



**1st Mediterranean Plant Conservation Week
Ulcinj (Montenegro) --- 24 October 2016**

Capacity building Session 2

PASTORAL MANAGEMENT AND PLANT CONSERVATION

**Convenor: Jabier Ruiz (IUCN-CEM, EFNCP)
Facilitator: Marcos Valderrábano (IUCN-Med)**



Mission

To provide expert guidance on the integrated approaches to the management of natural and modified ecosystems, in order to promote effective biodiversity conservation and sustainable development





IUCN Thematic Groups



- Red List of Ecosystems
- Disaster Risk Reduction
- Connectivity Conservation
- Ecosystem Restoration
- Ecosystem Services
- Fisheries Expert Group (FEG)
- Climate Change Adaptation
- Coastal Ecosystems Group
- Holarctic Steppes
- Landscape Management
- Urban Ecosystems
- Ecosystems and Private Sector
- Mediterranean-Type Ecosystems
- Ecosystèmes Oasiens
- Ecosystems and Invasive Species
- Peatland Ecosystems
- Wetland Ecosystems
- Mountain Ecosystems
- Dryland Ecosystems
- Island Ecosystems
- Systemic Pesticides
- Resilience



CEM Members



Who

- Scientists and practitioners
- Across sectors and disciplines
- Young professionals

Why

- Influence conservation debate
- Access to international network of experts
- Status and credibility of members and CEM



European Forum on
Nature Conservation
and Pastoralism

The European Forum on Nature Conservation and Pastoralism brings together ecologists, nature conservationists, farmers and policy makers.

This non-profit network exists to increase understanding of the nature-conservation and cultural value of certain farming systems, and to inform work on their maintenance.



High Nature Value farming: Learning, Innovation and Knowledge is a three year project funded by EU's Horizon 2020 programme.

The project creates a community of practice and knowledge by linking 10 areas throughout the European Union where HNV farming systems are prevalent.

These "learning areas" are used to evaluate **innovation** examples and gaps relevant to HNV systems.

Capacity building workshop

Aims and roles

- Very varied participants: country of origin, background, experience.
- Workshop-type event: putting in common our knowledge and learning from each other.
- Roles:
 - Convenor: short presentations to set the scene and general guidance during the workshop.
 - Facilitator: guide the debate, capture main ideas and synthesise outcomes.
 - Participants: share your knowledge and experience!

Pastoral management and plant conservation

- Overall aim: to identify opportunities, challenges and key elements for making livestock farming contribute to plant conservation targets.

- Three main blocks (30-45 min, short presentation and discussion):
 - Fostering grazing when land abandonment is the issue: High Nature Value farming in Europe.
 - Alleviating grazing when the resources are being overexploited: the Ecosystem Approach.
 - Final debate: what are our key tools and strategies to deal with these challenges.



But first... Introductions

In one minute:

- Your Name, Organisation and Place of origin.
- What is your main concern regarding pastoral management and plant conservation.

Fostering grazing when land abandonment is the issue: High Nature Value farming in Europe



Photo: J.M. Mangado



Photo: J. García

Jabier Ruiz --- EFNCP --- jabier@efncp.org



Fostering grazing when land abandonment is the issue: High Nature Value farming in Europe

Overall context: *extensive (low input) livestock farming is welcome, or even requested by conservation managers.*

- In certain areas, targeted grazing can play a valuable role, for instance:
 - Wildfire prevention
 - Control of invasive species
- More generally, considered to be the keystone of “High Nature Value (HNV) farming systems”, helping preserve:
 - Threatened species
 - Valuable farmland habitats
 - Essential ecological processes

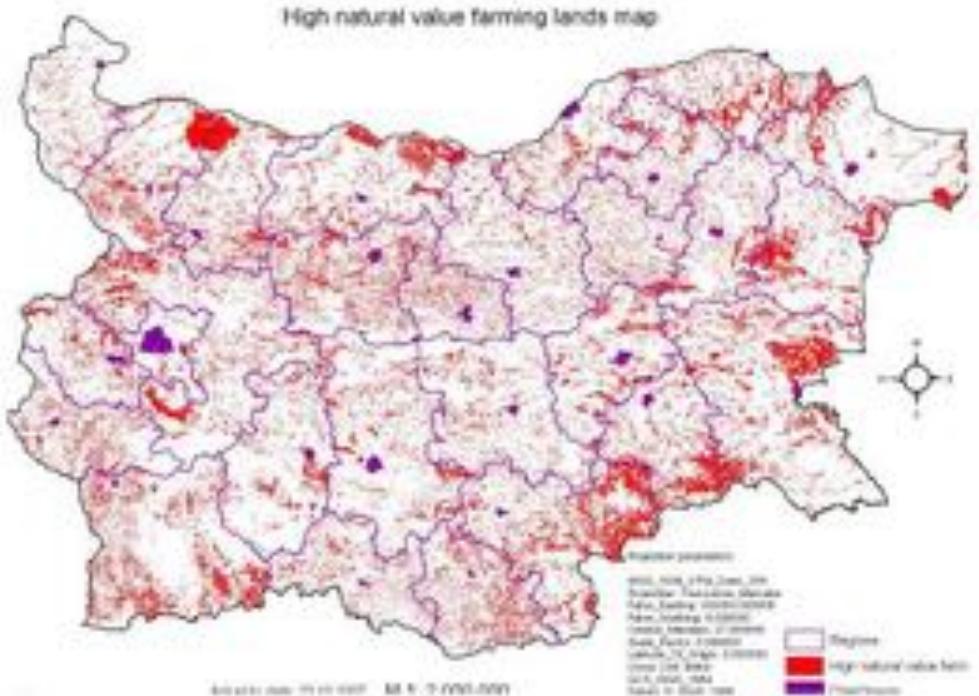
Why “High Nature Value farming”?

- Concept developed in the early 1990s to emphasise the crucial role of low-intensity farming in European biodiversity conservation.
- Alerted by the trends threatening the viability of HNV farming, a wide spectrum of research, conservation, farming and policy organisations have paid increasing attention to these systems over the last 25 years.
- HNV farming has become a priority area of EU policy, at least on paper:
 - Specific mention in Priority #4 (2014-2020) of the European Agricultural Fund for Rural Development: *Restoring, preserving and enhancing ecosystems related to agriculture and forestry.*
 - HNV farming is included as context indicator no. 36 and as impact indicator no. 9 in the CAP monitoring and evaluation framework.



HNV Grassland Designation

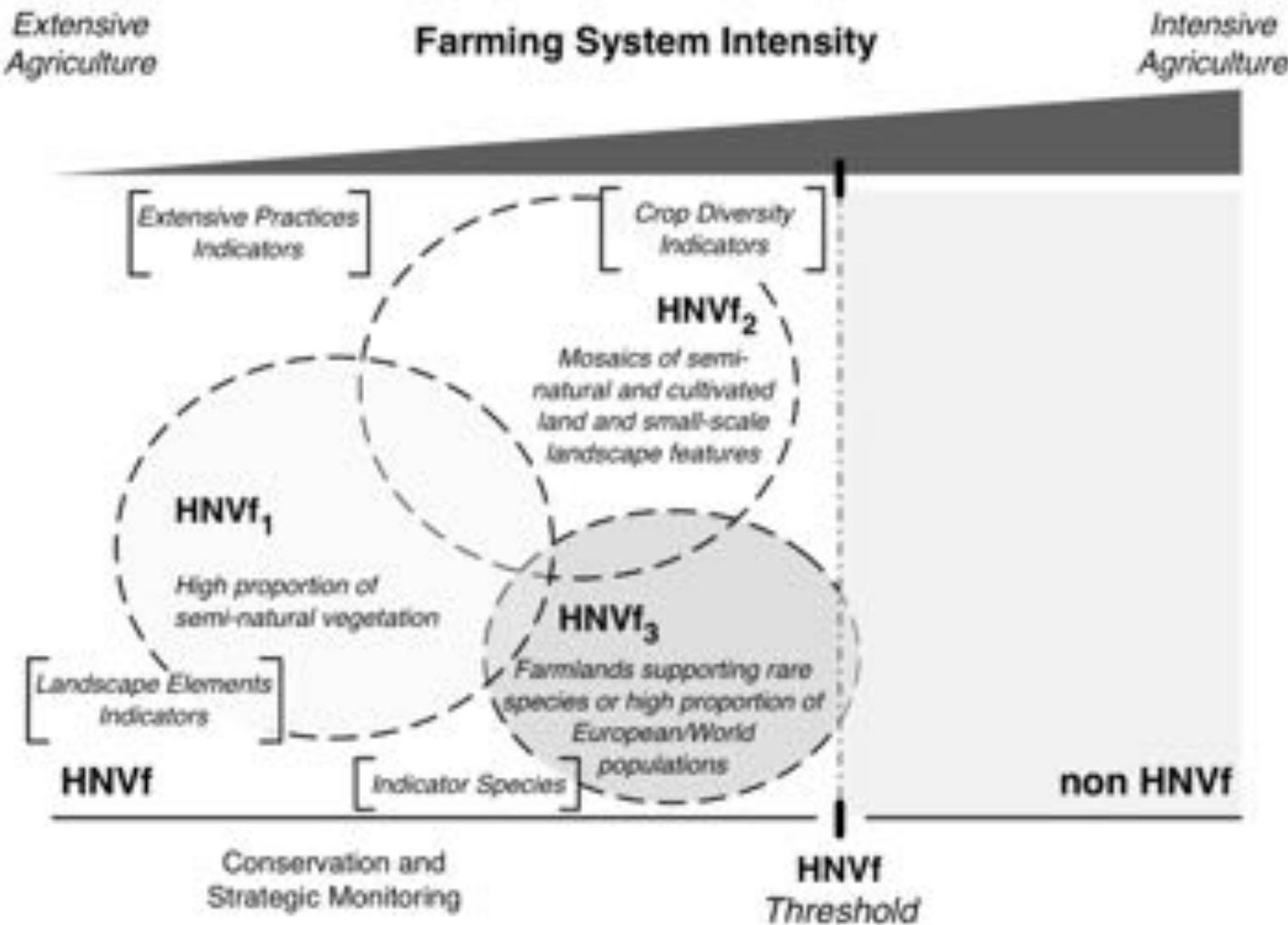
High natural value farming lands map



What is High Nature Value farming?

- The cornerstone of HNV farming: semi-natural pastures, meadows and orchards; and peripheral semi-natural features such as large hedges and copses.
- HNV farming is present in all European countries, with a diversity of types and extent.





Lomba et al, 2014

High Nature and CULTURAL Value farming

- Very strong link between HNV farming, biodiversity and traditional landscapes.
- Many of the landscapes and habitats of biodiversity significance in Europe were created by the centuries-old practices of extensive grazing and low-input small-scale cropping.



Photo: J. L. González

HNV defining characteristics

Farming intensity

- Low density livestock / ha
- Low use of Nitrogen / ha
- Low use of biocides / ha



HNV



% of semi-natural land cover

- Grass, scrub
- Trees
- Field margins
- Water bodies



Diversity of land cover

- Crops
- Fallow
- Grass, scrub
- Trees
- Water bodies

McCracken, 2015

Farming intensity and HNV farming

Generally,

- Intensive farming on more fertile land.
- Low-intensity farming (traditional landuses) on poorer land.

The differences in intensity are enormous.

- Nitrogen inputs range from none to several hundred kg/ha/year.
- Arable yields from less than 1 t/ha to over 10 t/ha.
- Olive yields from less than 0.5 t/ha to over 8 t/ha
- Livestock densities from as low as 0.1 Livestock Units (LU) per hectare, to 5 LU/ha or more.



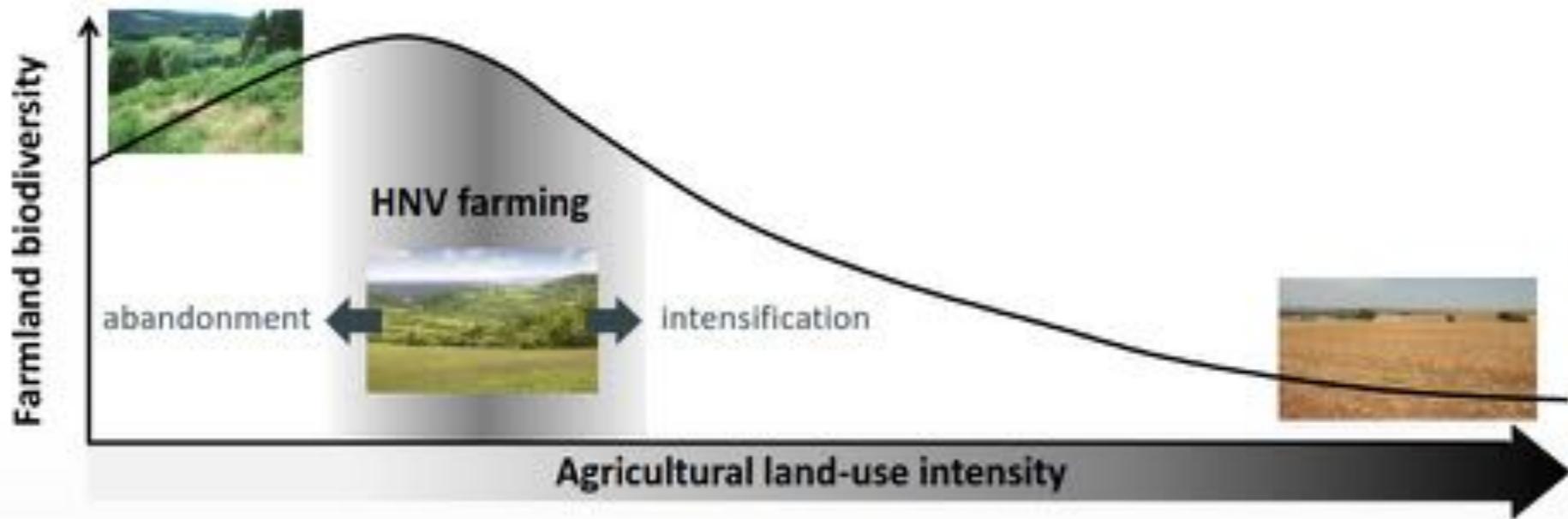
Farming intensity and HNV farming

A more intensive application of machinery, fertilisers, biocides and livestock reduces the opportunities for wildlife on cropped and grazed land.

Intensive use of farmland also tends to eliminate features such as field margins and uncultivated patches.

At the lowest end of the intensity spectrum, the productive land itself supports a range of wildlife species, especially when it includes a high proportion of semi-natural pasture.

Challenges for High Nature Value farming



Klimek, 2015

Challenges for High Nature Value farming

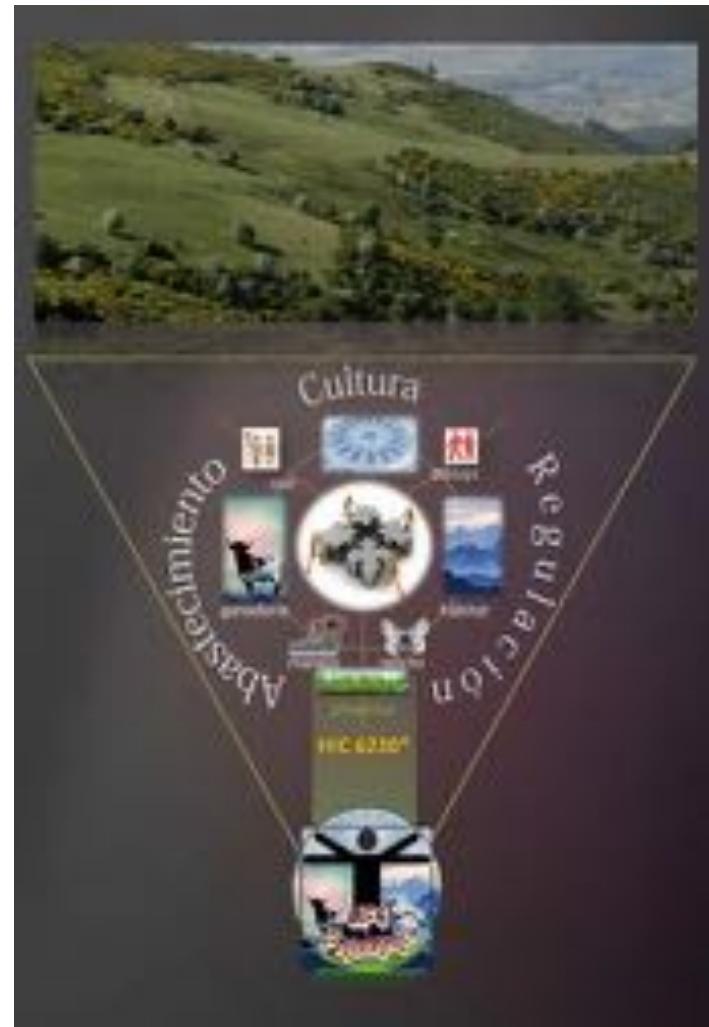
- Already replaced by expanding intensive agriculture in large parts of the territory, HNV systems continue to be threatened by land use intensification.
 - *Farmers can get some economic compensations (mainly through EU Rural Development Programmes) for maintaining low intensity land use.*
- Nowadays HNV farms often operate in the most marginal agricultural land, under difficult social and economic realities such as in the mountainous regions, where land abandonment constitutes the main threat.
 - *Payments for less favoured areas.*
 - *Support to certain farming practices, including those with clear environmental outcomes: habitat conservation, wildfire prevention.*



European Forum on
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LIFE+
MIL'OUV
MILIEUX OUVERTS

Les milieux ouverts
pastoraux méditerranéens
ont de la ressource.
Partageons les savoirs
pour préserver
la biodiversité !





2009
69 farmers
2000 ha
32 000

RAPCA 2011-2016

>200 farmers; >6000 ha of fuelbreaks
>100.000 livestock

- 42-90 € per ha -
year (40% of
alternative cost)

- Monitoring of results
and research

2006
13 farmers
715 ha
3600

2003
1 farmers
35 ha
500



JUNTA DE ANDALUCÍA

Alleviating grazing when the resources are being overexploited: the Ecosystem Approach



Jabier Ruiz --- IUCN-CEM --- jabier@efncp.org

What is the ecosystem approach?

- A strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

as defined by the Convention on Biological Diversity
- At the meeting point of sustainable ecosystem management and enhanced livelihood security for the poor.
- An approach to conservation that puts human needs at its centre.
- IUCN-Commission on Ecosystem Management (CEM) has been committed to extending the use of the ecosystem approach and correct its weaknesses.

Ecosystem approach: 12 principles

The 12 principles of the Ecosystem Approach

1. The objectives of management of land, water and living resources are a matter of societal choice.
2. Management should be decentralized to the lowest appropriate level.
3. Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems.
4. Recognizing potential gains from management, there is usually a need to understand and manage the ecosystem in an economic context. Any such ecosystem-management programme should:
 - (i) reduce those market distortions that adversely affect biological diversity;
 - (ii) align incentives to promote biodiversity conservation and sustainable use; and
 - (iii) internalize costs and benefits in the given ecosystem to the extent feasible.
5. Conservation of ecosystem structure and functioning, to maintain ecosystem services, should be a priority target of the ecosystem approach.
6. Ecosystems must be managed within the limits of their functioning.
7. The ecosystem approach should be undertaken at the appropriate spatial and temporal scales.
8. Recognizing the varying temporal scales and lag-effects that characterize ecosystem processes, objectives for ecosystem management should be set for the long term.
9. Management must recognize that change is inevitable.
10. The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity.
11. The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices.
12. The ecosystem approach should involve all relevant sectors of society and scientific disciplines.

5 steps for EA --- Timeline



- A: Determining the main stakeholders, defining the ecosystem area, and developing the relationship between them.
- B: Characterizing the structure and function of the ecosystem, and setting in place mechanisms to manage and monitor it.
- C: Identifying the important economic issues that will affect the ecosystem and its inhabitants.
- D: Determining the likely impact of actions or changes in an ecosystem on adjacent ecosystems.
- E: Deciding on long-term goals, and flexible ways of reaching them.

A: Key stakeholders and area (pp. 1, 7, 11, 12)

- Work simultaneously on defining the ecosystem area and determining the stakeholders
- Identify (*and involve!*) all the key stakeholders with interests in the proposed ecosystem and assess them as:
 - Primary stakeholders: *those who are most dependent upon the resource, and most likely to take an active part in managing it.*
 - Secondary and tertiary stakeholders: *habitants not dependent upon the resource, some over-powerful voices (e.g., government officials), international organisations, etc.*

Addition: Analyse the institutions governing the use of the resources





C: Economic issues (*principle 4*)

- We need to understand the ecosystem in an economic context.
- Any such ecosystem approach management should try to:
 - i) *reduce those market distortions that adversely affect biological diversity;*
 - ii) *align incentives to promote biodiversity conservation and sustainable use; and*
 - iii) *internalize costs and benefits in the given ecosystem to the extent feasible.*

The impact on ecosystems of markets and other economic forces is under-recognised by the 12 Principles









Guzmán, 2016



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