

High Nature Value farmland

Examples across Europe: part 1 of 3

Irina Herzon, Traci Birge, Riina Koivuranta, Milka Keinänen

This presentation is an output of HNV-Link project - www.hnmlink-eu



THIS PROJECT HAS RECEIVED FUNDING FROM THE EUROPEAN UNION HORIZON 2020 RESEARCH AND INNOVATION PROGRAMME UNDER GRANT AGREEMENT NO. 696391

Notes for instructors and users

This presentation is part of the package of Education Materials on the topic of High Nature Farmland. It is an output of the Horizon 2020-funded project HNV-Link and is an Open Source material under CC BY-NC-SA. You may freely use, for non-commercial purposes only, any elements of it or as a whole, also modifying as fit, as long as you cite the project and its funding. Observe copyrights for images: all images are by HNV-Link unless otherwise specified.

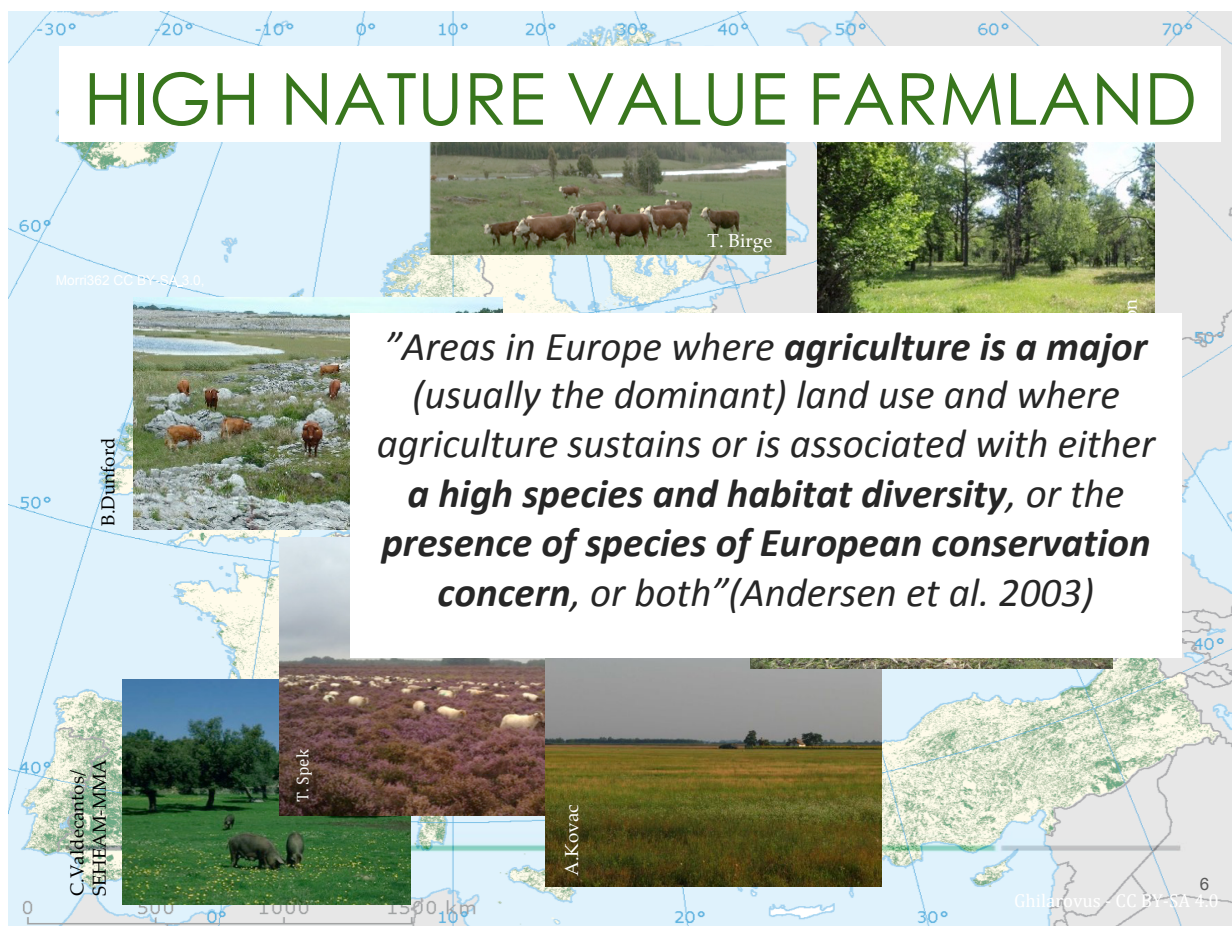
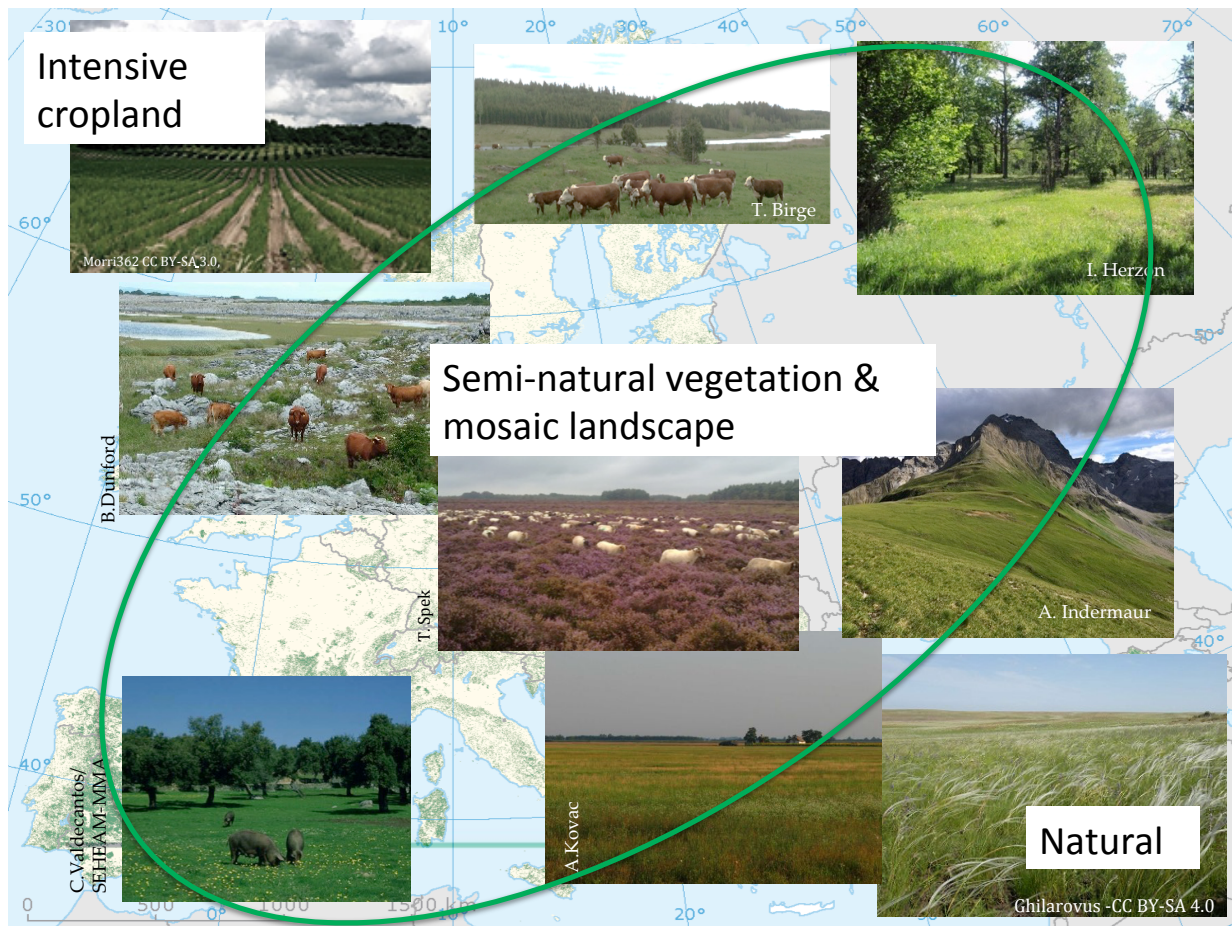
The presentation contains minimum or no animation/special effects. Instructors may wish to add such effects according to their preferences.

Learning objectives

- To appreciate a diversity of High Nature Value farmland types across Europe and outside
- To learn of the general characteristics of HNV farmland and farming systems
- To familiarise oneself with various public values of HNV farmland

Content

- 1. Concept of High Nature Value (HNV) farmland**
- 2. Examples from Europe**
 - Spain and Portugal
 - Croatia
 - Romania
 - France
 - Germany
 - Ireland
 - Finland
- 3. Examples outside Europe**



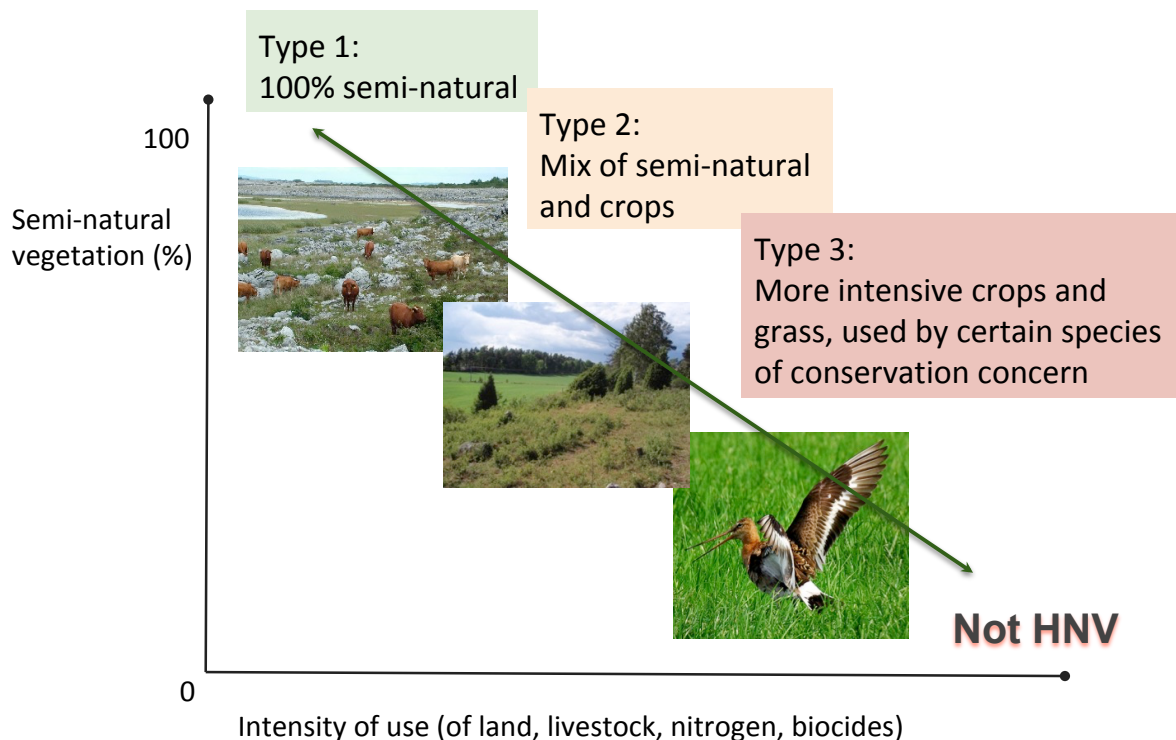
HNV farmland concept

- Developed in the early 1990s to encompass the rich diversity present on much of Europe's farmlands and ensure its conservation.
- “The Nature of Farming” by Beaufoy et al. (1994) - benchmark for the identification and mapping of HNV farmland
- Andersen et al. (2003) - report for the European Environmental Agency, 1st European assessment of farmlands with High Nature Value



7

Types of High Nature Value Farmland:



8

Examples from Europe

For each country:

- Extent of HNV farmland
- HNV farming systems
- In focus: examples on important issues
- Biodiversity
- Other values

Spain & Portugal



Extent of HNV farmland

- Between 25,000,000 ha and 14,500,000 ha of HNV farmlands
- The **highest** in Europe

Overlaps of HNV farmland and LFA designations in Spain

HNV areas and mountains

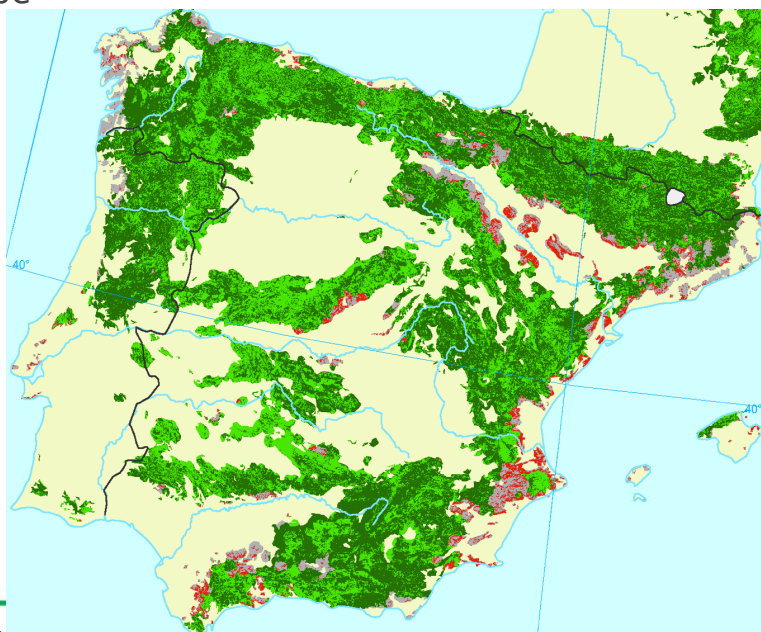
■ HNV and mountain, not LFA

■ HNV in mountain and LFA

■ LFA and mountains, but not HNV

■ Mountains and LFA, not HNV

■ Mountains, but not LFA, not HNV



EEA-Map 7.9_Mountains.eps.zoom.png
https://www.eea.europa.eu/search?sort_on=&b_start:int=230&Creator=alec

11

In Focus: Montados and Dehesas

Multifunctional agrosilvopastoral systems of *Quercus* forest with pasture or shrub found in Portugal (montado) and Spain (dehesa).

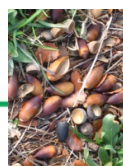


Tree production

- Acorns
- Cork
- Fuel wood and biomass
- Other

NON tree production

- Grass (shrubs) → pasture
- Mushrooms
- Crops
- Others



<https://www.youtube.com/watch?v=sFIF8kkeyyQ>

12

Biodiversity

Many **dry grassland** types - Included in Habitat Directive

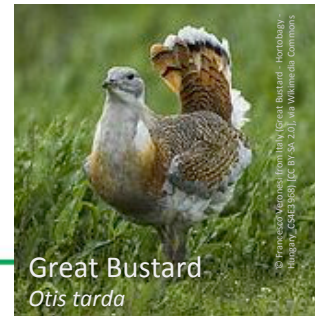
Dehesa & montado

- 30% of Iberian peninsula vascular plant species
- More diverse communities of butterflies and passerine birds than neighboring denser woodland, grassland, or arable land
- Important habitat for many red-listed species



Pseudo-steppes

- Highly diverse steppeland bird community

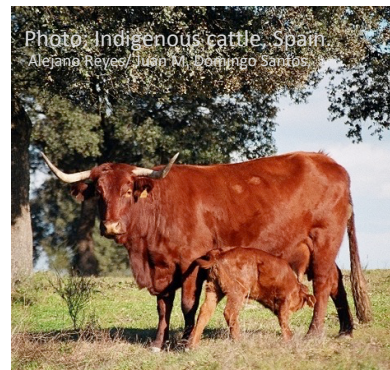
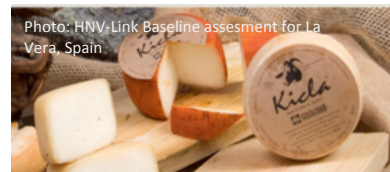


13

Other values

Multifunctional landscapes

- High quality HNV farmland livestock products
- Conservation of native breeds
- Production well adapted to natural conditions and resource-efficient
- Wildfire risk reduction
 - fire break grazing programmes pay farmers to concentrate grazing on fire break areas.



Sources & experts

<http://www.hnmlink.eu/learning-areas/la-vera-extremadura-spain/>

<http://www.efncp.org/projects/projects-spain-navarra/>

<https://www.agforward.eu/index.php/en/dehesa-farms-in-spain.html>

Agforward. 2016. System report: Dehesa Iberian, Spain. Available et <https://www.agforward.eu>

Angueita, G. The dehesas and cork production today, and its alliance with FSC.

<http://ga2014.fsc.org/opinion-analysis-74.the-dehesas-and-cork-production-today-and-its-alliance-with-fsc>

Eichhorn, M. P., Paris, P. Herzog, F., Incoll, L. D., Liagre F., Mantzanas, K., Mayus, M., Moreno, G., Papanastasis, V. P., Pilbeam, D. J., Pisanelli, A., Dupraz, C. 2006. Silvoarable Systems in Europe – Past, Present and Future Prospects. *Agroforestry Systems* 67, 29–50.



15

Sources & experts

Alejano, R., Vázquez-Piqué, *et al.* 2013. Dehesas: Open woodland forests of *Quercus* in Southwestern Spain. In Chuteira, C.A. y Grao, A.B. (Eds.), *Oak: Ecology, types and management*. Nova Science Publishers; Hauppauge, New York. pp.87-117.

Ferraz de Oliveira, M.I. & Pinto Correia, T. 2016. Management of Montados and Dehesas for High Nature Value: An interdisciplinary pathway. *Agroforestry Systems Special Issue* 90(1) <https://link.springer.com/journal/10457/90/1/page/1>

Rodríguez-Estévez, V. et al. Consumption of Acorns by Finishing Iberian Pigs and Their Function in the Conservation of the Dehesa Agroecosystem. Available from www.intechopen.com/books



16

Sources & experts

The Iberian pig in the dehesa:

<https://www.youtube.com/watch?v=sFIF8kkexyQ>

Dehesa de Extremadura -

https://www.youtube.com/watch?v=C5B1gaXv_FE (in Spanish)

La dehesa indómita - <https://www.youtube.com/watch?v=OftykBCgZfo> (in Spanish)

Domingo Santos, J.M. & Reyes, A. A presentation on Dehesas:

www.hnvlink.eu/education

Experts:

Guy Beaufoy, EFNCP & Pedro M. Herrera, Entretantos, Spain; Maria Isabel Ferraz de Oliveira, University of Evora, Portugal



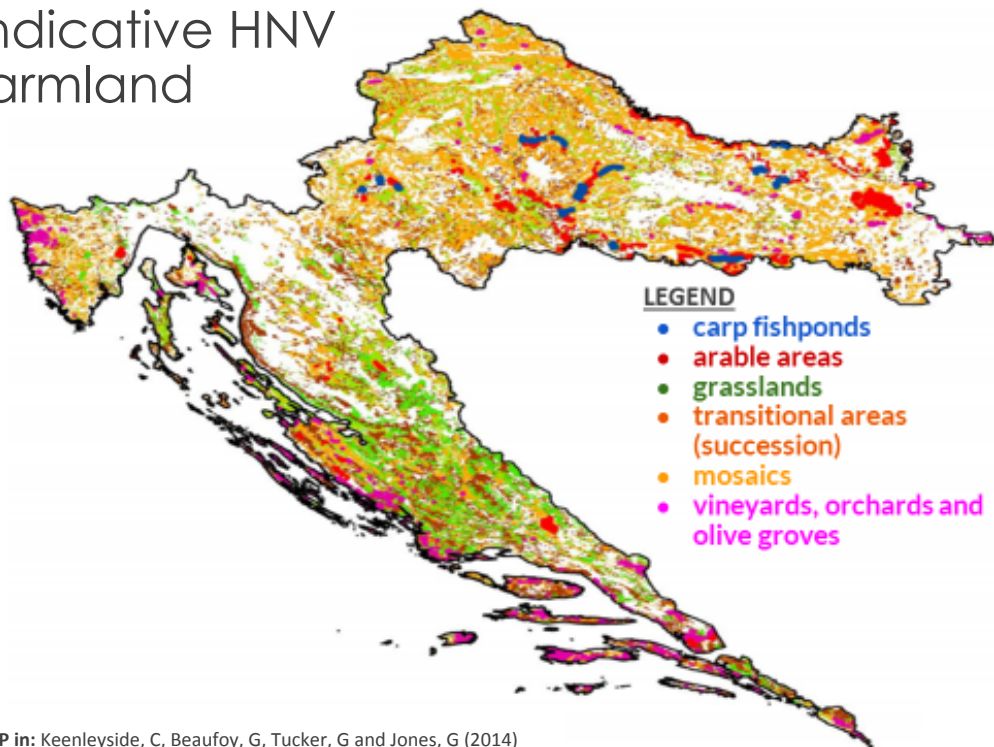
17

Croatia



By Suradnik13 [CC BY-SA 4.0]

Indicative HNV farmland



MAP in: Keenleyside, C, Beaufoy, G, Tucker, G and Jones, G (2014)



19

HNV farmland

- Limited data - mapping is in early stages
- Estimated 690,000 ha HNVf in Natura 2000 areas. Of this:
 - c. 39% Permanent pasture and common grazing
 - c. 57% Mosaic landscapes with arable, traditional orchards, vineyards and gardens; also agroforestry
- HNVf relates to contiguous small holdings
 - Low-input, traditional practices are widespread
 - 4 out of 5 farms in Croatia have some livestock (average 5.3 LU)



Abandonment: Over half of grasslands in mountainous and coastal areas (likely HNVf) were abandoned due to resettlement and landmine contamination.

20

Examples of HNV farming systems

- Small scale **mosaic cropping** in western hilly areas
- Traditional **hay making** by family members
- Mediterranean **grasslands** historically used for **sheep grazing**
- Traditional low input **olive groves** on the Croatian coast



In Focus: Common grazing in flood plains

- **Common grazing:** complex legal context & competing visions
- **Threats:** population decrease & isolation, social stigma, poverty, loss of traditional knowledge, developmental pressures.
- **Challenge:** finding common ground about the future for these lands and traditions



In Focus: Dalmatian Islands

Karstic fields, terraces on slopes, karstic pastures

- Vineyards, olives, agroforestry, subsistence farming
- Challenges: isolation, limited fresh water, market challenges, seasonal tourism
- Abandonment exacerbates erosion, biodiversity loss, fire risk

Business as Usual: mass seasonal tourism, farmland abandonment
OR

HNV scenario: Agrotourism, revitalisation of traditions, self-sustaining islands



23

Biodiversity

- 3rd in Europe for plant species/area
- 187 species of butterflies in meadow habitats
- Directive species: e.g., corncockle (*Agrostemma githago*), corncrake (*Crex crex*), stone-curlew (*Burhinus oedipnemus*), Calandra lark (*Melanocorypha calandra*)



Invasive plant species a major threat for meadows, esp. *Amorpha fruticosa*
→ **Best controlled by grazing**

24

Other values

- Large grazed floodplains, e.g. in Lonjsko Polje Nature Park, retain water & prevent floods.
- Indigenous species
- Sustainable tourism
 - HNV farming and wine tours (e.g. Dingač wine in Dalmatian Islands)



Sources & experts

<http://see.efnecp.org/countries/croatia/hnv-farming/>

<http://www.hnmlink.eu/download/CroatiaBaselineAssessment.pdf>

Beneš, I. 2013. Common grazing in Croatia

<http://see.efnecp.org/download/sofia2013/Croatia.pdf>

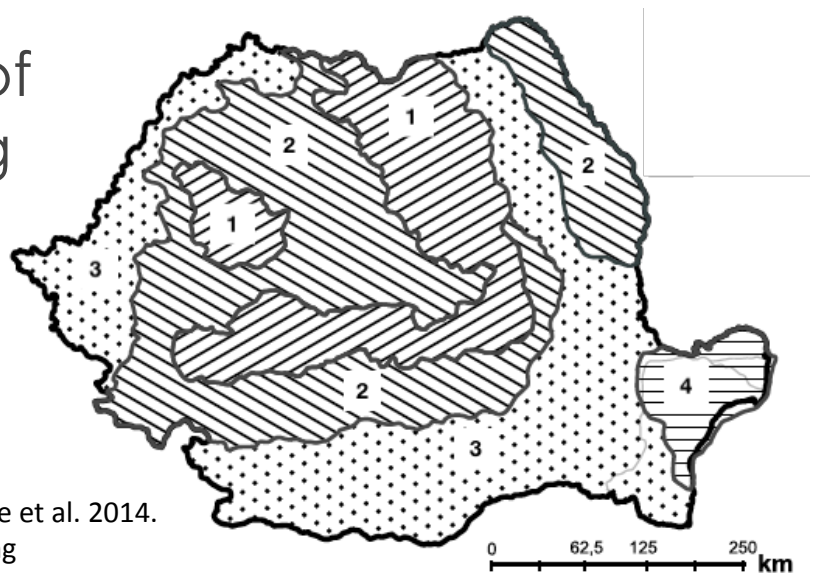
Todorović, S.K., 2012 Croatia. In: Oppermann, R., Beaufoy, G., Jones, G. (Eds) 2012. High Nature Value Farming in Europe: 35 European countries – experiences and perspectives. c. Verlag regionalkultur, Germany. 544pp. ISBN: 978-89735-657-3

Expert: Marija Roglić, Local action group LAG 5

Romania



Simplified distribution of HNV farming in Romania



adapted from Keenleyside et al. 2014.
High Nature Value farming
throughout EU-27: Annex 1 (maps)

1. Mountain areas with forest and extensive grassland systems (HNVf type 1)
2. Mosaic mixed farming: hay meadow, pastures, traditional orchards (HNVf type 2)
3. More intense farming with scattered HNV areas (limited HNVf)
4. Danube Delta. Extensive reed-bed systems (HNVf type 3)

HNV farming systems

Based on small-holdings and common unimproved pastures

- Extensive dairy sheep breeding
 - use of upland semi-natural pastures
 - shepherding
- Small farms and mixed land use
 - permanent grassland, leys, rotational arable, wood pasture, traditional orchards
- Broad flat pastoral expanses on Danube Plain and Delta



In Focus: Eastern Hills of Cluj

- **Valleys:**
 - Villages surrounded by arable land
- **Middle elevation:**
 - Mixed arable, grazing, meadows
- **High elevation:**
 - Meadows, forests
 - Wheat, maize, fodder, other
 - Sheep highly important - do not require winter stabling as cows do

Photo: HNV-Link

Biodiversity

- Extremely high species richness
- Quantity & connectivity key to high level of biodiversity



Tatarican Colewort
(*Crambe tataria*)



e.g. Târnava Mare area of Transylvania:

- 1100 vascular plant species – 87 priority species
- 1300 lepidoptera species
- Birds Directive species
- Wolves, brown bear



31

Other values



https://www.youtube.com/watch?v=n0t_qcrzJac

- **European heritage:** traditional farming still exists on a scale much larger than most EU countries
- **Rural tourism** and high quality local products
- **Agro-biodiversity:** genetic resources for crops and breeds



32

Sources & experts

<http://www.efncp.org/projects/projects-in-romania/>

<http://www.efncp.org/projects/projects-in-romania/hnv-bulgaria-romania/>

<http://www.hnvlink.eu/learning-areas/eastern-hills-of-cluj/>

<https://fundatia-adept.org/high-nature-value-landscapes/>

<https://fundatia-adept.org/videos/>

https://www.agridea.ch/fileadmin/thematic/Projet_HNV_Layman_report.pdf

Romania: Why and how CAP should support HNV farming in Transylvania?

<http://www.efncp.org/download/demeter.pdf> (presentation)

https://ec.europa.eu/agriculture/sites/agriculture/files/consultations/family-farming/contributions/adept_en.pdf



Sources & experts

Sutcliffe, L. & Larkham, K. 2011. Monitoring high nature value grassland in Transylvania, Romania. In: Knowles, B. *Mountain hay meadows: hotspots of biodiversity and traditional culture*,
http://www.mountainhaymeadows.eu/online_publication/09-monitoring-high-nature-value-grassland-in-transylvania-romania.html

Page, N. & Popa, R. 2013 Family farming in Romania
https://ec.europa.eu/agriculture/sites/agriculture/files/consultations/family-farming/contributions/adept_en.pdf

Tanczos, B. The importance of HNV farming – views from Romania <https://www.yumpu.com/en/document/view/28491423/the-importance-of-high-nature-value-farming-a-barna-efncp>

Expert: Mugurel Jitea, University of Agricultural Sciences and Veterinary Medicine



Disclaimer: This presentation reflects the author's view and the Research Executive Agency is not responsible for any use that may be made of the information it contains.



*High Nature Value Farming: Learning, **In**novation and Knowledge **HNV-Link***

*Working together for a sustainable
future*

www.hnvlink.eu

