

International Journal of the Commons  
Vol. 7, no 1 February 2013, pp. 58–72  
Publisher: Igitur publishing  
URL: <http://www.thecommonsjournal.org>  
URN: NBN:NL:UI:10-1-114405  
Copyright: content is licensed under a Creative Commons Attribution 3.0 License  
ISSN: 1875-0281

## Pastoral commons use in Romania and the role of the Common Agricultural Policy

Laura Sutcliffe

Institute for Plant Sciences, University of Göttingen, Germany  
[sutcliffe.laura@gmail.com](mailto:sutcliffe.laura@gmail.com)

Inge Paulini

Department of Geobotany and Nature Conservation, Rheinische Friedrich-Wilhelms University of Bonn, Germany  
[ipaulini@uni-bonn.de](mailto:ipaulini@uni-bonn.de)

Gwyn Jones

European Forum on Nature Conservation and Pastoralism, UK  
[dgl\\_jones@yahoo.co.uk](mailto:dgl_jones@yahoo.co.uk)

Rainer Marggraf

Department of Agricultural Economics and Rural Development, University of Göttingen, Germany  
[rmarggr@gwdg.de](mailto:rmarggr@gwdg.de)

Nathaniel Page

Fundația ADEPT Transilvania, Romania  
[npage@copac.org.uk](mailto:npage@copac.org.uk)

**Abstract:** In comparison to many Western European countries, in Romania the use of common pastures remains widespread and is strongly linked to the predominance of subsistence and semi-subsistence farming in much of the country. The majority of permanent pasture in the country is under state or community ownership, and these areas are of high natural and cultural, as well as economic importance for Romania. Whilst traditional governance systems of the commons are still partly intact, or at least within living memory here, new institutions are forming in response to substantial changes in agriculture and rural life that have been occurring, particularly since Romania's accession to the EU in 2007. We

describe the changing role of common pastures for local communities in the case study region of Târnava Mare in Southern Transylvania, Romania. The number of active users here is decreasing, and those who have more animals are increasingly grazing their animals on long-term leased or private land, thus effectively no longer participating in the commons. This is encouraged by the current system of relatively low prices for agricultural products and EU agricultural support payments, which for smallholders and larger farmers alike are now a major factor in the financial viability of farming in Romania. The future of the commons in the study region will hinge on the success of the communities to self-organise and take advantage of the opportunities presented by the changing rural context of pastoral commons use.

**Keywords:** Agricultural policy, collective action, common pastures, farmer associations, subsistence farming, Transylvania.

**Acknowledgments:** The authors would like to thank Tibor Hartel for useful discussion, as well as all the staff of Fundația ADEPT for assisting the data collection. We are also very grateful for the helpful comments of the editors and three anonymous reviewers, which improved this manuscript considerably. LS was supported by a grant from the Ministry of Education and Culture in Lower Saxony.

## 1. Introduction

Common grazing in Romania, as in much of Europe, is a historical tradition (Dorner 1910; De Moor et al. 2002; Brown 2006a). However, in contrast to much of Western Europe and despite great upheavals in land ownership during the past century, this form of land use still plays an important role in Romania. Here, common grazing land may be owned by public bodies, private organisations or individuals, but is characterised by multiple grazing rights. Although no exact figures on the distribution of common pastures are available, based on the amount of publically owned agricultural land in the country (1.87 million ha in 2007), a rough approximation suggests that over half of the 3.4 million ha of permanent pasture in Romania can be considered common land (Institutul National de Statistica 2010)<sup>1</sup>.

Whilst its significance naturally varies across this culturally diverse country, the vast majority of villages still retain at least one pasture which is used in common by the local inhabitants. The use of these common pastures is strongly linked to the persistence of subsistence and semi-subsistence farming, which is still the major type of agriculture in Romania both in terms of surface area and number of farmers involved (MARD 2007). Around 3.5 million agricultural holdings (90%)

---

<sup>1</sup> The vast majority of state or community owned agricultural land is permanent pasture (B. Mehedin, *pers. comm.*), and this figure does not include the area owned by community organisations, therefore is probably an underestimate.

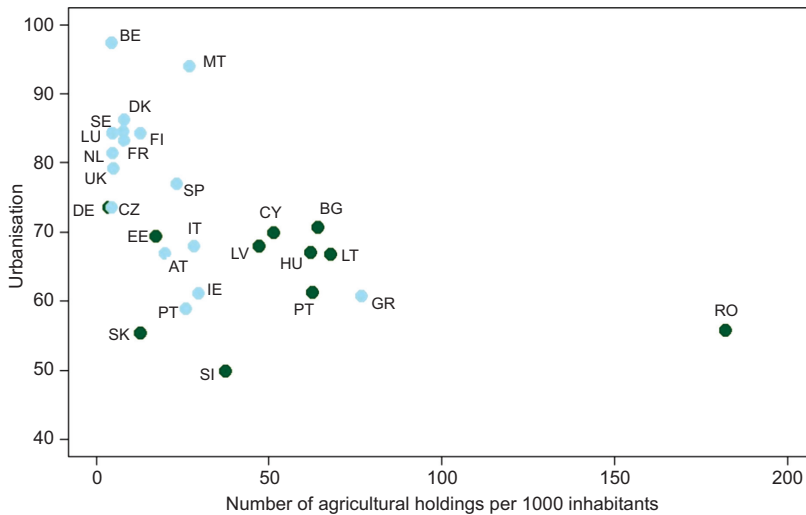


Figure 1: Number of agricultural holdings per thousand inhabitants compared to percentage urban population for each country in the EU27, in 2007. Blue circles = Western Europe, green circles Central and Eastern Europe. Points are labelled with country abbreviations (RO=Romania). (Source: Eurostat 2011 for agricultural holdings, FAOSTAT 2012 for urban population).

farm on less than 5 ha of individually-farmed land (Institutul National de Statistica 2010). As a result, Romania has the highest number of holdings per capita in the EU, linked to the large rural population in Romania (see Figure 1). For these families, the possibility of keeping livestock and thus survival as smallholders is contingent on their access to common pastures to supplement their own land. Common pastures therefore represent a major economic resource for small-scale farmers, but are also a source of non-economic benefits for the community.

As generally large areas of unimproved, semi-natural grassland, common pastures throughout Europe are often rich in biodiversity (Lederbogen et al. 2004; Brown 2006b). Their legal status provides them with inertia against land-use change (Wilson 1997), as decisions regarding management require the consent of multiple stakeholders. Such continuity in habitat conditions is particularly important for grassland flora, which may continue accumulating species over tens, if not hundreds, of years (Poschold and WallisdeVries 2002; Aavik et al. 2009). Their large scale provides not only the opportunity for large and genetically diverse populations, but also the spatial and temporal gradients of disturbance caused by wandering herds create different habitat types for a variety of species. This diversity of species is also linked with a diversity of functions: in addition to the production of livestock fodder, these extensive permanent pastures can also be a resource for harvesting other important products (such as medicinal plants) as well as having significant carbon sequestration potential (e.g. Smith et al. 2010).

Common pastures also provide many less tangible services. Having often been in existence for centuries, their large, unfenced expanses are a typical element of the rural countryside of many areas of Europe, with a strong significance for regional cultural heritage (Rodgers et al. 2011, p. 14) and tourism (Brown 2006a; Roeder et al. 2010).

Despite their wealth of commons, Eastern Europe is largely understudied in this aspect (Bravo and De Moor 2008), and thus provides an interesting new context in which to test the relevance of the findings and recommendations in the commons literature (Sikor 2004). Unlike many other European countries, Romania still retains widespread living memory of historic, stable commons institutions (as described by e.g. Dorner 1910). However, repeated upheavals in agricultural land rights in the last century have placed strain on traditional governance systems of common pastures. Forced collectivisation of land and animals under the communist regime undermined the use of the commons and their autonomous local governance. Following the revolution in 1989 and the slow – and still incomplete – process of land and property restitution, these institutions appear to have regained strength, but rarely to the former levels of organisation. Most recently the accession of Romania to the European Union brought liberalisation of markets and the introduction of Common Agricultural Policy (CAP) instruments, again rapidly changing the context of common land use. In many cases the formation of new commons institutions is occurring on top of fragments of older ones, but with the added challenges of widespread post-socialist mistrust in collective action and an uncertain future for agriculture in the country.

This paper summarises the current situation of common pasture use in the case study area of Târnava Mare in Southern Transylvania, an 85,000 ha Natura 2000 protected area characterised by lowland, low-intensity and largely grassland-based farming (Figure 2). We first outline the types of commons considered in the context of Romania as a whole. The development of common pasture use over the past several centuries is then summarized, followed by a discussion of its changing role in the community today and what internal and external factors may be driving this. Particularly important in this respect are the effects of the EU CAP, as well as of the appearance of new farmer associations, whose significance for the commons will be described. Based on this, we consider the implications for the sustainability of the commons in the study area, and their future prospects.

## 2. Methods

Data were gathered during a pilot study consisting of ten qualitative semi-structured interviews with commons users from seven villages in the study area in summer 2011. Both smallholders with few animals and larger-scale, more specialised farmers were interviewed. Questions focussed mainly on commons use by cattle, and concerned the major themes of historical and present pasture use patterns, relevant organisational structures, cooperation among users and the influence of subsidies on commons use. Statements on these themes were then extracted

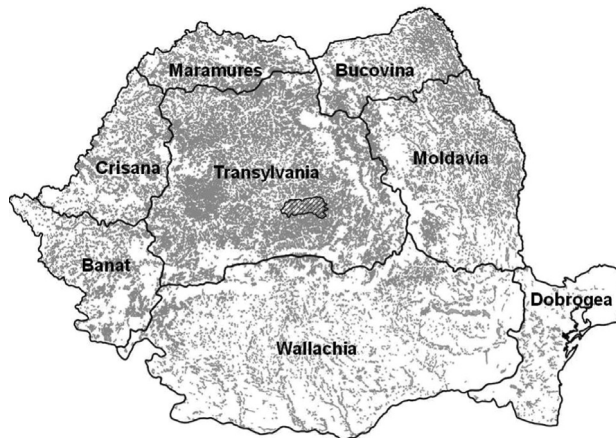


Figure 2: Map of Romania showing the location of the Târnava Mare study region (hatched). Grey shading shows distribution of pasture taken from CORINE Landcover Data 2006 (European Environment Agency 2010).

from the interview notes and compared, and complemented by information from the literature and observational data from ecological fieldwork on the common pastures in question in 2011.

### 3. Commons in the study region and the Romanian context

Today, large areas of both forest and pasture commons in Romania exist, for which there are three main administrative models (see Table 1 for an overview). The *composesorat* is a historic community organisation typical in Transylvania and northern Romania that owns and administers pasture and forest land. Membership is usually strongly restricted, often passed down through generations. The second type, *obşte*, is a similar community organization found in the mountainous regions of Wallachia and Moldavia, with a wide variation in membership rights (Mantescu 2009). In the majority of the country, however, the common pasture (often called *izlaz*) is publicly owned with administration carried out through the Town Hall. This rents out parcels of the pasture to individuals based on their needs, or makes the area available for common grazing and has traditionally applied a tax per animal for usage. The former is generally the case for sheep pastures, where shepherds rent land on which to graze and milk a mixture of their own and the villagers' sheep. The latter is generally the case for cow pastures. In most cases, any resident of the village has the right to use the common pasture to graze their animals.

The *izlaz* form of public ownership of land with management by the Town Hall is the typical system of grazing commons administration in the study region of the Târnava Mare region of lowland Southern Transylvania (see Figure 2). This area has a long history of low intensity farming and high proportion of pastoralism

Table 1: Overview of the three main types of common pasture use in Romania (based on Mantescu 2009).

Commons type	Property rights	Use rights	Administration	Main distribution
<i>Composesorat</i>	Private property of the local community	Can be restricted to members (although not always); membership usually inherited	Elected members	(Hungarian speaking) Transylvania and Northern Romania
<i>Obște</i>	Private property of the local community	Restricted to members; membership sometimes inherited, sometimes through residence	Elected members	Regions of Wallachia and Moldavia
<i>Izlaz</i>	Public property of the local community	Any inhabitant of the municipality	Mayor and elected pastoral committee	Throughout Romania

linked with semi-subsistence farming (Page et al. 2012). Common land has been a feature of the farming system in the area since at least the 16th century (Dorner 1910). Today, almost all permanent pasture is publicly owned in this region, and a typical municipality has around 3000 ha of communal pastures (roughly a third of the administrative area). The pasture area may be physically contiguous over hundreds of hectares, but is often divided into multiple units depending on the users' needs and the physical geography.

#### 4. Historical development

The interviewees reported that historically, the use of the common pastures in Târnava Mare was restricted in practice and/or by local regulations by the number of animals a household could overwinter. Whilst the main use today is for cattle and sheep grazing (both for dairy production), in the past the pastures were also important for buffalo (from the 18th to the end of the 20th century) and pigs (at least since the 16th century, until the 20th century). The latter could be a reason for the high frequency of wood pastures in the area, whose scattered trees (mostly oaks) were a source of acorns and other forage for pigs (Hartel and Moga 2010).

The right of local inhabitants to use the pasture was coupled with a tax per animal payable to the local council and a fee to the herdsman, at least since the end of the 19th century if not much earlier. In addition, each individual had to contribute a certain number of days work per year per animal grazed to maintain the pasture (scrub and weed clearance, repairing of water troughs etc.), overseen by a pastoral committee from the Town Hall. Issues regarding the pasture were discussed and decided upon in an annual public meeting in spring presided over by the mayor (or vice mayor) and the pastoral committee in all study villages. This included electing a cowherd, who during the summer months would take the animals every morning to the allocated pasture and return them to their owners

in the evening. The meeting was attended by all stakeholders, who were almost exclusively subsistence or semi-subsistence farmers, usually owning 1–5 cows and 5–20 sheep in addition to other livestock. For such users, the quality of the pasture was paramount to their livelihoods, and the time and labour saving benefits of communal grazing vastly overcame any costs involved in participating in the commons (Huband 2007).

This changed during the communist period (1947–1989), when most land in Romania was collectivised and the majority of pastures – as well as the animals that grazed them – were absorbed into state or collective farms. However, individuals continued to keep a few animals during this period, and some of the common pastures remained in use as such. Administration of the pastures continued from the Town Hall with the participation of the local livestock owners, however, this was now strongly driven by the directors of the state and collective farms. The carrying out of pasture maintenance activities by users was strictly enforced by the Town Hall.

Following restitution of land and animals in the 1990s, pasture maintenance was increasingly neglected (as confirmed by all interviewees), as the state ceased to play such a dominant role in this respect and the users failed to coordinate themselves to continue these activities without state enforcement. Falling prices for agricultural products in recent years, as well as rising costs of living and emigration of young people due to the lack of rural job opportunities has led to a reduction in number of households keeping animals. These trends have particularly affected subsistence and semi-subsistence farmers, which form the majority of the commons users, making it an ageing group (see Figure 3) with few future prospects.

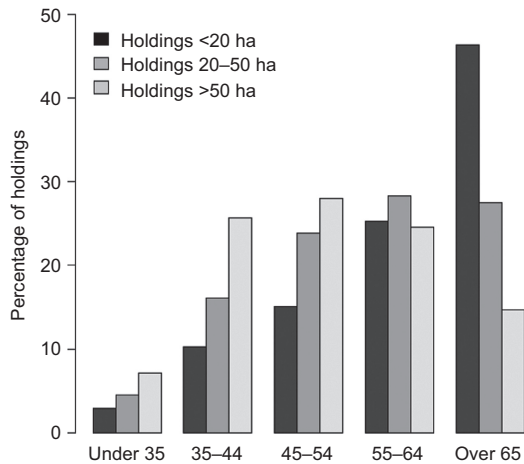


Figure 3: Distribution of small (under 20 ha, average size for this size class is 4.5 ha), medium (20–50 ha, average 30 ha), and large (over 50 ha – average 300 ha) farm holdings in Romania per age-group of farm manager. Source: Eurostat 2009.



In contrast, a minority of livestock owners have expanded their herds (i.e. over 10 cows) and professionalised their farming operations. These, however, operate separately from the village herd, using either private pasture or rented parcels of the communal pasture. In some places this is an official rule, in others just the norm. In having more at stake with their livestock, these owners tend to remove themselves willingly from the commons system because it is no longer practical for them (they may have different milking times, or find it more convenient to keep their cattle out of the village, for example).

In terms of pasture governance, the precipitous decline in the number of families keeping cows and thus reduction in the circle of active users has led to a loss of saliency (*sensu* Ostrom 2001) of the common pastures for the local community. This may be one of the reasons for the lack of engagement in communal pasture maintenance. These two factors combined, i.e. the reduction in management such as scrub clearance and the reduced grazing pressure, are threatening the quality of the pasture both in terms of productivity (and thus profit) and nature value.

## 5. Effects of changes in agricultural policy

Romania's accession to the EU in 2007 has had a range of impacts on agriculture in general in the country, which have in turn modified the context of commons use. Interacting with the falling prices and rural exodus mentioned in the previous section has been the introduction of agricultural subsidy payments in line with the EU Common Agricultural Policy (CAP). In the study area, initially many Town Halls applied for the subsidy payments. In return they often released the users from paying taxes and pasture maintenance responsibilities, which had in recent years rarely been properly enforced. However, although the users were freed from some financial costs, the subsidy money was not effectively benefiting either the users or the pasture quality. In recognition of this problem, the Ministry of Agriculture tightened regulations to prevent Town Halls from applying, with the result that the renting of communal pasture (by individuals or associations) increased. Many farmer or grazing associations were thus formed in order to take advantage of the subsidy payments. In one of the study villages, the association used the subsidy money to invest in improving the pasture quality or facilities, such as agricultural machinery, for the local community. Such examples of collective action to achieve greater collective benefits from the money are, however, few, and several interviewees said the associations simply divided the amount among the active members who used it to supplement their income.

An additional effect of CAP payments was the lengthening of contracts for the leasing of communal land. In addition to the single area payment (CAP Pillar I, Direct Payments), agri-environment schemes (CAP Pillar II, Rural Development) are also available for grasslands in many areas of the country. These require the applicant to have rights to the land for a period of at least 5 years, and thus to allow access to this source of funding Town Halls generally grant contracts for 5, but also even 10 or 25 years. This extended period is intended to provide



planning security for land-owners, especially as the intended ecological benefits of agri-environment schemes often take many years to accrue. In the context of the common pastures in the study areas, however, this development has had the side effect of weakening its communal function. In the absence of effective collective action to take control of the communal pasture, wealthier individuals have the opportunity to rent areas for extended periods of time, promoting a single user 'private' model of land use, which has implications both for both social and ecological functions of the common pasture. Concerning the former, some interviewees noted that land had been rented to residents of other villages, or to individuals without animals, despite the fact that theoretically this was not permitted according to the rules of the Town Hall. The primary interest of the tenant was the subsidies, who in some cases then sublet the land to locals who had not been able to obtain land for their animals directly from the Town Hall. In addition to the social justice issues with this situation, increased opportunity for individuals to make management decisions increases the likelihood of land-use change, which may in the case of species-rich permanent pastures be ecologically harmful (Wilson 1997).

## 6. New associations and their effect on commons governance

Although there have been similar organisations in the past, local farmer associations have started to appear on a larger scale in Romania in recent years. Officially encouraged by the Romanian government, they have, however, been given little formal support as to how to organise and regulate themselves, and as such a multitude of forms exist with varying success. At one end of the scale there are well-functioning farmer associations consisting of the majority of farmers in the village, and an organisational structure with different administrative positions. The other, more frequently encountered, situation is that the association is a shell, only existing formally in order for its members to be able to receive subsidy payments but with no willing participation of or interest from the members. In one village without an association, one interviewee rented part of the common pasture as an individual and let village animals graze in an informal agreement, by-passing the formal rules of commons use. Lack of unity and organisation among the users means that decisions about the common pasture mostly continue to be driven in a top-down manner by the Town Hall. This has no strong vested interest in the quality of the pasture or the livelihoods of its users, unlike the farmer associations. In turn, this inability by users to influence the running and the regulation of the commons is a major barrier to trust in and commitment to an institution (e.g. Ostrom 1990).

Concerning the interaction between associations and subsidy payments, there is a recognised lack of administrative capacity for managing CAP instruments in Romania and a generally poor level of dissemination of information regarding agricultural policy (Wegener et al. 2011). Farmers largely rely on uncoordinated trickle-down of policy and administrative information through word of mouth or

television (Huband 2007; Paulini et al. 2011), leading to information asymmetries and a lack of transparency. This is worsened by a high potential for conflict caused by the substantial sums of money in play: in 2012, basic CAP payments per hectare of grassland (based on direct payments and the most popular agri-environment schemes) were around 270€ – equivalent to an average Romanian monthly wage. Typical post-socialist mistrust in institutions and authorities (e.g. Theesfeld 2004) is very present in the region due to frequent corruption experienced by people here, all interviewees noted that it is a central issue in the running of the grazing associations. Low levels of social capital present in the community (Hartel et al. *unpublished data*) also decrease the willingness to cooperate.

## 7. Implications for the sustainability of commons use and future prospects

The application of the Common Agricultural Policy, in conjunction with market liberalization and significant socio-economic changes, has made Romanian farmers dependent on CAP payments. In the current economic climate, these subsidies play an important role in the viability of farming from the smallest to the largest scale. As an integral part of Romanian agriculture, common pastures must therefore now also be managed to efficiently exploit this source of financial support. Without it, common grazing would surely continue, at least into the near future, but mainly as the historical hangover of tradition and poverty-induced dependence on subsistence agriculture.

In the absence of effective collective action, the intended positive influence of CAP subsidies appears to be only partially successful for the social and ecological functions of the common pastures in the study area. Whilst the management stipulations for payments have stimulated an improvement in e.g. scrub clearance in recent years, all interviewees confirmed that this activity is now dependent on the continuation of the subsidy payments and not sustainable should these cease. In this way, the direct link between farmers and the environment is being eroded by the current system. Whereas previously ecological sustainability was key to producing the fodder that farmers depended on, in many areas today the primary product of the pasture is the cash that they receive for just ensuring the pasture meets the minimum standards prescribed by the payments agency. This provides incentives for people outside the community, and even those with no livestock or link to the area, to rent common land but not necessarily to use it.

With the drop in interest from livestock owners and the greater convenience of the private land use model for land administration, many interviewed farmers predicted the gradual decline in use of the common pasture in the next decade, to be replaced by individual renting of parcels of public land. In turn, the current dysfunctionality of the farmer associations is contributing to the speed of the loss in commons users, as they are failing to use the agricultural support payments to the benefit of the community. Whilst any reduction in the number of livestock is

easily reversible, the loss of livestock owners (and thereby the use of the commons) is not: once the knowledge and tradition of livestock-keeping is lost in a family, it is unlikely to be regained.

As mentioned above, the current system is facilitating an increasing 'quasi-privatisation' and division of the common pastures, which appears to be weakening the tradition of collective management of large areas of land. A greater recognition of the importance of landscape scale approach in international agricultural policy has been repeatedly called for in the ecological literature (e.g. Gabriel et al. 2010; Reeson et al. 2011), due to the ecological linkages affecting species stretching over hundreds of hectares, rather than the tens of hectares addressed by most current measures. This concept is perfectly addressed by common pastures, which provide large expanses of contiguous grassland supporting high species richness and ecosystem services with relatively low transaction costs.

Despite this recognition, and the stated objective of the CAP to encourage environmentally friendly farming (European Commission 2011a) there is no special recognition of common pastures or collective action to manage agricultural landscapes under the current CAP. This could still be addressed in the post 2013 agricultural policy. For example, a new cooperation measure to support collective action has been formulated under the legislative proposals for the post-2013 CAP (European Commission 2011b), which could be used to increase central support, advisory services and targeted aid for local farmer associations. In addition, although much of the content of the new CAP for the next programming period is already known at the EU level, it is likely that there will be more flexibility than in previous years for individual Member States to interpret the regulations. Romania in particular will have a much increased Direct Payments budget in the new 'green' Pillar I in comparison to the previous CAP period (European Parliament 2010). This, along with the cooperation measure could be a powerful tool to promote landscape scale conservation if eligibility restrictions for grazed land (which currently exclude much land of high nature value owing e.g. to the presence of isolated trees) are relaxed.

Although a change in national and international policy may be one way to better support the use of common pastures, there is much that local collective action could achieve to improve the functioning of farmer associations. As Romania makes its transition from an agricultural system characterised by subsistence farming to more commercial farming, the continued use of the common pastures seems to rest with the small to medium-sized farmers. This period of restructuring of commons governance can be seen as an opportunity to change the system to make it a more attractive option for these farmers to use. The newly formed, or reconstituted, farmer associations could help the transition from subsistence farming and better exploit the full potential of CAP payments and international markets by taking over the management of the commons. Transaction costs for small- and medium-sized holdings can be greatly decreased, for example by associations making a central application for agricultural payments, or by providing a resource for

equipment, advice and labour – as has happened in a very few positive cases. By acting as a voice for the concerns of small farmers, problems related to the lack of representation of their interests at higher administrative levels (Wegener et al. 2011) can be addressed. Issues with transparency, accountability, trust and member involvement could be initially improved by the formation of umbrella organisations to provide support, structure and guidance for local associations. Nevertheless, associations will remain highly dependent on the integrity and level of engagement of individuals such as the head of the association.

## 8. Conclusions

The large areas of common land still existing in Romania support millions of smallholders as well as important ecosystems, and form part of the cultural heritage of many regions of the country. Rapid recent changes including the introduction of agricultural subsidy payments and decline in subsistence farming mean, however, that the commons institutions are currently facing unprecedented challenges. In the study area, the disappearance of small farmers means the circle of active users is shrinking, resulting in a loss of saliency of the common pastures for the local community as a whole. In addition, the shift from primarily resource-based to subsidy-based usage is changing the role of the common pastures, replacing the direct link between farmers and the environment with an indirect one, thus reducing the importance of ecological sustainability (Fischer et al. 2012). A move towards effective division and individual use of the commons is also being seen in the region as a result of the subsidy system, and with the continued transition from subsistence to commercial farming this quasi-privatisation trend is likely to continue.

Nevertheless, many of the challenges described here can also be seen as an opportunity to form better systems of management. If issues with transparency and accountability can be addressed, farmer associations may be able to facilitate the use of the commons – and the subsidies they provide – for smaller-scale farmers, helping both them and the commons system to survive. Advisory services for such associations could have an important role to play to help inexperienced associations restructure as sustainable institutions. This case study is not unique, and at both the national and the European level the role of commons and associations of land managers in providing landscape-scale High Nature Value habitats could be better acknowledged in agricultural policy.

Based on a small case study, the discussion above is naturally limited in its scope to draw conclusions for Romania as a whole, especially in terms of the picture for other forms of commons management such as the *composesorat* and the *obște*. Further research comparing the situation and outlook for the management of the common pastures in other regions of the country, especially regarding the effects of CAP subsidies, would help to form a more complete picture of the range of impacts that the recent changes have had. This could provide evidence to shape future policies promoting collective action for both production and conservation in agricultural landscapes.

## Literature cited

- Aavik, T., Ü. Jõgar, J. Liira, I. Tulva, and M. Zobel. 2009. Plant Diversity in a Calcareous Wooded Meadow – The Significance of Management Continuity. *Journal of Vegetation Science* 19(4):475–484. doi:10.3170/2008-8-18380. <http://doi.wiley.com/10.3170/2008-8-18380>.
- Bravo, G. and T. De Moor. 2008. The Commons in Europe: From Past to Future. *International Journal of the Commons* 2:155–161.
- Brown, K. M. 2006a. Common Land in Western Europe: Anachronism or Opportunity for Sustainable Rural Development? *IASCP Europe Regional Meeting: Building the European Commons: From Open Fields to Open Source Brescia – Italy*.
- Brown, K. M. 2006b. New Challenges for Old Commons: The Role of Historical Common Land in Contemporary Rural Spaces. *Scottish Geographical Journal* 122(2):109–129. doi:10.1080/00369220600917412. <http://www.tandfonline.com/doi/abs/10.1080/08843759308916157>.
- Dorner, B. 1910. *Az Erdélyi Szászok Mezőgazdasága*. Győr.
- European Commission. 2011a. *Agricultural Policy Perspectives Briefs: Brief No 1 Rev January 2011*. Brussels: European Commission. [http://ec.europa.eu/agriculture/publi/app-briefs/01\\_en.pdf](http://ec.europa.eu/agriculture/publi/app-briefs/01_en.pdf).
- European Commission. 2011b. *COM(2011) 627 Final/2: Proposal for a Regulation Of The European Parliament And Of The Council on Support for Rural Development by the European Agricultural Fund for Rural Development (EAFRD)*. Vol. 0282. Brussels: European Commission. [http://ec.europa.eu/agriculture/cap-post-2013/legal-proposals/com627/627\\_en.pdf](http://ec.europa.eu/agriculture/cap-post-2013/legal-proposals/com627/627_en.pdf).
- European Environment Agency. 2010. *Corine Land Cover 2006 seamless vector data – version 13 (02/2010)*. <http://www.eea.europa.eu/data-and-maps/data/clc-2006-vector-data-version>. Accessed 10.11.2012.
- European Parliament. 2010. *The Single Payment Scheme After 2013: New Approach, New Targets*. Brussels: European Parliament.
- Eurostat. 2011. *Eurostat Yearbook 2011*. Brussels: European Commission. <http://ec.europa.eu/eurostat>.
- FAOSTAT. 2012. *Statistical Databases of the Food and Agriculture Organization of the United Nations*. <http://faostat.fao.org/>.
- Fischer, J., T. Hartel, and T. Kuemmerle. 2012. Conservation Policy in Traditional Farming Landscapes. *Conservation Letters* 5(3):167–175. doi:10.1111/j.1755-263X.2012.00227.x. <http://doi.wiley.com/10.1111/j.1755-263X.2012.00227.x>.
- Gabriel, D., S. M. Sait, J. A. Hodgson, U. Schmutz, W. E. Kunin, and T. G. Benton. 2010. Scale Matters: The Impact of Organic Farming on Biodiversity at Different Spatial Scales. *Ecology Letters* (May): no–no. doi:10.1111/j.1461-0248.2010.01481.x. <http://blackwell-synergy.com/doi/abs/10.1111/j.1461-0248.2010.01481.x>.
- Hartel, T. and C. I. Moga. 2010. *Manual de bună practică în managementul habitatelor de pajiște și pășune cu arbori seculari*. Sighisoara: Fundatia Mihai Eminescu Trust.

- Huband, S. 2007. The Role of Romanian Pastoralists in Conserving Agricultural Biodiversity. Doctoral Thesis, University of Edinburgh.
- Institutul National de Statistica. 2010. *Anuarul Statistic Al României 2010*. Bucharest: Institutul National de Statistica.
- Lederbogen, D., G. Rosenthal, G. Scholle, D. Trautner, J. Zimmermann, and G. Kaule. 2004. *Allmendweiden in Südbayern: Naturschutz Durch Landwirtschaftliche Nutzung*. Bonn – Bad Godesberg, Germany: Angewandte Landschaftsökologie 62. Bundesamt für Naturschutz.
- Mantescu, L. 2009. *When Globalization Meets Postsocialism- Community-based Institutions for Managing Forest Commons and the Internationalization of Timber Market in Romania*. Paper presented at a Seminar at the Faculty of Economics, University of Navarra.
- MARD. 2007. *National Rural Development Programme 2007–2013*. Ministry of Agriculture and Rural Development: Government of Romania.
- De Moor, M., L. Shaw-Taylor, and P. Warde. 2002. Comparing the Historical Commons of North West Europe. In *The Management of Common Land in North West Europe, C. 1500-1850*, eds. M. De Moor, L. Shaw-Taylor, and P. Warde, 15–31. Brepols: Turnhout.
- Ostrom, E. 1990. *Governing the Commons: The Evolution of Institutions for Collective Action*. New York: Cambridge University Press.
- Ostrom, E. 2001. Reformulating the Commons. In *Protecting the Commons: A Framework for Resource Management in the Americas*, eds. J. Burger, E. Ostrom, R.B. Norgaard, D. Policansky, and B.D. Goldstein, 17–41. Washington DC: Island Press.
- Paulini, I., M. Bărbos, A. Crișan, I. M. Jitea, V. Mihai, A. Moldovan, R. Negoită, R. Poledna, L. Rákósy, M. Troc, and W. Schumacher. 2011. *Grassland conservation through CAP instruments – A Transylvanian case study: 2010 and 2011 summary report of the Mozaic Project*. Cluj-Napoca.
- Page, N., R. Popa, S. Huband, A. Balan, and L. Sutcliffe. 2012. Romania. In *High Nature Farming in Europe*, eds. R. Oppermann, G. Beaufoy, and G. Jones, 346–357. Ubstadt: Verlag Regionalkultur.
- Poschlod, P. and M. F. WallisdeVries. 2002. The Historical and Socioeconomic Perspective of Calcareous Grasslands—lessons from the Distant and Recent Past. *Biological Conservation* 104(3)(April):361–376. doi:10.1016/S0006-3207(01)00201-4. <http://linkinghub.elsevier.com/retrieve/pii/S0006320701002014>.
- Reason, A. F., L. C. Rodriguez, S. M. Whitten, K. Williams, K. Nolles, J. Windle, and J. Rolfe. 2011. Adapting Auctions for the Provision of Ecosystem Services at the Landscape Scale. *Ecological Economics* 70(9):1621–1627. doi:10.1016/j.ecolecon.2011.03.022. <http://dx.doi.org/10.1016/j.ecolecon.2011.03.022>.
- Rodgers, C. P., E. A. Straughton, A. J. L. Winchester, and M. Pieraccini. 2011. *Contested Common Land: Environmental Governance Past and Present*. London: Earthscan.
- Roeder, N., D. Lederbogen, J. Trautner, A. Bergamini, S. Stofer, and C. Scheidegger. 2010. The Impact of Changing Agricultural Policies on Jointly

- Used Rough Pastures in the Bavarian Pre-Alps: An Economic and Ecological Scenario Approach. *Ecological Economics* 69(12):2435–2447. doi:10.1016/j.ecolecon.2010.07.013. <http://dx.doi.org/10.1016/j.ecolecon.2010.07.013>.
- Sikor, T. 2004. The Commons in Transition: Agrarian and Environmental Change in Central and Eastern Europe. *Environmental Management* 34(2): 270–280. doi:10.1007/s00267-003-3007-5. <http://www.ncbi.nlm.nih.gov/pubmed/15156348>.
- Smith, P., A. Bhogal, P. Edgington, H. Black, A. Lilly, D. Barraclough, F. Worrall, J. Hillier, and G. Merrington. 2010. Consequences of Feasible Future Agricultural Land-use Change on Soil Organic Carbon Stocks and Greenhouse Gas Emissions in Great Britain. *Soil Use and Management* 26(4):381–398. doi:10.1111/j.1475-2743.2010.00283.x. <http://doi.wiley.com/10.1111/j.1475-2743.2010.00283.x>.
- Theesfeld, I. 2004. Constraints on Collective Action in a Transitional Economy: The Case of Bulgaria's Irrigation Sector. *World Development* 32(2):251–271. doi:10.1016/j.worlddev.2003.11.001. <http://linkinghub.elsevier.com/retrieve/pii/S0305750X03002146>.
- Wegener, S., K. Labar, M. Petrick, D. Marquardt, I. Theesfeld, and G. Buchenrieder. 2011. Administering the Common Agricultural Policy in Bulgaria and Romania: Obstacles to Accountability and Administrative Capacity. *International Review of Administrative Sciences* 77(3):583–608. doi:10.1177/0020852311407362. <http://ras.sagepub.com/cgi/doi/10.1177/0020852311407362>.
- Wilson, O. J. 1997. Common Cause or Common Concern? The Role of Common Lands in the Post-productivist Countryside. *Area* 29(1):45–58.