CARPATHIAN CONVENTION
Working Group on Sustainable Agriculture and Rural Development

4th Meeting: September, the 27 th 2018 Vatra Dornei, Romania.

High Nature Value Farming in the Carpathians

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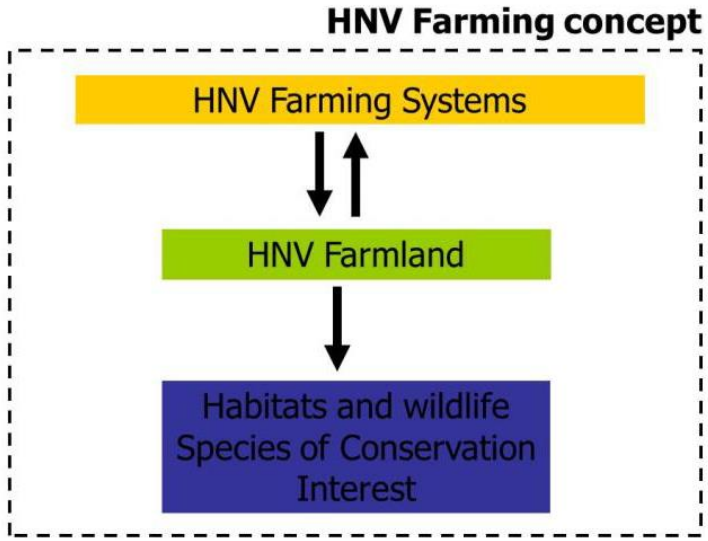
HNV Concept and Area



Source: (Redman, 2014).

HNV Concept and Area

Table 1: HNV Areas according to various statistical data

	UAA max HNVf (1000 Ha)[1]	UAA min HNVf (1000 Ha)[1]	UAA total (1000 Ha)[2]	HNV % total	
				Max	Min
Austria	1,138	288	3,266	34.8	8.8
Belgium	435,153	151	1,385.5	31.4	
Bulgaria	1,630		2,729	59,7	
Czech Republic	550		3,557.7	15.5	
Estonia	531.5		828.9	64.1	
Finland	1,268.9	259.7	2,299	55.2	11.3
France	7,000	4,000	27,590.9	25.4	14.5
Germany	2,201		17,035.2	12.9	
Denmark	191.2	130	2,707.6	7.1	4.8
Hungary	1,935.4	900	4,266.5	45.4	21.1
Ireland	1,154.4		4,219.3	27.4	
Italy	6,227.9	3,064.3	12,707.8	49.0	24.1
Latvia	913.5	640.2	1,701.6	53.7	37.6
Lithuania	569.5		2,792.	20.4	
Netherlands	288.2		1,958.06	14.7	
Poland	4,488.8		14,754.8	30.4	
Portugal	3,810.8	3,260.1	3,679.6	103.6	88.6
Romania	5,221.2	3,320	13,906.7	37,5	23,9
Serbia[3]	1,187		5,112	19	
Slovakia	772.4	364.4	1,879.4	41.1	19.4
Slovenia	473.1	441.7	485.4	97.5	91.0
Spain	25,000	14,500	24,855	100.6	58.3
Sweden	1,166	844,4	3,219	36.2	26.2
UK	7,910	6,590	16,045	49,3	41,1

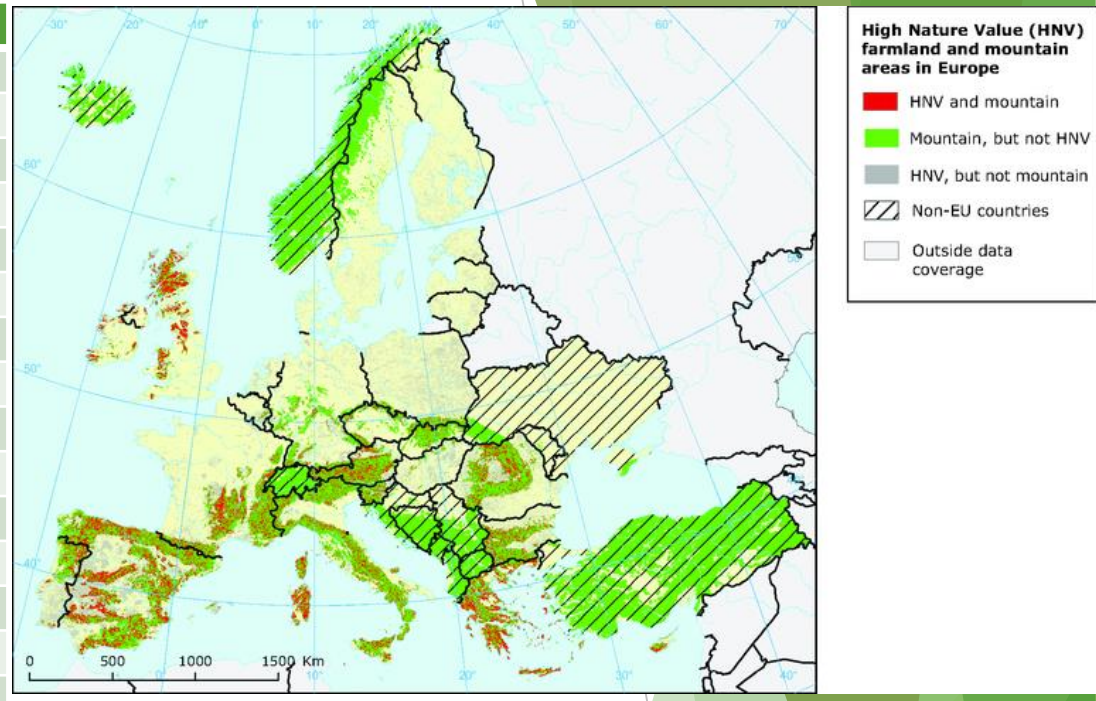


Figure 1: HNV farmland and mountain areas in Europe
Source: European Environment Agency (EEA) (2010).

Table 1 sources: 1: (Keenleyside et al., 2014); 2: 2013; Eurostat (2016); 3:(Arcotrass, 2006); (EFNCP,2006);

Sustainability and Trends: Abandonment

Table 2: Research reporting land abandonment in the Carpathians

Locations (study site)	Country	Farmland abandonment (%)	Reference
Carpathians	Slovakia, Poland and Ukrania	20.7–13.3	Kuemmerle et al. (2008)
Arges County	Romania	21	Muller and Kuemmerle (2009)
Mazovia, Podkarpackie and Podlaskie	Poland	17.6	Keenleyside and Tucker (2010)
Several sites	Estonia	10–30	Peterson and Aunap (1998)
Latgale and other regions	Latvia	10.3–50	Nikodemus et al. (2005)
Vidzeme	Latvia	25–35	Ruskule et al. (2013)
Beskid Maly (Carpathians)	Poland	33	Kozak et al. (2004)
Carpathians and surroundings		30–56	Hostert (2010)

Table 3: Factors of land abandonment

Agro-ecological or biophysical	Socio-economic	Agricultural holdings features
Poor soils	Lack of competitiveness of the product	Low proportion of an active population in the place where the farmland is located
Climate limitations	High cost of land	Low proportion of farmers
Steep slopes	Small size of farmlands	Population emigration
Small plots	Difficulty to rent fields	Lack of succession in the farmland
Difficulty mechanizing fields	Competitiveness of the land departing from other economic alternatives	Family dispute of the inheritance
Bad accessibility to fields	Urbanization	Difficulties in farmland capitalization
Fields far from the village or the farm	Extensive/intensive management	Competence for the work force
Soil degradation: erosion, salinization		

Source: (Lasanta et al., 2017);

Sustainability and Trends: Intensification

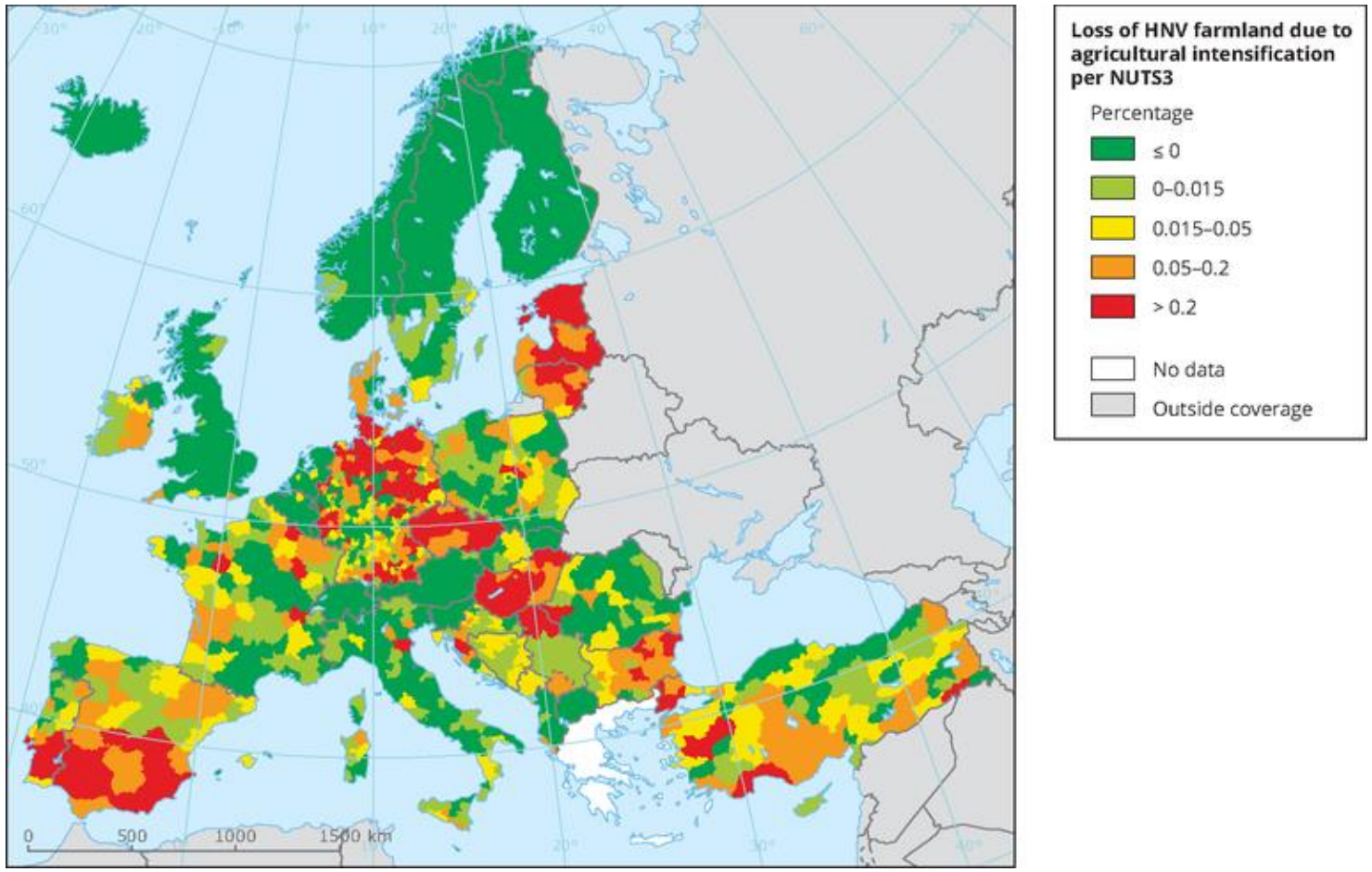
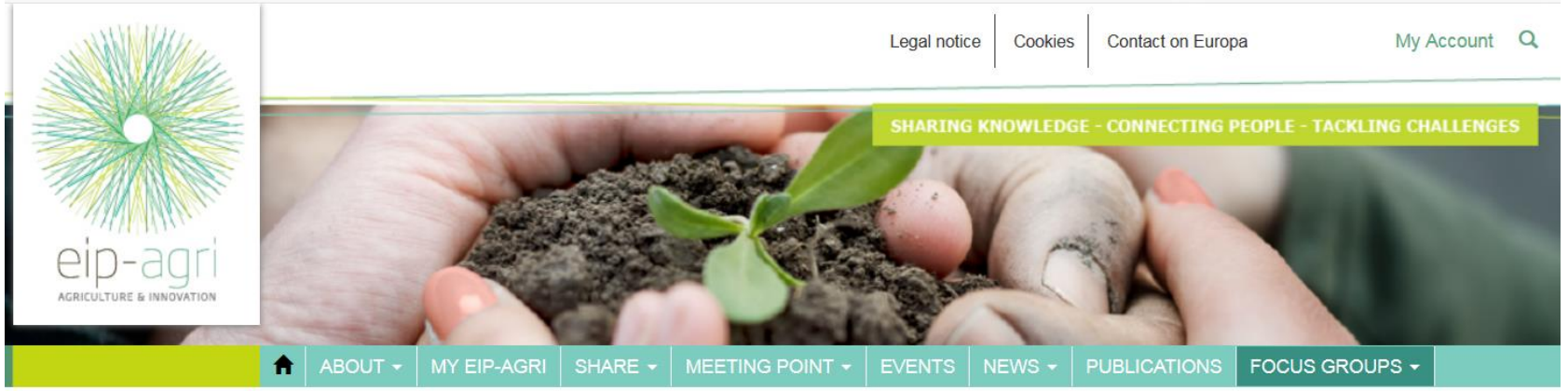


Figure 2: Loss of HNV farmland due to agricultural intensification
Source: European Environment Agency (EEA) (2010).

Sustainability and Trends: EIPAgri Focus Group



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Sustainability and Trends: EIPAgri Focus Group

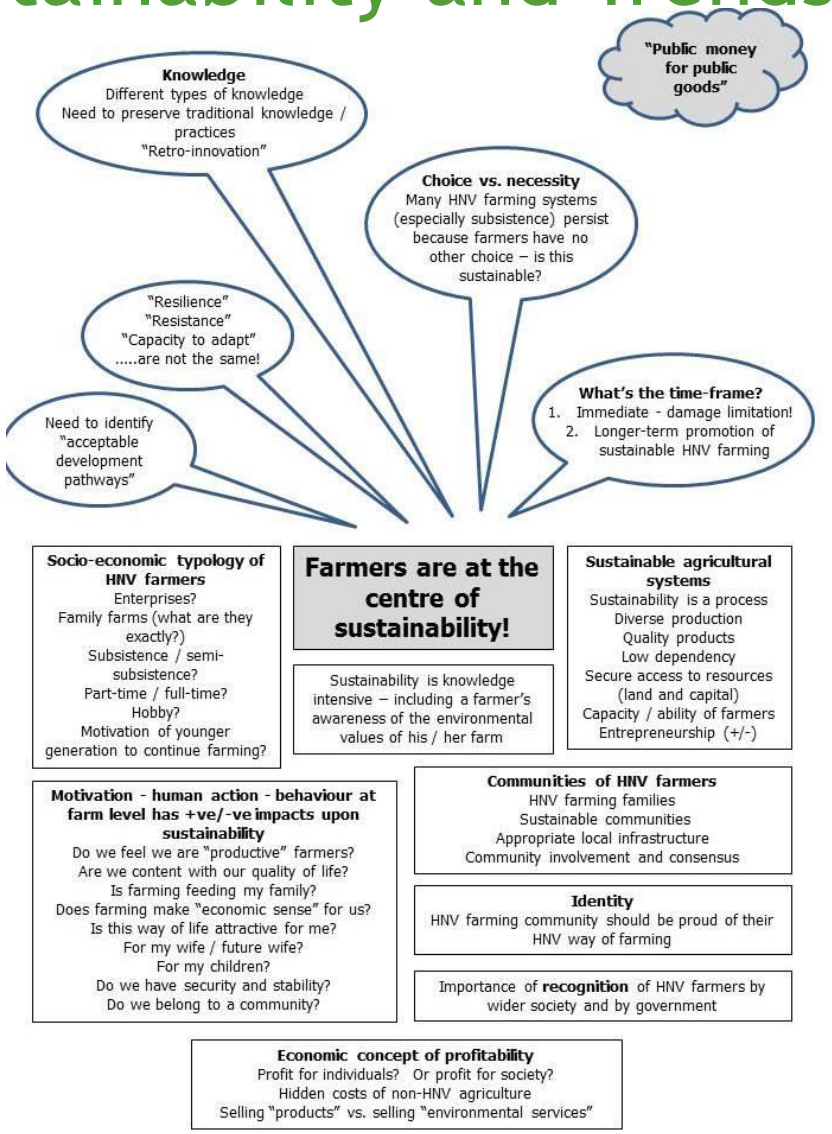

Figure 3: Relevant elements of 'sustainable HNV farming'?
Source: EIP-AGRI Focus Group Sustainable High Nature Value farming (2016)

Pathway 1: **Networking and cooperation**
Pathway 2: **Farm diversification**
Pathway 3: **Increasing the selling price of HNV products and improving access to markets**
Pathway 4: **Adopting new technologies**
Pathway 5: **Increasing the physical output of the farm (within specific constraints)**

Figure 4: Successful development pathways for HNV farming
Source: EIP-AGRI Focus Group Sustainable High Nature Value farming (2016)

1. The need to develop **better understanding of HNV farming systems;**
2. The need to understand **the role of innovation in HNV farming systems;**
3. The need to develop **better technical and management solutions for HNV farming;**

Figure 5: Enabling conditions / research needs
Source: EIP-AGRI Focus Group Sustainable High Nature Value farming (2016)

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HNVLink Results: Trends. Innovations and Needs

Learning Areas

1) Dartmoor (GB)
2) Sitio de Monfurado (P)
3) Dalmatian Islands (HR)
4) Dealurile Clujului Est (RO)
5) Western Stara Planina (BG)
6) Västra Götaland (S)
7) The Burren (IR)
8) Thessalia (GR)
9) Causses et Cévennes (FR)
10) La Vera, Extremadura (ES)

Project management:

A) Ciheam-IamM (FR)
B) AScA (FR)
C) EFNCP (ES)
D) UH (FI)

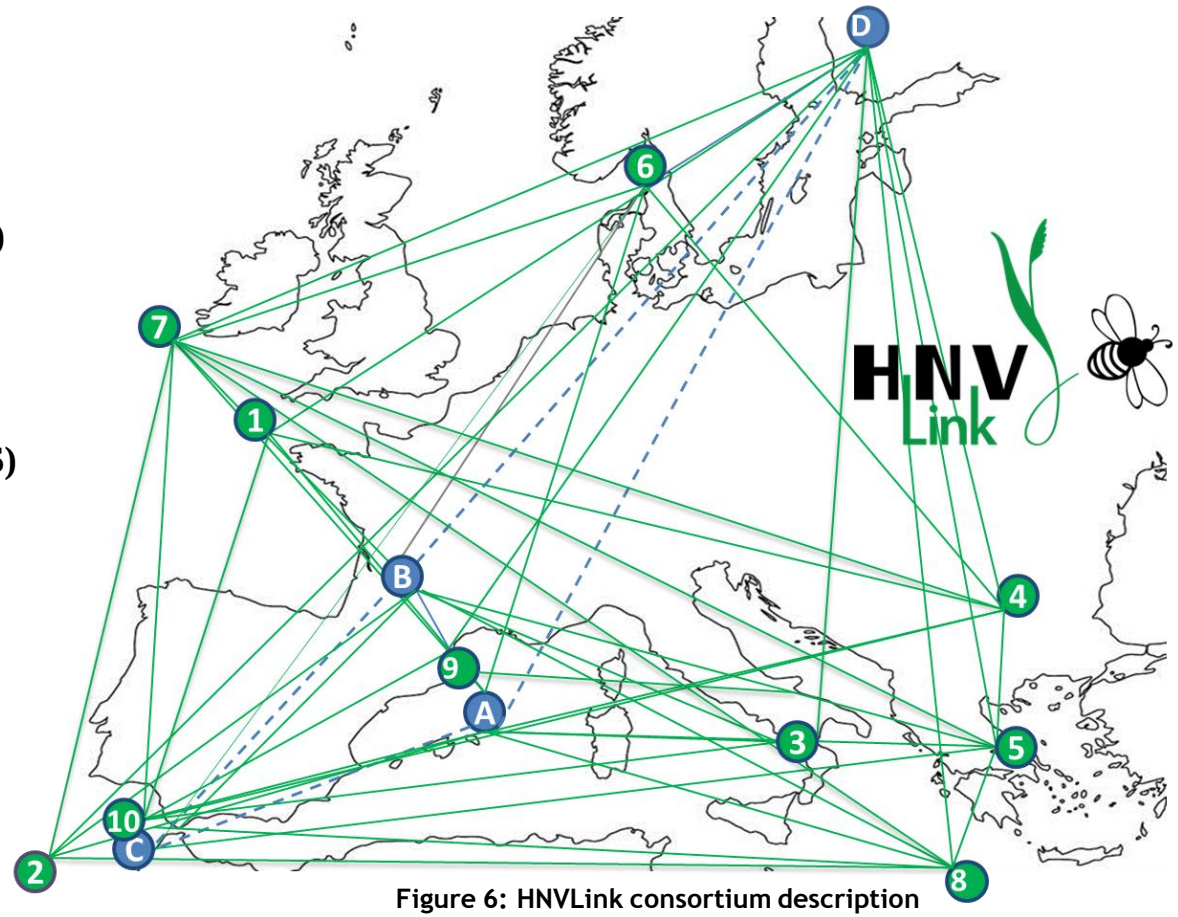

Figure 6: HNVLink consortium description

High Nature Value farming: Learning, Innovation and Knowledge: www.hnvlink.eu & info@hnvlink.eu
This project has received funding from the European Union Horizon 2020 research and innovations program under Grant Agreement No. 696391

HNVLink Results: Trends. Innovations and Needs

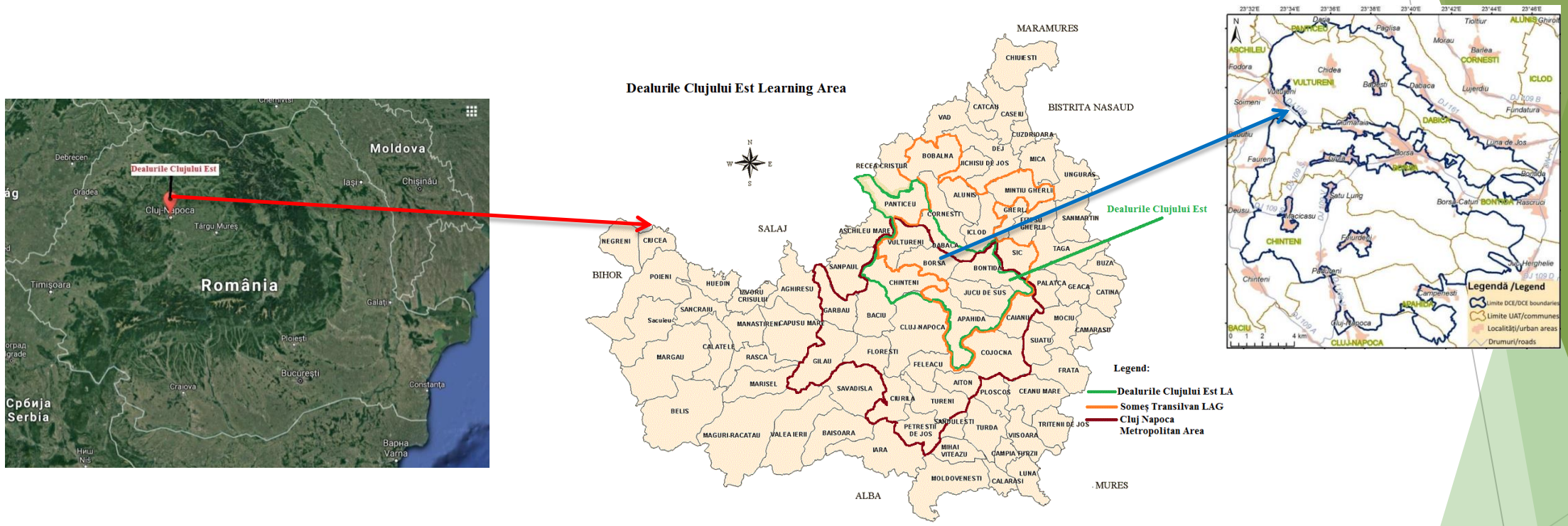

Figure 6: Dealurile Clujului Est Learning Area

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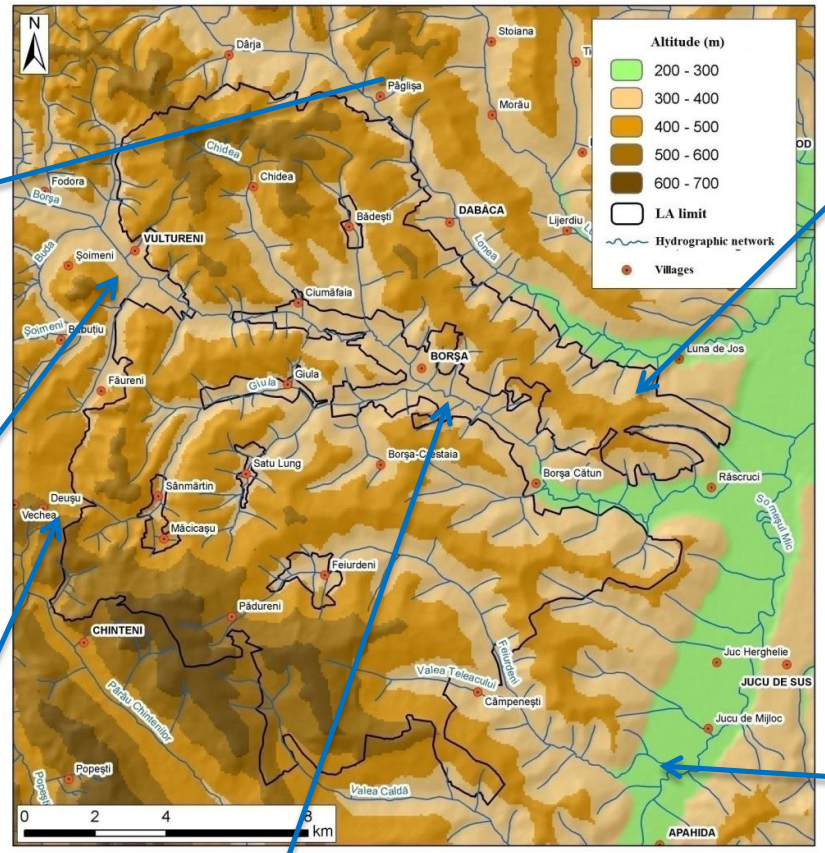
HNVLink Results. Trends. Innovations and Needs

Figure 7: Transect in Dealurile Clujului Est LA

Map 1. LA – Altitude map in Dealurile Clujului Est Natura 2000 site



Source: https://fluturomania.files.wordpress.com/2014/04/slr-work-and-mututal-support-to-improve-butterfly-conservation-in-romania-andrei-crisan.pdf

Picture 1.a Traditional land use in Pâglișa Village, Dăbâca Commune

@ spring 2017

Picture 1.b Traditional land use in Luna de Jos, Dăbâca Commune (2014)

Source: @ Roșian George; Report prepared by Lepidoptera Association as a subcontractor in HNVLink project

Picture 1.c Traditional land use in Vultureni Commune

@ spring 2017

Picture 1.d Corn monoculture in Dăbâca Commune (2014)

Picture 1.e Landscape in Chinteni Commune

@ spring 2017

Picture 1.f Crop monoculture in Apahida Commune

Source: @ Roșian George; Report prepared by Lepidoptera Association as a subcontractor in HNVLink project

Picture 1.g Traditional landscape in Borșa Commune

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HNVLink Results. Trends. Innovations and Needs

More info:
COLLECTION OF BASELINE ASSESSMENTS AND HNV LINK ATLAS (http://www.hnvlink.eu/outputs/)
THE HNV-LINK ATLAS: PERSPECTIVES ON 10 LEARNING AREAS

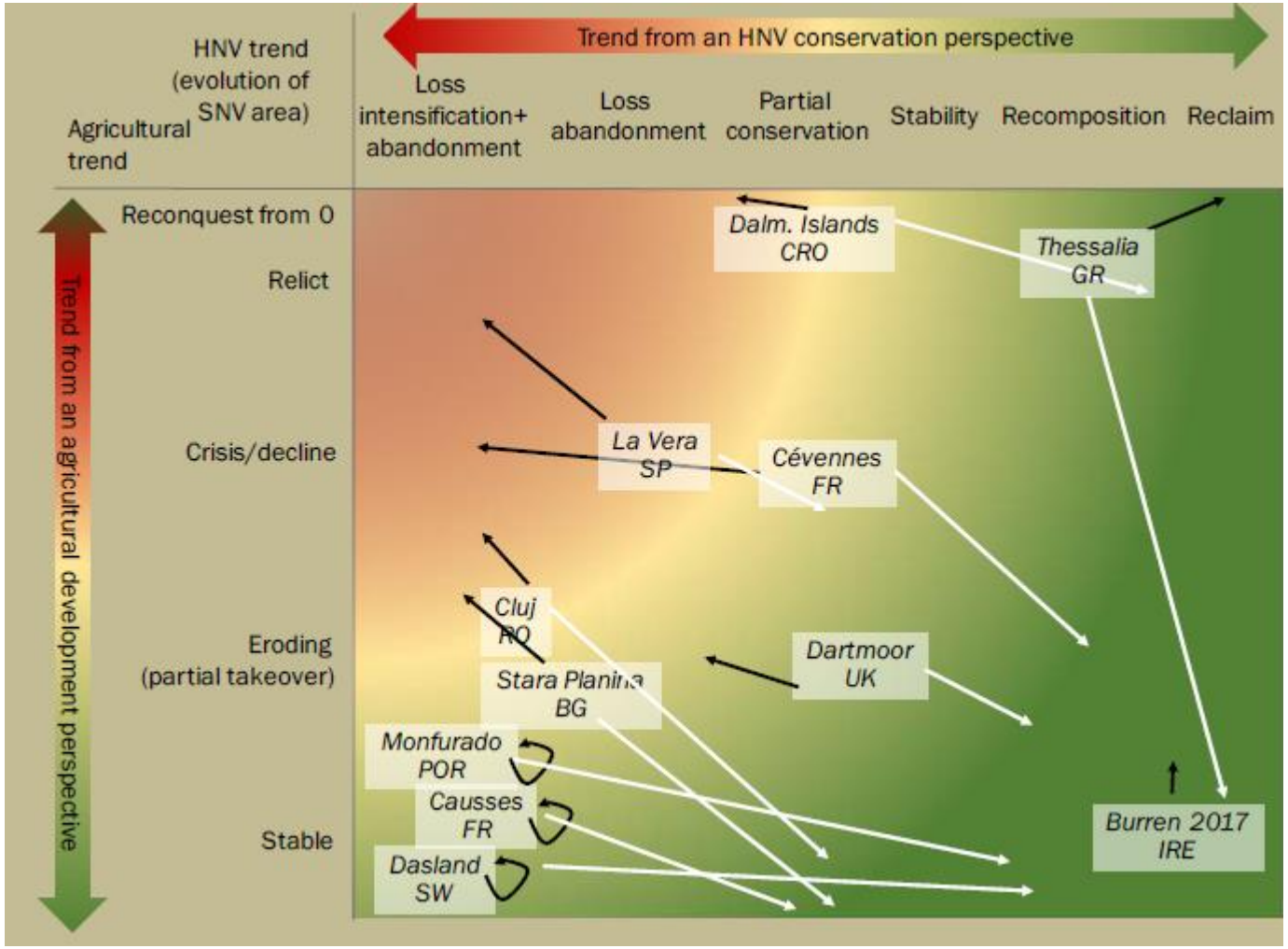

Figure 8: Trends identified in the 10 Learning Areas of the HNVLink project after the baseline assessment

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HNVLink Results Trends. Innovations and Needs

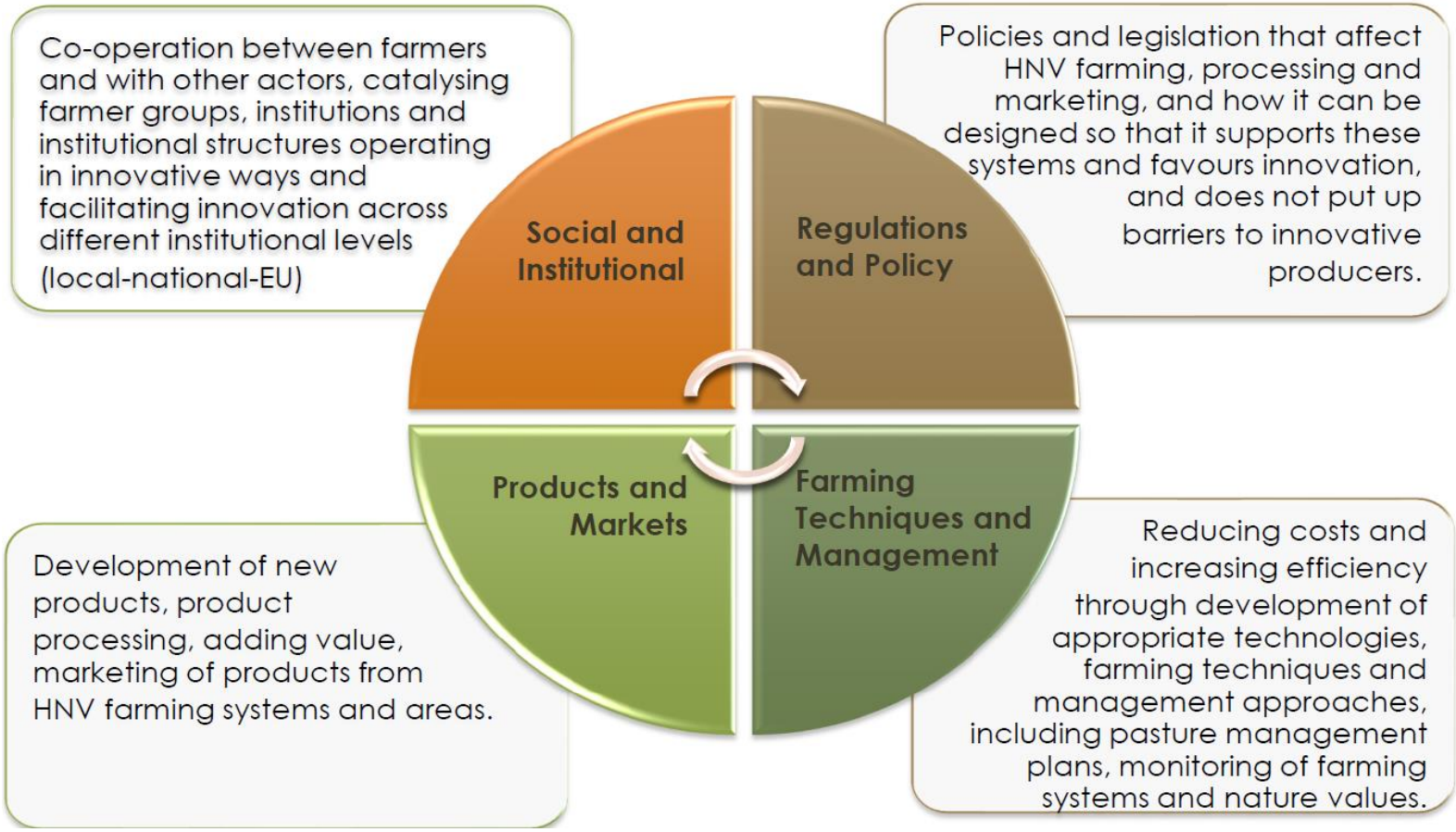

Figure 9: HNV innovations dimensions in the HNVLink project

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HNVLink Results. HNV Innovations/ Needs

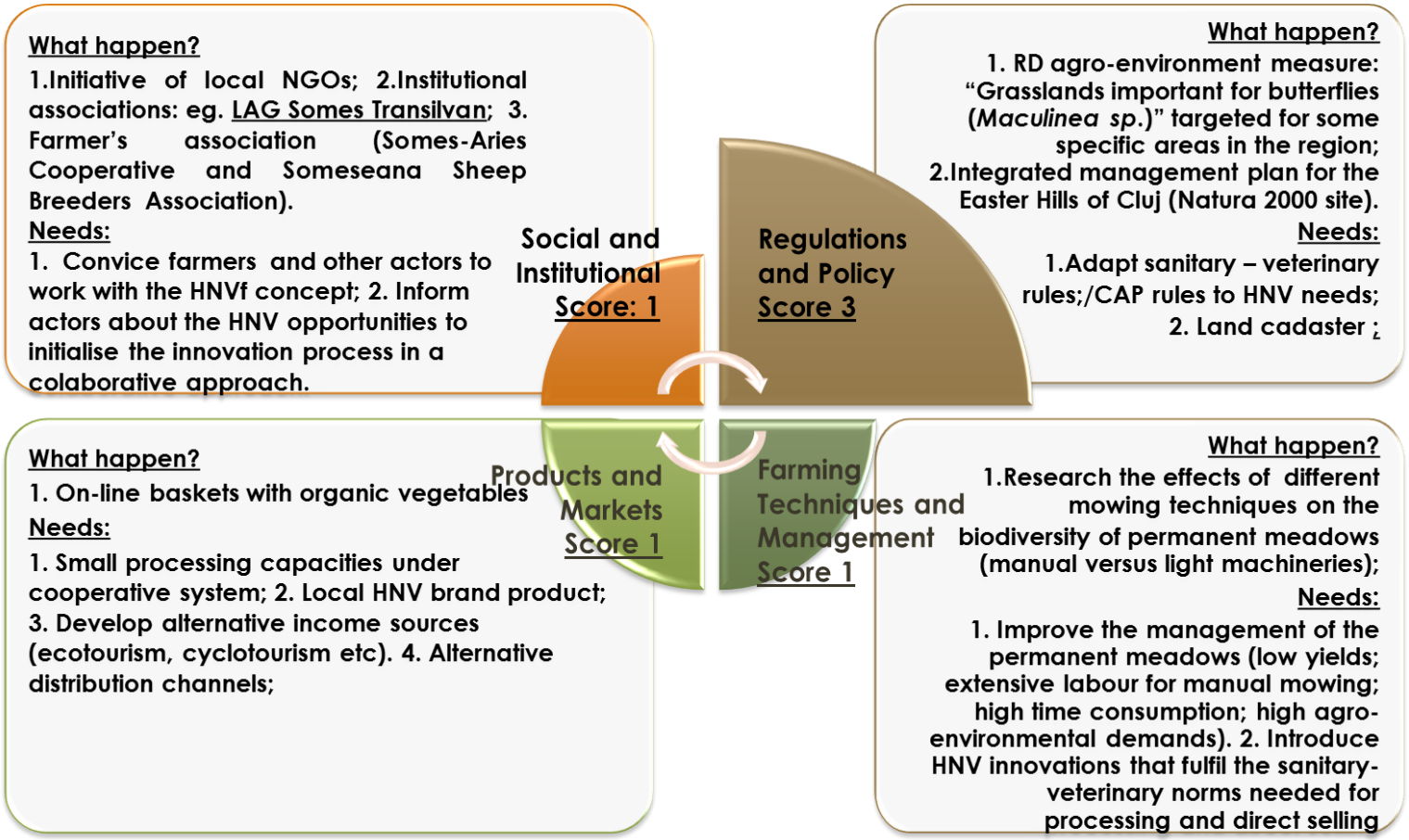

Figure 10: HNV innovations/needs identified in Dealurile Clujului Est learning area

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HNVLink Results. HNV Innovations/ Needs

Member State of LA	Social/ Institutional	Regulatory framework	Products/ Markets	Technical/ Management
BG	2	3	2	2
HR	2	1	3	2
FR	3	3	4	4
IE	4	3	1	2
GR	3	1	3	3
PT	2	1	2	1
RO	1	3	1	1
ES	1	1	1	1
SE	2	3	2	3
UK	4	2	1	3

More info:
The HNV-Link Compendium Comparative collection of High Nature Value innovations, experiences, needs and lessons from 10 European "Learning Areas" (http://www.hnvlink.eu/download/D2.6_HNVLinkCOMPENDIUM.pdf)

Figure 10: HNV innovations scores in different LAs

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5.Keenleyside C, Beaufoy G, Tucker G, Jones G (2014). High Nature Value farming throughout EU-27 and its financial support under the CAP. Report prepared for DG Environment by the Institute for European Environmental Policy. London: 1-385.

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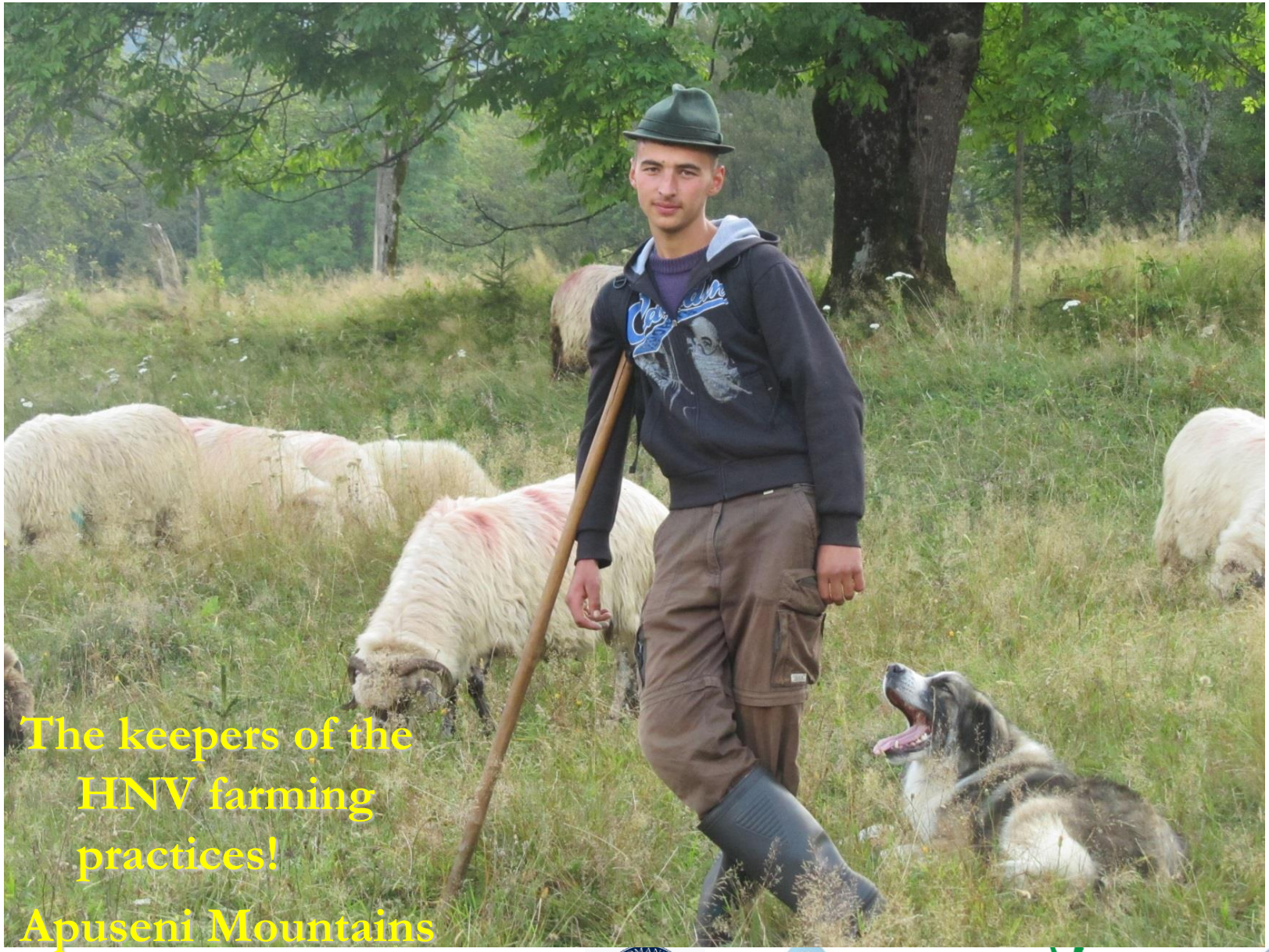

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Apuseni Mountains

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Dealurile Clujului

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