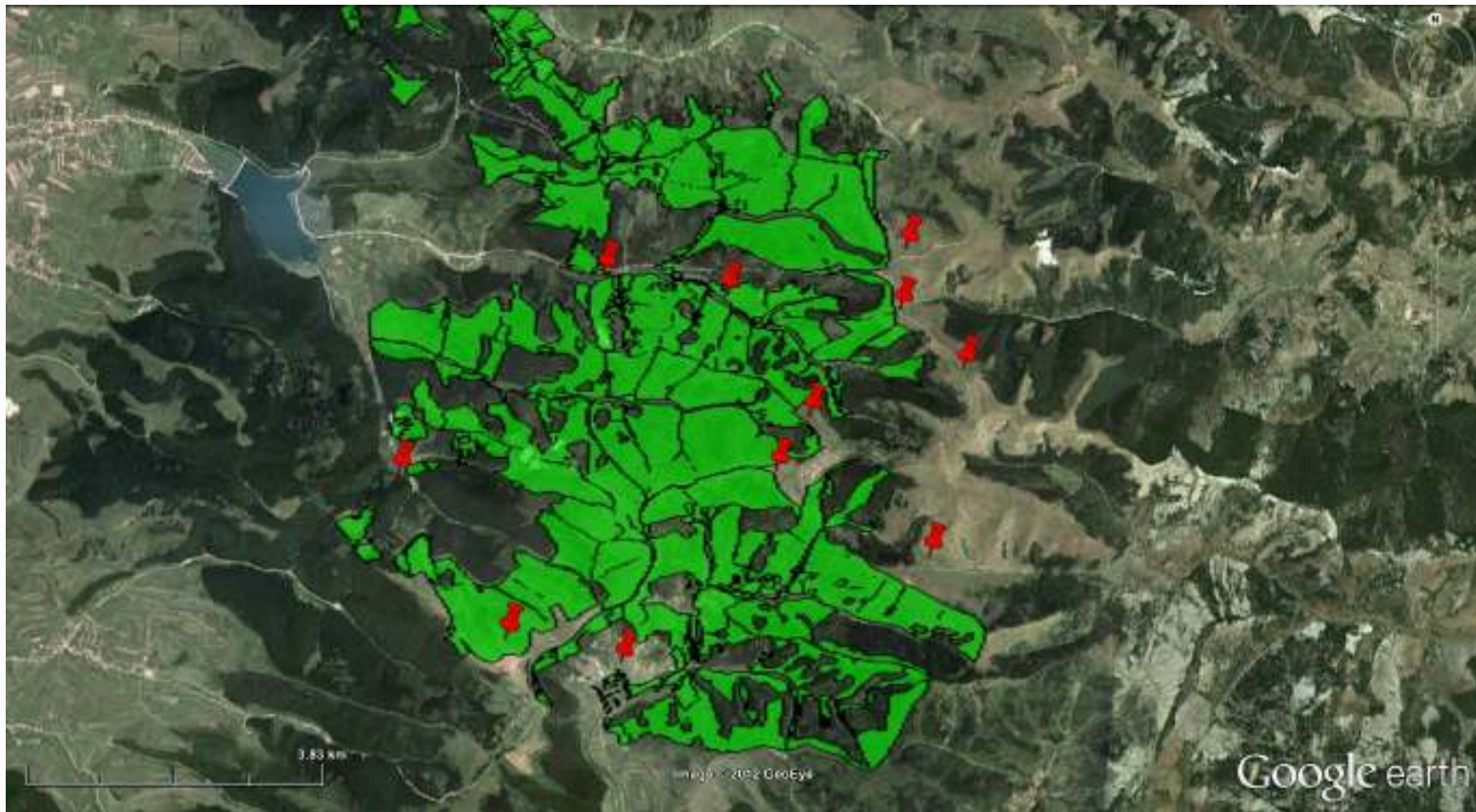
Location of sheepfold in 1992





Threat: Grazing

Location of sheepfold in 2012



Rate of biodiversity degradation

- Abandonement:
 - In 2-5 years since abandonment in Csík, diversity decreased with a minimum of 2-3 species,
 - 21-57% loss in 10-20 years were reported from other parts of Europe (Losvik, 1999)
- Pastures compared to hay meadows
 - Species numbers are significantly less, almost half
 - Based on our butterfly research in 2011
 - species number on a 100 m transect: 1/4th
 - no. of individual on a 100 m transect: 1/8th



Recommendations

- stimulating a market for milk and other products of local cattle farming, including beef;
- creating new markets for hay;
- removing the barriers to production and marketing;
- introducing a separate hay meadow package and mountain hay meadow supplement in the agri-environment schemes which reflect the higher nature value, ecosystem services and management costs of this important and threatened land use type; and
- improving agri-environment schemes to increase their effectiveness and uptake. (???)





Thanks for your kind attention!

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