High Nature Value grasslands: securing the ecosystem services of European farming post 2013

“The challenge of maintaining and expanding grazing in Mediterranean forest lands: fire prevention and other functions”

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INTRODUCTION

To understand natural landscape in Spain, as in Marocco or Greece, and in the Mediterranean in general,

*you must understand the role of grazing or pastoralism in the territory!*

Grazing is the most determining factor of our landscape,

*... but our policies do not take it into consideration!*
Spain, and the Iberian peninsula as a whole, is a country of livestock farming vocation . . .

Over the last 250 years, we have had on the average 12 million LU

$LU = \text{Livestock Units} = 6 \text{ sheeps}$

In these moments, 40% of total area (500.000 km²) is devoted exclusively to animal feeding, and grazing is the main land use over another 40% =>

80% of the land is devoted to livestock farming!
Land and cattle farming have shaped our landscape
1.- Traditional farming *(until 1975)* was:
   - A subsistence farming
   - Deeply integrated with land cultivation
   - With all animal types
   - Collective
   - Grazing in open fields
   - Included transhumance *(10-20% of sheep: 5 mill. sheep in 1750)*
   - Has resulted in well-adapted animal breeds: *merino* and *churra* sheeps, *iberico* pigs, *fighting bulls*, etc.

2.- At some point in the last 1.000 years the threshold of sustainability was exceeded

3.- Therefore, livestock is the main responsible of our intense deforestation and soil erosion,
   
   . . . *like all around the Mediterranean!*
Unlike in Central and Western Europe... 80% of the forest land is grazed!!!
We have wonderful pastoral landscapes, … like in Extremadura:

And the Cantabrian Range
But also this
in Segovia
(Guadarrama Range)

And very often this!
as in the Betic Range,
in the South
From 1950 to 1975, . . .

Spain had its own agricultural revolution

Changes

that had taken 250 years in Western Europe . . .

took place in 25 years in Spain

In 1975 Spain abandoned its Traditional Agrarian System

4.5 million people abandoned their rural activity

(Now there are 800,000 farmers)

Livestock farming changed dramatically from then on ...
In these moments we have more than 20 million LU (instead of 12) but animal feeding has changed drastically:

Grazing provides 25% of the food demand

... And forests 10% instead of traditional 50%!
Intensive cattle production has had two indisputable advantages:

1.- To *meet increasing demand* of animal products

Mean annual *meat consumption*:

In 1950: 14 kg * 28 mill. people = 0,4 mill. Tm.
In 2010: 108 kg * 46 mill. people = 5,0 mill. Tm. (x 12)

2.- To *overcome the problem of deforestation*
Forest area has increased more than 6.5 million ha. in 30 years
(225,000 ha/year)
- an area similar to Ireland!
- larger than total Romanian forests!

In 1950: 10 mill. ha. or 20% (estimation)
In 2010: 19 mill. ha. or 38%

According to FRA-2005, . . .

Spain is the 2nd country in forest recovery in the world
And the reason is that:

Forest stocking density has decreased

from 1,5 sheep/ha in 1950 to 0,5 sheep/ha in 2000

This reduction has 3 main negative effects:

1.- Need to buy cattle feeds
2.- Increase in forest fires
3.- Strong changes in landscape & biodiversity
Our livestock consume close to 40 mill. Tm. of feed grain, … that we have to import in a high proportion!
And on the other hand,

*forest fires have become a major problem!*

From less than **2,000 fires/year** to close to **20,000** (x 10)
From less than **50,000 ha/year** to around **150,000** (x 3)

It is basically an agricultural problem!

since:

**80% of the fires originate in farming and agricultural work**
We suffer pastoral burning

And the result are uncontrolled forest fires . . .
And there is also a strong effect in:

- biodiversity,
- landscape quality

Pastoralism applies on some of the *Highest Natural Value lands* of Spain and Europe!
Pastoralism can maintain the positive tendencies and solve some of the new problems!

With these extreme changes and actual tendencies ...

How can we maintain and expand grazing?
We need to consider the three elements of a livestock farm:

- **Productive organization**
- **Commercial organization**
- **Farmer**
- **Land**
- **Livestock**
Land is the key factor for the future of pastoralism

Collective herds in the villages had full access to pastures in their territories. “When the harvest was finished all the land was open to herds”

This traditional organization, valid for 1,000 years has broken down!

Marginal lands are abandoned
We need a new organization, valid for the next centuries!

“From collective grazing to individual farming”

1.- A rearrangement of holdings is needed
2.- New land access rights are needed

A public “forest” in Arnedo village, in Burgos has been divided in 6 holdings or lots.
Land owners have to sign land access contracts with farmers ...

And that might involve more than 500 people in one village (900 ha) ...

like in Proumbrías, in Ávila

A National Program is needed!
And the new arrangement has to be reflected on the ground,

reducing the need for non-existing shepherds & making work more comfortable...

The XXI century will be the Century of the Enclosures in Spain
But if we do not have farmers … we’ll have nothing!

The general tendency is towards the abandonment of activity and the reduction of farmers

We need to take care of generational change!

3 factors are essential:

- Training & education
- Cooperativism
- Social recognition

There is the need to work in close contact with them
Range management has to include

- Brush clearings,
- Respect for trees and the landscape,

... and what sometimes is more complicated ...

- Respect for wildlife

In Castilla y León, the “Wolf Management Plan” tries to conciliate both
Anyhow, rentability is the only way to maintain pastoralism . . .

... *If it is profitable, the activity will increase!*  

1.- *Product commercialization* needs to be promoted  
2.- *Final feed* in feedlots is crucial  
3.- *Grants* have to recognize *public services* of pastoralism
Spain and Europe need a "Support Program for Pastoralism"

- Through a Territorial Contract
- Based on a Farm Management Plan
- Including a rated Farm Improvement Plan
- Evaluating Environmental Indicators
- Public support: 25 to 50 €/ha/year
Since 2003, Junta de Castilla y León applies the “Regional Pastoral Program”

- 1,300 farmers
- 560 villages
- 250,000 ha.

Average farm: 200 ha.
- 75 LU
- 0.37 LU/ha (=> Extensive grazing)

25 €/ha/year
- 5,000 €/year * 5 years
- = 25,000 €/farm

2.9 mill. €/year
- 23 mill. € in 6 years
The main objective is environmental:

Fire prevention

*In the more affected municipalities of the province of Burgos fire numbers have decreased by 70%*

But also other results have been achieved:

- 34,000 ha. Brush clearings
- 750 km. Fences
- 270 units Drinking ponds
The Pastoral Program is part of

Plan-42

A fire prevention program
of social action
in the 42 municipalities that concentrate 50% of fires.

Working at local level
Promoting close contact with farmers
Plan-42 and the farming sector:

**OBJECTIVES**
- Cultural change in the use of fire
- Sector improvement
- Profitability and working conditions
- Training and education
- Product quality and marketing
- Social recognition

**ACTIONS**
- Support and advice
- Cooperatives promotion
- Exchange of experiences
- Organization of sectorial meetings
- Integrate the sector with other sectors: tourism, mycology
Thanks for your attention!

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