



# High Nature Value Farming in the Western Balkans: Current Status and Key Challenges – a Scoping Document



Hay making in Macedonia - Petar Antonov

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# Introduction

The Western Balkan countries are all in a process of accession to the European Union. Croatia, Macedonia and Montenegro have the status of candidate countries. Albania, Serbia, Bosnia and Herzegovina and Kosovo under UNSCR 1244/99 are potential candidate countries, with the prospect of joining the EU when they meet the established conditions.

During pre-accession, the candidate countries go through a process in which they review all their national legislation and policies with a view to harmonizing it with the EU *acquis communautaire*. They also have to adapt their institutions and economic policies, strengthen the rule of law and develop market-oriented economies.

To a certain extent, this is a moving target, as the body of EU legislation and policies is constantly evolving. The 7-year EU budget cycle often provides a driver for these changes, as can be seen in the current discussions surrounding the shape of the Common Agricultural Policy (CAP) after 2013.

The CAP and environmental policies are key elements of the *acquis communautaire* and are linked in complex and sometimes contradictory ways.

In fact the EU is failing to meet environmental aims that are intimately tied up with farming and the use of

rural land, such as the target to halt biodiversity decline by 2010. A key action for achieving this target is to maintain the types of farming that continue to harbour a wide range of wildlife, because they have not been intensified to the degree of mainstream “industrialised” farming. This is High Nature Value (HNV) farming.

The HNV farming concept is not complicated – it highlights the fact that broad farming types supporting high levels of biodiversity require targeted instruments to ensure their sustainability. This type of farming is predominantly based on semi-natural pastures and meadows – sometimes Natura 2000 habitats, sometimes not – that are threatened with abandonment across Europe. Supporting HNV farming directly benefits the conservation of Natura 2000 farmland habitats, both within the designated sites and in the wider countryside. Protection of flagship sites is thus combined with support for the relevant farming systems at the landscape scale.

This scoping document aims to highlight some of the key features of the HNV farming in the Western Balkans within the constraints of available data. It does not claim to be exhaustive and should be viewed as a starting point for further work on HNV farming and its particular needs in the countries of the Western Balkans so that effective policies can be developed which will make a difference to HNV farmers on the ground.

# Biodiversity and HNV Farming in the Western Balkans

The Western Balkans, with its exceptional wealth of plants and animals, is one of the richest parts of Europe in terms of biodiversity. There is a high number of endemic species and habitats, many of which are either of global or European conservation importance. The density of animal, bird and fish species listed in the Red List of Threatened Species (by area) is two to four times higher than in the 15 older EU Member States (EEA, 2010).

The Western Balkans encompass a great variety of natural habitats, ranging from coastal lagoons and

able conservation status. Achieving this will depend in practice on farmers continuing to live and work in HNV farming regions.

The recent decline in rural population and in the number of livestock animals has led to land abandonment, especially in mountainous areas. This harms biodiversity by shrinking the area of farmland of high natural value and thus the mosaic of habitats for wildlife. At the same time, intensive agriculture is expanding, which also threatens biodiversity.

The governments in the region have taken steps to protect some key species and habitats. The areas under official national (protected areas) and international designations (Ramsar, Emerald) have been increasing in recent years. Additionally, initial steps to set up the NATURA 2000 network are being taken in most of the countries.

The coverage of Key Biodiversity Areas such as Important Bird Areas, Important Plant Areas and Primary Butterfly Areas is also increasing as more data is being collected. These areas are not under legal designation however they represent sites of global significance for biodiversity conservation.



Georgi Popgeorgiev

*Whinchat, Saxicola rubetra*

wetlands to Mediterranean forests, mountain meadows and pastures, freshwater wetlands, and karstic terrain. This natural wealth is recognized as the 'green gold' of South Eastern Europe (Plantlife) and the 'green lungs' of Europe (EEA).

Many of these landscapes and habitats were created by the centuries old practices of extensive grazing and low-input small-scale cropping throughout the Balkans. The inter-linkage between HNV farming, biodiversity and traditional landscapes is very strong. A large number of the future NATURA 2000 sites will be located in agricultural areas – these are examples of HNV farmland. The EU Birds and Habitats Directives require that these habitats are maintained in a favour-



Suzana Djordjevic

*Adonis vernalis* – one of the plants which extensive grazing is supporting



Stanimir Stoycheff

*Sinite kamani nature park, Bulgaria*

The analysis of their status and trends reveals two important issues:

(1) Less than half of the designated Key Biodiversity Areas are under legal protection in the region. At the same time, close to 90% of the IPAs (for example) should qualify as sites of European importance as defined by the EU Habitats Directive and/or the Bern Convention (Radford and Odè, 2009).

(2) Grassland habitats are extremely important for biodiversity conservation in the region. They occur in more than 70% of the IPA sites, and are the dominant habitat in 50%. With or without legal protection in the future, these habitats were created and maintained by the traditional farming practices of the region. Therefore, a critical aspect for their conservation is the continuation of HNV farming.

Furthermore, low-intensity grazing and farming systems provide highly valued ecosystem services

alongside biodiversity and cultural landscapes such as fire prevention and watershed management. Their maintenance on a large scale provides essential scope for flora and fauna to adapt to climate change, in a way that protected areas alone cannot do.

Current policy does not sufficiently address ecosystem services. Moreover, as the Commission points out, these will not be sustained by biodiversity conservation measures alone: high levels of species and habitat conservation are just one, key, component; but many services are provided outside protected areas. Such an approach would call for the restoration of ecosystems insofar as possible to strengthen their resilience and sustain key services they provide, while also achieving conservation objectives and enabling Member States to adapt to climate change.

One of the most positive developments in 2010 has been the explicit recognition in a wide spectrum of Commission documents of the intimate link which should exist between these policies and that an aim of Community policy should be to encourage activities which integrate these objectives. That is the basis of the Green Infrastructure initiative.

In the rural terrestrial environment there are two land uses which can do this – forests, including sustainable woodland management, and ecologically sustainable agriculture. At the more intensive end of the farming spectrum, this means supporting organic and similar systems, but at the extensive end, it means making High Nature Value farming systems socially and economically sustainable. Indeed in the case of biodiversity and landscape, these HNV systems provide greater levels of environmental services than organic farming and crucially deliver connectivity when present at the landscape scale.

## Box 1 Important Plant Areas on the Balkans Peninsula

Important Plant Areas (IPAs) are the most important places in the world for wild plant diversity. They are identified at national level using internationally standardised criteria; the presence of threatened species, threatened habitats and species richness. IPAs are not legal designations, but provide information to assist the prioritisation of sites for conservation action.

The Balkan Peninsula contains the richest flora of any region in Europe. It possesses greater species numbers than any other European region including around 1800 endemic vascular plant species (growing only on this peninsula and nowhere else in the World). This was the basis for the identification of 398 IPAs in six Balkan countries covering more than 4 million hectares of land. These IPAs contain diverse habitat mosaics, dominated by forest and grassland.

Agricultural practices have been influencing the vegetation and landscape of the Balkans for 10,000 years; burning of vegetation, grazing, deforestation and cultivation have all contributed to the diversity of vegetation types and associated species. Thus, grassland habitats occur in more than 70% of the IPA sites, and are dominant habitat in 50%.

Land abandonment or reduction of land management is the third most important threat (after land development and poor forestry practices), affecting over one third of all IPA sites. This results in loss of biodiversity rich grassland habitats as they revert to coarse grassland /scrub when grazing is reduced. This is particularly evident in Croatia, where 34% of IPAs are threatened by abandonment of flower-rich farmland.

Appropriately targeted incentives for the sustainable management of forestry and agricultural land are urgently needed for land owners, users and managers, on whom the conservation of IPAs will ultimately depend. The opportunity for private land owners (who currently own land within 53% of the region's IPAs) to earn a sustainable income whilst managing the land for biodiversity benefit, will be essential to prevent potentially disastrous changes of land use.

*Source: Radford, E.A. and Odè, B. eds. (2009) Conserving Important Plant Areas: investing in the Green Gold of South East Europe. Plantlife International*

## Box 2 Climate change impacts in the Western Balkans

By 2005, the pan-Europe region (i.e. including Eastern Europe, the Caucasus and Central Asia countries) had experienced a 1.4°C increase in temperatures over pre-industrial levels: higher than the global average. Southern Europe, including the Western Balkans, experienced even stronger warming than the rest of pan-Europe.

In the Western Balkans, climate change is expected to bring higher summer temperatures and lower rainfall. It could have far-reaching impacts on agriculture in the region, increasing the need for irrigation, reducing crop production and possibly shifting crop ranges.

These changes will have wider effects on ecosystems in the region: reduced water flows will affect freshwater ecosystems and in mountain areas, higher average temperatures will shift the tree line upwards. Across ecosystems, climate change could encourage invasive species. By one estimate, up to 25 % of endemic plant species in southern European countries may disappear.

Biodiversity in the Western Balkans is also under threat. However, there is a lack of information and analysis about the links between the Western Balkan environment and global environmental changes i.e. climate change and biodiversity loss.

*Source: EEA, 2010, Environmental trends and perspectives in the Western Balkans*

# Rural Areas in the Western Balkans

The total area of the Western Balkan countries is 264 462 km<sup>2</sup> (equivalent to 6% of the EU territory). The population is 26.3 million, of which 50% live in rural areas. The average population density of 89.2 people per km<sup>2</sup> is much lower than that of the EU (114.4). Comparatively low population densities are observed in mountainous and karstic areas in Montenegro (45.2),

Bosnia and Herzegovina (75.1) and Croatia (78.5). These regions are subject to substantial ageing and depopulation processes. In general, settlements are small and numerous; there are few large unpopulated areas. A common trend in all countries of the region is migration from rural areas to urban and coastal zones as well as abroad.

**Table 1 Area and population in the Western Balkan countries**

Country	Total area (km <sup>2</sup> )	Population		Population density (per km <sup>2</sup> )
		Total ('000)	Rural (%)	
Albania	28 750	3 153	54	109,7
Bosnia and Herzegovina	51 209	3 844	52	75,1
Croatia	56 542	4 441	44	78,5
Kosovo (UNSCR 1244)	10 887	2 070	65	190,1
Macedonia	25 713	2 042	43	79,4
Montenegro	13 812	625	40	45,2
Serbia	77 474	7 382	55	95,3
<b>All Western Balkans</b>	<b>264 462</b>	<b>23614</b>	<b>50</b>	<b>89,2</b>
<b>EU-27</b>	<b>4 308 406</b>	<b>492090</b>	<b>56</b>	<b>114,4</b>

Source: DG Agri country files

## Agricultural land use in the Western Balkans

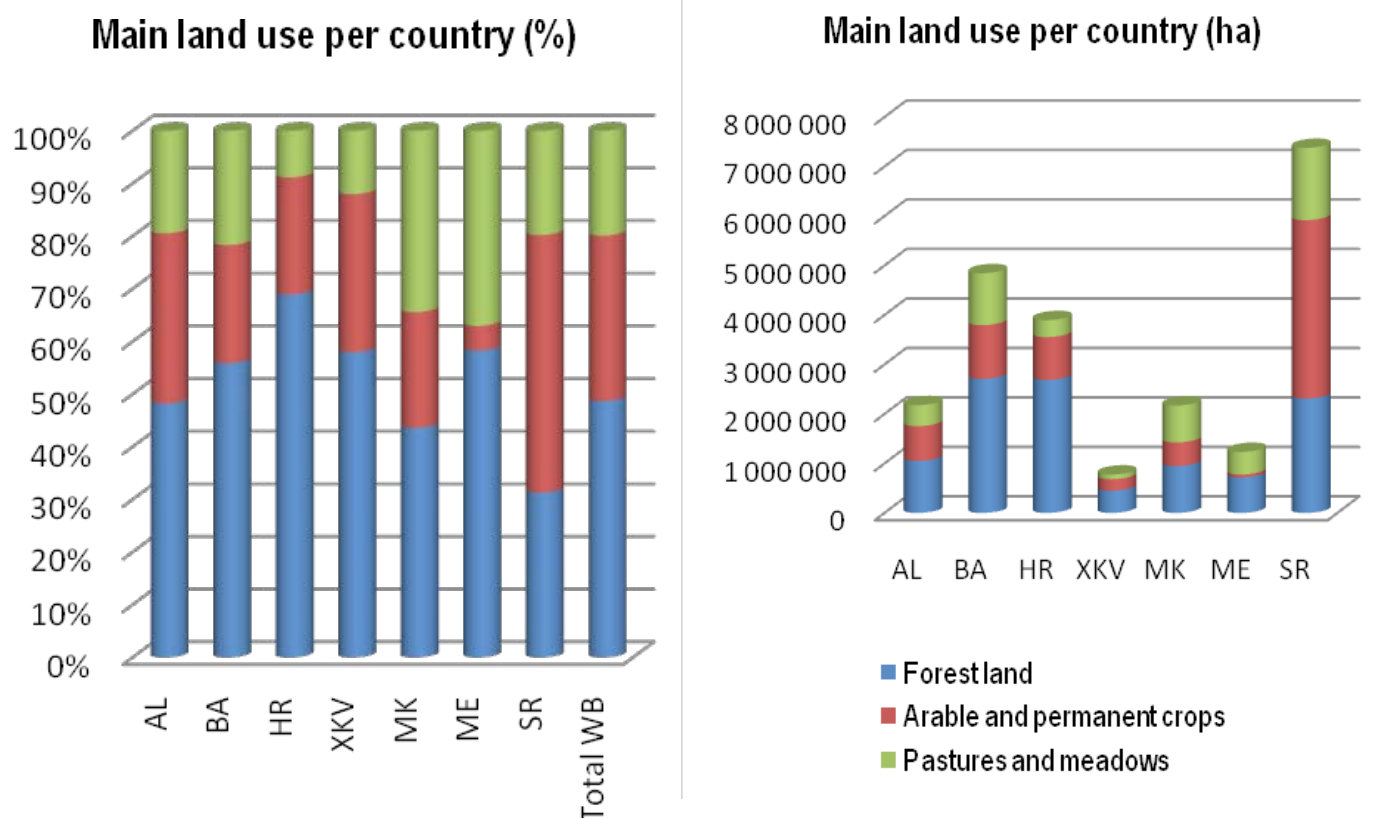
Land used for agriculture comprises approximately half of the entire territory of the Western Balkan region. Pastures and meadows cover close to 19% and arable land and permanent crops 29%.

Between the countries there are significant variations due to the region's diverse landscapes and climates which often change markedly over very short distances, producing a great diversity of crops and farming. On the plains and in the river valleys, land use is more intensive and cereals are the major crop. On the lower slopes of the mountainous areas, there are

fruit orchards and vineyards and the upland areas are used for livestock, in particular sheep and goats. Traditional olive groves are grown along the Adriatic coast.

Thus, in Montenegro only 5% of the entire territory is used for permanent and arable crops, and 37% for pastures and meadows. In Croatia, the land use is almost the opposite since 22% of the territory is used for arable and permanent crops, while pastures and meadows cover 9%. However, as explained in Box 3, these statistics can sometimes be unhelpful or even misleading, especially in the case of Mediterranean pastures, which often take the form of scrublands or even forests.

**Figure 1 Main land use per country (percent and hectares)**



Source: National statistical data

**Box 3 Some observations on the official data for land use in agriculture**

The use of agricultural land use statistics in the countries of the Western Balkans is far from straightforward. There are variations in the data depending on the national source – national statistics, cadaster registers and/or national census (where such were carried out).

The main challenge is the distinction between agricultural area and utilized agricultural area. Usually, the national statistics report the areas potentially available for agriculture (within the agriculture land funds) and not the lands actually used in agriculture.

Another related and important gap is the recording of unused agricultural land: it is not easy to differentiate between fallow land, uncultivated land and abandoned land.

And last, but not least, forests and forest pastures are commonly used for grazing throughout the region but none of the countries reports the areas subject to forest grazing. This is exacerbated in the Mediterranean zone, where legal forests often consist of scrublands of various types, vegetation communities used for grazing and browsing for thousands of years.



There are also significant apparent discrepancies between national statistics and Corine Land Cover 2000 data (EEA, 2010). Arable land and permanent crops cover 29% of the total area according to national statistics and 13% according to CLC, while pastures and meadows cover 19% or 32% depending on the source.

The main reasons may be related to the different methodologies and periods of data collection. Additionally, the presented land use data does not cover urban and other areas such as water bodies. Yet the magnitude of variation is quite substantial. It is possible that an important factor is the very extensive land use in much of the region, and particularly the mosaic pattern which characterises many zones. The weak-

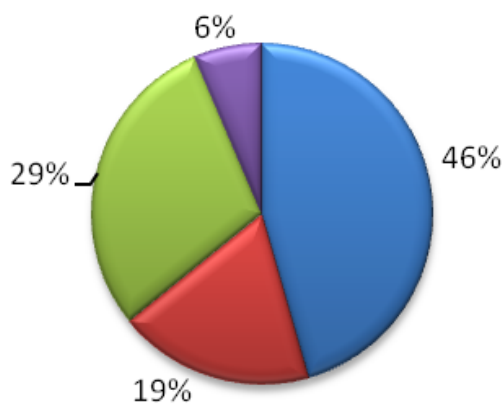
nesses of national statistics noted in Box 3 may also be significant.

Some of the extensively used land is on the edge of abandonment and in practice some of it is already abandoned. This is to some extent reflected by the category of uncultivated land which represents 6% of total land use or, non-use.

This reasoning, albeit speculative, leads to a preliminary estimation of the extensively used and potentially High Nature Value agricultural land in the Western Balkans of around 7.8 million hectares. This is excluding forest grazing which accounts for as much as 60% of the forage resources in some Albanian villages.

**Figure 2 Land Use and Land Cover in the Western Balkans**

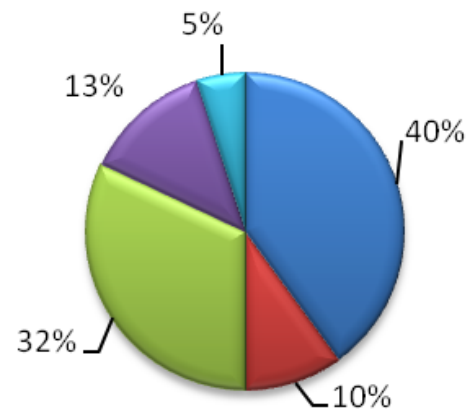
**Land Use in the Western Balkans**



- Forest land
- Pastures and meadows
- Arable and Permanent crops
- Uncultivated land

Source: National Statistical data (2003-2009) excluding urban and other areas

**Land Cover in the Western Balkans**



- Forests and transitional woodland shrubs
- Natural grasslands, heathland, sclerophyllous vegetation
- Pastures and mixed farmland
- Arable land and permanent crops
- Other areas

Source: EEA, CLC 2000

## Farm Structure

The share of agriculture in the economies of the Western Balkan countries (as measured by GDP) has been decreasing since 2000. However, its overall importance remains high due to the large number of people engaged in farming.

There are very large numbers of small farms with numerous plots of land throughout the region. In Macedonia, 40% of the farms are smaller than 2 hectares while in Kosovo under UNSCR 1244-99 nearly 80% of the farms are within the size of 0.5-2.0 ha. As much as three quarters of all Croatian family farms are smaller than 3 hectares. In Bosnia and Herzegovina, the share of farms with less than 5 ha is 84%. It is of no surprise

then that the average farm size is as low as 1.1 ha in Albania and only 3.6 ha in Serbia. The average size of the individual plots is 0.3 ha.

These averages, however, do not include arable land that is used by farmers under informal agreements, or common grazing land. In Montenegro, there are approximately 155 000 hectares of pastures (33% of all agriculture land), whose ownership status is unclear (Arcotrass Consortium 2006).

Informal agreements for use of land are widespread in all countries of the region. These are very difficult to detect from the official statistics. These 'hidden' private arrangements may be of considerable significance for policy making.

**Table 2 Average farm and plot size in the Western Balkans (ha)**

Country	Average farm size (ha)	Average plot size (ha)
Albania	1.1	0.3
Bosnia Herzegovina	No data	No data
Croatia	2.4	0.3
Kosovo (UNSCR 1244)	2.2	0.27
Macedonia	2.5 to 2.8	0.3 to 0.5
Montenegro	No data	No data
Serbia	3.6	0.3

*Source: Various data sources from national level*

# High Nature Value Farming in the Western Balkans

In this report we use ‘High Nature Value (HNV) farming’ as an umbrella term encompassing both HNV farmland and HNV farming systems, HNV farmland being in this context defined with reference to the high

nature value land cover (e.g. pasture, orchard), whereas HNV farming systems refers to the farming practices on this land (e.g. grazing, mowing, pruning), which are dynamic and change over time.

## High Nature Value Farmland in the Western Balkans

### Definition of High Nature Value Farmland

“High Nature Value farmland comprises those areas in Europe where agriculture is a major (usually the dominant) land use and where that agriculture supports or is associated with either a high species and habitat diversity, or the presence of species of European conservation concern, or both” (Andersen et al, 2003)

This definition of High Nature Value (HNV) Farmland was developed for and adopted by the European Environmental Agency (EEA). Three main types of High Nature Value farmlands were identified (without a clear-cut division between them being set out):

Type 1: Farmland with a high proportion of semi-natural or natural vegetation

Type 2: Farmland with a mosaic of habitats and low-intensity land uses

Type 3: Farmland supporting rare species or a high proportion of European or World populations

Over several years (2003-2007), the Joint Research Centre and the European Environmental Agency (JRC/EEA) have worked together to improve the identification of potential HNV farmland areas at the EU level. This was done on the basis of assumptions about the relationship between certain types of land cover and the intensity of farming and the presence of high nature values. These were mapped drawing on datasets available on a EU scale: CORINE land cover data, NATURA 2000 selected sites containing habitats dependent on extensive agricultural practices and Important Bird Areas nominated for their significance for ‘farmland birds’ and as yet undesignated under NATURA 2000. In addi-

tion, bird and butterfly population abundance data and other relevant national and transnational data sources were incorporated when available.

This is now largely referred to as the “EEA approach” to HNV farmland identification and some countries use it as the basis for their national identifications (Bulgaria in 2007 as well as Serbia in 2010). The weaknesses of an approach dependent on EU scale data is clear. Where much more detailed information is available at national level (e.g. in the Netherlands), the EEA approach can provide useful information. Additional national data bases were used in Serbia in the identification of potential HNV farmland based on the EEA approach.

### High Nature Value Farmland in the countries of the Western Balkans

Overall, the concept of HNV farmland is a novelty for the Western Balkan countries. Recently two of them (Serbia and Macedonia) have taken some initial steps towards its identification (NGO-led projects). However,

Ruska Miceva



*Sheep grazing in Porecie, Macedonia*

it is clear even in the absence of detailed studies that the generally very extensive character of agriculture in the countries of the Western Balkans suggests that there are large areas of HNV farmland representing each of the three types.



*Common grazing in Macedonia*

Ruska Miceva

(Sarande), Karaburun, Shashice and the pasture between the rivers of Vjose and Shashice (Vlore), Mal-lakastra (Fier) and Dumre (Elbasan).

Grasslands in **Croatia** apparently extend currently to about 340,000 ha. Additionally, there are close to 500,000 ha of mostly abandoned grasslands which are in a process of succession by natural vegetation and turning into forest (Karaoglan Todorovic, 2010). Extensively used grasslands (traditional grazing) are found in the lowland alluvial areas along big rivers such as the Sava and the Drava. High mountains in the coastal area are surrounded with typical karstic ecosystems and semi-natural grasslands.

Croatian grasslands support numerous endangered plants, among which the most important are the whole family of orchids (Orchidaceae) as well as the Anemone, Arnica, Daphne, Dianthus, Edraianthus, Eryngium, Gentiana, Iris, Lilium, Ligularia, Linum, Narcissus, Primula, Scilla and Veratrum genera.

**Type 1 HNV farmland** with high proportion of semi-natural vegetation such as species-rich grasslands would be expected to predominate in the Western Balkans as elsewhere in Europe. This is maintained by traditional hay making and grazing (including transhumance and nomadic herding) of cattle, sheep, goats, horses, donkeys and, in some areas, pigs, all of which are usually from local breeds or crosses.

In **Albania**, there are about 400,000 hectares of natural pastures divided between summer and winter pastures. Summer pastures are situated in the pre-mountainous and mountainous areas of the country. The largest areas of summer pastures are situated in the districts of Tropoje, Diber, Kukes, Korce, Gjirokaster, Kolonje etc. They are used for about 150 days from May 15<sup>th</sup> to October 15<sup>th</sup>.

Winter pastures are situated along the coastal and hilly areas between 400 – 800 m.a.s.l. The most striking pasture massifs are those of Delvine and Vrine



*Sheep grazing in Brest village, Macedonia*

Ruska Miceva

The grasslands are also home to rare mammals such as hamsters (*Cricateus cricatus*) and mound-building mice (*Mus spicilegus*) and among endangered species, the European ground squirrel (*Citellus citellus*) and lesser mole rat (*Nannospalax leucodon*). Grassland habitats in Croatia have a rich fauna of grasshoppers and butterflies, the majority of which can be found in meadow habitats.



Suzana Djordjevic

*Wetland pastures on Danube bank in Banat, Serbia*

Grasslands in **Macedonia** are mainly natural and semi-natural (542,000 ha in 2008). The majority are found in the mountains - Shar Planina, Bistra, Korab, Yakupitsa, Suva Gora Mountains. The central part of Macedonia (Negotino, Shtip and Veles) is characterized by different halophytic and steppe-like communities. The upland pastures represent plant communities of Festuco-Brometea class while meadows communities of Molinio-Arrhenatheretea class are specific to valleys. It is very likely that the majority of them will be classified as HNV type 1.

The fauna associated with grassland ecosystems in Macedonia include stone curlew, common quail, sand boa, lesser mole rat, great bustards, common partridge, Balkan wall lizard, and little bustard.

Pastures and meadows in **Montenegro** are mostly natural and semi-natural and cover 450,000 ha. They are used extensively in almost all regions and thus can

be regarded as HNV farmland (Markovic et al. 2010). Their biggest concentration is in the northern and north-west part of Montenegro.

There are around 1 million ha of potentially HNV grasslands in **Serbia** (SEAP, 2010). Most of them are semi-natural grasslands, but there are also natural or primary grasslands in high-mountainous areas, on flooded land in lowland valleys and in xeric steppe and/or salinized habitats in the northern part of the country (Vojvodina). They contain significant plant diversity including endemic species. More than 60% of the Serbian endemic plants grow in grasslands (Stevanovic et al., 2010).

### **HNV Farmland in the Karst regions of the Western Balkans**

Karst regions are particularly rich in biodiversity but pose significant challenges for agriculture. They are formed on limestone and are characterized by a lack of surface streams, with most water flowing underground or in deep gorges. The karst landscape in the Western Balkans is comprised by dolina (deep, wide sinkholes), karren (superficial karstic gullies and cavities), polje (wide karstic flats), and systems of caves.

Karst terrains are widely found in the south of Croatia and south and south-west of Bosnia and Herzegovina as well as in Montenegro. In karst regions, grasslands are dominating the agriculture land use thus favouring extensive livestock grazing throughout the centuries. They would usually be classified as type 1 HNV farmland.

#### **Box 4 Agriculture in the karst region of Montenegro**

The karstic region comprises the central regions of Cetinje and Nikšić municipalities and covers 21% of the entire territory of Montenegro.

It has a very small area of arable land (only 8% of the region), which is mainly located in sinkholes and depressions. This feature together with emphasized aridity, limits plant production (except for Nikšić and Grahovsko polje), although there is some crop and even fruit production (up to 700-800 m).

The most significant agricultural sector in this region is livestock production, particularly goats and sheep, which are best suited to utilise the karstic grasslands. In the recent years, there is a slight increase in the number of cattle in the region which is probably linked to the development of processing capacities.

## Box 5 Biodiversity value of the karst grasslands in the Dinaric Alps

The karst landscapes are a part of the Dinaric Alps. The biodiversity conservation of the grasslands in the Dinaric Alps in Croatia is closely linked to the recovery of traditional grazing with cattle and sheep, with regulation to prevent overgrazing.

### Dry calcareous grasslands

From karst poljes to the montane zone, several types of calcareous grasslands exist. The two main groups of types are dry grasslands with continental and dry grasslands with Mediterranean influence, with great differences in communities among different altitudinal forest zones. All have an abundance of species and are very rich in regional endemics. Several subtypes are registered. Typical species include *Mellicta dydima*, *Proterebia afra*, *Prionotropis hystrix*, *Saga pedo*, *Polysarcus denticauda*, *Poecilimon elegans*, *Podarcis melisellensis*, *Lacerta agilis*, *Burchinus oedicnemus*, *Anthus campestris*, *Lullula arborea*, *Microtus arvalis*, *Microtus subterraneus*, *Apodemus sylvaticus*.

### Wet meadows of karst poljes

Dinaric karst poljes have several endemic grassland communities, depending on the different hydrological conditions and the duration of the summer drought. All of them are home to the Dinaric endemic plant *Scilla litardierei*. They are moderate to rich in plant species, but poor in animal species, mostly of relicts from colder geological phase. Common species: the plants *Scilla litardierei*, *Edreianthus dalmaticus*, *Ranunculus acris*, *Succisa pratensis*, *Peucedanum coriacea* ssp. *pospichali*, *Molinia caerulea*, *Sesleria uligonosa*, the grasshopper *Chrysochraon dispar*, the butterfly *Euphydryas aurinia*, the shrew *Neomys anomalus*, the frog *Rana dalmatina* and the bird *Crex crex*.

In all sites with remains of typical (endemic) Dinaric karst polje wet grasslands, traditional mowing or seasonal grazing are recommended and should be encouraged.

Source: *Tvrkovič N. & P.Veen, 2006, The Dinaric Alps Rare Habitats and Species, Part A*

Nowadays, these regions are usually subject to substantial ageing and depopulation, leading to underutilization of the species-rich pastures and meadows and consequent vegetation succession.

**Type 2 HNV farmland** with a mosaic of low intensity, small fields of arable plots, vegetable gardens, orchards, vineyards, and grasslands is widespread in the entire Balkan region. Crops are rain-fed with limited use of fertilizers. The variety of crops is significant as the main aim is to satisfy as much as possible the family food needs. These are typically situated in backyards of houses as well as on areas close to the villages. This type of small scale land use is already disappearing from the more intensive regions.

Very little, if any, quantitative information is avail-

able for type 2 HNV farmlands due to the fact that it is mostly family and village gardens on very small plots. The majority of produce is for own family consumption

Stanimir Stoycheff



*Traditional orchards in Belitza, Bulgaria*

and as such is not reported in official statistics. If some produce is sold on the market this is usually done informally between neighbours or fellow villagers.

The small-scale mosaic landscape in **Albania** usually comprises vegetable gardens, arable plots, orchards or vineyards and grasslands. Traditional orchards and



Gwyn Jones

*Mediterranean mosaic landscape in Albania*

vineyards grown in very small plots are found mostly in the central and southeastern parts of the country (Prespa National Park).

Small-scale mosaic landscapes with arable plots, vegetable gardens, traditional orchards and vineyards can be found all over **Croatia**, especially in hilly areas and along the coast. Many species of conservation value can still be found in agricultural habitats, although some are in decline. The wild plants include the corncockle (*Agrostemma githago*) that has disappeared from the areas of intensive agriculture (Slavonia and Baranja) and the tulip (*Tulipa praecox*), which is locally limited to vineyards of the island of Korčula.

In **Macedonia**, the small scale mosaic landscape is characterised by family gardens (around settlements), small traditional orchards and/or standing trees, as well as household vineyards. Local varieties are still grown in the family gardens in a very extensive way. Also typical are traditional orchards (mainly pears, apples and plums) and vineyards grown for own consumption.

In **Montenegro**, traditional orchards also still prevail, especially in the continental fruit growing sector. The majority of the olive trees are cultivated in traditional way without regular pruning and with alternating yields.

**Type 3 HNV farmland** is usually more intensively managed land that still supports species of conservation importance. From the perspective of the Western Balkans region as a whole, there are a few really inten-

Suzana Djordjevic



*Mowed orchard with hedgerow in Central Serbia*

sive agricultural areas – mostly in northern Serbia and some parts of Croatia and Macedonia.

In **Macedonia**, cereals usually managed in an intensive way are in the lowlands with fertile soils and cover around 39.7% of total arable land. Some of these are important for around 33 bird species from Annex 1 of

### **Box 6 Land use pattern of concentrated rings around villages in Albania**

The pattern of concentrated rings around the villages emerged as the result of flexible land tenure arrangements and different household production strategies:

Households, in which both capital and labour were accessible, tended to use all their land as intensively as possible. The households invested their capital and labour into commercial vegetable production and vineyards. They also had incentives to continue use their plots at the village fringes as orchards or hayfields.

The second type of households lacked capital but had sufficient labour power available to work the land. Households in this category engaged in diverse production, including both intensive and extensive agricultural strategies. They used their central plots intensively, cultivating vegetables, grapes and grain either for subsistence production or for the market. They used their more remote plots at the village fringes either for fodder production or as grazing land for their livestock.

The third type of household had access to capital but lacked the labour power. Households in this category used all their land at a very low level of intensity. The households often abandoned their plots at the village fringes or used them as pasture land for their livestock. On plots closer to home, they cultivated vegetables, fruits or grapes for subsistence production. At times, they rented out plots to households of full-time farmers.

Finally, the fourth type of household, lacked both capital and labour power. Compared to the three other types of households, the agricultural production of households in this category was the least intensive. These households de-intensified land use on their plots at the village fringes and kept only a few plots close to their homes under cultivation. Women and pensioners did most of the agriculture production in these households. Unused plots were sometimes rented out to households that had the capital and labour power to pay for and work them.

Taken together, households' production strategies shaped the pattern of intra-village intensification and extensification. The special layout of land use was structured in concentric rings around the village centres. The rings decreased in land use intensity the further they moved to the village fringes.

The differences between land users' access to key productive resources were mitigated by widespread informal land rentals which kept land tenure arrangements flexible. Thus, even if a household could not use one of its plots in a certain circle of land use intensity for lack of capital and/or labour, other households with access to these resources could fill the gap by renting the plot.

Since the early 1990s, land users in all categories had de-intensified production on plots at the village fringes because of the general constraints on capital and labour availability in rural Albania. These plots were not only further away from their homes, but also often on less fertile or located on steep terrain.

*Source: Stahl, J., 2010, Rent from the land: A political ecology of postsocialist rural transformation*



the Bird Directive. In 2008, Birdlife International proposed IBAs designation for 25% of the total territory of Macedonia but the share of arable land is not known.

BSPB

In **Croatia**, arable land and grassland still host birds of European conservation importance such as Corn-crake (*Crex crex*), Partridges (*Perdix perdix*) and other, however, there is no detailed data to define whether these are potentially type 2 or type 3 areas.



Chavdar Gusev

*Stippa Cappillata, Beseparski ridove, Bulgaria*

### First assessments of the potential coverage of HNV farmland on the Balkans

So far, quantitative assessments of the extent of HNV farmland have been made in only two countries.

The Serbian Environmental Protection Agency



*Organic garden, Beseparski ridove, Bulgaria*

identified the potential HNV farmland in **Serbia** in 2010 on the basis of the EEA approach using the available national datasets. The results show that potential HNV farmland covers 1.187 million ha (approximately 20% of the agricultural area). The majority are grasslands covering around 1 million ha. The experts' estimations are that the total area of HNV farmland in Serbia is likely to be significantly higher, as the approach followed did not fully capture the mosaic farmlands or farmlands supporting rare species (Cooper et al 2010).

In **Bulgaria**, the identification of the potential HNV farmlands resulted in a total area of 1 630 035 ha (32.4% of the UAA). Here too, the majority are permanent grasslands (951 256 ha), followed by arable land (359 611 ha), mixed use (279 013 ha) and permanent crops (40 155 ha).

# HNV farming systems in the Western Balkans

## Key characteristics of HNV farming systems

HNV farming systems are defined by two main components (Beaufoy, 2008):

1. The predominant land cover that characterises each category of HNV farmland, especially the types of semi-natural vegetation, types of cropped land, and their typical spatial coverage and distribution at the farm level (e.g. proportion of farmed area under each, mosaic patterns).
2. The way in which this land cover is managed by the predominant **farming system and practices**, such as grazing regimes, cropping patterns and intensity of use (e.g. livestock densities per hectare of forage, nitrogen inputs).

HNV farming is characterised by a combination of (1) low intensity of land use and (2) presence of semi-natural vegetation, and in many cases (3) presence of a landscape mosaic.

The dominant characteristic of HNV farming is the low-intensity use of the land and of other factors of production (except for labour and traditional knowledge). Also essential is a significant presence of semi-natural vegetation on the farmed area. In some situations, the semi-natural vegetation is found in a mosaic with low-intensity arable and/or arable crops. Nature values will tend to be higher when the cropped areas are under low-intensity use, providing a mix of habitats that are used by a range of wildlife species, with numerous and complex species flows (invertebrates, birds, mammals and reptiles).

Often the semi-natural vegetation used for grazing is not part of the farm's agricultural land, but has some other ownership (common land, state land, etc.), so it is important not to consider only the UAA within the farm when identifying HNV farmland.

The fact that the vegetation is grazed by livestock (or mown for hay) is important, as this confirms that it is part of a farming system. This is not necessarily grassland: scrub and forest are an important forage resource in some of the Western Balkan countries (as in other southern EU member states), and should be recognised as farmland. However, semi-natural woodland that is not grazed should be considered as a separate, non-farming land use.

## HNV farming systems in the countries of the Western Balkans

The typical farming system in Albania includes considerable natural and semi-natural grasslands (including alpine and subalpine vegetation). Historically, there is no use of fertilizers to increase pasture productivity. Grazing is practised in herbaceous pastures and forests (mostly shrub lands and coppice forests). Forests also still provide fodder through lopping in some areas.

Extensive and traditional livestock systems use domestic breeds of animals, primarily local cattle, donkeys, pigs and goats. Small farms with 10 to 30 animals (usually sheep or goats) are still dominant. However, there is a growing number of middle-size farms with an average of 150 heads per herd in the southern part of the country. Until recently, transhumance was practised throughout the country but now it is mostly limited to the south-eastern part of Albania.

In **Albania**, the HNV farming systems are also characterised by combinations of small areas of arable land (further divided into very small plots of different owners) and areas of semi-natural vegetation, whether in the lowlands, hills or upland areas.

In some areas the pressure from traditional farming is still high enough for land abandonment to be accompanied by localised overgrazing.

In **Macedonia**, cattle, sheep and goats graze on

large areas of semi-natural and natural pastures in the mountains almost all of the year. During the winter flocks are moved to the plains in the central part of Macedonia. Although there is no official classification yet in Macedonia, these are clearly HNV farming systems.

Extensive, pasture-based beef production is practised both by individual farmers for their own consumption and by market oriented family farms. In these suckler cow systems cattle grow more slowly, but the meat is more mature and has a stronger taste. In these farming systems the animals are mainly cross-breeds, with at least 20% of a traditional local breed (Busha).

Sheep breeding is semi-nomadic and has a long tradition in Macedonia. It is mainly carried out in the mountain areas along the northern, western and eastern borders in a belt 10 to 80 km wide. Breeds for combined milk and meat production are mostly used. Sheep farms are usually family-owned businesses although there is a trend of establishing commercially oriented sheep farms.

Low input vegetables and fruits garden production is also typical for Macedonia. The main vegetables grown are tomatoes and peppers. Most of the production is for subsistence.

There are also small parcels of traditional varieties of apples, pears, plums and vineyards grown in the family gardens or near the villages. Orchards are often combined with beehives. The mosaic landscape of these farming systems can be associated with HNV type 2, although often in the wider context of a landscape dominated by semi-natural vegetation.

In **Montenegro**, the mountain terrain limits farming to the major valley systems and a narrow coastal strip. Terracing and dry stone retaining walls to capture the very shallow top soils are traditional practices. This well organised agricultural infrastructure is extremely vulnerable to depopulation and the resulting abandonment.

Crop production is carried out only in some valleys, where alluvial deposits have accumulated. It is further limited by scarce water resources. Most households maintain small family plots adjacent to their houses for the production of fruit and vegetables.

The dominant farming system is the extensive grazing of cattle, sheep and goats on semi-natural pastures. Some livestock systems extend to an altitude of 2000 m in their summer transhumance.

The main livestock areas are in the Lim Valley in the northeast and in the Ibar valley on the central eastern border. These two areas account for some 70% of cattle production and 73% of sheep production. Other notable livestock areas are Berane and Plav where dairy farming dominates production and there are significant areas of enclosed damp grasslands. Another significant area of grassland-dominated mosaic landscape, this time with a unique borage character, is found near the Albanian border in Ulcinj municipality.

Olive production is limited to a small area in the south of Montenegro (Lazovic et al., 2010) but the production system is very traditional: trees are old and grown without irrigation on terraces; the semi-natural ground flora is not treated with herbicides.

In **Serbia**, the farming systems in the fertile plain areas in the northern (Vojvodina) and central parts of the country are dominated by intensive production of cereals and industrial crops as well as dairy farms. Their production methods are based on high use of inputs and high levels of mechanisation. During the transition period when external inputs were not easily available (too expensive), they have suffered a much larger decline in production compared to the small-scale private farmers in less fertile areas, though in the longer term they may well intensify further.

In the less fertile, and predominantly mountainous, regions of southern Serbia, the farming systems are very diversified (vegetables, vineyards, and fodder crops to support the livestock). Production methods are mostly low input, labour intensive, and highly focused on subsistence.

The farms often contain a wood lot, seldom more than one hectare, primarily to provide fuel. The extensive grazing in the mountain woodlands enabled the development of significant vegetation diversity in the upland pastures. Some of the grasslands are used in a combination of extensive grazing and late mowing. The current grazing density is estimated at 1 LU per 3 ha (Njegovan, 2006).

### Box 7 Low intensity farming systems in Serbia

1. Deciduous forests with high proportion of grassland cover	Low intensity agroforestry systems with semi-natural grasslands grazed by sheep and cattle in flooded forests on the banks of the Sava, Danube, Tisa, Tamis rivers and other lowland rivers of Vojvodina. One of the oldest agro-forestry systems in lowland Serbia.
2. Winter nomadic pastures on ruderal lands and stubble	These pastures are mainly located in Srem region, in Banat and river valleys near high mountain ranges across the whole of Serbia – this system is called "popaya", and is now extinct. Transhumance grazing practices have recently vanished from Vojvodina.
3. Semi-natural meadows or meadows with sown mixtures used for hay production	This farming system led to the creation of the landscapes of Šumadija mountains in Serbia. Their extensive management was characterized by late mowing and reseeding with native species. Both practices resulted in the maintenance of a high diversity of plant and animal communities. From the 1960s until the 1980s, management was intensified. However, in the last decade, the intensity of land management has decreased with the return of more traditional practices.
4. Semi-intensive grazing of highland semi-natural grasslands in forest zones and natural grasslands above the forest zone	Semi-intensive livestock system based on the grazing by sheep, cattle and horses of highland semi-natural grasslands in forest zones and natural grasslands above the forest zone. Typically found in the more humid zones of Western Serbia. The absence of humans and animals in these landscapes, coupled with the arrival of invasive species, has led to a reduction in the economic and ecological value of these grasslands.
5. Extensive nomadic grazing of highland grasslands	Extensive livestock system, with sheep, goats and cattle grazing highland grasslands in Southern, South Eastern and Eastern Serbia. Over 100,000 hectares of pasture are under extensive grazing mainly by indigenous sheep breeds, such as Pramenka – Zeckel. Grazing is in a traditional shepherded seasonal system.
6. Extensive grazing of closed village pastures	Extensive livestock system, with free range pigs, sheep and poultry, grazing on semi-natural vegetation in managed orchards (mainly plums) and in forests patches. Practised across all of central Serbia.
7. Combined use mountain grasslands	Livestock system based on grazing by sheep and cattle of valley meadows, mid-mountain combined purpose meadows and highland pastures. It represents a half-nomadic livestock system which follows seasonal changes in vegetation at different altitudes still preserved in South-Eastern and Eastern Serbia.
8. Deciduous forests lopped for winter forage	An extensive mountain sheep system, with winter forage collected from deciduous forest by lopping. It is practised in certain mountain areas with limited resources for the production of winter feed. It is prohibited but is still carried out in lower Danube region and Eastern Serbia.
9. Marginal grazing on land with light, salinized or hard soils	Semi-intensive grazing systems with grazing by sheep, cattle and donkeys on sandy dunes, salinized or hard soils with high water table, typically found in the Banat region.
10. Grazing on wet areas in lowland villages	The centuries-old practice of exploiting communal pastures for grazing by non-ruminants (pigs and poultry, mostly duck, geese and turkeys) continues in some parts of Serbia today. However, it is currently in decline because of the threat of infection from Trichinellosis and avian influenza.

Source: Cooper, T., Pezold, T. (eds.), Keenleyside, C., Đorđević-Milošević, S., Hart, K., Ivanov, S., Redman, M., Vidojević, D. (2010). *Developing a National Agri-Environment Programme for Serbia*.

## Common features of the HNV farming systems in the Western Balkans

While there are very significant regional differences, the HNV farming systems in the Western Balkans share many common features such as transhumance and nomadic herding, common grazing and forest grazing, making best use of the adapted local breeds and plant varieties as well as, unfortunately, depopulation and land abandonment.



*Bardoka and Karakachan sheep on Stara planina highland pasture, Serbia*

Suzana Djordjevic

ened of extinction nowadays due to the abandonment of grasslands and the resulting loss of habitats.

The practice of transhumance has a long history in the Balkans. Until the late 19<sup>th</sup> century, transhumance was widely practiced with free movement of livestock animals on the Balkans.

After the establishment of the borders on the Balkans, their crossings by shepherds became more and more difficult and after World War I, they were banned. After this period the transhumance continued in short distant movements and in less numbers of livestock. The communist regimes almost ended transhumance practice with total ignorance of traditional grazing rights and nationalization of livestock animals in some of the countries. However, transhumance did survive and is still practised in Montenegro as well as in Albania.

In Montenegro, there are more than 2000 families which move the animals from their permanent settlements to the mountain summer cottages called “kautuns” (data of Livestock Selection Service on implementation of the subsidies program for 2010). This is more typical for the northern part of the country but is also practised in the central part.

Available and comparable information about most of these characteristics is very difficult to find. And yet, these are all important issues and their status and trends may be critical importance to the future of the HNV farming systems.

### Transhumance

The seasonal movement of shepherds and their livestock between mountainous and lowland pastures made an optimal utilization of the available grasslands resources on the Balkans.

Transhumance avoids overgrazing in lowlands (where herds are kept in winter) and maintains mountain pastures opened (where herds are taken in summer). The grasslands habitats and ecosystems adapted to it display a high diversity of plants and insects. There are several species of plants, birds of prey (especially vultures and eagles) as well as mammals that are threat-

Zoran Naljetoski



*Mariovo region, Macedonia*

In Albania, the pastoral system includes transhumance and sometimes nomadic herding. The importance of the seasonality in the utilization of pastures is reflected also by the official statistics which divide pastures to summer (70%) and winter (30%) pastures.

The summer (mountain) pastures are not so far from winter pastures in the lowlands and usually most of the transhumance takes place within the same district or to the neighbouring district (Shundi, 2004). Transhumance takes one day when trucks are used or 3 to 10 days if the animals are walked.

The future of transhumance in Albania is influenced by the emigration of people to urban centres and abroad as well as by the unwillingness of young farmers to move their animals to the mountains any more. All this leads to increased grazing pressure on what used to be only winter pastures.

**Table 3 Summer and winter pasture in Albania by ownership type**

Pastures	Areas (ha)		
	Summer	Winter	Total
State	110 942	33 135	144 077
Communal	164 152	77 371	241 552
Private	16 372	13 940	30 312
Total	291 466	124 466	415 911

### Box 8 The history of transhumance in Herzegovina

In Herzegovina, the right to annual transhumance was recognized by the Ottoman, Austrian and later Yugoslavian authorities. Every family knew where it had its mountain pasture and sometimes also its mountain cabin for both of which they paid taxes. Austria-Hungary was the first to record mountain pasture rights into a cadastral register; this was done to prevent disputes over conflicting claims.

Normally, every year in late May, the interested families met to organize the summer pastoral association and to agree on the duties and responsibilities of the participating families. The head of the mountain group was usually chosen from the family that owned the mountain cabin. Each of the cooperating families contributed one or two shepherds. They also agreed on the amount of food that each family should provide and on the choice of the cheese-maker and the cheese-maker's assistant.

At times, transhumance was interrupted by social unrest, plagues and drought. Transhumance was also suspended during the wars (WWI and WWII) for several years each time. For these periods, the mountain pastures were overgrown with undesirable grasses, and the mountains cabins needed cleaning and repair in order to resume transhumance.

However, the agricultural policies of the communist period were detrimental to private animal breeding. A particularly harmful measure was the 1945 Law on Agrarian Reform and Resettlement, which denied peasants the use and ownership of mountain pastures. This undermined significantly the pastoral economy. In 1947, most of the mountain pastures were assigned to state-owned livestock breeding farms. Since then there were frequent changes in the administration of pastures all of which ignored the traditional grazing rights.

Careless use of pastures caused heavy damage. The areas covered by pasture land had rapidly shrunk because nothing was done to prevent overgrazing or to protect pastures from the growth of undesirable grasses. In some places the wooded areas adjoining the pastures were devastated.

Then, in 1952, pasturing cooperatives were established which accepted animals from all owners, regardless of whether they had previously engaged in transhumance. The newly distributed mountain pastures were assigned to villages and communes. Where there were no pasturing cooperatives, the general agrarian cooperatives organized the movement of stock to the mountains on their own. Some mountain pasture lands were returned to earlier users.

All these changes profoundly disrupted the traditional pastoral system in Herzegovina, but it survived the communist period and is still practised in some regions, albeit in a substantially different form to that which took place in the past.

*Source: Vucinich, W., 2003, Transhumance, in "Yugoslavia and its historians", ed. Naimark, N. and H. Case, Stanford University Press*

### **Box 9 Common use of grasslands in Bulgaria**

Common use of grasslands is a historical tradition in Bulgaria. Each village or municipality owns and uses forests, mountain pastures and villages "meri" where livestock are grazed in common during the summer months. The total number of livestock depended on the number and size of the village grasslands. Each type of animals was allocated a specific area of pasture. For example, the highest mountain pastures were browsed by goats and non-milking sheep. Lower pastures were grazed by horses, cows and calves. Milking sheep were grazed in lower, warmer areas.

The herds' movements on the pastures followed seasonal pattern. In the hot summer months, they were up in the mountains. After harvest and mowing they were allowed to graze around the villages on stubble fields, aftermaths and so on.

All animal owners used the municipal pastures in their settlement freely and without any limitation. If there were pastures left, they were given to people from outside the settlement. There were also cases of disputes on undivided "meri" between settlements especially in the high mountain areas.

Prior to Bulgaria's accession to the EU, there were no area-based payments for farming. Thus, the common use of land was either regulated following the historical regulations or, in many cases, informally.

The introduction of the CAP support measures and direct payments in 2007 made it evident that the existing legislative framework needed amendment. The users of the common lands (whether individuals or associations) needed to have a legal right to use the grasslands. In that year the power to grant such rights was given to the general meeting of the settlement.

In March 2007, the Deputy Minister of Agriculture responsible for the elaboration of the Land Parcel Identification System (LPIS) and the Integrated Administration and Control Systems (IACS) issued rules for distributing the right to use "meri" to livestock breeders. It encouraged the establishment of associations of land users and prioritized them in the distribution of common lands. Only after the needs of the associations were fulfilled were individual users to be given shares of common land. The rules also, importantly, specified that the land was to be maintained in Good Agricultural and Environmental Condition.

Overall, CAP-compliant legislative regulation of common land use is a rather new development and the administration is still on a learning curve, which has resulted in a number of amendments and modifications in the regulations. However, the situation on the ground still presents a number of difficult issues (legislative and administrative and social ones) that need to be addressed.

*Source: Stefanova, V. & Y. Kazakova, 2010, Overview of common grazing in Bulgaria, EFNCP-Bulgaria*

## **Box 10 Governance of State Pastures in Macedonia**

Almost all pastures in Macedonia (and particularly the mountain pastures) belong to the state. Their management is regulated by the Law on Pastures (2000). The overall governance is delegated to the Public Enterprise for Pasture Management (a State body).

Each year a call for tender is launched for the use of the pastures. The usage rights are allocated following natural boundaries according to the capacity of the pastures. Pastures above 1200 m are grazed mainly in summer months (from May to October). Contracts are signed for a period of five years and the farmers pay a fee per head for the right to use the pasture.

In reality the leased pastures are often used by other farmers since there are no physical barriers around them. This is very common in the lowland pastures and in pastures near villages.

If the herd increases above the carrying capacity of the currently-rented pasture during the year, the farmer or shepherd has to apply during the next year for a new pasture for the excess animals. Usually, the new pasture is in a different place and officially the farmer has to split the herd.

In 2000, a programme for the management of pastures (2000-2009) was approved. It was based on inventories of the carrying capacity of almost 60% of the pastures (carried out by the Forestry Institute on behalf of the Ministry of Agriculture). The programme described the different pasture blocks: their soils, sward composition, water availability, geological characteristics, whether they are winter or summer pastures and the ameliorative measures to be undertaken during the coming years. The proposed measures focused on clearing unwanted vegetation; the construction or reconstruction of shelters, drinking pools (watering places) and paths to the remote pastures; the protection of pastures from ploughing and afforestation; fertilization in some areas. No direct measures for biodiversity conservation were envisaged in the programme. Most of the measures remain on paper only.

Recently, many farmers have been complaining about the way pastures are managed. Due to lack of funds, the Public enterprise is now only collecting fees from farmers without carrying out any ameliorative measures on the pastures. The watering places and animal shelters are almost derelict and new ones have not been erected. Paths to remote pastures have not been kept clear and cannot be used. The overall result is a big loss of grazing area and semi-natural habitats due to shrub and tree invasion.

*Source: Stefanova, V., 2010, Pastures in Macedonia, non-published working document*

## **Box 11 Forest grazing in Albania**

Forests occupy more than 1 million hectares in Albania – more than one third of the country's land surface. Rural people depend heavily upon forests to secure their livelihoods in terms of firewood for cooking and heating. The importance of forests to rural livelihoods goes beyond their use for fuel however. Most households generate additional benefits from forest resources through forest grazing and the collection of non-timber forest products such as medicinal herbs and pine resins.

A study of Blerimi commune revealed that agricultural land satisfies on average 40% of the forage needs of the local livestock, while the remaining 60% is satisfied by communal forests (40-50%) and state forests (10-20%).

In the same commune, there is a 10 year contract for the communal use and management of the forest. Local users are granted the right to use forest pastures and cut firewood and fodder in some areas; in turn they agree to local administration setting aside other forest land for their protection and rehabilitation.

Before the transfer contract was signed, the village council decided how to use and manage the devolved forest. It opted for communal management rather than individual, family-based arrangements. The reasons



were twofold: on the one hand, some people were afraid of conflicts resulting from individualizing forest plots, as had previously happened with agricultural land. On the other, many also feared the responsibility, not least financial, implied by an individual arrangement.

The villagers pay fees for the right to use the communal forest. The right to cut yearly supply of firewood for one household could be obtained for €4. The annual fee to lop oak branches for winter fodder was €1,60. Using forest as pasture cost €4.80 per head of cattle and €0.80 per head of sheep or goats.

Source: Stahl, J., 2010, *Albanian forests after Socialism*, and ILC-NACFP, 2008, *Final Report on Enhancing Tenure Security on Communal Forest and Pastures in Albania*

## Land abandonment

Land abandonment is the most notable and statistically recorded problem for both farming and nature



Vyara Stefanova

*Grassland abandonment in Stip region, Macedonia*

conservation in the Western Balkans. Although its exact extent across the region is difficult to measure, the mostly negative impacts of land abandonment, and especially of grasslands, on habitats and species are already detected by biodiversity studies.

The countries use different terms such as “fallow land”, “uncultivated land”, “non-utilized land” and even “refused land”, but in most cases these are all abandoned lands.

In **Albania**, about 123,000 ha of agricultural land is referred to as “refused” and sometimes as “returned” land. The former owners of this land did not want to take it back from the state since it was much eroded and could not be used for agriculture production. Most of this land is now probably abandoned although some

may be used for grazing. There are no official figures for land abandonment in Albania.

A recent study (Müller&Munroe, 2008) based on satellite data indicated that most abandonment of arable land at the beginning of the transition period was concentrated in marginal, less densely populated areas. More recently, abandonment was increasingly shaped by economic returns from cultivation and growing competition with non-farm livelihood strategies. More recently, most abandonment was associated with land fragmentation

In **Croatia**, the significant abandonment of grasslands and marginal arable land on around 500,000 ha has been accompanied by an increasing intensification on the rest of the land. Both trends have a negative impact on HNV farming and on farmland biodiversity.

The changes in the agricultural area of **Montenegro** are twofold: the area of arable land and gardens decreased by 15% from 1992 to 2003. The permanent crops decreased by about 6%. On the other hand, the area of meadows has increased by 11%.

Suzana Kratovallieva



*Golem Korab (2765) – highest peak in Macedonia*

Over the decade from 1998 to 2008, agricultural land in **Macedonia** decline by 229,000 ha (17% of the total at the start of the period). Of this, 132,000 ha were arable land and 114,000 ha were pastures. The main reasons specified are the rural-urban migration and the use of former agricultural land for development and other non-farming purposes. In addition, it is estimated that between 20% and 34% of arable land (100-170 000 ha) is left fallow each year in Macedonia.

Results from survey research in Serbia (Bogdanov, 2007) show that rural farm holdings in mountainous regions do not use between a quarter and a third of their land. The main reasons are related to the low quality of land, inaccessible roads and thus high transport costs, and poor drainage.

### Local breeds of farm animals

Traditional local breeds of domestic animals are part of the national heritage of each country. They are well adapted to the needs of mountain agriculture, including resistance against cold, the ability to utilise rough grazing, etc. These characteristics facilitate the maintenance of traditional grazing systems and their associated landscapes and habitats.

Animal breeding is an ancient activity in the Western Balkan countries. The result of these centuries-old farming practices is a great diversity of livestock breeds of cattle, sheep, goats, buffaloes, horses, pigs, poultry and other domestic animals. Their genetic diversity

different places often had very different preferences for the species and breeds of animal they kept.

Legislative measures undertaken in the past led to huge decrease in the number of certain local breeds. One prominent example is the prohibition of the traditional nomadic system of mountain sheep farming practised by the Karakachani and the confiscation of their flocks. This heavily reduced the numbers of Karakachan sheep, horses and dogs – all of which are

Suzana Djordjevic



*Flock of autochthonic Balkan Goats shaping grasslands in forest zone in Stara Planina*

traditional and now endangered or rare in Bulgaria, Macedonia and Serbia.

Nowadays the availability of financial support for private owners of local breeds is of crucial importance for preserving genetic diversity, conserving semi-natural habitats and HNV farming systems as well as supporting the income of private farmers. In recent years many of the countries of the region have either planned or implemented measures for preserving their local breeds.

In **Macedonia**, the officially-recognised autochthonous breeds are Busha cattle, Pramenka sheep (Karakachanska, Ovchepolska and Sharplaninska races), Domestic goat, Local primitive goat and Sharplaninets sheep dog. The exact number of pure bred animals is still not known. However, the suckler cow system is widespread, and at least 20% of those cows are Busha crosses.

Support for the autochthonous breeds is a priority in the National Agricultural and Rural Development Strategy (2007-2013). A measure supporting low-pro-

Sergej Ivanov



*Busha cow*

is also closely related to the geographical and cultural diversity of the countryside since different people in

ductivity cattle breeds (focused on Busha cattle) was implemented in 2009 using national funds. Another measure in this framework which reinforces both local breeds and HNV farming is the support for the shepherds' salaries. A pilot measure to support local breeds is envisaged as part of the IPARD programme.

In **Serbia**, the list of autochthonous domestic livestock breeds includes more than 30 breeds and landraces.

Support for local breeds has been provided from national funds since 1998. The breeders have to be registered in a National Register of Autochthonous Breeds. The supported animals are included in the breeding programmes of the two main breeding associations in Zemun Pole and Novi Sad. Until 2008, the support consisted of a direct payment per head of domestic animal, but since then there an investment aid has also been available. The investments encourage the maintenance and equipment on farms with autochthonous breeds as well as the purchase of new animals.



*Razka sheep – autochthonous sheep from Banat region*

### **Traditional olives in the Western Balkans**

Olive groves are typical throughout the Mediterranean region and those Western Balkan countries which lie within the Mediterranean climate zone are no exception.

Olive groves can be classified in three main categories (EFNCP, 2000) according to their management intensity: a) traditional low-input groves; b) intensified traditional groves; and c) modern intensive groves.

Data from the Western Balkan countries indicates that the majority of the olive groves from the region fall within the traditional low-input olive grove category. In Croatia, however, a third of the olive trees (1 million) are reported to be under more intensive management (Radinović et al, 2004).



*Olive groves in Montenegro*

Traditional low-input groves are usually small sized with 40 to 150 trees per hectare and are often planted on terraces. The trees are usually very old and are local varieties. The normal way to control vegetation on the plot is by grazing, or by occasional tillage. Chemical fertilization, pesticide use and irrigation are extremely rare in these groves. The combination of these factors creates high nature value in terms of biodiversity and landscape as well as positive environmental impacts such as controlling erosion and water run-off.

At the same time, extensive management makes for low yields that are very vulnerable to natural conditions. All countries report high variability in the yields depending on the year. In Montenegro, for example, the yields in a good fertile year can be up to 12 times those of a bad year, leading to very insecure incomes and a very low overall economic performance.

As a result the three main threats to the survival of the traditional olive system are: the intensification of production in response to the increasing market demands especially in regions with developing tourism; land abandonment, mostly in the more remote olive groves; land development in coastal areas. In Montenegro, there are several reports of old trees being cut down, despite the law forbidding it.

Gwyn Jones

Suzana Djordjevic

**Table 4 Area of olives in the Western Balkans**

<b>Country</b>	<b>Area of olives (ha)</b>	<b>Olive trees (Number)</b>	<b>Average density (tree/ha)</b>
Albania	42 000	3,6 million	85
Croatia	15 000	3,5 million	233
Montenegro	3 200	0,412 million	128

*Source: National documents*

### **Box 12 Local olive varieties in the region of Dalmatia, Croatia**

In Croatia, about 42 000 family farms grow olives; of these, about 36 000 are in Dalmatia. Olives are the dominant type of fruit cultivated in Dalmatia in terms of volume and production is increasing markedly. It is estimated that 45% of families living on the Croatian coast cultivate olives as either their main or ancillary occupation; the figure rises as high as 93% on some of the islands. Olives are produced almost exclusively for oil.

The agricultural and biological diversity of olives is extraordinary, with as many as 37 native varieties in the area of Dalmatia. The dominant variety is Oblica, with over 50 percent of the production, followed by Lastovka and Levantinka varieties.

The status of the 37 recognized cultivars of olives in Dalmatia is as follows:

- one cultivar is lost;
- 12 cultivars are dramatically endangered, with only several trees remaining;
- 8 cultivars have very small populations with less than 1,000 trees;
- 7 cultivars have populations ranging between 1,000 and 10,000 trees;
- and only 9 cultivars have satisfactory populations with over 10,000 trees.

*Source: Agriculture and Biodiversity in Dalmatia, 2009, project report, COAST project, UNDP*

### **Box 13 Traditional olive production in Montenegro**

Olive groves are the oldest Mediterranean crop on the Montenegro coastline covering an area of 3,200 ha. There are an estimated 412,000 olive trees in the country, down from 620,000. Trees older than 100 years predominate. It is estimated that the oldest tree is over 2000 years old.

Approximately 70% of the olive groves are managed traditionally. Harvesting is done manually by picking olives off the ground. About 90% of varieties are native (zutica and others) and are used both for the production of oil and for table olives. Less than 10% of the trees could be considered young.

Production is still extremely extensive, but utilisation rates are below 50%. The national yield varies from 300 tonnes in a poor harvest year, up to 4,000 tonnes in fertile years. Despite the existing demand for domestic olive products, current olive production does not satisfy national demand.

*Source: Agriculture and Rural Development Strategy in Montenegro, 2006, MAFWM, Final report of the EU funded project*

# Policy and Support for HNV Farming

## **HNV farming and European biodiversity goals**

The HNV farming concept emphasises that biodiversity conservation goals in Europe cannot be met only by protecting particular habitats or species, or designating certain areas, such as NATURA 2000 sites. This view has been expressed clearly by the European Commission in official communications on halting biodiversity decline. It is also essential to support the landuses that favour biodiversity across the wider countryside.

The EEA outlines in its 2010 Message for agriculture that with farming covering about half of EU land area, Europe's biodiversity is linked inextricably to agricultural practices, and there should be recognition that these are creating valuable agro-ecosystems across Europe. Biodiversity in agro-ecosystems is under considerable pressure as a result of intensified farming and land abandonment. Maintaining and restoring biodiversity provides the basis for all agro-ecosystem-related services. There are several opportunities to preserve and make better use of biodiversity in Europe's agricultural areas, while meeting demand for food, fibre, feedstock and bioenergy.

It is now recognised in a plethora of EU documents that intensive farming systems are environmentally unsustainable and low-intensity farming is central to the sustainability of agricultural landscapes, yet low-intensity farming is not economically viable under current market and policy. Traditional, low-intensity farming systems with high nature value have gradually and steadily disappeared, say the EEA.

## **The European policy commitments to HNV farming**

The EU and all its Member States have committed themselves to three distinct actions concerning HNV farming: (a) Identifying HNV farming; (b) Supporting and maintaining HNV farming, especially through Rural Development Programmes (RDPs); and (c) Monitoring changes to the area of land covered by HNV farming, and to the nature values associated with HNV farming, as part of their monitoring of RDPs.

In order to include effective measures for HNV farming in their RDPs, Member States need to do

some background evaluation of needs and how best to address them. The EAFRD implementing regulation states that they should produce an analysis of: "Environment and land management: the handicaps facing farms in areas at risk of abandonment and marginalisation; overall description of biodiversity with focus on that linked to agriculture and forestry, including high nature value farming and forestry systems [...]"

The 2007-2013 RDPs should demonstrate that measures are in place to maintain HNV farming and forestry systems. The effects of programmes have to be evaluated against this objective, by applying specific "HNV indicators".

## **EU accession and HNV farming**

In the Western Balkans, Croatia, Macedonia and Montenegro are candidate countries, while Albania, Bosnia-Herzegovina, Kosovo under UNSCR 1244 and Serbia are potential candidate countries.

In recent years, all of them adopted long or mid-term strategic documents, where objectives and priorities for agriculture and rural development were set. Their strategic goals are aligned with the EU principles, and focus on stable production of food at reasonable prices and food security; sustainable resource management; increased competitiveness and ensuring an adequate standard of living for agricultural producers and the rural population.

In terms of implementation there are significant differences between the countries. One thing in common is the strong focus on improving the competitiveness and restructuring of the agriculture sector. All other measures are only accompanying these main priorities, and the budgets allocated to them are minimal.

HNV farming is not mentioned in any of these official strategic documents. The only HNV farming identification steps have been undertaken by environmental NGOs in Serbia and Macedonia.

Current support to environmentally-friendly farming practices is almost entirely focused on organic farming (Albania, Croatia, Macedonia, Montenegro and Serbia)

and autochthonous breeds of animals and plant species (Macedonia, Montenegro and Serbia).

Support to organic farming has some links to HNV systems, but these are rather weak. Interestingly, the largest organically-certified sector is wild herb and medicinal plant collection.

The support to local livestock breeds is in practice supporting the HNV grazing systems in these countries. The main problem is the very limited available funding, that is provided on an annual basis only; there is no long term security for the schemes if budgets change every year.

There are also other examples of measures which although not labelled as support for HNV farming potentially support exactly these farming systems. In Macedonia, support for shepherds' salaries is provided for grazing animals. In Montenegro, the measure on the sustainable use of mountain pastures is de facto supporting transhumance systems. In Serbia, farms with local breeds besides the payment per animal can also receive investment support to improve and maintain the farm itself.

However, the majority of the agriculture support payments in the region (as in the EU) are still directed towards intensive practices. An outstanding example is the Albanian direct support policy. It is striking that the country with the smallest farms (around 1 ha on average) directs all its funding to medium and large farms. Since 2007 support has been provided to farms with 10 to 30 cattle, more than 50 sheep or more than 50 beehives (Cela et al, 2010). Support is also provided for the production of snails. The support for olives is focused on protection from olive fly on plantations larger than 100 ha as well as for the production of olive oil. Under the national rural development measures, investment support is provided for new plantations of fruits, olives and vineyards. There is also support for the 50% of the certification costs for organic production for the local or export markets.

This is a clear indication that the priority of the Albanian policy is restructuring the agriculture sector towards much larger and intensive agriculture holdings. There is no support (or recognition) for any of the elements of the HNV farming systems such as small scale farms or extensive production.

## **Box 14 Important Bird Areas (IBAs) and High Nature Value Farming in Bulgaria**

The Bulgarian Society for the Protection of Birds (BSPB) is currently engaged in a project about High Nature Value farming, since grassland management is closely linked to the presence and quality of feeding and breeding habitats of many bird species. In grassland soils there are many invertebrates that are eaten by birds. For example, grassland insects are the main food for larks. The European suslik, which is the main food for many birds of prey, inhabits extensively used grasslands.

In 2010, BSPB launched a pilot grant scheme to support farmers in three pilot regions which are also Special Protection Areas under EU Birds Directive: Ponor, Besapari Hills and Western Balkan. The two year pilot scheme aims to encourage farmers to adopt more biodiversity-friendly land management practices in selected HNV areas.

The measures that are implemented were taken from the EAFRD menu and comprise: Agri-environmental payments; Compensatory payments for NATURA 2000; Non-productive investments and Investments in holdings. However, they do not overlap with the measures in the actual Bulgarian RDP.

The scheme was launched after two years of preparation, during which the project team was able to meet and establish regular contacts with most of the farmers in the regions. This allowed the proposed measures to be shaped in a way that is most beneficial and relevant to the needs of the small farmers.

A mobile team of consultants provides advice and support to the interested farmers not only regarding the project pilot grant scheme, but also on how to apply for Bulgarian RDP support. They work through the whole process with the farmers, from the identification of their support needs, to the development and submission of the application, all the way to implementation of the measures and final reporting. This includes the identification of the land in LPIS.

There were a total of 47 applications in just the first year. One was rejected and two others withdrew due to personal reasons. All others are supported. Many of the beneficiaries have applied under more than one measure.

The key reasons for success seem to be twofold.

The mobile teams and especially the personal contact at farm and household level are very important in order to be able to motivate farmers to participate. This also puts a very heavy responsibility onto the consultants' shoulders, since the farmers come to rely on their advice.

Secondly, the contrast between the grant scheme and the RDP is significant. The former delivers payment in a very short time after the application is submitted, whereas the latter involves at best a long wait.

*Source: BSPB project team, 2010, Project „Conservation of globally important biodiversity in high nature value semi-natural grasslands through support for the traditional local economy”, funded by GEF/UNDP*

# Key Challenges to HNV Farming in the Western Balkans

Today the value of maintaining HNV farming for the multiple environmental goods such systems produce is recognised. But HNV farming faces enormous challenges of socio-economic viability. As intensive farming expands and its yields increase and as incomes rise in the wider economy, it becomes harder to earn a living from HNV farming.

## Socio-economic challenges

- There is a very well developed informal economy dealing with land use, as well as (local) production and selling. This is based on traditional networks, but outside the official system. The very small scale farms are outside the key administrative, book-keeping, fiscal and inspection systems. These farms do not receive any subsidy. They are geared toward subsistence - non-market oriented, producing mostly for self-consumption. They have a special role in the current HNV farming situation and the way they will operate in the future may have a significant impact on it.
- Outmigration and ageing of population. This is a significant challenge that is not unique to the Western Balkans. However, most of the countries from the region already have population density that is much lower than the EU-27 average. This is expected to continue in the future and lead to more land abandonment, especially in the remote and mountainous regions.
- In the entire region, poverty risk is higher for the rural population, who comprise the majority of the poor. Those living in rural areas are excluded not only in terms of material wellbeing (income and consumption), but also due to their isolation, especially in the mountainous regions, they often have inadequate access to current education, health and cultural provision.
- Rural infrastructure and services are often very underdeveloped. In most countries, there is limited access to adequate infrastructure facilities (roads, water supply, electricity, etc.), which constitutes a considerable barrier to modernizing agriculture. This pushes young people to migrate to more urban areas, increases significantly the costs of production or of doing any other business including tourism, thus having a very strong overall negative impact.

## Policy support challenges

- Aligning policy support to small scale and potentially HNV farms in the process of EU accession. The countries are in a process of harmonizing legislation as well as policy support, as many of their recent support schemes are not in line with the EU legislation. There is a serious risk that in this process, support to HNV farming is pushed only to the smaller, environmentally-focused parts of rural development programmes ("Axis 2" type of measure), which are very positive but limited in scope and not entirely suited to the scale of the needs and conditions of the region. The positive examples such as support to shepherds' salaries (MK) or investments for local-breed farms (SR) or for high-mountain pastures (ME) should be expanded throughout the region, and not be lost due to perceived non-compatibility with EU rules.
  - Harmonization of national legislation with the EU acquis and reflecting the national conditions and needs is a multi-dimensional task. One of the very challenging examples is the harmonization of the veterinary and hygiene requirements for farms and food processors, and responding to the characteristics and adaptation potential of small scale farms.
- Examples from Bulgaria and Romania show that in the urge for closing negotiation Chapters, these were not considered at all. Only after accession and after months of protests (Romania) and lobbying (Bulgaria), the national legislations were changed to reflect the national conditions.



- Land eligibility for CAP support. This is a critical issue both from the perspective of the extensive use of pastures, common grazing and forest grazing as well as from the perspective of minimum size eligibility rules. Grasslands with a high proportion of shrub and/or trees are of particular biodiversity value and their continued sustainable grazing is especially important. Yet in many countries such land is excluded from CAP support, because of CAP rules and their interpretation.

It is essential that CAP rules are clarified and changed to ensure scrubby and woody pasture can receive payments without total clearance of non-herbaceous vegetation. Concurrently, Western Balkans states need to align their national policy frameworks to deal honestly with current land use realities and maximise the potential support from EU policies, such as the currently-unofficial use of forest land for livestock forage. They should seek guidance on IACS from countries such as Spain, with its similar vegetation and land use systems, rather than from northern European States.

An important added complication is that the small average farm size in most countries most probably means that many farms will be under the minimum threshold for support which would have to be set by any new EU Member State.

- Support for tourism and organic farming in HNV farming areas is often seen as a significant opportunity for future development. Many strategic policy documents express a link between the support for environmentally-friendly practices, organic farming and tourism and consider it as a good approach. However, in reality the structural weaknesses of these farms and regions rarely enable such integrated development on its own.

Development of tourism (eco, agro or rural) as well as organic farming is in fact a very serious challenge. It requires significant entrepreneurship and a variety of other skills as well as capital. The existence of favourable natural conditions is a good precondition but is never enough. The survival and the development of HNV farming has its own needs and requires specific and targeted support.

## Shift of paradigm

- For most young farmers in the region 'extensive farming' is not 'serious' enough. Despite the recent trend in Europe recognising the value and importance of small scale farms, in the region (as probably in many other regions as well) this type of farming is still considered old-fashioned and backward. The understanding and recognition of the environmental, social, cultural and economic values of the High Nature Value farming systems and the public goods provided by the farmers managing them is still very low or not existing at all. At the same time, it must be acknowledged that the EU, despite its recent statements in favour of semi-subsistence farming, has yet to show in practice how such appreciation can be turned into concrete support mechanisms.
- Modernisation is not necessarily equal to intensification and certainly is not equal to

restructuring – in fact this simplistic notion is out of date. This is one of the key messages that needs to be understood by the farming community and the agriculture policy makers.

HNV farms often survive thanks to a low-cost, minimum risk, strategy. But as on all farms, investments are needed to maintain and improve infrastructure, animal housing, machinery, and to evolve towards a more sustainable future. Farmers with limited incomes also tend to have limited capital, and face difficulties in accessing grant aid for capital investments, as schemes require the farmer to provide a proportion of the capital. Higher rates of grant should be allowable for HNV farms where these investments are justified on the basis of the environmental benefits the farms provide. Issues of capacity need to be addressed through the kind of ongoing support exemplified by the BSPB pilot project in Bulgaria (see Box 14).

## Conclusions

HNV farming is in decline. Farms are abandoned daily, and although some of the land may be taken over by other farmers and managed in a similar way, much is left to natural succession, is directly afforested, or is converted to more intensive uses.

The main reason is that insufficient income is generated by low-intensity farming on what is generally poor land. The situation is compounded by the relatively low levels of support for this type of farming received from national support programmes (or even being envisaged under IPARD programmes), compared with more intensive farming on better land.

The central objective of the HNV concept is to shift support in favour of low-intensity farming across extensive areas of landscape. This does not require highly sophisticated exercises of mapping and indicators to be in place in order to introduce support to HNV farming.

The most widespread HNV farming involves low-intensity livestock-raising, with semi-natural pasture as an important part of the forage resource. Directing support to this type of farming is not complicated. There is already experience of this type of support in the countries of the region. Their main weaknesses are the insufficient and yearly set budgets which change from one year to next.

The countries from the region can learn from each other's experience. A combination of the support for high mountain grazing (Montenegro), shepherds' salaries (Macedonia) and investments in farms with local breeds (Serbia) with the advisory service of the BSPB project (Bulgaria) would make an almost perfect package of agri-environmental support for HNV farming in the Western Balkans.

## Useful Links

European Forum on Nature Conservation and Pastoralism for South Eastern Europe: <http://www.see.efncp.org/>

European Forum on Nature Conservation and Pastoralism: <http://www.efncp.org/>

European Environmental Agency: <http://www.eea.europa.eu/> [http://reports.eea.europa.eu/report\\_2004\\_1/en](http://reports.eea.europa.eu/report_2004_1/en)

Joint Research Center : <http://agrienv.jrc.it/index.htm> [http://agrienv.jrc.it/publications/pdfs/HNV\\_Final\\_Report.pdf](http://agrienv.jrc.it/publications/pdfs/HNV_Final_Report.pdf)

European Commission DG Agriculture: [http://ec.europa.eu/agriculture/rurdev/eval/hnv/guidance\\_en.pdf](http://ec.europa.eu/agriculture/rurdev/eval/hnv/guidance_en.pdf)

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## Abbreviations

AL	Albania
BA	Bosnia Herzegovina
CAP	Common Agricultural Policy
CLC	Corine Land Cover
EAFRD	European Agriculture Fund for Rural Development
EEA	European Environmental Agency
EU	European Union
HNV	High Nature Value
HR	Croatia
IACS	Integrated Administration and Control System
IBA	Important Bird Area
IPA	Important Plant Area
IPARD	Instrument for Pre-Accession Assistance for Rural Development
GDP	Gross Domestic Product
JRC	Joint Research Center
LPIS	Land Parcel Identification System
LU	Livestock Unit
ME	Montenegro
MK	Macedonia FYR
NGO	Non-governmental Organization
PBA	Primary Butterfly Areas
RDP	Rural Development Programme
SR	Serbia
UAA	Utilized Agricultural Area
UNSCR	United Nations Security Council Resolution
XKV	Kosovo under UNSCR 1244/99

## HNV Farming Network for non-EU South Eastern Europe

The HNV Farming network in SEE aims at:

1. Provide a forum for networking and experience exchange among SEE countries, and between EU and non-EU countries;
2. Present information on the current state of HNV farming identification and support in the region;
3. Illustrate HNV farming in the region with examples and case studies;
4. Identify common interests and develop joint activities on HNV farming in the region during 2011 and beyond.

**SEE HNV Network contacts:** Yanka Kazakova and Vyara Stefanova

**Yanka@efncp.org Vyara@efncp.org**

## High Nature Value Farming in the Western Balkans:

### Current Status and Key Challenges – a Scoping Document

**Authors:** Yanka Kazakova and Vyara Stefanova, EFNCP Bulgaria, 2010

Valuable contribution from Gwyn Jones and Guy Beaufoy, EFNCP

**Photos credit:** Most of the photos are provided by the participants in the SEE HNVF meeting in Sofia, 6 - 8 Dec, 2010

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

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

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[www.see.efncp.org](http://www.see.efncp.org)  
Email: [policy@efncp.org](mailto:policy@efncp.org)



This publication is funded by DG Environment. The opinions expressed are those of the authors and do not necessarily reflect those of the funders.