

Supporting HNV extensive livestock systems in Mountain and Mediterranean areas – The need for an adapted European Policy

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Abstract. Extensive livestock systems in Mediterranean and mountainous areas of the European Union are facing many challenges. The majority of these livestock systems are of high nature value and their subsequent decline has many social, economic and environmental consequences. European policies are contradictory on this issue: on the one hand, pieces of environmental and rural development policies acknowledge the irreplaceable role of livestock systems; on the other hand, influential elements of agricultural and hygiene policies cause further problems for extensive livestock graziers and small-scale processors of livestock products. Policy responses to the problems faced by extensive livestock systems vary from one member state to another. The wide range of such answers is explained by different institutional arrangements between farmers, administrations and researchers. The paper argues that the present European policy framework is not satisfactory as long as it globally creates more problems than solutions, and that the solutions are only mobilized and efficient in the presence of strong local political commitment. Considering the importance of extensive livestock systems in Mediterranean and mountainous areas at EU level as a whole, it is crucial to set a cohesive policy framework favourable to their conservation at this level, going against the present policy trends. In this paper we have not limited ourselves strictly to Mediterranean regions, but refer broadly to southern member states of the EU, including Bulgaria and Croatia, and candidate member states such as Macedonia and Montenegro.

Keywords. Extensive livestock – Grazing – Semi-natural pastures – High Nature Value farming – European policy.

Soutenir les systèmes d'élevage extensifs dans les zones montagneuses et méditerranéennes de l'Union Européenne : les enjeux d'une politique européenne adaptée

Résumé. Les systèmes d'élevage extensifs des zones montagneuses et méditerranéennes sont confrontés à de nombreuses difficultés. Le déclin qui en résulte a de nombreux impacts sociaux, économiques et environnementaux dans la mesure où la plupart de ces systèmes ont une haute valeur naturelle. Par rapport à cet enjeu, les politiques européennes sont contradictoires : d'un côté certains aspects des politiques environnementales et de développement rural reconnaissent le rôle irremplaçable de ces systèmes ; d'un autre côté de nombreux éléments des politiques agricoles et sanitaires, dont le poids est déterminant, causent de sérieux problèmes aux éleveurs extensifs. Au total, la gamme des réponses politiques apportées pour faire face aux enjeux associés à ces élevages varie fortement d'un État membre à l'autre, en fonction des différentes façons de construire les relations entre éleveurs, administrations et chercheurs. L'article montre que le cadre politique européen crée plus de problèmes qu'il n'offre de solutions, celles-ci n'étant effectives qu'au prix d'un fort investissement politique local. Au regard de l'importance des enjeux associés à la conservation des systèmes d'élevage extensifs des zones montagneuses et méditerranéennes à l'échelle de l'Europe, il est crucial d'avoir un cadre politique commun ambitieux à cette échelle, qui prenne le contrepied des tendances politiques actuelles. Les zones couvertes dans cet article dépassent les seules zones méditerranéennes et incluent l'ensemble des États Membres du sud de l'Europe, y compris la Bulgarie, la Croatie ainsi que les pays candidats comme la Macédoine et le Monténégro.

Mots-clés. Élevage extensif – Pâturages semi-naturels – Agriculture à haute valeur naturelle – Politique européenne.

I – Introduction: HNV extensive livestock systems in Mountain and Mediterranean areas and their functions

High nature value farming (HNV) is a concept introduced in the early 1990's (Baldock *et al.*, 1993; Beaufoy *et al.*, 1994). It captures two ideas:

- (i) conservation of biodiversity-rich farmed landscapes depends on the continuation of the farming systems that manage them for socio-economic reasons (and not primarily nature conservation reasons – HNV farmers are not “gardeners”); “nature” value goes beyond biodiversity, the term also captures other environmental goods or ecosystem services;
- (ii) the economy of HNV farms is, in the modern European context, frequently not sustainable without remuneration of environmental services and there is a need for policy supports to centrally address this issue in order to pursue the objective of ecosystem conservation of biodiversity at a large scale, notably in open landscapes.

HNV farming has since then been a core reference for assessing biodiversity conservation in relation to agricultural development (Oppermann *et al.*, 2012). Two fields of work stem from this concept: a first category tends to describe and understand the complex relationship between farming systems and biodiversity at a landscape level; a second one focuses on socio-economic and policy issues. This paper falls in this second category. Perhaps surprisingly the socio-economic aspects of HNV farming have received little attention from researchers to-date, especially in Mediterranean regions.

Further works have shown the importance of Mediterranean areas and mountain areas for the issue of HNV farmland on which the present paper focuses (Fig. 1; EEA, 2012). At a more specific level, the bulk of HNV farmland and landscapes in these areas is linked with extensive livestock systems.

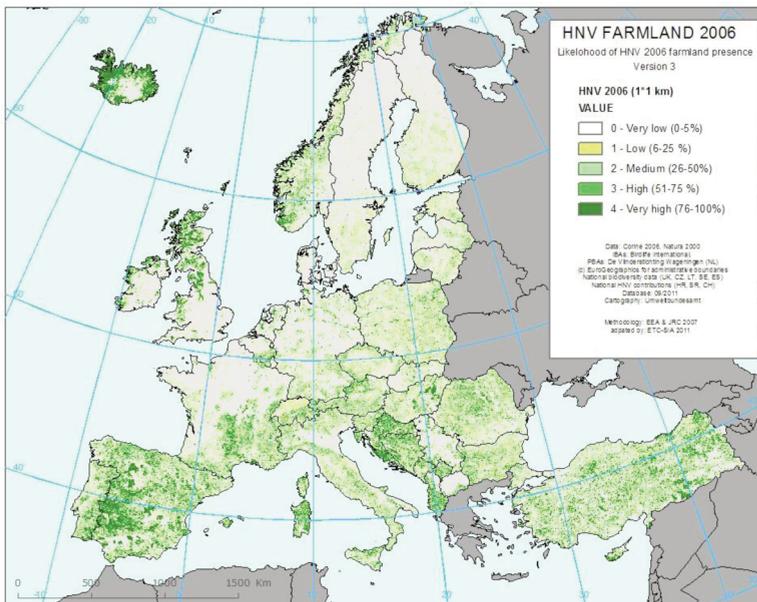


Fig. 1. Likelihood of HNV 2006 presence in Europe (1 km grid) (EEA, 2012).

These extensive grazing systems include those based on the use of permanent pastures, especially in upland and mountain areas; and systems using mixed forage resources, such as arable stubbles, fallows and permanent pastures, especially in the plains. A smaller area of HNV farming in Mediterranean regions consists of permanent crops (e.g. olives, almonds) and arable crops under traditional low-intensity farming systems.

Extensive grazing systems across southern Europe share a number of characteristics, including:

- Use of large-scale permanent pastures, generally of low productivity, often with a mix of herbaceous and non-herbaceous forage.
- Large areas of pasture are predominantly ligneous.
- High seasonality of pastures, and associated seasonal movements of livestock.
- Highly variable annual yield of pastures.
- Absence of fencing and importance of shepherding (a very significant cost).
- High presence of common land.
- Large variations in holding size – some very large, many very small (part-time employment).
- High presence of sheep and goats relative to bovines, including dairy sheep and goats.
- In dairy systems, importance of on-farm and other small-scale processing and value-added.

This combination of characteristics creates very particular farming and environmental conditions that generally are not shared by mainstream agriculture in the EU, and that consequently are not recognised in the design of EU policies. And yet in many regions of southern Europe these extensive grazing systems represent a large proportion and even the majority of all farmland.

From a European perspective, the broad image of these livestock areas is their low productivity and marginal role in EU agricultural and livestock economy. Their designation as Areas facing Natural Constraints (previously Less Favoured Areas) puts them at the margin of the core of productive farming, this core being located in the “favoured” areas of the European lowlands. We find it significant that DG agriculture webpage on milk and milk products¹ does not mention ewe and goat milk, which accounts indeed for less than 4% of the overall milk production in Europe when looking in more detailed publications (Eurostat, 2013). This marginality will also concern the meat sector, in which sheep meat represents 2% of the overall EU28 production and goat meat 0.1%. In contrast, sheep and goat are by far the main type of livestock in Mediterranean HNV areas, with these areas representing more than 50% of this sector at EU level (Pflimlin, 2013).

While being marginal from a sector perspective, HNV farmers in the Mediterranean and mountainous areas are true economic agents, able to produce with a minimum level of inputs and a maximum use of natural resources, making them agro-ecological farmers (Dumont *et al.*, 2012). In addition, the quality of the product is frequently valued under quality labels (PDO), notably in EU15 member states (Pflimlin *et al.*, 2005), although it cannot be assumed that PDO products are from HNV farming systems.

Beyond their micro-economic and sectorial dimension, such systems render many irreplaceable environmental services in addition to their interest for biodiversity: fire prevention, landscape management –with value for tourism for example– cultural life and, more generally, rural vitality (Pflimlin and Poux, 2005). We find here the multifunctionality of those systems (Andersen *et al.*, 2004), which can be another way of naming environmental services or the provision of public goods (Cooper *et al.*, 2009).

¹ http://ec.europa.eu/agriculture/milk/index_en.htm

This tension between the many good reasons to conserve HNV farming systems on the one hand and their overall economic marginality on the other hand is the problematic addressed in this paper. While public policy is recognized as the way to cover the “market failure”, this market being unable to reward the (HNV) farming systems at the level of their public interest, there is a need to better understand what are the policy needs and to assess the current policy supply in the present Common Agricultural Policy (CAP) against these needs. Thus, the paper is organised as follows:

- A first section analyses the different contexts associated with HNV livestock systems in Mediterranean and Mountainous areas; its goal is to identify the different policy needs arising from those different situations;
- A second section briefly describes the different policy instruments available and analyses how they generally –but not always– do not meet the needs and might even worsen the situation in some cases;
- The last and concluding section sets out why the current approach at EU level is not satisfactory and calls for a clear and consistent European policy.

II – Understanding the different contexts and threats on HNV systems

Extensive HNV livestock systems have one major asset, which is their low costs, as measured in terms of bought inputs. Meanwhile, the management of complex and highly variable agro-ecosystems requires a large amount of work relative to the amount of meat or milk produced, when compared with lowland systems. On this basis, the economic sustainability of HNV farming systems stands on two fundamental conditions: access to land and access to markets.

- Access to land is the first condition. This access needs to be at low cost –or even free of charge– in order to keep a relative advantage. This explains the relatively high share of common land in those farming systems. But other factors are attached to land access and management, such as the technical consistency of pastoral units, that need to be large enough and not scattered and equipped with basic infrastructure (shelter, water points, fences...). Diversity of land types accessible across the year, with seasonal productivity also a key factor to consider. These factors explain the great variety of situations across Europe, from favourable cases where productive and well-structured pastoral units are accessible to farmers (e.g. in pastoral humid mountains) to “difficult” land, poorly productive and/or with low security of tenure from the farmer perspective.
- Access to markets also needs a series of conditions of different kinds. Extensive farming systems have to deal with two major issues: presence of abattoirs, milk collection points, dairies able to connect with consumption basins on the one hand; or alternatively the option to undertake on-farm processing and direct marketing, an option fraught with difficulties in many countries of southern Europe due to inflexible implementation of hygiene regulations (e.g. in Bulgaria, Spain, Macedonia as presented at a EFNCP seminar in 2013 <http://see.efncp.org/networking/events/2013/20131002/>). The two factors are clearly reinforcing one another in a negative feedback, while the costs of compliance with regulations might lead to closing abattoirs and dairies. Thus the remoteness and marginality of these areas is compounded by the failure of policy (in some cases EU policy, in some cases national policy) to adapt to their needs and values.

HNV farms generally have lower net incomes than non-HNV farms, and often have negative net incomes, sometimes even with CAP support included in the calculation. In such cases, farms are sustained by family farm labour that is valued below the minimum wage. As farms try to maintain

economic viability, certain practices of environmental value tend to be abandoned, especially those that are labour intensive. Examples include shepherding of livestock to remote pastures, hay making and the maintenance of dry-stone walls and hedges.

Thus a third condition can be added, being the need for public payments in order to compensate the low physical productivity of such farming systems². Assessing the role of these payments is a complex issue, as it plays in contradictory directions depending on the contexts. Such payments can sustain the economic viability of farming systems, but on the other hand it has been acknowledged that the conditions attached to payments can cause problems for extensive HNV farmers. CAP conditions on land eligibility and cross-compliance are unfitted to the complex landscapes managed and cause administrative constraints that farmers tend to escape by abandoning the most difficult land –if not the activity itself– while intensifying on the most favourable, with negative impacts on biodiversity in both cases. Cross-compliance, including animal identification requirements conceived for industrial systems, is another difficult issue to deal with for a large share of traditional livestock farmers.

These local and regional constraints faced by HNV farmers in their different contexts need to be put in a wider economic picture. Generally speaking HNV farmers compete on a market organised at a European level, in which they are quantitatively marginal, as evoked above. This competition is uneven in terms of physical productivity, while the organoleptic and nutritional quality of the products obtained from HNV pastures is not recognised, for example lower needs of treatment due to fodder rich in tannin (Zimmer and Cordesse, 1996). The niche and local markets cannot be considered as a general option. And assuming that the price for some HNV products is higher –which is not the case in general– the prices of local products tend to converge with mass products that are the reference (e.g. Frayssignes, 2007). As a whole, the hygiene rules and the main research agenda are set in reference to the dominant lowland industrial livestock systems, but are largely unsuited to HNV systems.

As a whole, HNV systems struggle with a dominant market by addressing the specific constraint they meet on the two issues of land and market access. The solutions needed to address them are local and regional and require a strong coordination and political commitment, while the opportunity and threats at the global and European level are generally headwinds, both from an economic and policy perspective. But despite the fact that some success stories take place across Europe and are brought forward, the capacity to address the problem at a local level is not the general rule and depends on the local context, taking into account the combination of relatively favourable conditions in the biophysical, institutional and socio-economic context. On the contrary, most of the national and local authorities in member states tend to promote farming systems based on standard processes rather than on complex management of low-productivity land, that do not require a lot of administrative input for what is perceived as a low return.

III – Policy needs and the range of policy supply: global problems, some local solutions

There is a range of EU policies affecting extensive livestock farming in Mediterranean and mountain areas, including most notably the CAP (Pillars 1 and 2); biodiversity policy; and, less directly, climate policy. Biodiversity policies set EU objectives whose achievement in some cases depends directly on the sustainable continuation of these farming systems across large expanses of land.

² However, one should keep in mind that such public payments are also a condition for intensive farming systems, in order to cover their high structural costs. Intensive farming systems in Europe indeed receives more public payments than extensive ones, those payments re-enforcing the structural costs through a rent effect for suppliers (the higher the payment for a farmer, the higher the land rent and the costs of production factors).

For example, Targets 1 and 2 of the EU Biodiversity Strategy require the conservation and restoration of semi-natural pastoral habitats and of their ecosystem services. Unfortunately the EU's environmental policy does not offer mechanisms or financial resources for pursuing these objectives (except on a very limited "pilot" basis through the LIFE funds), and is entirely dependent on the CAP for this, as reflected in Target 3 of the Biodiversity Strategy that aims to increase the use of CAP measures for promoting biodiversity.

The CAP is indeed the main policy driver of farming land use in the EU. However, this policy currently does not take account of most of the local realities faced by HNV farming systems as described above, and this failure is especially apparent in the case of livestock farming systems characteristic of the Mediterranean regions. The roles of Pillars 1 and 2 of the CAP are discussed in more detail below.

Policy design should be based on facts, thus requiring sufficient data and data analysis. In order for policies to take account of extensive grazing systems there is a need for basic information about the extent of these systems, with categorisation into different types according to key characteristics, and about the tendencies affecting these systems. There is a chronic lack of such data at EU level and in many member states. Even basic data on the extent of pastures that are in grazing use are extremely opaque in many countries, with different sources sometimes showing very different statistics. This situation applies to the more extensive types of pasture and especially those with a significant ligneous component, and also especially in the case of common lands. Examples of Mediterranean countries with very unclear data on the extent of pastures in actual use include Albania, Croatia, Greece and Spain (see country chapters in Oppermann *et al.*, 2012). In Spain, different statistical sources show a total pasture extent of between 8.5 and 18.5 million hectares. The largest extent is shown by LPIS (Land Parcel Identification System), with notable declines taking place from 2005 (18.958 million ha) to 2013 (18.623 million ha).

Even where the extent of different pasture types may be recorded with reasonable accuracy, there remains the problem of knowing whether these pastures are in use or have been abandoned, perhaps for several years. Land-cover data sets such as Corine, for example, provide no indication of whether pasture is in use. The CAP, through its LPIS and IACS (Integrated Administration and Control System) data systems, has the potential to resolve this, but the tendency of policy is in the opposite direction: to stop recording data such as animal numbers on individual holdings as this is seen as "production linked". As policy makers shift their thinking away from production support, they need to build a new data and administrative control system that records land management actions that are central to ecosystem services, such as grazing and mowing, and not merely land cover types.

Data on tendencies in the farming systems that use semi-natural grazing lands is also very weak. Target 2 of the EU Biodiversity Strategy is of little use without adequate data and monitoring of ecosystems and their services, including such grazing lands, because we will never know if the target has been achieved without such data. Reporting on the condition of pastoral habitats under Article 17 of the Habitats Directive is especially weak from Mediterranean member states (Olmeda *et al.*, 2013). Oppermann *et al.* (2012) draw attention to signs of significant abandonment of semi-natural pastures in Mediterranean countries such as Albania, Croatia, Macedonia, Montenegro and Spain. But for efficient policy making more concrete data on such trends is required.

CAP Pillar 1

The main policy driving farming patterns in the EU is Pillar 1 of the CAP. This provides income support to farmers, according to a range of rules and conditions (eligibility rules, cross-compliance, new "greening" requirements). Mediterranean extensive grazing systems depend to a large extent on Pillar 1 payments for their survival, and yet the payment system is in many ways biased against these systems. Hence under current policy scenarios, these systems are unlikely to survive.

The main issues are as follows:

- The setting of Pillar 1 income payments bears no relation either to the economic situation (profitability) of the farming system, nor the public goods generated by the system. Generally the least profitable systems producing the most public goods receive the lowest payments, at least in most EU15 member states.
- The “historical” model of Pillar 1 payments is predominant in Mediterranean member states (all of the Mediterranean EU15). Under this model extensive sheep and goat systems receive the lowest support of all the main farming types covered by Pillar 1.
- Eligibility rules are biased against pastures with a high presence of ligneous forage and of landscape features.
- Some member states directly exclude large areas of extensive pastures from eligibility (Bulgaria from 2007, Spain from 2015).
- Cross-compliance rules place a significant burden on extensive grazing systems (e.g. live-stock identification requirements, Natura 2000 limitations on grazing).

Although the policy objective of Pillar 1 is to support farm incomes, it takes no account of the very different economic situations of farms and farming systems. Payment levels vary massively, for essentially historical and political reasons, but not with any rational relationship to the economic needs of farmers, nor to the public goods they deliver. Despite the obvious needs, for decades HNV farms have tended to receive lower levels of support from the CAP than non-HNV farms, especially from Pillar 1. These facts are shown by EU studies (EEA, 2010).

The broad debates on CAP reform have highlighted the differences between average Pillar 1 support payments in EU12 and EU15. However, this simplistic and largely political debate tends to conceal the fact that huge differences occur within the EU15, and also within individual EU15 countries and regions.

In the Mediterranean EU15 member states, the current Single Payment System (SPS) is distributed on the “historical” basis, with extremely high levels of support going to farmers who produced (in reference years) certain intensively-farmed crops such as tobacco, tomatoes, irrigated olives, maize and rice. Farmers raising sheep and goats on low-yielding pastures receive a very small payment per hectare, even compared with farmers raising beef cattle. In fact a Romanian or Bulgarian sheep farmer using permanent pastures is eligible for a considerably higher payment per hectare from Pillar 1 (approximately three times higher) than the equivalent sheep farmer in Spain or Portugal.

The reformed CAP may not look very different from this point of view. In Spain for example politicians and farmers’ organisations are determined to prevent any significant redistribution of Pillar 1 funds. In France there has been a greater recognition of extensive livestock systems for several years and what is discussed is the modality of the redistribution of Pillar 1, keeping in mind the bonus on a holding’s first hectares adopted in France. However, the income needs of extensive livestock farmers still are not fully addressed.

So the bulk of the CAP does not take account of (or reward) environmental services, nor the very real income and social problems of particular farming types that provide a majority of these services. Complementary measures have been available at various times, past and present, such as payments for “extensive” beef cattle (but not sheep or goats) and more recently the Article 69 and 68 options for redirecting a small percentage of Pillar 1 funds to certain farming systems. The latter have been used in several countries (France, Portugal, Spain) for supporting sheep and goat systems.

In fact many of the decisions that cause problems or that provide potential solutions are left to the national and regional levels, and the EU framework does little to help, it does not give a coherent set of priorities or mechanisms for supporting extensive livestock systems.

Pillar 2

The policy rationale of the CAP is that any objectives for agriculture and rural areas other than basic economic support for agriculture must be pursued through Pillar 2, which has much more limited financial resources. We discount from the discussion the environmental aspects of Pillar 1 in the form of cross-compliance and greening, as these are designed to reduce (slightly) the impacts of intensive farming and are practically irrelevant to the challenge of sustaining Mediterranean HNV grazing systems.

The main issues:

- Pillar 2 has a broad tool kit, but how to use it and the prioritisation of objectives is left to member states and regions. There is no EU cohesion on key territorial issues such as extensive grazing systems.
- No clear guidance at EU level on how to use Pillar 2 for pursuing EU policy objectives in relation to ecosystem services, biodiversity, permanent grasslands, fire prevention etc.
- Rural Development Programmes (RDPs) often have weak ex-ante analysis of these issues. Even when key challenges for extensive systems are highlighted in PDR documents, the measures and resources are not necessarily put in place.
- Pillar 2 subsidies for afforestation are an attractive option for extensive livestock farmers, especially as the land afforested is automatically eligible for Pillar 1 payments as well. This is a major disincentive to continuing with farming.
- The co-financing requirement is a disincentive to make use of Pillar 2 for what are seen in some countries as EU environmental aims, rather than purely economic objectives that are seen as national priorities.

The EAFRD (European Agricultural Fund for Rural Development) tool-kit is broad, and increasingly flexible under the proposals for post-2014. If national and regional authorities want to take initiatives to support HNV farming, there are plenty of ways of doing this using EU measures and funds. Several countries and regions continue to make considerable efforts, and there are many examples of good schemes funded by Pillar 2, and of outstanding local projects funded from the CAP and from other sources, such as LIFE and other public and private funds.

However, the main measures available today for supporting HNV farming have existed for many years – the agri-environment measure (AEM) since the 1980s and the Areas facing Natural Constraints (LFA) scheme since the 1970s. It is left entirely to Member States to decide whether to use these measures to support HNV farming, and to what extent. The result is that some countries do a lot, while some others do very little, especially in southern European countries such as Greece, Portugal and Spain (Keenleyside *et al.*, forthcoming). This situation does not make for a consistent or coherent strategy to support HNV farming across EU.

The basic need is for relatively simple measures that incentivise the continuation of HNV farming systems on a large scale. Both the AEM and LFA schemes have the potential to be implemented in this way. To note some positive examples, Romania has implemented an ambitious agri-environment programme specifically to support existing HNV livestock systems over large areas of the country. France has set up a pastoral management plan AEM delivering interesting outcomes at site level (Conservatoires d'espaces naturels, 2009). However, generally speaking, implementation of AEM is not adapted to the type and scale of HNV situations in the range of Mediterranean member states.

Implementation of the LFA scheme varies greatly across member states. Generally it is not targeted in favour of holdings with HNV farming characteristics, although this could be done within current EU rules. In France there is some targeting of LFA support towards extensive livestock, with a significant share of Pillar 2 funds. This scheme includes different stocking rates specified for extensive sheep and goat pastoral systems and mountain dairy systems, a higher payment rate for the first 25 ha, and an additional payment for transhumance systems. Such an approach could be of benefit in other Mediterranean countries. An alternative approach in England and Wales has been to replace the system of LFA payments with a special AEM that aims to pursue environmental outcomes on farms within the LFA.

Instead of supporting extensive grazing systems, in some countries large areas of extensive grazing land have been afforested with public subsidy from Pillar 2 funds, a change of use that also entails a considerable loss of biodiversity, landscape and socio-cultural values, as well as leading to severe wild-fire problems in southern Europe.

So far the EU policy framework has not established a clear strategy for HNV farming. The Commission's 2011 Consultation Document on CAP reform explicitly recognised a number of relevant issues including, the large extent of HNV farming systems in the EU, the abandonment risk faced specifically by extensive grasslands, and the fact that extensive pastures and meadows have a worse conservation status than other habitats of European conservation concern (Olmeda *et al.*, 2013). In fact the decline of extensive livestock farming is found to be the greatest threat to Natura 2000 farmland habitats across the EU. But so far this analysis has not been converted into concrete policy action at the EU level.

This weak EU framework gives no indication to member states, including new southern Europe member states (Croatia) and potential new member states (Macedonia, Montenegro), of what they could or should be doing to address the needs of extensive grazing systems. There is no mention in the CAP texts of how EU objectives for ecosystems, biodiversity or climate change (e.g. fire prevention) might be addressed in the design of Rural Development Programmes. Member States are left to work this out for themselves.

A positive aim of the new CAP is to become more outcome-orientated and more strongly linked to priorities. The new EAFRD regulation will require the next round of RDPs to include a clear analysis of needs on the ground in relation to EU priorities for rural development, with appropriate measures and resources in response to these identified needs. If robustly applied by Member States and the Commission, then any programming region with a significant presence of HNV farming should be required to include a satisfactory analysis of the needs of these farming types and a suitable response to these needs through the RDP measures.

IV – Conclusion: subsidiarity is not the only answer, the need for an adapted policy at EU level

Mediterranean extensive livestock systems have distinctive characteristics that differentiate them from most other farming systems in Europe. Compared with mainstream farming in the lowlands of central and northern Europe, Mediterranean extensive livestock systems are predominantly of very high value in terms of biodiversity and a range of ecosystem services, but they face particular socio-economic and regulatory challenges that threaten the continued delivery of these services.

The relevant EU policy goals are found mainly in environmental policy (maintenance of habitats and ecosystems), while the measures and financial resources are all in the CAP. Some aspects of Pillar 1 are biased against the continuation of Mediterranean extensive livestock farming, thus working against environmental goals; there are also potentially useful measures included within Pillar 2, but their use for this purpose varies greatly from one country to another and is notably

weak in most Mediterranean member states. Ultimately the policy package implemented on the ground depends increasingly on national and regional political processes and decisions, rather than following EU policy goals.

Mediterranean extensive livestock farming is slipping into decline, not only in the EU15 but also in candidate countries. There is a need for greater recognition of these trends and their environmental consequences, and for more robust data and monitoring systems as the basis for efficient policy design. EU policy should be adapted to the realities of Mediterranean extensive livestock farming, and should ensure that all countries make full use of the available measures for supporting these farming systems.

In principle, the new CAP gives flexibility to each Member State to design and implement a combination of policy schemes susceptible to address this challenge, with the possibility to move funds from Pillar 1 to Pillar 2 and targeting to HNV systems. But in a context of exacerbated competition between agricultural sectors within the European boundaries and limited budget, the absence of a EU vision for extensive livestock and dedicated policies is a failure. The fragile legacy from HNV farming systems is of European interest, there is no strong reason to leave it to the willingness of highly motivated actors at local and regional level only.

References

- Andersen E., Elbersen B. and Godeschalk F., 2004.** Assessing multifunctionality of European livestock systems. In Brouwer F. (ed) *Sustaining Agriculture and the Rural Environment: Governance, Policy and Multifunctionality*, Cheltenham: Edward Elgar, p. 104-123.
- Baldock D., Beaufoy G., Bennett G. and Clark J., 1993.** *Nature Conservation and New Directions in the Common Agricultural Policy*. Institute for European Environmental Policy (IEEP), London.
- Beaufoy G., Baldock D. and Clark J., 1994.** *The Nature of Farming: Low-Intensity Farming Systems in Nine European Countries*. Institute for European Environmental Policy, London 66 pp.
- Conservatoire d'espaces naturels, 2009.** *Étude pour l'accompagnement des mesures agri-environnementales territorialisées utilisant l'engagement unitaire Herbe_09*. Institut de l'élevage.
- Cooper T., Hart K. and Baldock D., 2009.** *The Provision of Public Goods through Agriculture in the European Union*, Report Prepared for DG Agriculture and Rural Development, Contract No 30-CE-0233091/00-28, Institute for European Environmental Policy: London.
- Dumont B., Fortun-Lamothe L., Jouven M., Thomas M. and Tichit M., 2012.** Prospects from agroecology and industrial ecology for animal production in the 21st century. *Animal*. doi :10.1017/S1751731112002418 (online 21.12.2012).
- EEA, 2010.** *Distribution and targeting of the CAP budget from a biodiversity perspective*, Technical Report 12/2009, Copenhagen.
- EEA, 2012.** *Updated High Nature Value Farmland in Europe: an estimate of the distribution patterns on the basis of CORINE Land Cover 2006 and biodiversity data*. Version 4 September 2012 http://forum.eionet.europa.eu/nrc-agriculture-and-forest-interest-group/library/forests/nrc-forests/nrc-agri-forest-meeting-26-sept.-2012-copenhagen/documents/updated-high-nature-value-farmland-europe/download/1/Task421_HNV_report_final_draft_to_be_published.pdf
- Eurostat, 2013.** *Agriculture, forestry and fishery statistics*, 2013 edition. ISSN 1977-2262.
- Frayssignes J., 2007.** Une analyse à travers les exemples de l'AOC Rocamadour, de l'IGP label rouge Agneau Fermier du Quercy, de l'IGP label rouge Haricot Tarbais et du label rouge Bœuf Fermier Aubrac. Rapport d'étude Conseil Régional Midi-Pyrénées et Institut Régional de la Qualité Alimentaire Midi-Pyrénées.
- IEEP, 2006.** *An evaluation of the Less Favoured Area measure in the 25 Member States of the European Union*, a report for DG agriculture. http://ec.europa.eu/agriculture/eval/reports/lfa/index_en.htm.
- Keenleyside C., Beaufoy G., Tucker G. and Jones G., (forthcoming).** *The High Nature Value farming concept throughout EU 27 and its maturity for financial support under the CAP*. Institute for European Environmental Policy: London.
- Olmeda C., Keenleyside C., Tucker G.M. and Underwood E., 2013.** *Farming for Natura 2000. Guidance on how to integrate Natura 2000 conservation objectives into farming practices based on Member States good practice experiences*. European Commission, Brussels.

- Oppermann R., Beaufoy G. and Jones G. (eds), 2012.** *High Nature Farming in Europe*, verlag regional-kultur, Ubstadt-Weiher, 544 p.
- Paracchini M.L., Petersen J-E., Hoogeveen Y., Bamps C., Burfield I. and van Swaay, C., 2008.** *High Nature Value Farmland in Europe - An estimate of the distribution patterns on the basis of land cover and biodiversity data*. Luxembourg: Office for Official Publications of the European Communities. EUR 23480 EN.
- Pflimlin A., 2013.** Évolution des prairies et des systèmes d'élevage herbagers en Europe : bilan et perspectives. *Fourrages*, (2013) 216, p. 275-286.
- Pflimlin A., Buczinski B. and Perrot C., 2005.** Proposition de zonage pour préserver la diversité des systèmes d'élevage et des territoires européens. *Fourrages*, (2005) 182, p. 311-329.
- Pflimlin A. and Poux X., 2005.** "Biodiversity of grasslands and livestock systems in Europe. Redefining the political issues", *EGF, 12th symp.*, Tartu, Estonia.
- Zimmer N. and Cordesse R., 1996.** Influence des tanins sur la valeur nutritive des aliments des ruminants, *INRA Prod. Anim.* 1996, 9 (3), p. 167-179.

