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COUNCIL OF EUROPE

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10th COUNCIL OF EUROPE CONFERENCE ON

THE EUROPEAN LANDSCAPE CONVENTION

Report

"The landscape in rural territories in energy agricultural and demographic transition"

and

Draft recommendation

Council of Europe Palais de l'Europe, Strasbourg 6-7 May 2019





Document of the Secretariat General of the Council of Europe Directorate of Democratic Participation

Summary

The European Landscape Convention states:

"the landscape is an important part of the quality of life for people everywhere: in urban areas and **in the countryside**, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas"; (Preamble)

"Landscape management' means action, from a perspective of sustainable development, to ensure the regular upkeep of a landscape, so as to **guide and harmonise changes** which are brought about by social, economic and environmental processes; (Article 1, e – Definitions)

"...this Convention applies to the entire territory of the Parties and covers natural, **rural**, urban and periurban **areas**. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes". (Article 2 – Scope)

"Each Party undertakes: to integrate landscape into its regional and town planning policies and in its cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape." (Article 5 - "General measures)

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Considering the attention that the European Landscape Convention pays to rural landscapes, a draft recommendation that can be submitted to the Committee of Ministers of the Council of Europe for consideration is presented below. It has been prepared on the basis of the conclusions of the Report "Landscape of rural territories in energy, agricultural and demographic transition", prepared in the framework of the Work Programme of the Council of Europe for the implementation of the European Landscape Convention, by Mr Patrice Collignon, as Expert of the Council of Europe. The Report aims to promote greater attention to the landscape in rural areas, in a context of changes which are brought about by social, economic and environmental processes.

The Conference is invited to:

- take note of the Report "Landscape in rural territories in energy, agricultural and demographic transition", prepared in the framework of the Work Programme of the Council of Europe for the implementation of the European Landscape Convention, by Mr Patrice Collignon as Expert of the Council of Europe, which aims to promote greater attention to the landscape in rural areas, in a context of changes which are brought about by social, economic and environmental processes;
- to consider the draft Recommendation on Landscape in rural territories in energy, agriculture and demographic transition, and, if appropriate, decide to forward it to the Steering Committee for Culture, Heritage and Landscape (CDCPP), then to the Committee of Ministers for adoption.

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Draft Recommendation ...of the Committee of Ministers to member States on contributing to the implementation of the European Landscape Convention of the Council of Europe: Landscape in rural territories in energy, agriculture and demographic transition

(Adopted by the Committee of Ministers on at the th meeting of the Ministers' Deputies)

The Committee of Ministers,

Considering that the aim of the Council of Europe is to achieve a greater unity between its members for the purpose of safeguarding and realising the ideals and principles which are their common heritage;

Having regard to the European Landscape Convention (ETS No. 176), which states that "the landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas";

Recalling the text of its preamble, according to which "the landscape has an important public interest role in the cultural, ecological, environmental and social fields, and constitutes a resource favourable to economic activity and whose protection, management and planning can contribute to job creation";

Recalling the provisions of the Convention, according to which:

"the landscape is an important part of the quality of life for people everywhere: in urban areas and in the countryside, in degraded areas as well as in areas of high quality, in areas recognised as being of outstanding beauty as well as everyday areas"; (Preamble)

"...this Convention applies to the entire territory of the Parties and covers natural, rural, urban and peri-urban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes". (Article 2 – Scope)

"Each Party undertakes: to integrate landscape into its regional and town planning policies and in its cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape." (Article 5 - "General measures)

Referring to the provisions of Recommendation CM/Rec(2008)3 of the Committee of Ministers to member states on the guidelines for the implementation of the European Landscape Convention, concerning means of intervention and instruments used to implement the Convention; Noting the importance of introducing instruments that may contribute to protecting, managing or planning the landscape;

Having regard to:

- the strong links that exist between local capacities for the management and planning of rural landscapes, and the vitality of rural areas;

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- the need to protect the many high-quality rural landscapes without turning them into museum pieces but instead in incorporating them into plans to consolidate the assets of rural areas to meet citizens' expectations;
- the consistency between the participatory approach advocated by the European Landscape Convention and local development approaches being tested in rural areas;
- the aim of bringing landscape concerns into economic planning and development projects as early as possible rather than raising them further down the line in the form of a counterproductive objections;

Considering approaches involving several local authorities provide rural areas with both an appropriate framework for landscape activities and a joint capacity for action and measures to highlight and maximise their potential,

Recommends that the States Parties to the European Landscape Convention to encourage national, regional or local authorities to take the following measures into consideration, depending on their powers and responsibilities in these areas:

- a. show express political recognition for the role and importance of rural areas in the development of European society by adopting strategic guidelines at the highest level providing a reference framework for public policy in rural territories;
- b. favour the establishment, at supra-municipal or sub-regional level, of integrated, participatory strategic approaches making it possible to enhance the potential for rural areas to frame a form of development geared to new global challenges and to integrate the landscape dimension more readily into the very core of such processes;
- c. establish this same type of forward-looking dialogue at cross-border level so as prevent situations undermining the natural and cultural components of landscape quality in frontier regions;
- d. take increased advantage of high-quality rural landscapes as pilot territories for the convergence of landscape and sustainable local development concerns;
- e. encourage comprehensive territorial approaches to meet climate and energy challenges so as to avoid unthinking sectoral responses to landscape impacts;
- f. facilitate and support, through the introduction of appropriate financial tools, the energy transition of rural areas, taking a global strategic view, including landscape aspects, so as to enable rapid commitment of projects or investments;
- g. encourage more quality-based forms of agriculture in terms of landscape and soil management and negotiate international agreements by broadening the objectives pursued to the amenities of rural territories;
- h. promote high-quality rural landscapes by insisting that agricultural support policies must include a high percentage of funding for the protection of distinctive topographical features;

- i. promote policies for research and knowledge transfer on the economic and social possibilities offered by diversified family-based farming
- j. set up or reinforce land-use monitoring and management bodies for the increased integration of landscape concerns into local urban planning documents, including consideration both for the quality of the inside landscapes of villages and small towns and for their surroundings.

Report

"The landscape in rural territories in energy agricultural and demographic transition"

Report prepared in the framework of the Work Programme of the Council of Europe for the implementation of the European Landscape Convention, by Mr Patrice COLLIGNON as Expert of the Council of Europe

Mr Patrice Collignon is Delegated Director to the Council of Europe of the Rurality-Environment-Development International Association

Photo credit: Patrice Collignon

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Introduction

In the process of implementing the Council of Europe's European Landscape Convention, the rural landscape has already been the subject of work which has broadly emphasised its deep historical roots¹ as a witness to changes in rural societies over the centuries. In the minds of many people, it is a bucolic, green-tinged setting dotted with a few villages, surrounded by agricultural areas and pockets of woodland, against a pleasing background of hills and mountains.

The title of this report "The landscape in European rural areas", however, infers a significant departure from this genteel, picturesque decor in which, or even against which, countryside pursuits are expected to be played out. It clearly indicates that the landscape will be seen both as a living environment and as a potential vector for development, forming part of the social, economic, environmental and cultural forces which traverse rural areas.

Through the introduction of this local and regional dimension, the theme is enriched by the complexity and the diversity of Europe's rural areas. It also shifts the focus from a technical realm to a political one.



A renatured landscape in the Semois valley (B)



A mountain landscape in Gsteig (CH)



The village of Biertan (RO)



A tree-lined road in Lorraine (F)

^{1.} See "Landscape and rural heritage", Proceedings of the <u>6th meeting of the Workshops of the Council of Europe for the implementation of the European Landscape Convention</u> (Sibiu, Romania, 20-21 September 2007), Council of Europe Publishing, European spatial planning and landscape, 2009, No 88.



Lectour (F): country heritage and farming

Before dealing with the question of landscape *per se*, it is worth considering the matter of the recognition given to the value and potential of rural areas as a whole. For if there is no recognition of the importance of active rural areas for entire societies and their decision-makers, it will be difficult to muster effective support for the landscapes in these areas. Why invest in them and take action to support them while we study them, if the geographical context is not considered worthy of any interest?

What are Europe's rural areas? The definition of the word "rural" has varied over time but most frequently rural areas are defined in relation to densely populated major urban conurbations. Another approach is to define rural areas through their own characteristics:

- "... the term 'rural area' denotes a stretch of inland or coastal countryside, including small towns and villages, where the main part of the area is used for:
 - agriculture, forestry, aquaculture and fisheries;
 - economic and cultural activities of country-dwellers (crafts, industry, services, etc.);
 - non-urban recreation and leisure areas (or natural reserves);
 - other purposes, such as for housing."²

Rural areas are not just agricultural and forestry land and natural areas. They include the villages and small towns located in these areas and areas given over to other economic activities. Rural areas are of course still the main production sites for food and raw materials but, like European society as a whole, they are also changing. They now perform many other functions in spheres such as production, leisure and tourism. In the emerging debate on climate change and a low-carbon society, they provide crucial reserves of renewable resources and have a major carbon capture capacity.

 $^{2. \} Recommendation \ 1296 \ (1996) \ of the \ Parliamentary \ Assembly on a \ European \ Charter for \ Rural \ Areas-www.assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-EN.asp?fileid=15330\&lang=en$

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Rural areas accommodate many areas of economic activity offering a large number of jobs (D)

On the European level, rural areas offer a wide diversity, ranging from very sparsely populated areas to peri-urban areas. Their inhabitants also display a great variety of cultures, which are the legacy of societies closely tied up with the characteristics, assets and hardships of their living environment. rural life also harbours a large share of Europe's natural, architectural and historical heritage. These aspects are combined with certain more subjective socio-cultural features, which mean that their inhabitants have a special relationship with space, nature, the passage of time and the climate.



The Chapel of Saint Nicolas-de-Flue by P. Zumthor, Wachendorf (D)



The village of Vilea Viilor, UNESCO World Heritage site, Transylvania (RO)

Rural areas were originally given over to primary functions linked to food and the supply of elementary goods, but they are now the site of much more diverse activities, production processes and services. They meet new demands from society which are becoming increasingly linked to quality rather than quantity (food safety, well-being and leisure pursuits, environmental questions, animal welfare).

The rural landscape is still strongly influenced by agricultural and forestry activities carried out on the land. This visual characteristic biases the popular view of rural areas, in which it is assumed by analogy that these two sectors are these areas' only social and economic vectors. However, the socioeconomic reality of rural areas has changed and is continuing to change. The share of agriculture and forestry is diminishing and other secondary and above all tertiary activities are growing. Likewise, the

inhabitants' work practices are changing. Rural tourism, and its diverse attractions, has increased substantially, drawing considerably on the quality of landscapes.

The "green" dimension of rural landscapes is a fundamental component of their quality and appeal, hence the interest attached to and the emphasis placed on the work of farmers in this area. However, this dimension must not cause us to overlook the change and increasing diversity in rural life in the 21st century, at the least in terms of economics and culture.

Rural areas now represent an asset for Europe – one that is both rooted in history and capable of a form of growth which can meet today's challenges.

Shifting definitions of rural areas

In 1991, in an attempt to categorise geographical areas, the Organisation for Economic Co-operation and Development (OECD) adopted a statistical approach based on degrees of urbanisation, which became a widely used and recognised reference point. It pinpointed three degrees of urbanisation: densely populated areas, relatively rural areas (which were renamed intermediate areas in 1997) and sparsely populated areas.

These areas, which were studied through the prism of regions at level 3 of the Nomenclature of Territorial Units for Statistics (NUTS3),³ were considered to be predominantly urban if less than 15% of their inhabitants lived in local administrative units (LAUs)⁴, intermediate if this figure was between 15 and 50% and predominantly rural if it was over 50%.

In 2014, in response to a failure to reflect actual local conditions deriving from statistical inconsistencies, Eurostat adopted a new statistical approach combining the notions of density and contiguity. It is based on an analysis of "grid cells", 5 which are areas of 1 sq. km used to measure degrees of urbanisation. A rural grid cell has a density of less than 150 inhabitants per sq. km while an urban grid cell has a density of more than 300 inhabitants per sq. km.

In this classification a region is said to be:

- predominantly rural if over 50% of its population lives in rural cells;
- intermediate if between 20 and 50% of its population lives in rural cells;
- predominantly urban if less than 20% of its population lives in rural cells.

Furthermore, in order to incorporate the notion of "urban clusters", a population is considered "urban" if its living area over a cluster of contiguous cells exceeds 5 000 inhabitants.

This new approach has given rise to relatively stable statistical changes overall but ones which accurately reflect regional differences at national level (see Appendix No. 1).

^{3.} NUTS3 corresponds to provincial or *département* level – i.e. areas with populations of about 150,000 to 800.000.

^{4.}LAU (formerly LAU1 or LAU2): LAUs are part of a system dividing up the territory to collate statistics at local level. They correspond to the nomenclatures NUTS4 or 5, and most often to municipalities.

^{5.} Grid cell: geographical unit designed for the dissemination or use of statistical information.

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Statistical approaches provide useful indicators for the conduct and assessment of regional policies, but they cannot reflect the actual circumstances and the inevitably subjective views of inhabitants in terms of whether they see their environment as rural, semi-rural or urban. They do illustrate, however, how large a share of Europe's territory is given over to rural life.



Loch Katrine, Loch Lomond and the Trossachs National Park (UK)



Maar de Meerfelder, Vulkaneifel Geopark (D)



Wine-growing landscape in Central/North Black Forest Nature Park (D)



Saint-Cirq Lapopie, in the Causses du Quercy Regional Nature Park (F)

Rural areas therefore cover most of Europe. Of the area covered by the member states of the European Union, 56% is categorised as rural and 34.9% as intermediary, and the landscape in the latter category has either an urban or a semi-rural aspect, as is the case with many areas around major conurbations. Through a cautious extrapolation therefore we can conclude that at least 75% of Europe's landmass is covered by rural landscapes. The management, protection and planning of almost all of this territory is a major challenge

Rural areas and landscapes, a multiform existence

The diversity of rural areas is an asset whose value has been underestimated for many years but is currently regaining the status of an almost structural resource in these times of globalisation and

standardisation.⁶ These areas are obviously full of natural amenities and resources which are now seen as part of the keys to our future, such as water, air and biodiversity. They are also the repositories of cultural and heritage resources which are crucial for a knowledgeable understanding of the timeline and the path of humankind's development.

The rural landscape therefore serves as an open book for inhabitants and visitors enabling them to understand the mechanisms of the past so they that can better gauge the prospects and the threats of the future.

National and regional nature parks and other recognised natural areas (biosphere reserves, protected landscapes, etc.) account for a remarkably large share of rural areas. The decision to set them up or grant them certification is mostly linked with their environmental, landscape or biological features. Preserving or enhancing these qualities lies at the heart of the criteria which guide decision-makers' development goals. These are also areas for which an overall strategic approach is expected, although the focus is probably more on environmental and natural outcomes than economic ones.⁷

By their nature, these areas enjoy a favourable natural environment and political framework, which confer a special status and special tasks on them in the landscape field. They are also often areas in which new landscape approaches and tools (such as charters) are tested. Moreover, when states and regions talk of the implementation of the European Landscape Convention, they often illustrate their words with examples from these exceptional areas.

However, we do have to avoid thinking about the issue of rural landscapes in exactly the same way as that adopted by nature parks or other natural areas with high environmental standards. As the European Landscape Convention concerns "landscapes that might be considered outstanding as well as everyday or degraded landscapes", 8 this approach would tend to side-line "ordinary" or low-quality landscapes. Yet these lie at the core of the efforts that the Convention must advocate as they bring together a large share of the rural population and provide numerous activities and jobs. The management, protection and development of these ordinary rural landscapes are therefore a major issue, not just for inhabitants and visitors but also for the image of their economic players.

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^{6. &}quot;Rural areas: inhabited geographical areas with their own personality and specific potential for development, and which form part of the solution, as they have an energy and a spirit that are there to be mobilised; a patchwork of regions which tie the geography of Europe together and contribute to or even shape the diversity of cultures by which it is characterised". Extract from "Faire grandir l'Europe avec les territoires ruraux" ("Making Europe grow through its rural areas"), in Rurality-Environment-Development, RED international association, April 2016.

^{7.} They cover 25% of the territory in some EU member states. In France the surface area on land at sea of the 52 regional nature parks and 10 national parks is 148 728 sq. km or 24.5% of the territory. In Scotland the 40 National Scenic Areas cover 13% of the territory.

^{8.} The Convention defines landscape as follows: 'Landscape' means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors. Article 2 of the Convention, which deals with its scope, states that subject to the provisions of Article 15, it applies to the entire territory of the Parties and covers natural, rural, urban and peri-urban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes.

The participatory processes of rural development

The physical, climatic and socio-economic features of Europe's rural areas vary and are sometimes diametrically opposed in terms of accessibility, attractiveness, population density, assets and natural conditions. What could be more dissimilar than a Norwegian fjord, a semi-desert area of the Iberian Peninsula, a Greek island or a stretch of Ukrainian farmland?

To overcome this obstacle through a consistent policy of support for rural development based on central sources of power, rural regions have long been testing innovative forms of development enabling them to build strategies that match their potential and their aspirations. Following an exploratory phase beginning in the 1970s in a number of European rural communities – particularly in France and Belgium – an integrated local development method was set up in many states. It promotes a holistic development approach, in which local stakeholders play an active and decisive part.

This methodology was transposed to European level from 1991 onwards under the title LEADER (Links between actions for the development of the rural economy). These local development schemes have been enriched and consolidated over the years through experimentation. Under the present European programme, this scheme has been renamed, becoming the CLLD (Community-Led Local Development Strategy), but it has not lost any of its original features, having simply diversified its funding sources.

The main features of this methodology are as follows:9

- a local development strategy at intermunicipal or sub-regional level drawn up in accordance with an integrated, cross-sectoral approach and based on a bottom-up, participatory process;
- a local partnership between the public and private sector, set up formally as a local action group,
 with at least half its members from the private sector;
- support for innovation in the broadest sense (new products, processes or markets, adaptations of innovations devised elsewhere);
- a networking strategy facilitating exchanges of best practice and co-operation with other rural areas.

There are many uses for this approach in relation to the themes of this paper:

- the cross-sectoral approach called for with regard to local strategies clearly covers landscape issues: landscape protection, management and development are therefore frequently among the activities carried out;
- the exemplary participatory approach of this methodology meets the requirements of the European Landscape Convention, particularly the provisions of Article 5 on local participation;
- it treats landscape both as a reference framework and a development factor, by valuing knowledge and studies on landscape but also by promoting the preparation of projects and products based on landscape quality.

The major challenge therefore is not to pit rural development strategies against the aims of protecting, managing or conserving landscapes but to ensure that these aims form part of the factors that are taken

^{9.} Regulation (EU) 1303/2013 of the European Parliament and of the Council, 7 December 2013.

into account when these strategies are devised. Landscape is becoming one of the key components of strategic thinking and conclusions, and this changes perception of landscape when it comes to the collaborative work stage. It is regarded not as a yardstick for retrospective validation but as a factor of development, forming part of the choices to be made.

The following part of this report will be divided into three sections focusing on the major changes that Europe's rural areas are undergoing in the spheres of energy, agriculture and demography and in the digital domain.

1. Rural landscapes in energy transition

1.1 The energy and climate background

The energy transition towards a low-carbon society is mainly prompted by climate-related considerations. Whereas, some decades ago, energy policies were decided mostly in relation to the geopolitical context, there are now new constraints weighing on our energy future arising from the urgent need to limit the scale of climate change and adapt to it.

This need is felt throughout the world to varying degrees, which sometimes amount to a matter of life or death. It has given rise to an almost worldwide movement, and a major landmark in this was the Paris Climate Agreement, adopted on 12 December 2015 at the 21st Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) and in force since November 2016.

This agreement does not specifically mention landscapes or rural areas. However, the 5th report of the UN Intergovernmental Panel on Climate Change (IPCC), clearly outlines the threats to rural areas, summarised by the French association Climate Action Network (*Réseau Action Climat*), in a document entitled "Climate change and its future development" as follows:

"Rural areas are exposed to very short-term risks such as a drastic fall in water supplies, a decline in food security and a drop in income from farming. The effect of this would be the relocation of farming and harvesting areas and, by extension, population displacements."

In line with the international agreements they have ratified or their voluntary commitments, states and regions have also undertaken to carry out major, accelerated changes in their energy mix, such as increasing the share of renewable energies, reducing CO_2 emissions and increasing carbon capture measures. These strategic policies are combined with a desire to enhance regions' resilience to climate-related problems and reduce the risks thereof.

Whether they are imposed or proactive, these choices require all the regions to be involved. Like urban centres, rural areas must help to solve problems resulting from climate change (by both reducing changes and adapting to them). Rural areas must also play a part in the climate debate and the issue must be included in discussions on landscape management. The key challenge is not just to take measures to protect, manage or conserve landscapes which enable the impact of climate change to be limited, but also to manage them in a way that makes rural areas part of the means of meeting the challenges posed. The goal for instance should not be to oppose the installation of wind turbines or photovoltaic fields but to seek technical and regulatory solutions which enable them to be installed

with minimum impact on landscapes. To avoid the risk of side-lining rural areas still further, landscape management must also be conceived in terms of a proactive stance vis-à-vis the challenges to be met.

This operational and political shift in the importance of rural areas in the climate debate will lead ultimately to a new recognition of the role of rural areas. It could form the basis for a new rural pact conveying a readjusted view comprising a clearly expressed acknowledgment of the specific contribution of all geographical areas. Taking advantage of climate pressure – and the concerns and threats it generates among the public and economic players – to bring rural areas back into the arena of stakeholders whose voices count (and hence have to be taken into account) calls for a dynamic approach and proactive forward planning with regard to landscape. This is not a question of sacrificing landscape quality but of changing and updating the standards that are applied to it.

1.2. Integrated approaches as methodological responses

The expected growth in the various types of renewable energy could prompt us to deal with this trend on a sector-by-sector basis (the main sectors being solar and wind power, biomass and water power).

To do this would be to ignore regional energy solutions which combine all the forms of energy consumption and generation in an integrated approach increasing their efficiency and innovative nature. The challenge is to arrive at solutions which, by reducing energy consumption and diversifying the alternative energy generation in a region, make it possible to reduce other forms of investment which place greater pressure on the landscape. As this response is primarily a regional one, it is the entire range of opportunities in the region (some of which may be quite specific solutions such as geothermal energy, hydropower, biomass or suitable arrangements for district heating) which must be mobilised to facilitate a low-carbon transition and deal with the energy question.

These broad-based approaches have proliferated at local level.¹⁰ An example of the types of activity they support are joint schemes to take full advantage of local biomass, which are more conducive to decisions on site location designed to reduce impact on landscapes.

The merit of this kind of all-embracing thinking and action is that local potential can be identified and specific obstacles can be overcome without resorting to the standardised but not always optimum turnkey solutions offered by commercial operators. It makes it possible for local inhabitants and stakeholders to get involved, meaning that the resulting energy programme will be more adapted to local circumstances and attract more support. It also paves the way for an integrated overview of energy consumption over an entire region, and hence for measures which transcend conventional thinking about energy by developing "smart rural" means of increasing the viability of movements in the flow of goods and persons so as to limit infrastructure needs and help inhabitants to stay put.

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^{10.} Regional and local climate plans, energy pacts, the European network of small rural communities committed to the energy transition, RURENER.

Fostering participatory approaches to strategic joint development helps to limit adverse effects on landscapes, as the importance of landscape becomes clearer much more quickly when it is part of a regional approach than part of a form of development built solely around energy sectors, where it can seem negligible. The latter approach is often based on a juxtaposition of individual investments which will end up producing more adverse effects than some type of integrated solution.

This local and regional approach is an elegant and effective means of reconciling international or national obligations, local issues and consideration for landscapes. It is attracting increasing political support, 11 extending beyond sectoral activities promoted by the private sector.

1.3. Contributing to the production of renewable energy

The share of renewable energies in total primary energy production is growing. 12 It is worth investigating how these various sources can be gauged in terms of their impact on landscapes. Biofuels and renewable waste are the main sources of renewable energy, accounting for nearly two-thirds. This sector will be described later, in the section on changes in agriculture.

Though water power is in second place in terms of importance, it has not been growing much because it has already been widely exploited using major infrastructure. Its impact on landscapes therefore has not changed. One change, although a minor one in absolute terms, could be brought about through the increased exploitation of local water power by setting up or restoring minor local infrastructure (miniplants) which have no real impact on landscapes.

Energy production through wind power and solar power is admittedly less widespread but is growing rapidly. It also has a major impact on landscapes, particularly in rural areas.

Climate conditions and natural resources are decisive factors where it comes to producing certain types of renewable energy. For instance, water power accounts for over a third of renewable energy in relatively mountainous states such as Austria, Slovenia, Sweden, North Macedonia, Montenegro, Serbia and Turkey. The figure is even over two-thirds in Albania and Norway. This diversity is also found in the figures for the proportion of solar power, which are, for example, 83.1% in Malta and 66.8% in Cyprus.

^{11.} Resolution of the European Parliament, 3 July 2018: "The European Parliament ... recognises the importance of effective and efficient adaptation action, strategies and plans, including the use of ecosystem-based solutions to enhance adaptative capacity, strengthen resilience and reduce vulnerability to climate change in the context of the Paris Agreement".

^{12.} Production of renewable energy in the EU-28 increased by 71% between 2005 and 2015, or by an average of 5.5% per year. In 2015, the EU-28's largest renewable energy producers were Germany (19% in total), Italy (11.5 %), France (10.4 %), Sweden (9 %) and Spain (8.2 %).

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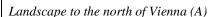
It is hardly surprising that the share of wind power is particularly high in Ireland (57.6%) and Denmark (34.4%), but it is also high in Spain (25.1%), the United Kingdom (29.3%) and Portugal (19.3%). Some mention should also be made of certain atypical circumstances linked to countries special natural features such as the prevalence of geothermal energy in Italy (23.2%), Turkey (30.8%) and Iceland (75.8%).

The same types of disparity can be found in the figures for average growth rates but these of course must be placed in relation to absolute production figures. Examples of states with a growth rate of over 10% are the United Kingdom, Belgium, Hungary, Bosnia and Herzegovina, and Ireland.

Wind power

The installation of wind power sites usually forms part of an industrial project involving several turbines. Such projects are regularly faced with public reactions along the lines of NIMBY or "not in my backyard", based on objective information or local political considerations.







Seeking wind power efficiency, Col des Bagenelles (F)

The location of these sites is governed, at different levels according to the state or region, by binding regulations and by geographical zoning reflecting safety, aesthetic or noise-level requirements and environmental (biodiversity) and landscape concerns. On this point, an effort should be made to apply the new knowledge which is being gathered in the area of the landscape analysis of geographical areas (using landscape atlases, for example) as quickly and as widely as possible.

Through their capacity to open up and fuel dialogue, participatory regional approaches to energy transition foster local acceptance and the integration of landscape considerations as they presuppose that exchanges will take place more in advance of projects. They also offer greater prospects of passing on financial benefits to host areas and making local provision for shared investment.

Research should also be conducted on the development of wind turbines, assessing them not just in terms of their profitability or technical efficiency but also according to their impact on landscapes. In a similar vein, more thought should be given to the installation of small wind turbines, opening up possibilities of growth in this area to be supported by more active research and development work.

Solar power and solar panels

Another renewable energy source which has an impact on rural landscapes is of course solar power. Solar electricity production has expanded considerably in recent years, frequently with the backing of policies supporting this alternative source.

When dealing with the landscape impact of solar panels on rural areas two aspects need to be looked into depending on the scale of the installation.

Installing panels on a single roof has an adverse visual effect, whose severity depends largely on their integration into the surroundings (colour, placing, etc.) Uncontrolled installation poses a threat to the landscape quality of many villages whose heritage features form an essential part of their appeal.

Research in this field should – and this applies as much to urban buildings as to rural ones – be actively turning towards more discreet panels which fit more readily into the built environment. This is easier to achieve in new buildings but, for existing ones, the design of the panels should be altered, adopting forms more in keeping with regional features. This calls for better knowledge of specific local characteristics, which it is probably difficult for non-European manufacturing firms to perceive.



Solar unit on a farm building (D)



Joint-owned solar panels installed discreetly on a sports hall in Beckerich (L)

An alternative to individual installations is joint-owned group installations. They are often the result of partnerships between public bodies and inhabitants, offering installation sites grouping together panels financed by individuals, with centralised management of costs and receipts. They may for instance be placed, with little impact on the landscape, on the unused roofs of public buildings. In addition to providing operation and management facilities, proposing forms of joint funding enabling individuals to favour joint investments on shared sites would avoid an unwelcome range of visual impacts.

Photovoltaic fields are increasingly being set up in Europe and this raises the key issue of the location of these installations. Thorough consideration of their landscape impact is essential.

Photovoltaic field projects are one of the most profitable solutions in this sector but they must be preceded by impact assessments including as many viewpoints as possible and landscape protection measures which are actually implemented and respected, including in the long term. A financial contribution to support landscapes when such installations are set up could be envisaged. In some countries, a percentage of total investment in road infrastructure is given over to landscape development.





Photovoltaic field beside a motorway (P)

In the heart of the Eifel (D)

Many rural areas have already been spoilt by energy or mobility infrastructure which is prejudicial to landscapes. Such infrastructure can also provide possibilities for new forms of solar energy production (such as solar roads and shade structures) or innovative sitings (such as motorway verges). Research in this area is particularly active; it could be directed towards solutions in which reducing landscape impact is one of the criteria to be applied.

2. Rural landscapes in agricultural transition

The agricultural sector plays an essential role in the development of the landscapes of rural areas. Farmers manage nearly 50% of Europe's land, not including its forestry areas: ¹³ farmers and forest managers are key players in the landscapes of rural areas.

Europe has a large variety of types of farming linked to differing pedological features and exposure to climate conditions which are substantially differentiated by their geographical situations and altitudes. The diversity of rural landscapes, which result from the types of agriculture that are carried out there, makes it one of the wealth of Europe.

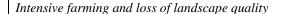
2.1. Developments weakly favourable to landscapes

European agriculture is broadly conditioned by approaches triggered by European and national agricultural policies and the framework established by commercial international agreements. Generally speaking, over the last sixty years there has been a marked decline in the number of farmers and agricultural workers. This has gone hand in hand with an enlargement in the average surface areas

13. In the European Union, forests and farming land cover 84% of the total surface area.

of farms. The quest for maximum productivity has also led to the increasing use of mechanised techniques and inputs that are detrimental to the quality of soils and the preservation of biodiversity.







Greenhouse growing in Costa Almeria (E)

A more recent major development has been the entry of global financial speculation into the farming sphere, resulting in greater price volatility, which increases the risks run by farm managers. Added to this is the scale of investment needed to bring about the requisite increase in productivity and the pressure to bring down prices. This means that farms often have high levels of debt which make any strategic changes all the harder.

For a decade, momentum has been gathering in favour of a form of farming which pays more attention to soil quality, animal welfare and the environment in general. This green transition is a slow process. The percentage of farmers adopting this agro-ecological or organic approach is still low even though it is steadily increasing. Intensive farmers are also adopting, by choice or by obligation, more environmentally-friendly practices, although this greening of farming policies has not yet resulted in anything more than a relatively small shift to "good" practices.

This issue is closely linked to the quality and development of landscapes. The more financial support for agriculture is geared towards family farming and reasoned management practices, the more the quality of agricultural landscapes will be restored in terms of variety, biodiversity and resilience to climate events.

There seems to be a political consensus on the fact that the family farming model is the most suited and the most conducive to preserving biodiversity, landscape diversity and control over the quality of products. Changes in the structural and financial circumstances of European agriculture, made in an ever more competitive environment, are not yet moving in this direction, as highlighted by the many studies or reports on the environmental and wildlife situations of agricultural areas. And this is despite the fact that studies show that small and medium-sized farms make a greater contribution to the overall growth of the agricultural sector than larger farms.¹⁴

^{14 &}quot;The promise of small farms becomes even more evident when the contribution that they make to the overall growth of the agricultural sector is taken into account. Our data show that small and medium farms make a far larger contribution to overall agricultural growth than large farms, by many times. To mainly, or only, stimulate and support large farms is a clear case of betting on the wrong horse" – Study on "Structural change in EU farming: how can the CAP support a 21st century European model of agriculture?" for the European

The agricultural landscape situation is therefore somewhat gloomy. Landscape features are often still thought of by farmers as a kerb on productivity and increased mechanisation, which is always seen as a growth generator. Curiously, European agricultural policies, which, like national and regional ones, are tied up with international trading practices, seem as a result to be taking a somewhat paradoxical approach. On the one hand, they generate and amplify adverse developments affecting many environmental aspects (such as biodiversity, soil quality, landscape and water) but on the other, they allocate funding to protect the environment, as reflected for instance in the increase in support for agrienvironment measures.



The example of grasslands is particularly instructive. They play an essential part in sequestering and capturing carbon in the soil. They also have a central role in many regions' rural landscapes. When they are managed rationally, they can make a major contribution to preserving biodiversity and efforts to contain flooding through their limiting effect on run-off. However, the dairy and meat farming sectors they sustain are among the most exposed to world competition and competition from enclosed livestock farming. Agreements already negotiated and the expected terms of future negotiations show that exposing these sectors to increased competition – competition which could be considered almost unfair if the livestock-raising restrictions in many European states are taken into account – is seen as a minor matter. Yet increased imports from non-European countries in these areas will pose still more of a threat to farms which protect grasslands.

2.2. A political and societal momentum

The idea has recently been put forward of a form of rural proofing, ¹⁵ which would establish the principle that the most important decisions need to be evaluated in terms of their impact on rural areas. For this idea to be successfully implemented, however, a strategic rural reference framework would have to be adopted and approved jointly by national governments and European institutions. ¹⁶

Parliament's AGRI Committee — Prof. Dr. ir. Jan Douwe van der Ploeg, Prof. dott. Flaminia Ventura, Dr. Pierluigi Milone.

^{15.} Cork 2.0 Declaration "A Better Life in Rural Areas", October 2016.

^{16.} Conference of the European Committee of the Regions and RED for a European Rural Agenda, May 2017. This European Rural Agenda would reflect the European Union's ambition to foster the development of its rural areas. It would provide a political framework and operational guidelines for a future policy specifically geared to the development of rural areas, catering for their diversity and the multisectoral aspects of their economic situation.



Replanting fruit trees on grasslands (L)

Furthermore, society's expectations in the agricultural sphere are changing. More and more consumers are now pondering what the balance should be between the lowest possible price and product quality levels and are paying more attention to the environment and animal welfare. The political momentum could therefore be conducive to a major shift in agricultural practices towards a more sustainable family-based farming model showing more regard for its surroundings. Rural landscapes would gain from this as this commitment would result in a more strategic and assertive positioning of agricultural measures in favour of the environment and landscapes.

A transition phase is necessary – for finances, soil management and agricultural practices to be transformed – but it must be clear that this is the consequence of a strategic choice, not an opportunistic measure arising from financial or tactical considerations.

2.3. Agriculture in transition

European agriculture is affected, like other sectors, although probably more intensely, by the various manifestations of climate change. Europe is sufficiently large for these changes to have impacts on rural areas which vary greatly in their intensity from area to area and sometimes have quite opposite effects in different areas. Table in the appendix 5 illustrates these diverse effects in Europe's major geographical areas.

Rural landscapes are closely linked to agricultural practices and also undergo the effects of the various results of climate change. These are mainly:

- event-related (including fires, floods and storms);
- adaptive (enforced crop changes or preventive structural adjustments).

In the quest to mitigate the causes of the greenhouse effect and hence climate change, the most beneficial options are reforestation – and in some areas, a halt to deforestation – and the adoption of new crop farming techniques restoring the organic quality of soils (restrictions on industrial inputs). Forms of agro-forestry which reintroduce tree plantations into crop-growing or grazing land also contribute to carbon capture. These choices also directly affect the quality of rural landscapes.

There is a strong and positive connection between measures to improve soil quality, preserve biodiversity and combat climate change, which benefits rural landscapes. This confirms the need for a major shift in farming support policies towards measures of joint benefit for the environment, the climate and product quality.

Biomass and landscape

Efforts to reduce the greenhouse effect and the related geopolitical considerations have led to the adoption of binding aims with regard to the diversity of energy sources. The share of renewable sources is on the rise.¹⁷



Biomethanisation plant in the foothills of the Jura (CH)

Among the range of main renewable sources, biomass plays a major part. It takes different forms with varying degrees of impact on landscapes such as energy wood, high-yield woody plants, energy crops, short-rotation coppice, etc. When targets encouraging the use of biofuels are set, agricultural crops are heavily affected, ¹⁸ and this raises major concerns about the quality of the environment. Shifting a share of agricultural production from food goals to energy use often results in changes in the choice of crops to be cultivated. When speculation comes into play, the resultant changes in the landscape are even more marked.

One striking thing about the adoption of national or European energy targets is how very little attention is paid to the regional impact of these choices. There is a need to introduce mechanisms to assess this impact, particularly in rural areas.

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^{17.} The European Union has set itself the target of producing 20% of the energy it consumes from renewable sources by 2020. For 2030 the target is 27%.

^{18.} The maintenance by the European Union of a 7% target for the incorporation of so-called first-generation biofuels into the transport sector has had a strong impact on the rural landscapes of a significant number of countries outside Europe by promoting deforestation.

Agriculture's role in mitigating climate change

Rural areas make a major contribution to combating climate change by mitigating its adverse effects. Fire prevention calls, of course, for specific measures to be taken to limit the sources of fires and their spread. The adverse effects on the landscape that can result – particularly ditches or planting of particular tree species to the detriment of others – are minor compared to the risk prevention issues involved.



Fire damage at the Franco-Spanish border

Flood prevention is a concern as much for urban areas as it is for rural areas and is in fact more of an issue for the former. Rural areas should be capable, however, of contributing more to preventing disasters by providing buffer zones for increased river flow and slowing down flow rates. It is easy to imagine that rural areas will be called on more frequently in this respect in future, possibly through the construction of new infrastructure to impede or reduce flows. Landscape impacts will of course have to be looked into and reduced but it is also possible to look at this climate contribution from a more societal and political angle, seeing it as reflecting a concern for supportive co-operation between different regions. More carefully thought-out agricultural practices and relatively inexpensive preventive equipment should also make it possible to prevent soil erosion and mudslides.

2.4. Rural actors as partners

The various contributions of rural areas in the fight against climate change and in response to the energy challenge make them partners, on an equal footing with urban centres. They should cause greater attention to be paid to rural areas and the living environment they provide for their inhabitants, who are the keys to their vitality and their contribution to society.

This work of persuasion should be stepped up through the adoption of more directive policies to bring about change in agricultural practice. The climate challenge, to which energy policy should be more closely adapted, and the need for a form of farming that shows more regard for the soil and biodiversity and for realignment with social expectations, are all arguments which call for a reinterpretation of agricultural policies, from which the landscape will also benefit.

If it is combined with a strong commitment to the local development strategies cited above, this change will also make it possible to strengthen the ties between farmers and other country dwellers, increasing cohesion in rural societies.

This reorientation has become all the more necessary because of the weakening of public policies to provide financial support for farmers, particularly in view of newly emerging needs. Having less money means that funding needs to be more precisely targeted. In view of the change in the climate which has taken hold and will take hold still more in the future despite the efforts we have made, our responses need to be positioned very accurately. We need to anticipate unavoidable new circumstances through future-orientated investments rather than investing without any real prospect to prolong activities which the effects of climate change (such as drought, erosion) will soon render obsolete in terms of location, products or practices. If we pursue this line of thinking, the landscapes of rural areas will also have to change, as this will be the key to preserving their vitality and their political and societal significance.

It should be recalled that most rural landscapes which are now recognised for their quality are the result of ancient practices. The fear that agricultural responses to climate change threaten these landscapes must be put into context because these responses actually often draw their inspiration from these ancient practices. Making rural areas resilient to climate change and seeking landscape quality truly seem to be not only compatible goals but convergent ones.

2.5. How landscape is taken into account in the European Union's Common Agricultural Policy (CAP)

Hedges, isolated trees, trees in line, copses, ponds, terraces and ditches are all features which shape landscapes. Since 2014, they have been valued more as a result of the greening of the Common Agricultural Policy. In French they are referred to as "éléments topographiques" (literally "topographical components") whereas in English they are called "landscape features", which places much more emphasis on their landscape dimension. Although they do not contribute directly to agricultural production, they are taken into account at various levels:

- through requirements linking grants of European aid to keeping land in good agricultural and environmental condition: farmers are required in particular to avoid harming habitats and to preserve landscape characteristics. Good practice No. 7 therefore relates to the preservation of particular topographical features;
- through the rules on eligibility to the agro-environmental and climate measures in the second pillar of the CAP;
- through the green direct payments that make up 30% of the first pillar of the CAP. To be eligible for these aids linked to farmed surface areas, farmers must undertake to carry out a number of activities in favour of the environment (habitat, water, soil) and the climate, such as crop diversification, the maintenance of permanent grassland and transforming 5% of arable land into ecological focus areas (EFAs), if they have not already done so.

Ecological focus areas (EFAs)

To meet the latter requirement, farmers with arable land of a surface area of more than 15 hectares

must ensure that at least 5% of this land forms an ecological focus area made up of components of benefit to the environment chosen by the national authority from a standard list drawn up by the European Union (see Appendix 3). The list includes landscape features, fallow land, terraces and agroforestry areas.¹⁹

The EU member states and farmers have been given great flexibility where it comes to the means of meeting their obligations with regard to EFAs. It should also be said that these areas strengthen farms' resilience to climate change. An indication of the interest in landscapes can be inferred from the choices made between the various types of ecological focus areas that are possible. In 2015, the types of EFA declared most often were those linked to productive or potentially productive agricultural areas: nitrogen-fixing crops (37.4 % of the physical EFAs on the ground); catch crops (33.2 %); and land lying fallow (25.9 %).

These choices seem in fact to be determined by a desire on the part of farmers for maximum flexibility and simple administrative procedures. The diagram in Appendix 4 shows that there are few states where the authorities and farmers have accorded much importance to landscape features when choosing EFAs, apart from Ireland.

Various measures in the second pillar of the CAP provide for funding for landscapes such as agrienvironment and climate payments. Non-productive investments linked to agri-environment measures attract funding and these often relate to items of interest to the landscape such as field margins and walls, green buffer strips, hedges, copses and wetland areas. The measure specifically given over to the maintenance, restoration and rehabilitation of cultural heritage and rural landscapes also has a major positive impact on landscapes. Aid targeting areas affected by natural drawbacks helps to prevent the loss of agricultural landscapes with high natural value by limiting the major risk of abandonment of farmland.²⁰



Recently restored stone walls (F)

It has already been mentioned that landscape is taken into account in the European Union's Leader Programmes. This participatory approach almost inherently includes landscapes as reference points for local development strategies.

^{19.} Ecological focus areas are calculated using weighting factors which take account of the features of each EFA and its importance for biodiversity. Weighting factors range from 0.3 (for example for areas covered by catch crops) through 0.7 (for areas with nitrogen-fixing crops) to 2 (for hedges).

^{20.} Mihail Dumitru, Deputy Director General, European Commission, DG Agriculture and Rural Development, in *Le paysage au cœur des dynamiques d'intelligence territoriale*, RED, December 2016.

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Many products with a label linking them to a specific geographical area come from regions with good quality landscapes. It is common moreover for the marketing of these products to highlight this aspect in their advertising. In regions where local conditions are not very conducive to agriculture, the added economic value of these products helps to keep farms going and hence to prevent abandonment of these areas, which is a latent threat to the landscape in many areas where farming is difficult. More proactive policies in favour of products linked to specific geographical areas could have a positive impact on the landscape.

3. Rural landscapes in demographic transition

Demographic trends in rural Europe diverge between and within states and regions.

Whereas practically all rural areas with major natural disadvantages or access problems are undergoing population declines which are undermining their home-grown potential, the population in other rural areas is increasing. For the latter, proximity to an urban centre seems to be an important factor, as illustrated in Table in the appendix 6, which shows the average annual growth in the population of the member states of the OECD since 2000.

One common demographic feature is found in all European regions, however, and that is the ageing of the population, which is connected in particular with longer life expectancies. The phenomenon is more obvious in rural areas, where the proportion of the population who are elderly is significantly higher than in urban areas. This is combined with the departure, though possibly temporary, of the younger generations. This obviously raises many questions, not only with regard to the need for services geared to this population but also vis-à-vis the durability of these areas' economic activities. In some rural areas, the decrease in the active population even poses a threat to the survival of activities on the land and hence has a potential impact on the preservation of landscapes. Finding new farmers is therefore a key question for European agriculture.

The effect of demographic transition on rural landscapes can therefore be illustrated by two different yet stereotyped scenarios of varying degrees of intensity:

- areas of endogenous growth with special appeal (thanks to their natural assets, distinctive characteristics or regional dynamics) or of exogenous growth arising from their proximity with urban centres or with areas undergoing reurbanisation;
- areas undergoing abandonment (as a result of declining activities, employment or an ageing population), which are often remote.

In both cases, rural landscapes outside central built environments or the internal landscape of villages are subject to major pressures which can undermine their quality or even their identity.

3.1. Territories under demographic pressure



Integration of new buildings in Vianden (L)

Growing metropolisation in Europe goes hand in hand with population movements towards the largest cities and, in particular, their peripheries. Besides the many daily movements between urban centres and nearby rural areas that it fosters, this trend has a significant impact on the landscape of rural entities on the urban periphery. These municipalities are experiencing major population growths resulting in transformations in their built environments and a need for new housing and public infrastructure.

This demographic pressure results in a relentless depletion of farmland, forest and natural areas resulting from urban sprawl. This may take the form of the expansion of residential areas but also includes the creation of transport infrastructure, shopping centres and industrial areas, which can be a somewhat disorderly process. The quality of the urban planning in these new residential areas is a key factor in the development of the landscape. The interplay between the existing fabric and new sites should avoid the easy option of juxtaposing detached houses, which can lead to a breakdown in spatial and social cohesion. There is also a pressing need to rethink the practice of building shopping centres on the peripheries of towns and cities and to take account not only of the aims of reducing the depletion of agricultural land but also of landscape considerations relating both to the individual and to the collective features of their sites.

The first and key issue for the landscapes in these rural areas under pressure is the management of land use, based on the assumption that this spatial development must be controlled by means of management tools and forward-planning measures, which can be rendered more effective through the use of new digital tools.

These processes of knowledge-gathering, monitoring and management of land use must include a landscape component with both a preventive role prior to the adoption of land-use strategies and a creative role, offering advice or criticism when investments that will have an impact on landscapes are being decided on. It is important to provide local decision-makers with a body of information and knowledge on the landscape (including good practices and recommendations) enabling them to support their choices with arguments when faced with applications for new sites.

Landscape operatives (such as landscape offices) should not just be observing change; they should also be establishing partnerships to promote landscape quality. For instance, with regard to urban sprawl, the advocates of quality rural landscapes and farmers who wish to retain workable production

areas may have shared interests. This is an under-exploited forum for co-operation which would help to take more account of real agricultural and landscape concerns in peri-urban planning approaches.

3.2 Rural areas in demographic decline

Many rural areas, mainly the least accessible and the most remote ones, are undergoing a demographic decline, which is often combined with the increased ageing of their populations. This development affects the landscape in many ways:

- the setting aside or abandonment of agricultural land;
- the uncontrolled reforestation of landscapes, or their desertification, in the event of extreme climate events;
- the deterioration, abandonment or decay of buildings.

The future of these regions in difficulty or sometimes in a state of complete neglect, is an entirely political matter, which transcends landscape issues. It raises questions of regional solidarity and equal access for citizens to services. It is very difficult to mobilise regions and revitalise local activity when the population and the number of working persons has fallen below a certain limit. Participatory development approaches, which are inherently supra-municipal, can only be re-implemented with financial support, forming part of proactive policies for regional cohesion and equity.

The need to preserve landscape assets can be one of the arguments for this. Likewise, a concern to prevent major natural hazards also justifies such operations. Ensuring that these areas are accessible and preserving their landscapes, even on a fairly modest scale, meets a need to be able to manage many major natural events, fires being only those that attract most media coverage.

3.3. The quality of the inside landscape of small towns and villages threatened

A village's "internal landscape" can be divided into two aspects:

- the visual arena of street areas, with its many component parts, including roads and paths, building facades, natural features, undeveloped plots, gardens and public amenities;
- vistas towards the outside of the village, forming the scenic transition out towards the countryside.

In expanding rural municipalities, particular attention must be paid to internal landscape quality to preserve its inherent architectural or heritage features. This is a key to positive perception of the living environment by inhabitants and visitors, serving as a muse for the genius loci, so to speak. Densification is liable to damage internal landscapes, particularly where property development gives rise to major price rises, because too many often poorly located or integrated new buildings are being constructed and public spaces are increasingly occupied by cars. There is a strong temptation in such villages to move towards an "urban" approach to spatial development, which often results in public spaces being paved or concreted over.²¹

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^{21.} Patrice Collignon, "Internal landscape in villages" in *Public Space and Landscape: The Human Scale, Futuropa* magazine. For a new vision of landscape and territory, Council of Europe, 2012, No. 3 (http://coe.archivalware.co.uk/awweb/pdfopener?smd=1&md=1&did=985535).

Harmonious development or revitalisation of village centres calls for the simultaneous pursuit of several objectives, which are not necessarily convergent but do need to be reconciled:

- making versatile use of space, allowing for the coexistence of, among other things, multimodal transport routes, stops and stations, recreational spaces and municipal information boards or amenities;
- taking account of collective timeframes to cater for the various activities that punctuate the village calendar: markets, various events, etc.;
- maintaining a rural character, marking the historical interaction between inhabitants and their natural and landscape setting, to be reflected by paying attention to significant landscape features or by taking account of the place's characteristics through the choice of materials, styles and wood types. This concern should not prevent high-quality contemporary creation;
- a concern for durable functionality, with the use of technical components combining longevity and low maintenance costs;
- a concern for social cohesion and conviviality, placing particular emphasis on user accessibility and safety.



The bridge over the River Loue, Ornans (F)

Combining perceptions of public and private spaces, the internal landscape is an obvious base on which to build local participatory processes centring on its development. Concerted thought about the development of villages' internal landscapes is therefore a natural part of the local development approach owing to its potential for citizen consultation. It may for example, lead to the adoption of a charter, managing or advising on interior landscape development in villages.

4. Rural landscapes in digital transition

It is difficult to talk about the future of rural areas without also talking, at least briefly, about the digital transition, which is expected to foster the emergence of "smart" regions. While the concept of "smart cities" is already widespread, its transposition to the countryside is also gaining ground.

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The term "smart village" is often cited but it is simplistic because reducing the desire for spatial intelligence down to the scale of a village gives precedence to often fleeting media campaigns over lasting approaches which require more spatial and human potential. "Smart rural areas" are rural or semi-rural areas with an integrated development strategy making socially-aware use of new technologies – in terms of personal data protection – based on the following lines:

- improving existing public services, particularly those that are thinly spread or remote (health care, training, administrative services, cultural facilities, etc.);
- developing new activities (movement of goods and persons, tourism, etc.);
- improving daily management and planning of spatial and landscape issues;
- facilitating democratic processes to support participatory local development (such as living labs)
 and stimulating internal local and regional networks;
- strengthening links with external partners to enhance development processes (through research, etc.) or to increase profits (markets, etc.).

The two prerequisites for the final transition to a smart rural area are a high-performance communication infrastructure (access to very high speed Internet connection, 5G) and support engineering geared to inhabitants' and economic players' needs.

The question is what impact we can expect this to have on the quality of rural landscapes. Our knowledge about regions and the component parts of their landscapes will of course become even more accurate than it is now and will be accompanied by more efficient monitoring and planning tools. These will, in particular, make it easier to use and incorporate knowledge collected as a result of the implementation of the European Landscape Convention (ETS No. 176).

However, the scope for the development of applications, social practices and technical tools is so vast that it is difficult to properly gauge its limits.

For instance, rows of trees alongside roads are often vilified because they cause accidents. However, in a world of self-driving cars, shorn of the excesses and errors of human drivers, this argument will become obsolete – and this is neither a utopian nor a very distant prospect.

New forms of social conduct also open the door to other types of appropriation of landscape features. For instance, somebody may replant an orchard following a crowdfunding campaign and link this up with an application allowing supporters to follow the growth and flowering of the trees – or launch a similar project to monitor a flock of sheep, whose grazing will preserve an open landscape. The possibilities are immense and many are yet to be discovered.

However, as it is possible to see in the area of the built environment, the appropriation of landscape features by citizens through digital means will help us tomorrow to improve our understanding of them and pay them more attention.

Conclusions on rural areas and landscapes in the European context

The political attention that is and will be paid to both ordinary and outstanding rural landscapes is linked to the importance that decision-makers attach to rural issues. The value that both rural and urban society and the elected representatives of regions accord to the economic potential and the natural and cultural amenities of rural areas is clearly a factor that will determine how much attention and impetus national, regional and local policies will give to rural dynamics and their landscapes.

More political recognition, a joint objective

The way in which politicians perceive rural issues certainly differs from state to state but it is most frequently influenced by the prevailing message in economic circles, which is that growth is built on the vitality of capitals and other large cities, the rest of the country being assimilated with areas which simply provide support for this economic process.

In this context, the political focus and the accompanying funds will be directed first and foremost to urban processes and the international networking of their economic players. In these times of financial shortages in most European states, the pre-eminence given to urban centres marginalises rural areas, which tend to be seen as nothing more than support areas or places that are falling into abandon. This regional imbalance, which already exists and is threatening to expand, endangers the very bases that European identity and its historical development are founded on. It also undermines local potential to manage ecosystems and resources linked to water, land and biodiversity properly, along with the many and widespread heritage assets in rural areas. It also poses a threat to rural landscapes, as landscape issues are trivialised as much as those of the areas in which they are found.

European citizens are faced with a form of globalisation, many of whose codes are hidden to them but whose effects and uncertainties they must endure, with a growing feeling of being excluded from the decision-making process. In this context, they look on the amenities provided by rural areas as an anchorage point, enhancing a feeling of security and a capacity to adapt. Do we not frequently talk of the "healing" that a stay in a rural area can provide? This movement, which is reflected in new attitudes to food, recreational practices and so on, may contribute in future to a renewed interest in rural areas as potential sources of improved well-being.

Positive interaction between urban and rural poles to develop and enrich landscapes

The future quality of rural landscapes seems therefore to be linked to a recognition of rural areas as partners in Europe's development, on the same footing as urban centres.

If the opportunities that rural areas can provide are more fully acknowledged, these areas can serve as breeding grounds for ideas to meet the major European and global challenges we face in the areas of social and spatial cohesion and climate change.²² These areas, whose history attests to their ability to adapt to or anticipate changes, should be identified as social and economic development and innovation poles. As a result, this unifying vision of Europe's future could be based on balanced, positive and respectful relations between urban and rural poles.

The concept of a rural development pole is a strategic approach full of potential but also crucial for the harmonious development of Europe and its landscapes. The <u>Spatial development glossary</u> presented at the 14th Session of the European Conference of Ministers responsible for Spatial/Regional Planning (CEMAT) of the Council of Europe, provides a clear definition:

"A rural development pole is an inhabited, significantly rural area where the social, economic and territorial evolutions are led within the framework of an integrated and prospective development plan. A rural pole is not an agglomeration, but a rural territory as a whole, which may include one or more small towns.

The territorial development plan determines the objectives of results in short, medium and long terms. It specifies the guidelines for development, the human and material means to achieve the results targeted. The civil society, public and private actors must be partner for its development and its assessment".²³

This strategic approach provides a framework which makes it possible both on a daily basis and in the long term, to regard "landscape quality" as a decision-making criterion in the so very diverse sphere of spatial planning and economic development. This strategic shift in the position of rural areas may be an invaluable help when it comes rural-urban dialogues, which must address the matter of urban sprawl. This approach makes it possible to identify urban and rural poles without pitting them against one another. The future of rural land on the urban periphery can be dealt with in an alternative non-conflictual manner. A rural development strategy adopted in advance brings decisive benefits, which make the optimisation of farm activities and their viability, the strategic use of land by rural stakeholders and hence landscape quality in peri-urban areas the subjects of a more balanced debate.

In terms of tangible results, the implementation of the European Landscape Convention in rural areas is therefore closely linked to the recognition of rural areas as development and initiative poles and the implementation of integrated, participatory local development procedures.

The following matters should be considered: the strong links that exist between local capacities for the management and planning of rural landscapes, and the vitality of rural areas;

the need to protect the many high-quality rural landscapes without turning them into museum pieces but instead in incorporating them into plans to consolidate the assets of rural areas to meet citizens' expectations; consistency between the participatory approach advocated by the European Landscape Convention and local development approaches being tested in rural areas; and the aim of bringing landscape concerns into economic planning and development projects as early as possible rather than raising them further down the line in the form of a counterproductive objections.

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^{22.} Faire grandir l'Europe avec les territoires ruraux. Une stratégie politique européenne à l'horizon 2030, RED, April 2016; Pour un Agenda Rural européen post 2020, RED, April 2017.

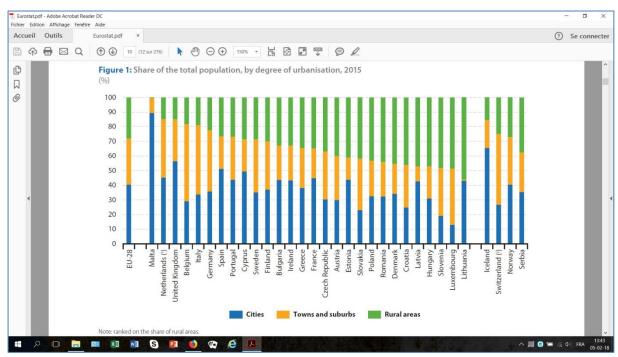
^{23. &}lt;u>Spatial development glossary</u>, European Conference of Ministers responsible for Spatial/Regional Planning "Territory and landscape", No. 2, 2007. https://rm.coe.int/16804895e5</u>

Given that cross-municipal approaches to development provide rural areas with both an appropriate framework for landscape activities and a joint capacity for action and measures to highlight and maximise their potential, the aim should be to encourage national, regional or local authorities to take the following measures into consideration, depending on their powers and responsibilities in these areas:

- show express political recognition for the role and importance of rural areas in the development of European society by adopting strategic guidelines at the highest level providing a reference framework for public policy in these areas;
- favour the establishment, at supra-municipal or sub-regional level, of integrated, participatory strategic approaches making it possible to enhance the potential for rural areas to frame a form of development geared to new global challenges and to integrate the landscape dimension more readily into the very core of such processes;
- establish this same type of forward-looking dialogue at cross-border level so as prevent situations undermining the natural and cultural components of landscape quality in frontier regions;
- take increased advantage of high-quality rural landscapes as testing grounds for the convergence of landscape and sustainable local development concerns;
- encourage all-embracing spatial approaches to meeting climate and energy challenges so as to avoid ill-considered sectoral responses vis-à-vis landscape impacts;
- facilitate and support, through the introduction of appropriate financial tools, the energy transition of rural areas, taking a global strategic view, including landscape aspects, so as to enable projects and investments to be set in motion rapidly;
- encourage more quality-based forms of agriculture in terms of landscape and soil management and think about international agreements when extending the goals to be pursued to the new amenities to be added in the rural areas concerned;
- support high-quality rural landscapes by insisting that agricultural support policies must include a high percentage of funding for the protection of distinctive topographical features;
- promote policies for research and knowledge transfer on the economic and social possibilities offered by diversified family-based farming;
- set up or reinforce land-use monitoring and management bodies for the increased integration of landscape concerns into local urban planning documents, including consideration both for the quality of villages' and small towns' internal landscapes and for their surroundings.

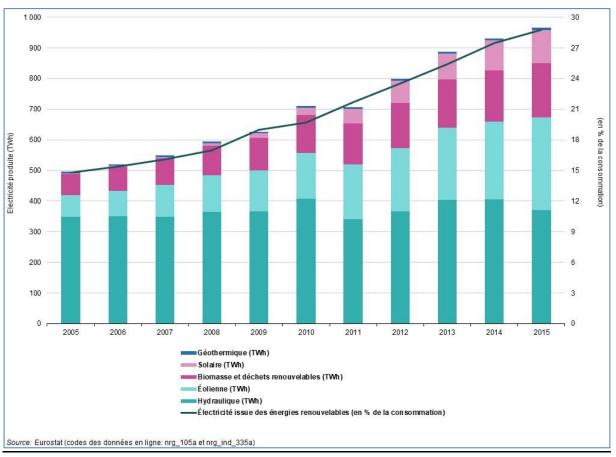
Appendices

Appendix No. 1 – Share of the total population, by degree of urbanisation (%)



Eurostat data 2015

 $\begin{tabular}{ll} Appendix No.\ 2-Share\ of\ electricity\ generated\ using\ renewable\ energy\ sources,\ European\ Union \end{tabular}$



Source – Eurostat 2017

Appendix No. 3 – European Union list of various types of ecological focus areas (EFAs), to be used as a basis by the national authorities for their choices:

- lands lying fallow;
- terraces;
- landscape features including features adjacent to the farm's arable land but not included in the eligible area;
- buffer strips, including strips covered by permanent grassland provided that they are distinct from contiguous agricultural land;
- agroforestry areas, which receive support through the forestry measures of rural development programmes or have been granted aid under these programmes;
- strips of hectares along forest edges;
- short rotation coppice in which no use is made of mineral fertilisers and/or plant protection products;
- wooded areas still eligible for direct payments;
- catch crops (fast-growing crops grown between plantings of main crops) or green cover established by the planting and germination of seeds;
- nitrogen-fixing crops.²⁴

Source: Report from the Commission to the European Parliament and the Council on the

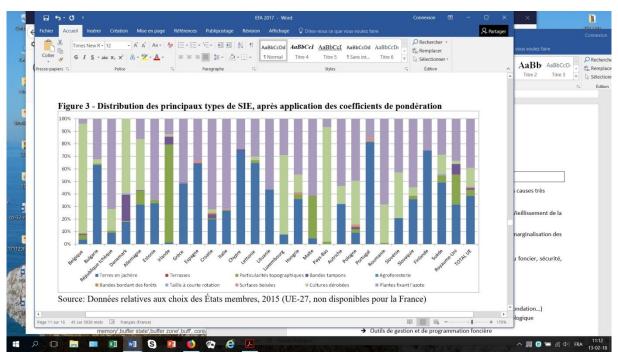
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implementation of the ecological focus area obligation under the direct payment scheme, SWD

⁽²⁰¹⁷⁾¹²¹final, 29 March 2017

^{24.} Ecological focus areas (EFA) are calculated using weighting factors which take account of the features of each areas and its importance for biodiversity. Weighting factors range from 0.3 (for example for areas covered by catch crops) through 0.7 (for areas with nitrogen-fixing crops) to 2 (for hedges).

Appendix No. 4 – Breakdown of the main types of Ecological focus areas (EFA), after applying the weighting factors



Source: Data on EU member states, 2015, not available for France

Appendix No. 5 – Summary of projected impacts of climate change on European Union agriculture by region

Variables	Climate impact	South	North	West	East
Temperature	Heat stress for plant production (high regional				
	variation)			_	
	Increased temperatures and reduced frost period		+		
	leading to increased crop range and suitability				
	Increase in temperature and humidity leading to		-	-	-
	livestock stress and mortality				
Water availability	Reduced summer rain fall, overall decrease in				
	water availability + droughts. Aquifer and		-	-	-
	ground water recharge rate is reduced.				
	Increased flood events + frequency. Crop				
	damage and limits to soil workability. Impact		_		
	exacerbated by hard flood defences in urban				
	areas*.				
Water quality	Salinisation and increased pest and disease		_	_	_
	problems in water courses			_	
Pests and disease	Spread of pests and diseases from increased				
	range varying by pathogen**. Impacts on both	-			-
	crops and livestock				
Fire risk	Increased fire risk frequency with high inter-				
	annual variation. Primarily on forests but risks				
	also to cropland				
Wind damage	Increased risk of wind damage to crops and	_	_	_	_
	forests		_		_

Source: Research for Agri Committee – The consequences of climate change for EU agriculture. Follow-up to the COP21-UN Paris Climate change Conference - IEEP: Kaley Hart, Ben Allen, Clunie Keenleyside, Silvia Nanni, Anne Maréchal, Kamila Paquel, Martin Nesbit, Julia Ziemann, ©European Union, 2017

The significance of the impact is denoted by the type and number of symbols:

- means a negative impact
- + means a positive impact

^{*} e.g. river canalisation, flow restrictions, etc. forcing water into more rural areas and floodplains.

^{**} Arthropod-borne diseases tend to favour warmer and drier conditions, whereas mildew and cereal stem rot may reduce as a result of increased temperatures.

Appendix No. 6 – Average annual population growth in the OECD (2000-2007 and 2008-2012)

Type of region	2000-2007	2008-2012
Predominantly urban	0.76	0.67
Intermediate	0.55	0.45
Predominantly rural (total)	0.31	0.38
Predominantly rural but near urban centres	0.61	0.55
Predominantly rural and remote	-0.03	0.18

Source: OECD Regional Outlook 2016: Productive Regions for Inclusive Societies, OECDPublishing, Paris. http://dx.doi.org/10.1787/9789264260245-en