A review of policy frameworks supporting mountain grasslands in Europe

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Abstract: In the EU-28, grasslands are the third most dominant ecosystem (15.9% of the total surface) and they deliver numerous environmental and social beneficial outcomes and public goods. Mountain grasslands are particularly important as they make up more than half of Europe’s High Nature Value farmland and are associated with a high diversity of species. Yet, in the past decades, multiple trends, such as land abandonment, intensification, afforestation and conversion to other land-use types, have led to the impoverishment and deterioration of mountain grasslands. Several studies state the importance of grassland preservation to maintain its associated benefits and to support rural livelihoods in mountain areas. Nevertheless, there is little understanding of policies and measures that contribute to achieving the conservation objectives of this habitat. This report analyses the existing policy frameworks and measures that support the preservation of mountain grasslands, with a focus on the European policy framework and the national frameworks from four European countries (France, Italy, Romania, Spain). Based on the conclusions from this research, we derive recommendations for the improvement of policy frameworks to support mountain grasslands and pastoral activities.

Keywords: mountain grassland; conservation; policy framework; European policy; national policy; recommendation.

Abbreviations: ANC = Area of Natural or other specific Constraints; CAP = Common Agricultural Policy; EAFRD = European Agricultural Fund for Rural Development; EC = European Commission; EEA = European Environment Agency; ERDF = European Regional Development Fund; ESF = European Social Fund; EU = European Union; HNV = High Natural Value.

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Mountain grasslands: a habitat in danger

In the EU-28, grasslands are the third most dominant ecosystem, and they cover 15.9% of the total surface (EC 2016). Grasslands are particularly relevant in mountain areas as they provide feed for both wild and domesticated herbivores, and, via grassland-based extensive livestock, support a significant number of public goods such as rural viability, agricultural employment, soil functionality, local ecological knowledge, and spiritual and aesthetic value (Plantureux et al. 2016; Maréchal & Baldock 2017; Manzano-Baena & Salguero-Herrera 2018). In particular, mountain grasslands host more than half of Europe’s High Nature Value (HNV) farmland and are associated with a high diversity of species (EEA 2019, 2020). Pictures illustrating few examples of grazed mountain areas and extensive livestock considered in this article are presented in Fig. 1.

Yet, over the past decades, several trends such as land abandonment, intensification, afforestation and conversion to other land-use types have led to substantial losses of this habitat (Peeters 2008; EC 2016). In the 20\(^{\text{th}}\) century, approximately 90% of semi-natural grasslands in European countries have disappeared due to intensification or abandonment, and populations of many of their species decreased or became extinct (EC 2016). Today, grasslands are one of the habitats with the worst conservation status (more than 75% have an unfavourable conservation status in the EU), and the trends are particularly negative in the Atlantic, Boreal and Continental biogeographical regions (EEA 2020).

Several studies explore the importance of conserving mountain grasslands because of their ecosystem services and to keep the liveability of mountain areas (e.g. Bunce et al. 2004; European Grassland Federation 2011; Plantureux et al. 2016; Seid et al. 2016). Nevertheless, there is a little understanding of what policies and measures can stir the conservation of this habitat. Policy frameworks can contribute to this objective, for instance by encouraging pastoral practices and low intensity agriculture, which are the main activities for the maintenance of this habitat in mountainous areas (Galvánek & Leps 2008; Metera et al. 2010; Committee of the Regions 2019). The OREKA MENDIAN report analyses those policies that have been designed by European authorities and by national authorities in four European countries (France, Italy, Romania, Spain), to revert the declining trends of grasslands in mountains.
Fig. 1. Examples of grazed mountain areas in the Basque Mountains, Spain. ©LIFE OREKA MENDIAN.
Methodology

To elaborate the current article, we used a mixture of desk research and consultations with a total of 21 European and national experts. For the analysis of the European policy framework, the review of past regulatory frameworks, research and position papers on the impacts of European policies on mountain grasslands was analysed. Furthermore, our participation in the Civil Dialogue Groups on the Common Agricultural Policy (CAP) was also relevant to gather information on the future impacts of European policies on mountain grasslands. For the national policy frameworks, desk research and consultation with expert members from Euromontana’s network have served to investigate the specificities of national policy frameworks in selected countries. Countries have been chosen based on: i) the presence of mountain areas; ii) the existence of specific policies to support mountain areas and/or more specifically grasslands; iii) the presence of Euromontana’s members to have direct contacts with relevant experts. A total of four Member States of the European Union (France, Italy, Spain, Romania) are investigated in this article.

The policy frameworks presented and discussed in this article are summarised in Table 1.

<table>
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<th>Level</th>
<th>Country</th>
<th>Policy framework</th>
<th>Main measures to support mountain grasslands</th>
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| European       | All EU Member States | Common Agricultural Policy (2014-2020; 2021-2022) | • Pillar I: basic payments, greening payments, Areas of Natural or other specific Constraints (ANC) payments and coupled support  
 • Pillar II: ANC support, agri-environment-climate payments and quality schemes for agri-food products |
|                |           | Common Agricultural Policy (2023-2027)                  | In additional to measures in the CAP 2014-2020:                                                          |
|                |           | EU Biodiversity Strategy 2030                           | • Eco-schemes                                                                                             |
|                |           | Loi Montagne I (n°85-30)                                | • Specific support to agricultural and pastoral activities in mountains, including financial support          |
| France         | Italy     | Loi Montagne II (n° 2016-1888)                          | • Decentralised governance system (National Mountain Council, distinct coordinating agencies in the different mountain massifs, thematic working groups) |
|                |           | Loi Pastorale (n°72-12)                                 | • Three legal measures for collective management of grasslands (pastureland associations, pastoral groups, multi-annual grazing agreements) |
|                | Romania   | Legea Muntelui (nº 197/2018)                            | • Finance interventions to preserve mountain grasslands (e.g. compensation to landowners located in mountain protected areas, support to livestock farmers)  
 • € 1 billion for the 2018-2028 dedicated to mountain areas |
|                | Spain     | Ley Orgánica (n° 42/2007)                               | • Inventory and a Strategic Plan for Natural Heritage and Biodiversity                                     |
|                |           |                                                       | • Management Plans for Natura 2000 Network                                                                 |
|                |           |                                                       | • Recognition of “Mountains of Public Utility”                                                            |
European policy framework for mountain grasslands

Up to date, the European Union (EU) does not have a distinct policy framework addressing the peculiarities of mountain areas and their development. Mountain areas, and the activities that occur in these territories, need to comply with general – often sectoral – frameworks such as laws and regulations on agricultural activities, biodiversity protection, food safety, land property and so forth. In this context, the most relevant EU policy framework offering support to mountain grasslands are the CAP, and the Biodiversity Strategy. In the CAP 2014-2020, different measures have been put into place to support mountain grasslands, such as basic payments, greening payments, ANC payments and coupled support in Pillar I; and ANC support, agri-environment-climate payments and quality schemes for agri-food products in Pillar II (Euromontana 2014). From 2023, the CAP will also provide Member States with the opportunity to offer dedicated eco-schemes targeting grassland conservation as well as to implement more conditionality to environmental and climate standards to receive basic payments. Member States will be obliged to use at least 25% of their budget under the 1st Pillar to finance the eco-schemes. Eco-schemes supporting the management of mountain grasslands can contribute to achieve some of the nine objectives of the 2023-2027 CAP, such as the objectives on “Landscapes”, “Climate change” and “Rural areas”. For instance, as suggested by the European Commission (EC), eco-schemes could finance measures to support mixed species/diverse sward of permanent grassland; to increase the access to pastures, as well as the grazing period for the livestock; to encourage transhumance and common grazing practices (EC 2021).

Launched in 2020, the EU Biodiversity Strategy for 2030 unlocked € 20 billion/year for enhancing biodiversity across different habitats. This strategy defines that at least 30% of total EU land areas shall be protected (against 26% in 2019), and 10% strictly protected (against 3% in 2019), and the EU shall restore degraded ecosystems (EC 2020). The definition of “strictly protected areas” is still unclear, and therefore also the consequences it may have on human activities for the maintenance of mountain grasslands, such as pastoralism. Furthermore, since 1992 the Habitats and Birds Directives provides the legal framework for the protection of habitats and species (including mountain grasslands) in the EU and the EU-funded LIFE programme provide funds for the implementation of the EU Biodiversity Strategy and the Directives (EC 2014a, 2014b). The LIFE programme has been fundamental to develop policies and structures to manage Natura 2000 sites across different habitats, including mountain grasslands (EC 2018).

The above-mentioned European policy frameworks set the objectives and guidelines to protect biodiversity, including mountain grasslands, across EU Member States. In addition to this, different EU countries developed their own policies and measures to support this habitat, as presented in the following paragraphs.

France: a decentralised model for mountain governance

In January 1985, the French government adopted the Loi Montagne (n°85-30), and then updated in 2016 by the Loi Montagne II (n° 2016-1888). The Loi Montagne II foresees specific support to mountain agricultural and pastoral activities, such as financial support for maintaining activities in ANC, combating shrub invasion in pasturelands, and reducing conflicts with large carnivores (Loi Montagne II 2016). Furthermore, the law establishes a National Mountain Council and distinct coordinating agencies in the different mountain massifs, that carry out managerial and consultation activities. These bodies have the merit of going beyond administrative boundaries to deliver strategies within a naturally defined perimeter (a mountain range) and to ensure the dialogue between civil society and policymakers. In some French massif, these agencies set up working groups on seasonal employment in summer/alpine pastures, land clearing, and the promotion of mountain products.

In addition to the mountain law, the Loi Pastorale n°72-12 (French Pastoral Law of 1972) (Lorenzi 2013), still in force, officially establishes three legal measures for the collective management of mountain pasturelands: associations foncières pastorales (pastureland associations), that ensure the consistent management of these areas by regrouping the landowners of the livestock grazing areas; groupements pastoraux (pastoral groups), that promote the renewal of grazing and livestock management practices, and the collective development of mountain grasslands; and conventions pluriannuelles de pâturage (multi-annual grazing agreements), that establish the rights and duties of each party in the use of grazing land through contracts between farmers and landowners. The Loi Pastorale also established a compensation for farmers who contribute to land management in critical areas within defined mountain areas (Lorenzi 2013).

Italy: a multi-fund approach for mountain development

In Italy, the development of mountain areas is tackled by the Strategia nazionale per le aree interne (National Strategy for Inner Areas). This strategy aims at developing the preconditions for territorial development (i.e. ensure the availability of adequate goods/essential services) and supporting local development projects in areas that are remote, low populated and rich in natural and cultural resources (Lucatelli 2016) and that are often in mountain areas. To this end, the Strategy deploys a multi-fund approach based on EU funds (EAFRD, ERDF, ESF) and the National Stability Fund. These funds are deployed to invest in local development projects related to land access and management, diversification of the rural economy, local food products, and young farmers. Thus far, some of the projects financed by this strategy include the establishment of the scuole itineranti della pastorizia (itinerant pastoralist schools), initiatives to share knowledge and innovations, and to facilitate access to and the conservation of mountain pasturelands, or
activities to finance the restoration of mountain grasslands (Forum Disuguaglianze Diversità 2018; IRPET 2018).

**Romania: an ambitious portfolio**

Since 2018, the *Legea Muntelui* (nº 197/2018; Parliament of Romania 2018) regulates the inclusive and sustainable development in mountain areas of Romania. The *Legea Muntelui* officially recognises the disadvantages of mountain areas in agricultural development due to their altitude, climatic and geological specificities. Because of this, the law identifies some key interventions for the development of mountain grasslands and their management, such as:

- Financial compensation to landowners located in Natura 2000 sites, natural parks, national/biosphere reserves and other protected natural areas in mountain areas;
- Financial support to livestock farmers in mountain areas depending on the severity of natural handicaps and altitude, in addition to the CAP payments;
- Protection and development of mountain biodiversity, including HNV farming;
- Support to the cultural heritage of the mountain area.

As part of this law, over the 2018-2028 period the Romanian Government allocated € 1 billion from the budget of the Ministry of Agriculture and Rural Development, in order to encourage the above-mentioned activities in mountain areas.

**Spain: an official recognition of social and environmental benefits**

In Spain, the *Ley Orgánica* (nº 42/2007) is the main legal framework for the conservation, sustainable use, improvement and restoration of natural heritage and biodiversity, including mountain grasslands. This law establishes supportive instruments such as an Inventory and a Strategic Plan for Natural Heritage and Biodiversity, as well as Management Plans for Natura 2000 Network sites. The Spanish law also emphasizes the ecological corridors in mountain areas and the need to improve livestock routes in mountain areas; to enhance the ecological coherence, functionality and connectivity of the Natura 2000 Network; and to establish a European and Community network of biological corridors.

In Spain, the Autonomous Communities, i.e. the first-level political and administrative divisions of the country, have the competence to manage the Natura 2000 network. Autonomous Communities are responsible for drafting and reaching agreements on the Management Plans and implement them. Additionally, the mention *Montes de Utilidad Pública* (Mountains of Public Utility) acknowledges different Natura 2000 sites in mountain areas, and it recognizes their practices as socially and economically beneficial for the society. These included the use of communal mountain pastures during the summer months, a use that has contributed for instance to the conservation of the Basque landscape and its consideration as habitats of community interest.

**Discussion and conclusions**

This article shows that at both European and country level, some policy frameworks and measures have been defined to promote the management of mountain grasslands. At European level, the legal framework addressing mountain areas is mainly related to agriculture and biodiversity conservation, whereas it falls short to adopt a more integrated approach with other relevant domains (e.g. labour, well-being, education). Furthermore, measures addressing specifically mountain areas are often derogations of the main legislation and do not always consider the specificities of mountain areas adequately.

Nonetheless, the analysis of country-specific legislation offers interesting models that could serve to improve the policy framework at European level and serve as good practices for other European countries. From the analysis of the four country-specific frameworks, we can conclude that the following measures should be supported and encouraged both at European level (via for instance a European Action Plan for Pastoralism) and in other EU countries (throughout national legislations/measures):

- Combine different financing sources to support pastoralism, grassland management and more broadly the socio-economic development of mountains (1st pillar of the CAP, EAFRD, ERDF, ESF, national funds). These sources should finance innovation in all its forms (social and digital), making sure to make pastoralism is fit for the challenges of the 21st century, included climate change mitigation and adaptation;
- Promote multi-actor collaboration across farmers, land managers, authorities etc. via for instance shared multi-annual and management plans, as well as adapted governance structure that have a geographical and territorial relevance (i.e. mountain perimeter) rather than an administrative one;
- Formally recognise the intrinsic links between pastoralism, cultural and natural heritage in mountains and support it with targeted activities in order to prevent the loss of this heritage throughout land abandonment and decline of pastoral practices;
- Estimate the economic value of ecosystem services provided by pastoralism in order to encourage a more appropriate assessment of the price of pastoral products and services and support the continuity of pastoral practices.

The above-recommended measures do not ensure the effectiveness of grassland management and pastoral practices by themselves. Even though an enabling political framework is a precondition to support the continuation of pastoral practices and grassland preservation, its actual effectiveness strongly depends on i) the capability to define a policy framework that does not follow a one-size-fits-all approach, but it is rather adapted to the specific assets and opportunities of the territory and its inhabitants; ii) the ability of local stakeholders to uptake this framework and develop innovative practices directly on their territory, entail-
ing, for instance a better sharing and transfer of best practices. Both elements should not be underestimated in the interest of protecting mountain grasslands and supporting all practices related to their sustainable management.

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References
Euromontana 2014. A new CAP. Mountains of Opportunities. PDF
European Commission 2018. LIFE improves Nature. DOI: 10.2779/75202
European Commission 2021. List of potential agricultural practices that eco-schemes could support. PDF
European Environment Agency 2019. High nature value (HNV) farmland. PDF
European Environmental Agency 2020. The State of Nature. PDF
Forum Disuguaglianze Diversita 2018. Le scuole itineranti della pastorizia [Itinerant pastoralist schools]. PDF
IRPET 2018. Valutazioni per la strategia territoriale. Gli interventi per le aree interne. [Evaluation for the territorial strategy. The interventions in inner areas]. PDF
Loi Montagne II 2016. LOI n° 2016-1888 du 28 décembre 2016 de modernisation, de développement et de protection des territoires de montagne. PDF
Lucatelli, S. 2016. A Strategy for “Inner Areas” in Italy. Fostering growth through Inner Areas development. PDF
Maréchal, A. & Baldock, D. 2017. Key emerging findings from the PEGASUS project June 2017. PDF