

Transylvania: Nature and Tradition in Transition

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The rich ecological and cultural heritage of Transylvania has survived despite a once depressed rural economy, a situation markedly improved after Romania's EU accession in 2007. The last decade has seen accelerated change in the farmed landscape, with agricultural, conservation and rural development initiatives, a more prosperous society, and growing public awareness of the environment. In the Saxon Villages, as elsewhere, these trends present opportunities and challenges to local people and biodiversity. Positive change in the countryside includes more eco-tourism, guest houses and traditional food products. Expanding beef rather than dairy cattle herds may present both environmental threat and economic opportunity.

Keywords: *Saxon Villages, biodiversity, conservation, farming communities, eco-tourism*

1. Introduction

Transylvania and the adjacent Carpathian region are rich in natural resources, both of mineral wealth and biodiversity. I have previously presented the thesis that this was historically a centre of European culture, innovation and prosperity. However, from the early 19th century, economic decline, political instability, poverty and immigration made Transylvania into something of a backwater. This situation improved following the fall of Communism, slowly at first but accelerating after 2007 when Romania acceded to the EU (Akeroyd 2016). I further outlined some initiatives that have analysed and addressed the region's agricultural and conservation problems, closely related to those of human society in the villages.

Fundația ADEPT, with whom I have worked in Transylvania for some 20 years, is unusual among nature conservation NGOs in that its focus from the start has been on farming communities as well as plants, animals and habitats. If we can help farmers and protect the livelihoods of farming families, only then will it be possible to protect the landscape and biodiversity. The mountain wildernesses of Romania are important but so too are the nation's remarkable farmed landscapes

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and their ancient rural civilization. That said, the significance of farmland is harder to sell to the government, conservation community and wider public. Over the last decade, the rural economy of Transylvania has gradually recovered, expanded and diversified, so that today the region is firmly on the map and again making its mark. At the same time, the still well-preserved countryside and its semi-natural habitats have come under increasing pressure from more intensive farming, new and larger roads and insensitive domestic and industrial building. As in much of Europe, the farming population is ageing, and young people are increasingly unwilling to join the often backbreaking and financially uncertain world of farming. This has resulted in an exodus of the young from villages to cities and other countries in to seek more urban-based employment.

Since Romania's accession to the EU in 2007, agriculture has been put on a more profitable basis and inroads made into the high levels of rural poverty, especially among the Roma community. The expanding rural economy and perceived profile of Transylvania and the surrounding Carpathian Mountains are closely related to the rich natural environment, coupled with the varied culture and living traditions. A colleague described the Carpathian region as 'the beating heart of an older Europe', and Transylvania retains an aura of magic and mystery. A complex history at a crossroads between Europe and Asia has created a multi-cultural society which continues to absorb and disperse interacting influences. This ecological and cultural richness feeds into a growing public awareness in Romania and elsewhere of environmental issues such as a warming climate, deforestation, droughts and floods, food security and sustainability, and the loss of biodiversity.

Despite this progress, considerable threats to the landscape and natural world in Transylvania remain and must be addressed continuously. A young Romanian biologist friend recently remarked how everywhere on farmland he is seeing the diminution of insect life and other manifestations of biodiversity. And a recent publication shows that we must not underestimate the loss of Transylvania's Lepidoptera (Rákósy *et al.* 2021). This is an echo of the sort of loss we witnessed in the UK after World War II. More important, Transylvania provides a last refuge for plants, animals and habitats that have been diminished or have disappeared across much of western and even eastern Europe (Veen *et al.* 2009). Apart from this general trend, there is a striking parallel between the progressive loss of farmland biodiversity in Britain, especially from the intensification of agriculture during and after World War II, and the present situation where war damage to agriculture and food exports in Ukraine has seen, in Romania, accelerated ploughing up of former arable land reverted to grassland for the production of corn (maize), oilseed rape and sunflowers.

It is against this background of accelerated change that conservationists continue their task to protect and enhance Transylvania's natural wealth of plants, animals, and habitats. Above all, it is essential that they assist sustainable development towards economic viability of farming communities, and in a way that does not harm the rich resources of an environment that the farmers themselves have part-created and long nurtured.

At the same time, conservationists should accept a degree of profound change and even some inevitable loss of biodiversity. They certainly must not be seen to hold back progress by protecting nature at the expense of farmers and their families. Many visiting UK conservationists, especially, fail to accept the need for change in rural Transylvania and instead seek to preserve an idealized countryside that reminds them of an older, lost England.

2. Materials and methods

Data collected over some 20 years have revealed both the richness of plant and animal life and the need for sustainable development in rural Transylvania. The Anglo-Romanian charity Fundația ADEPT was established in 2004 to address the complex interlinked problems of the farming communities and biodiversity in Transylvania. Its remit focuses on the Saxon Villages or Târnava Mare area of south-east Transylvania, a well-preserved High Nature Value (HNV) farmed landscape, from 400 to 600 m in altitude (Akeroyd 2006). It includes eight communes, one in Braşov County, five in Mureş County, and two in Sibiu County, within boundaries of the 89,265-hectare Natura 2000 site Sighișoara-Târnava Mare Site of (EU) Community Importance. The history, layout, architecture (including the characteristic fortified churches), domestic economy and farmland of these distinctive villages are described elsewhere (Akeroyd 2006, 2016). Târnava Mare is a landscape of inspiration, increasingly known for its beauty, high biodiversity and cultural values, which needs to be maintained through a reviving rural economy based on and local enterprise and sustainable use of natural resources.

ADEPT's multi-faceted programme was set up to protect this special environment and the wider HNV farmed landscapes of Transylvania, in collaboration with the village farming communities that created them in the past and maintain them today. ADEPT works at various levels to improve understanding and protection of HNV grasslands: scientific assessments and inventories of grassland habitats and associated species; advisory services and training to farmers, farmer associations, producer groups and tourist associations; design and implementation of EU and national support measures; innovative management and

processing of HNV products; and marketing HNV products and services to provide commercial incentives as a long term solution to HNV farmland viability. ADEPT has worked closely with farmers and local communities to make small scale farming more economically viable and to demonstrate its social advantages, thus reducing motivation for widespread intensive farming and irreversible damage to the landscape and biodiversity.

While originally based on scientific surveys and monitoring, including species inventory/habitat mapping of the Târnava Mare area in partnership with regional universities (Akeroyd 2016), the main thrust of Fundația ADEPT's work since has been to help farmers and food producers with access to funding and markets, and encouraging new or expanding commercial initiatives. ADEPT had never anticipated owning land, but over the last decade it has become clear that only land ownership would ensure protection of some important sites in the face of pressure from developers who were buying up land for intensive farming and insensitive agricultural building. In 2017, a grant from Halcyon Land & Sea, through the good offices of Flora and Fauna International (FFI), enabled ADEPT to purchase of 200 ha of farmland at Angofa, a valley just south of Sighisoara. ADEPT now collaborates closely with four larger-scale farmers and several small-scale farmers on adjacent holdings to manage some 500 ha of grassland, including landscape features such as wooded gullies, ponds and steep hummocks or *movile*.

Until the 1980s there was a traditional Saxon village on the site, which was demolished by the Communist authorities and its inhabitants mostly displaced to Sighisoara. However, a few village farmhouses remain, alongside evidence of former extensive gardens and orchards. ADEPT is currently rebuilding one of the farmhouses, applying heritage techniques in brick, wood and plaster. The most substantial surviving building is the former schoolhouse, built with these traditional materials in a practical variant of the 'neo-Romanian' classical style, which ADEPT has restored and converted into a field studies centre, with laboratory, kitchen and sleeping facilities, together with space for camping and outdoor eating in the original school compound. This building has already hosted local and international students, notably groups from Operation Wallacea, which trains young people in biodiversity surveys.

ADEPT works with many partners in Romania and Europe and has advised the Romanian Ministry of Agriculture & Rural Development and the EU on HNV farming. It is a partner in a group of 12 organizations under the banner of Colinele Transilvaniei (Transylvanian Highlands), working with farmers, food producers and tourism projects to promote a regional identity that will attract visitors and investors.

ADEPT is affiliated to the International Land Conservation Network (ILCN), a project of the Lincoln Institute of Land Policy, a think tank based in Cambridge, Ma., USA. In 2018–20 the Institute convened a first cohort of the Large Landscape Peer Learning Initiative (LLPLI), with participants comprising private, non-profit and public sector leaders from the USA and South America, including the Appalachian National Scenic Trail. The LLPLI fosters networking, learning, collaborative problem solving and action-focused strategy development, connecting conservation practitioners around the world and enabling them to learn about each other's landscapes and exchange ideas and resources. Governments, NGOs, companies, private individuals, and indigenous peoples' groups are working to protect and conserve a diversity of ecosystems from HNV landscapes shaped by low-intensity farming to large expanses of wilderness. ADEPT forms part of a second cohort of participants established in 2020–2022 to build upon the experience of the earlier cohort.

3. Results and discussion

3.1. Moderating a changing farmscape

Although originally based on scientific survey and monitoring, over the last ten years much of ADEPT's work now relates to helping farmers access funding and to apply simple technological solutions such as phone apps, small solar panels for sheepfolds and to encourage commercial initiatives that relate to the landscape, its biodiversity and wild and farmed natural products. Some aspects of the work have proved more successful or durable than others. For example, for hay-meadows the use of technologically advanced Brielmaier mowing machines, with giant rollers and long cutting blades (basically a huge Anderson scythe) has revolutionized the efficiency of mowing in some districts. The machines can cut hay rapidly and perform well even on quite steep slopes. Mowing in Transylvania is now widely mechanised, mostly by using small tractors and modern baling machines (producing large cylindrical bales), not least because, although the skills remain, hand mowers with scythes are too expensive to employ in any numbers. In a cultural landscape where traditional land management practices are so intimately linked to heritage, scything remains the very spirit of Transylvania (Iuga *et al.* 2016); but Brielmaier machines are a perfect compromise for smaller-scale, environmentally sensitive plots (perhaps with ground-nesting birds) and do not compress the soil.

Conversely, one initially successful initiative is largely terminated. In 2009–2010, ADEPT arranged for a network of eight milk collection points for small

producers to be built or restored in eight villages near Sighișoara: Viscri, Mihai Viteazu, Saschiz, Daia, Albești, Vânători, Daneș and Mălâncrav. Alas, only those in Viscri and Mălâncrav are still working. The collection point in the small remote village of Daia is a particular disappointment as it was established to replace a previous one in a village where the local economy had entirely collapsed. Daia is now more prosperous, with working farms and even a café, and perhaps non-persistent initiatives of this sort are best seen as an intermediate stage on the road to better times. NGOs in other districts have encountered the same failure of village milk-collection points, further indication that this is an evolutionary process. Nevertheless, these initiatives helped to keep village economies alive.

This collapse of recently installed milk processing centres, overtaken by events, demonstrates how rapidly the rural scene is changing. Until recent years, subsistence farming was the backbone of Transylvanian agriculture (see Akeroyd 2006; Iuga *et al.* 2016). This was despite the planning strategies of politicians and governmental agronomists, who did not always understand how extensive subsistence farming meant that, for example, the milk of one or a few cows might provide a household with its sole source of income. But progress is usually inevitable and often unstoppable. The trend has been for larger herds, separate from the traditional, multiple owner village herd led out to pasture during the day and grazed communally. The trend towards larger herds varies between communities. For example, Saschiz to the east of Sighișoara in Mureș County has had to close a milk-collection unit installed in a converted historic house in 2010, whereas nearby Viscri, just across into Brașov County now has a flourishing village herd of some 300 head of cattle, which has actually doubled in numbers over the same period, with a grazing association of over 50 farmers using the milk collection point. Improved hygiene and organic certification of their milk has doubled the payment received by the farmers for their milk. There is a similar trend in Dacia, a traditionally rival village just to the south of Viscri.

A major impact on the rural economy has been, in the Saxon Villages and elsewhere, that cattle are now also being raised for beef as well or sometimes instead of dairy farming. Traditionally Transylvania farmers raised dairy cattle for milk for their own consumption and for modest cash income. Beef and veal rarely featured in the Romanian diet, which was historically based on the pig and pork products. The low price of milk paid to farmers has increasingly made many dairy herds uneconomical, and beef cattle could represent a means towards whole or partial replacement of this source of income. As living standards rise, beef is an increasingly eaten prestigious food, especially in the cities.

Every year the rural and village scene changes, even if generally the area has retained its special charm and 'old world' feel. The towns and villages are looking

different – cleaner, tidier and with many of the houses and other buildings restored or rebuilt. Visitor numbers, especially for eco- or agri-tourism, have expanded rapidly, together with the varied infrastructure of facilities that they require – hotels, guesthouse, restaurants and cafes. On the surface, much has improved, but from an environmental point of view the changes may not all be positive. Cars, which used to be scarce, are everywhere and in a village like Viscri one sees far fewer hens, ducks or geese in the streets. Their grazing of the greens alongside the streets has too often been replaced by strimming. Another village bird that is now noticeably rarer is the Black Redstart, which used to nest on semi-derelict houses. Singing Nightingales on early summer nights seem to be less frequent too. Some wayside ruderal plants, notably a group of traditional medicinal plants such as Marsh Mallow (*Althaea officinalis*) and Motherwort (*Leonurus cardiaca*) have declined as villages are tidied and properties restored.

It is perhaps instructive to look again at the main threats to the ecological integrity of the landscape that we identified 10–20 years ago and how we see them today (Tables 1a, 1b).

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- Collapse of the rural economy and of traditional close links between landscape and livelihood.
 - Intensification of pasture management, with high sheep stocking rates, nutrient over-enrichment and over-grazing.
 - Increase in sheep numbers at the expense of the communally grazed cattle herd – damaging hay-meadows by grazing and lowering the incentive for maintaining them.
 - Abandonment or reduction of established land management practices such as regular mowing of hay-meadows or cutting and burning of scrub encroaching on slopes.
 - Limited public awareness of the rich ecological, cultural and potential economic value of the area and its special landscape.
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Table 1a. In 2015 (Akeroyd 2016): Main threats to biodiversity and rural development in the Saxon Villages resulting from changes in traditional farming practices.

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- Enhanced rural economy but progressive and continued weakening of links between landscape and livelihood.
 - Local intensification of pasture management, including for beef cattle, with nutrient over-enrichment, high stocking rates and over-grazing.
 - Continued large numbers of sheep, damaging hay-meadows by unregulated access and grazing.
 - Abandonment or reduction of traditional land management practices such as the regular mowing of hay-meadows. Increase in corn (maize) for silage but, in a positive development, *invasive scrub is often cleared*.
 - *Major positive change comes from growing public awareness, locally, nationally and internationally, of the ecological, cultural and economic value of the area.*
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Table 1b. In 2022: Main threats to biodiversity – but also some positive trends – in the Saxon Villages resulting from continuing changes in farming practices.

3.2. Expansion of agro- or ecotourism

One of the most positive developments for the Transylvanian rural economy has been a progressive rise in visitor numbers. Over the last 20 years, the Saxon Villages have attracted ever-increasing numbers of tourists eager to experience the countryside, traditional villages, fortified churches and historical heritage. The wildflower meadows that first attracted myself and others to the region are themselves now famous internationally. The prestigious UK magazine *Gardens Illustrated* has listed Transylvanian wildflower-rich meadows as one of the world's 'Top 10' destinations for gardeners and other flower lovers. Wildflower enthusiasts are now much more common in Viscri and elsewhere than they were, and one sees groups of them on the hillsides, as in Crete and other Mediterranean floristic 'hotspots'.

But Transylvania offers many other sights and experiences. Saschiz, where ADEPT has its office, is a case in point. We have come far since 2007, when ADEPT first erected signs at the main road entrances to the village with symbols depicting the UNESCO World Heritage Site of the medieval Saxon church and citadel, together with accommodation and food and other visitor information. Just a few hundred visitors came in 2004, whereas today they number thousands (nearby Viscri has 30,000 per year). More recently, Saschiz church and its impressive bell tower has been fully restored, attracting further visitors and providing an excellent concert venue; and the great citadel (more or less intact until the 1960s when the Communists cannibalized its timber to build the village's state farms) is being

repaired under the benevolent *aegis* of the *Primaria* or Town Hall, which has also restored the once populous Saxon school, derelict since 1990 but now available as spacious office premises.

Hotels remain relatively few, but smaller guest houses have expanded everywhere and are now an established element of the local community and of the village economy. Many have capitalized on the benefits of eco-tourism, often serving food and drink sourced nearby, from the actual premises or their own or neighbouring small farms. This has allowed the development of an expanded range of commercially available food products (as opposed to purely domestic production for the family), from vegetables and herbs, and cheeses, hams and sausages, to a wide selection of jams, juices and alcoholic drinks made from wild and garden fruits – effectively ‘bottled biodiversity’. The hearty breakfasts alone deserve to be internationally famous (although home-cured fat bacon or *slănină* may be an acquired taste for visitors). This welcome development is analogous to the popular networks of *fermes auberges* in France or *agroturismo* farm accommodation in Italy. Guest houses are also a market and showcase for local produce, and both have enabled village women particularly to be economically independent and to enjoy at least a small disposable income.

Guest house owners are increasingly converting former barns and other agricultural out-buildings and incorporating traditional construction materials and styles into stylish but practical modern architecture. Although one deplores some recent building trends in the countryside, not least roofs of bright red, even green or blue tiles, the fact that planning laws permit contemporary design and construction does enable sensitive restoration projects rather than villages becoming fossilized theme parks. Village gardens have always been colourful as well as practical ‘cottage gardens’ (see Akeroyd 2006), but an interesting secondary development associated with some guest houses has been the evolution of attractive ornamental gardens, making use of new spaces and backdrops available in former farmyards. Planting remains largely traditional, but the commercially available range of garden plants is expanding.

It is important that agro- or ecotourism brings, and is seen to bring, benefits to rural communities and visitor numbers are not excessive. It is important too that tourism is not the sole motor of economic growth. Farming, practical trades and other commercial activity must underpin the local economy, as in Saxon days. Viscri, which has become something of a ‘show village’, somehow retains its atmosphere and village life but is ever in danger of being swamped and spoilt by visitor pressure. The recent widening of the road and the removal of almost all the roadside avenues of mature poplar trees on the village approaches have already detracted from its special atmosphere. There has also been some damage to

wildflower meadows along the main access road but not yet on the scale of more built-up communities such as Moieciu de Jos near Bran, itself a tourist accommodation magnet for many years, where semi-natural Carpathian upland meadow plant communities have almost entirely disappeared from in and around the village.

3.3. Cycling festivals and other events

Cycling on mountain bikes, on the minor roads and off-road along paths and trails, has become an established visitor attraction in the Saxon Villages. One of ADEPT's more unusual but successful initiatives was to construct over 100 km of cycle trails to link villages by direct routes off the main existing road network (Akeroyd 2016). These routes now attract cyclists from spring to autumn, with over 1,000 riders from Romania and further afield attending a major, much publicized rally event held each August in Viscri.

One of the most important consequences of this annual influx of cyclists has been to increase interaction between local people and visitors. Festival organizers have encouraged more villagers to open their homes to guests, by which means they meet new people, find out that entertaining them can be enjoyable and instructive, and supplement the household income. This has led to an expanded section of the local community participating in tourism, including more Roma families, some of whom now run their own successful guest houses. Cycling on a smaller scale has generally increased visitor numbers, with companies that specialize in cycling holidays operating throughout the tourist season, thus involving and promoting the guest houses, rented rooms, restaurants, bars and cafés, and other businesses such as craft shops and existing village stores.

Publicity to show what the Transylvanian countryside and villages have to offer comes from a network of expanding farmers' markets and village festivals, often centred around regional and traditional food. Each May, Saschiz has its Rhubarb Festival, celebrating a product that is more often associated with the UK, especially the 'Rhubarb Triangle' of the West Riding of Yorkshire, UK, and in the reputed 'world rhubarb capital' of Utica, Michigan, USA. Americans, British and Germans eat the young leaf stalks of Rhubarb (*Rheum rhabarbum*), the French and Italians much less so. The Saxons of Transylvania follow their German cousins, and most Saxon village houses have a rhubarb patch and in spring and early summer a tradition of making rhubarb jam, cordials and cakes. The region's cold winters, clay soils and plentiful animal manure suit this idiosyncratic crop, a garden hybrid of Central Asian and Siberian species.

A small, even more unusual festival *zacuscă*, has started in Cloașterf, just to the south, where the orange-coloured relish made with tomatoes, aubergines, red peppers, onions and spices, has its own little festival in early September. In 2022 the festival included an organ recital in the restored Saxon church. Another Saxon village, Richiș near Biertan, holds an Anglo-Romanian literary festival in September and this too is marked by the serving of local food products.

Small enterprises based on local produce and tradition have undergone what a biologist would call ‘adaptive radiation’. The Transylvania Food Company, a small factory trades as *Pivnița Bunicii* (‘Grandma’s cellar’ or ‘Grandma’s pantry’) in the sorts of foods and drinks traditionally produced in Transylvanian village homes. Based in Saschiz near Sighisoara, it was founded by a Scotsman, Jim Turnbull, with a background in agriculture and rural development, and employs a dozen Romanian staff. The products appeal to a growing, upmarket clientele who ‘want to know where their food is coming from’ or who remember family cooking – but in the fast-paced modern world lack the time to produce it themselves.

This is another indication of shifts in the rural economy of a village that has lost its cattle herd but retains intimate links with the surrounding landscape in the form of other foods – jams, cordials, wildflower meadow (‘polyflora’) honey and soft and alcoholic drinks. The company’s production unit combines traditional ingredients and artisan processes, on a small but commercially viable scale, with state-of-the-art technology and the highest EU and international food hygiene standards.

Two of these products, both from common shrubby trees, are of interest in a social context. Elderflowers, the white to cream-coloured ‘umbrella’ flower-heads of Elder (*Sambucus nigra*) of roadsides, hedgerows and house yard boundaries, have long been made into a cordial. Collected over about a month from late May, the annual harvest of some five or more tons gives employment to many families, especially from the Roma community. Syrup from the flowers is extracted, concentrated and cooled, then transported in tankers. Much goes to Britain, where it ends up in the elderflower cordials of the Bottlegreen company, widely sold in UK supermarkets.

Another product is from the hanging white flower-clusters of False Acacia or Black Locust (*Robinia pseudoacacia*), a tree originally introduced from the south-eastern USA which spreads by suckers, especially in hillside gullies and along water-courses and roads. In early summer, the Transylvania Food Company mobilizes its local family labour force to collect more than ten tons annually, yielding a pink syrup similar to that of elderflower and again used in the manufacture of cordials. The flowers are also a nectar source for a popular honey and were formerly used in perfumery.

Table 2. *Two plant syrups from traditional kitchens*

3.4. Beef farming: dark cloud or new opportunity?

The greatest threat to the Transylvanian landscape and its ecological, cultural and rural economic elements and processes is the present acceleration of intensive agriculture. This was something we feared from the beginning of ADEPT and was the motivation for many of the policies that the organization has followed. The war in Ukraine is putting additional pressure on Romanian agriculture to expand and intensify. Change has been rapid, even before the current crisis. I used to compare the Transylvanian rural economy of 20 years ago to that of England in the post-Black Death bubonic plague period of the 14th century, when feudalism gave rise to a cash economy that produced a peasant class, many of whom evolved into prosperous farmers. Only 20 years later it is maybe closer to the agricultural economy of the UK post-World War II, but with sizeable modern components!

The War accelerated the modernization of British agriculture, which (especially following an agricultural depression in the 1930s), until then had enabled the survival of considerable areas of rural landscape rich in elements of biodiversity such as farmland birds. Just before and during World War II, English nature and political writer Henry Williamson (1895–1977) restored a farm near the North Sea coast of Norfolk (Williamson 1941; Akeroyd 2022). Despite his improvements, such as replacing horses with a tractor and ploughing up old grassland, the farmland was still able to support sustainable breeding populations of skylarks, grey partridges, turtle doves and lapwings, with trout, kingfishers and otters along a small river. Today, echoing global changes, a new European war is putting pressure on farmers in Transylvania to plough up extensive tracts of former arable land that post-Communism had often been allowed to revert to species-rich grassland. Much farmland, especially in parts of the Hârtibaciu Valley east from Sibiu, has recently been converted to large fields of corn (maize), much of it grown for silage, replacing hay-meadows and clover leys (although lucerne or alfalfa is still widely grown). At least one stand of corn alone stretches along several kilometres of road.

Permanent grassland, which was expanding, is now contracting. Large, more recent corn plantings are associated with the move towards rearing beef rather than dairy cattle. Transylvanian beef, raised on semi-natural, often species-rich grassland, is of high quality and has the potential to become a market brand, although at present much Romanian beef production is in the hands of wealthy foreign investors. This may prove detrimental to village communities and consequently the landscape and environment. As well as corn for silage, there is the all-too-conspicuous problem of semi-permanent, electric wire fences, often 5-strand, needed to corral the beef cattle (skilled labour is too expensive to herd them in the traditional manner) and to keep out more unscrupulous shepherds and

their rapacious flocks. We have observed and recorded decreased botanical diversity in these pastures, although much of the land is frequently in better heart than when it was in the recent past, neglected and often overgrown with weeds.

Note that on ADEPT's land at Angofa, our own 60-head herd of Aberdeen Angus cattle has helped to restore former pasture and hay-meadow degraded by intensive sheep grazing. Such over-grazing remains a problem in many areas, as headage payments for animals encouraged many to enter the business of shepherding without the traditional skills or motivation (numbers of lame sheep can be an indicator of these unprofessional shepherds). The beef herd at Angofa does not require supplementary feed and has been raised on wildflower-rich grassland – contrary to conventional modern farming wisdom. In five years, over-grazed sheep pastures at Angofa have been converted into a managed mosaic of pasture and hay-meadow with marked improvement in appearance and biological richness, including increased numbers of clovers and other leguminous plants in the sward, also orchids (Akeroyd and Page 2021). This is a model that ADEPT hopes to replicate in other communities.

Most of the problems on farmland in the Saxon Villages and elsewhere are a matter of scale. Corn, a staple of village arable and garden plots, is a case in point. Long regionally important for people and animals, it was grown in the Ottoman Empire from the mid-16th century and corn meal or *mămăligă* remains Romania's national dish. As part of a mosaic landscape and grown alongside other crops it causes no problem, but as a monoculture it serves to reduce biodiversity and the large fields are prone to erosion. Conservationists cannot do anything, nor should they, to halt progressive agricultural development, but this should not be achieved in such an uncontrolled manner. A landscape that becomes nature-poor may have more space for crops and intensive grazing but is unlikely to prosper in the long term. Permanent, wildflower-rich grassland supports a wide range of 'ecological goods and services', including carbon sequestration and water filtration. Insects are vital both for pollination of certain crops and the control of fellow insects that are farm and garden pests. Above all, healthy soils with thriving ecosystems of bacteria, fungi and earthworms are the long-term foundations of future agriculture.

When I first saw Târnava Mare, I compared its open, fenceless landscapes to the unenclosed heaths and commons described and celebrated by English poet John Clare (1793–1864). That special landscape was lost by parliamentary Enclosure Acts and a similar sort of loss is happening now in Transylvania. Fencing, especially as used to enclose the larger holdings of beef cattle, has raised concerns among both conservationists and some local communities denied access to traditional access routes. And at the same time, over large areas, the traditional

distinction between clearly designated meadows and pastures has been eroded. There has been a breakdown of community understanding and of acceptance of mutual responsibility to respect one another's land.

3.5. Telling the story

Public awareness in Romania of the ecological, cultural and emerging economic significance of the Saxon Villages has grown in recent years, including numerous print and online magazine articles and TV and radio broadcasts. Another project, realized by HRH The Prince of Wales, now HM King Charles III, who has been an annual visitor and champion of the area, came to fruition in 2018. Since 2012, artist and teacher Helen Allen and I had led groups of botanical artists in Transylvania, mostly from the UK but also from the USA, South Africa and elsewhere, based at houses in Viscri (Prince of Wales's Romania Foundation HQ) and Valea Zălanului to the east owned by the king. The result was *The Transylvania Florilegium*, a large-format, sumptuous album of paintings of Transylvanian meadow wildflowers. The pictures depict in detail a selection of the flowers of the meadows around the king's properties that are special to him and have inspired his more than 20-year programme of conservation work in Romania. We launched the first of the two volumes in his presence at the Romanian Cultural Centre in May 2018. In April 2019 we launched the second *Florilegium* volume in Bucharest, through the good offices and hard work of Irina Neacșu. This attracted considerable attention in the Romanian media and was an opportunity to present the richness and importance of the nation's flora. It also did much to publicise botanical art, which has not had the public profile in Romania that it has in Britain, a nation of gardeners.

The *Florilegium*, printed on quality paper and bound in leather with gold tooling, consists of 124 colour plates, each accompanied by a descriptive text (Akeroyd 2018; 2019). This consists of the scientific, English and Romanian names and essay on the ecology, distribution, taxonomy and variation of the plant, with any relevant notes on uses or folklore. There follows a formal botanical description which, like the other material, is written in language understandable to the lay person. Introductory sections include my own essay on the ecological, economic and cultural significance of the Transylvanian wildflower meadows. One should add that the bad news is the price, some £12,000. Here is a collector's item for wealthy institutes and individuals only, but it does put on permanent record a snapshot of the remarkable spectacle and resource that is the flora of the Transylvanian meadows.

4. Postscript: where do we stand?

In a previous paper (Akeroyd 2016) I outlined projected scenarios that Joern Fischer and co-researchers (Hanspach *et al.* 2014) suggested as the future of Transylvania:

Our land, their wealth

Policy: pro-economy but low emphasis on the environment
Low ability of local people to capitalize on opportunities

Prosperity through growth

Policy: pro-economy but low emphasis on the environment
High ability of local people to capitalize on opportunities

Missed Opportunity

Policy: pro-environment but low emphasis on economy
Low ability of local people to capitalize on opportunities

Balance brings Beauty

Policy: equal emphasis on both the environment and economy.
High ability of local people to capitalize on opportunities

I am optimistic enough to think that a version of the last scenario, 'Balance brings Beauty', might evolve. Certainly, the last 10–20 years has seen huge growth in awareness of the conservation importance of Transylvania and its landscape, locally, nationally and internationally. But stakeholders must be careful that they do not end up with 'Prosperity through Growth', a scenario that would threaten the rich environment or 'natural capital' that has always supported agriculture, and was nurtured by the Saxons over centuries of careful husbandry. Maintaining the natural capital of Transylvania is key to a sustainable future for nature and for local people.

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