Land use change in Eastern Pyrenees: the challenge of multifunctionality
index

1. Pyrenean landscapes: the bond between society and environment

2. Land Use Change in Pyrenees

3. Land management strategies: two opposite approaches

4. Alt Pirineu Natural Park: an example of multifunctionality?

5. Conclusions
Pyrenean Landscape:
the bond between society and environment

Eastern Pyrenees: geographical context
Pyrenean landscapes are the result of an intense humanisation of space (García-Ruiz, Lasanta, 1990).

Pyrenean Landscape: the bond between society and environment

Geosystem (N. Beroutchachvili et J.L. Mathieu, 1977)
Land Use Change in Pyrenees: traditional activities

(Self-standing) agriculture
Land Use Change in Pyrenees:

傳統的活動

（自給自足）農業

傳統的系統被其複雜的社會組織所特徵，大部分基於家庭的凝聚力。
Land Use Change in Pyrenees:

Livestock breeding
Land Use Change in Pyrenees:

traditional activities

Forestry
Land Use Change in Pyrenees:

index

Introduction
Land Use Change in Pyrenees
Land management strategies
Alt Pirineu Natural Park
Conclusions

(Self-standing) agriculture
Livestock breeding
Forestry

Strongly bounded to the environment:

- Shaped mountain landscape for thousand of years
- Configured an unique model of society
Crisis of rural world

- inclusion in the sphere of global economy
- agriculture intensification in the plain
- new activities (industry)
Depopulation

- emigration to industrial sites/agriculture centres in the plain
- land abandonment and agriculture marginalisation
Land Use Change in Pyrenees:
changing times (20th century)

Tertiarisation of economy
- tourism development

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<th>Industry</th>
<th>Construction</th>
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</table>

index
- Introduction
- Land Use Change in Pyrenees
- Land management strategies
- Alt Pirineu Natural Park
- Conclusions
Land Use Change in Pyrenees:

changes in landscape

Land Use Change analysis in two study areas

La Vall Fosca

PNAP (1956-1993)

Vall Fosca (1956-2003)

Forest Mountain grassland Shrub Agriculture Urban

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<th>Shrub</th>
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Alt Pirineu Natural Park

Land Use Changes in Pyrenees

Introduction

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Land management strategies

Alt Pirineu Natural Park

Conclusions
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Land Use Change analysis in two study areas

La Vall Fosca

Alt Pirineu Natural Park

Landscape structure trends to homogenisation
Llavorsí

1960's

2007
Berros Jussà

1950’s

2007
Alòs d’Isil

1950’s

2007
Isavarre

1950’s

2007
Land Management strategies:

two opposite approaches

- Protected areas
- Urban development
Land Management strategies:

two opposite approaches
Land Management strategies:

two opposite approaches

Conservationism

Change of paradigm: from PNAIESM to PNAP:

Strong conservationism vs. local development

Participatory community approach in the Natural Park management, not only as a nature protection entity but also as a driver of rural development

Protected Areas

Obstacle → Potential
Land Management strategies: two opposite approaches

Tourism + urban development without planning

In 2001 second residence represented 40% of total family residences in Pyrenees.
Land Use Changes in Pyrenees

index

Introduction
Land Use Change in Pyrenees
Land management strategies
Alt Pirineu Natural Park
Conclusions

Land Management strategies:

two opposite approaches

Tourism + urban development without planning

Residence types in the Pyrenees, 2001
(Campillo X., Font X., 2004)
# Alt Pirineu Natural Park:

**an example of multifunctionality?**

## SWOT Analysis

**Strengths**
- Nature conservation & local development
- Participatory approach
- Cultural heritage
- Urban growth control
- Natural Park label

**Weaknesses**
- Not realistic objectives
- Problems in resource allocation
- Decision making: centralisation (Barcelona)

**Opportunities**
- New trends in tourism: green tourism, rural tourism
- 2005: changes in National Park legislation: decentralisation
- EU and Regional Policies: reform in CAP: agroenvironmental objectives
- Biological farming
- New concerns regarding climate change and environmental protection
- Possible crisis in construction sector
- Landscape convention (EU), Landscape Act (Catalonia)

**Threats**
- Pressure from real state and building lobby
- Primary activities: not competitive
- Dependent on external forces: economical and political context
- Problems in generational change (primary sector)... is it too late??

## Introduction

**Land Use Changes in Pyrenees**

**Alt Pirineu Natural Park**

**Conclusions**
Conclusions: the challenge of Multifunctionality

- Alt Pirineu Natural Park (APNP) model has shortcomings but it can be improved. It could be a solution to the question of multifunctionality in mountain areas.

- Goals must be adapted to resources.

- Total commitment from administration is required.

- APNP is considered to be almost an exception regarding local development: new action framework.

- A solution has to be found for the areas that are not likely to be included in a protected area.

- New trends concerning landscape valuation and protection.
Thank you!