SHERPA
Rural Science-Society-Policy Interfaces

SHERPA Discussion Paper

LONG-TERM VISION FOR RURAL AREAS

Contribution from 20 science-society-policy platforms

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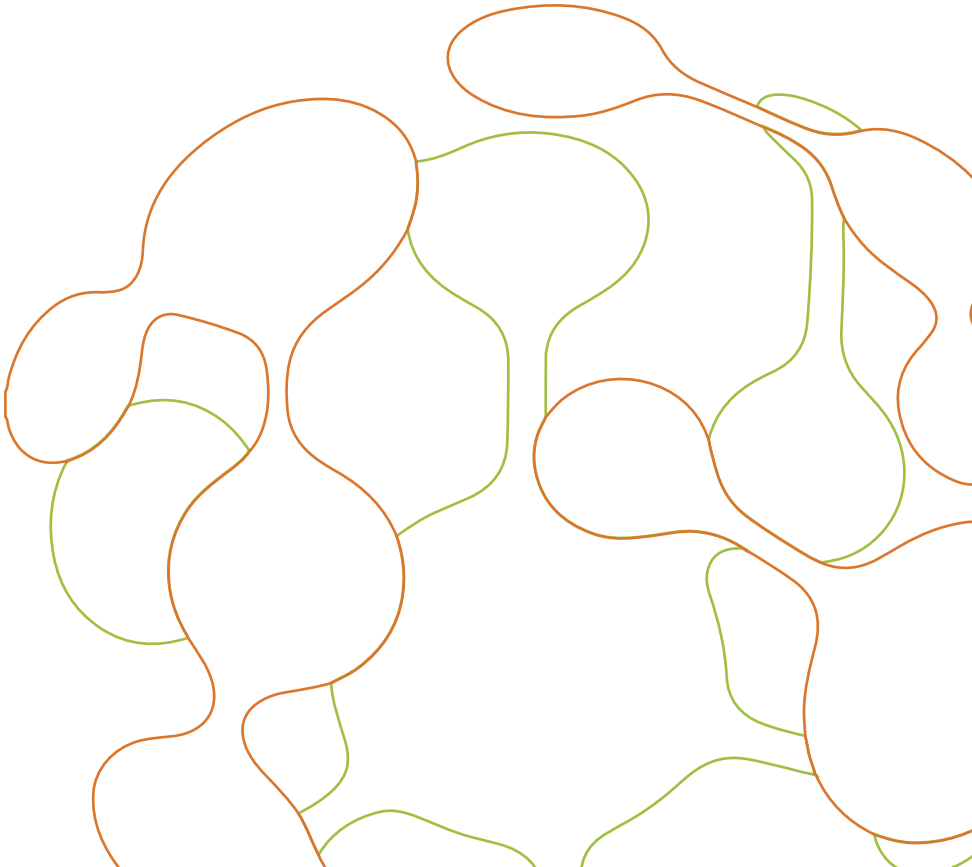
Sustainable Hub to Engage into Rural Policies with Actors (SHERPA) is a four-year project (2019-2023) with 17 partners funded by the Horizon 2020 programme. It aims to gather knowledge that contributes to the formulation of recommendations for future policies relevant to EU rural areas, by creating a science-society-policy interface which provides a hub for knowledge and policy. Find out more at our website:

www.rural-interfaces.eu



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Summary

In 2020, the European Commission initiated the preparation of a new long-term vision for rural areas. SHERPA can contribute to the process by feeding in the views of science-society-policy actors from 20 European territories.

SHERPA Multi-Actor Platforms (MAPs) are invited to discuss local challenges and opportunities as well as their vision for the future of their territory (or their thematic area) over the next 20 years. The exercise will follow the SHERPA standard process: (i) preparation of a SHERPA Discussion Paper, (ii) adaptation of the Discussion Paper by each regional or national MAP, (iii) consultation with MAP participants, (iv) summary of the discussions in a MAP Position Paper, (v) synthesis of the regional and national MAP Position Papers for discussion at EU level (EU MAP and annual conference).

This draft SHERPA Discussion Paper provides a synthesis of rural opportunities and challenges identified in recent publications. The final version will include results of EU funded research projects and statistics for the indicators identified in this document. Guidance on how to conduct the consultation in the Multi-Actor Platforms is provided in a separate document.

Introduction

The new European Commission (2020 to 2024) initiated the preparation of a new long-term vision for rural areas. This was announced in September 2019, to be coordinated by the Commissioner for Democracy and Demography, Dubravka Šuica, with the Commissioner for Agriculture, Janusz Wojciechowski, and to the Commissioner for Cohesion and Reforms, Elisa Ferreira. The first step of this process is the launch of a public consultation, expected by the end of 2020.

In the SHERPA project, 20 Multi-Actor Platforms (MAP) have been established, the membership of which is a diverse base of stakeholders from science, society and policy. These platforms will provide contributions to the vision through collecting and organising the views of their members.

The MAPs are invited to discuss their vision for the future of their rural territory (or thematic area) over the next 20 years, opportunities and local challenges. The time horizon proposed is the same as the one considered by the European Commission for the long-term vision, i.e. 2040.

The SHERPA approach will happen in two stages. The first stage will follow a Delphi process to identify challenges and opportunities and to discuss a vision for the MAP territory (or thematic area) looking to 2040. The second stage will identify the enabling conditions and the actions needed to address the challenges, take the opportunities and achieve the vision. The methodology and the timing proposed for the first stage is described in detailed in the Annex 1 "Guidelines for MAP Facilitators and Monitors". Details on the methodology and the timing of the second stage will be provided in a second Annex.

The outcomes of the activities conducted in the 20 SHERPA platforms will be documented in MAP Position Papers, which will then be summarised to inform discussion in the SHERPA EU MAP. The results will be debated during the SHERPA annual conference, planned for December 2020.

This SHERPA Discussion Paper provides a summary of opportunities and challenges identified in recent scientific and technical publications and outputs from research projects. The content provides an input to the first step of the Delphi process on "Desk research and context analysis" (see details in the Annex 1 "Guidelines for MAP facilitators and monitors").

Review of key trends, challenges and opportunities in European rural areas

Rural areas across Europe exhibit different characteristics, and are defined by their geographical, economic, societal, environmental and cultural background. They have undergone considerable change in recent decades due to several key factors, including socio-economic changes, pressures on primary production, technological development, economic and demographic change, and policy initiatives at national or EU levels. Such changes have impacts on the people living in rural areas, including risks of marginalisation (Price *et al.*, 2017) (SIMRA project).

Identifying the key trends, major challenges and opportunities affecting rural areas in the EU will shed light on the factors that may favour or hinder future development plans. The challenges and opportunities have been documented in policy reports and research papers (see for example, Eurostat 2017 and 2019; OECD 2018 and 2019). It is also important to recognise that the COVID-19 pandemic may change the perceptions and visions of cities and rural areas of the future.

Due to their diversity, not all rural areas are affected by some or all of the general trends listed below. Amongst other factors, they are influenced by their relative remoteness or, conversely, their proximity to urban areas (see OECD, 2019).

1. Demographic shift: depopulation, ageing and urbanisation

A general challenge facing rural areas is that of demographic change. For several decades, most EU countries have experienced trends of continuous rural depopulation and demographic skew as a result of farming modernisation, population ageing and urbanisation (Féret *et al.*, 2020).Improved life expectancy and, in most EU Member States, fertility rates which are below replacement levels (Jentsch and Shucksmith, 2017; Eurostat 2019; OECD, 2019) have increasingly added to the current trends.

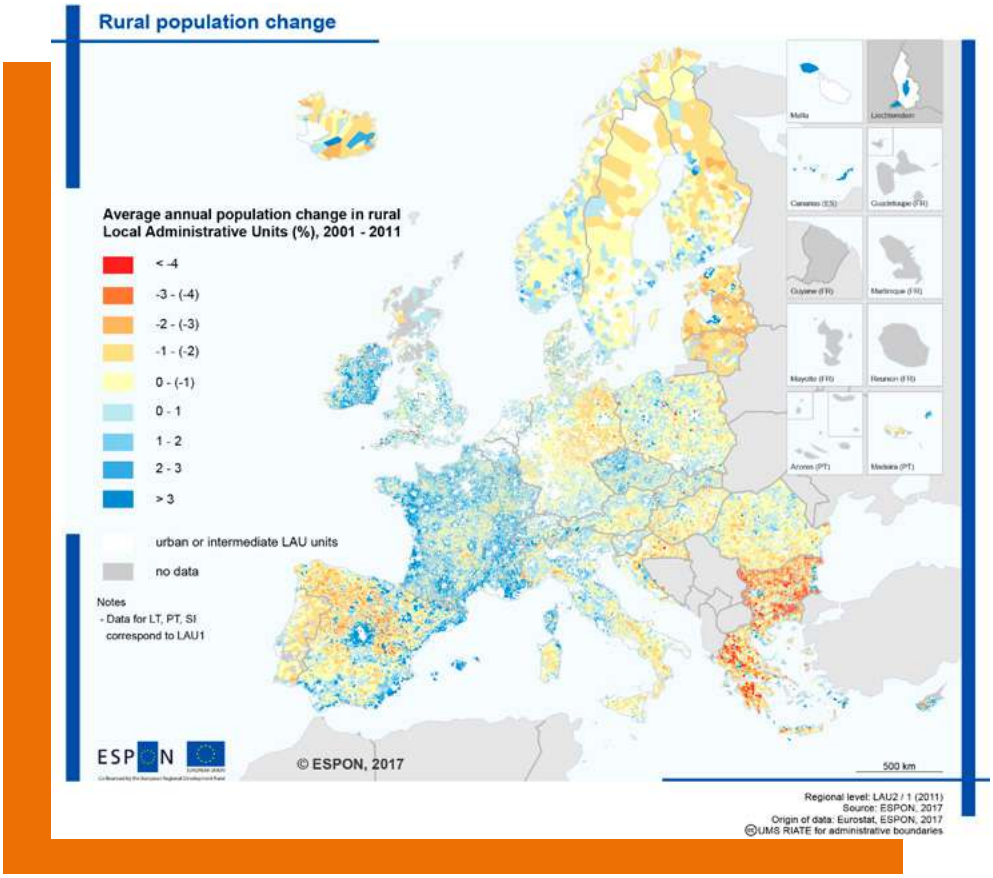
As shown in Figure 1, rural demographic change is not a one-way linear process. Population decline is not irreversible nor uniform across EU rural regions, so emerging opportunities can also allow rural areas to reduce disadvantages or use specific potentials in comparison with urban areas (RUBIZMO project). Place-based specifics, perceptions of regional patterns, and interpretation of spatial dynamics in shrinking rural areas are of key importance for a better understanding of interactions between demographic and economic trends (ESPON, 2020).

Despite a larger share of the EU population living in cities (40.4 %), the number of people living in rural areas across the EU-28 has risen by 1.7 % between 2010 and 2015, reaching 28 %, whereas 31.6% live in towns and suburbs (Eurostat, 2017a). This trend is not the same across the EU. For example, EU territories in which the population is predominantly rural, are located in the Baltic Member States and eastern regions of the EU. In the other EU territories, the urban populations are predominant (Eurostat, 2017a).

Population change challenges remote rural areas in many ways. For example, these areas have a smaller potential workforce, with fiscal pressure increasing as regions become more dependent on external transfers to finance local infrastructure and services (OECD 2019).

The need for basic services adapted to an ageing population such as health, long-term care and welfare systems, will increase, with additional issues for the mobility of patients and for health care professionals. As Rechel *et al.* (2013) argue, this common general social trend suggests the need for an integrated approach to help people stay healthy and active in old age, including the creation of policies supporting older workers.

Figure 1. Population change in predominantly rural regions, 2001 - 2011.



Source: ESPON, 2020

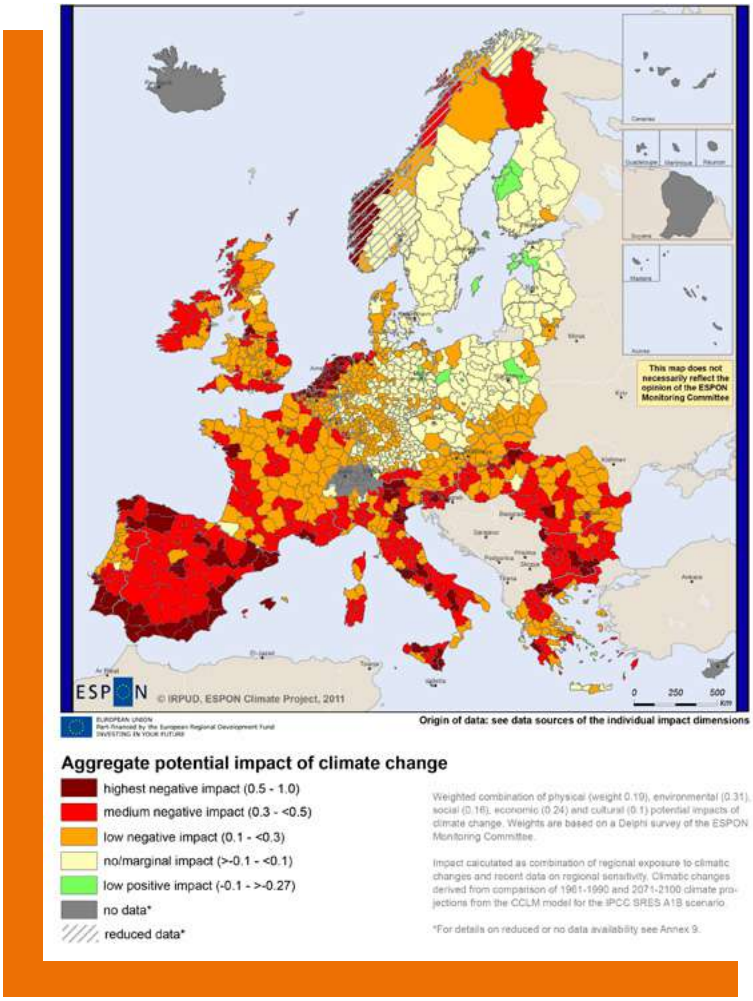
In parallel, many young people migrate to cities because of a perceived lack of attractiveness of rural areas, linked to remoteness, lack of activities, low mobility and connectivity, as well as restricted job markets, amongst others (Eurostat, 2019). Moreover, political discontent may rise amongst those who feel left behind and not being listened to (OECD, 2018). Therefore, the need for customised services to young people and families is also very significant, since a balanced age structure of the population is a policy objective.

Population ageing can also offer economic opportunities if properly addressed. As rural areas are at the forefront of this phenomenon, they can test flexible work arrangements, new housing designs, community infrastructure, and innovations in leisure, health and social care services (including digitally-based), to tackle the challenges related to an ageing population. Regions with good access to urban centres can attract elderly people looking for a better quality of life, if the necessary infrastructure and services are put in place. This can generate opportunities for new businesses and investment in rural communities (OECD, 2019).

2. Climate change and environmental services

Climate change affects rural areas differently than urban ones, due to the high proportion of land covered by natural resources and agriculture. Recent developments indicate that climate change is already affecting agriculture, forestry, fishing and mining sectors as a consequence of increasing frequency and intensity of extreme weather events (OECD, 2019). In the agricultural sector, EU Member States with temperate and polar climates are likely to see a yield increase in the future, whereas those in mid-latitudes would experience the opposite (Ferreira, 2019). Alpine areas and southern Europe are particularly exposed to soil erosion by water and by climate change impacts (see Figure 2; ESPON, 2012).

Figure 2. Aggregated potential impact of climate change in the EU28.



Source: ESPON, 2012

While this has prompted awareness of the need to develop appropriate responses at local level, lagging rural areas are hindered by a lower adaptation capacity (Esparcia, 2014; OECD 2018). For example, carbon intensive rural industries (agriculture, mining and energy) are often essential parts of local economies with a low number of alternative employment opportunities. Therefore, phasing out certain industries to decarbonise the economy threatens the livelihood of local people, while introducing carbon prices will increase transport costs for rural households and enterprises which are more reliant on transportation by vehicles (OECD, 2019).

As a result, climate change is believed to affect territorial cohesion more adversely in these territories.

Similarly, adaptation is likely to differ from one place to another due to historical context and the trend of implementation of adaptation measures. Rural areas are the site of some of the key environmental goods and services that can help mitigate the impact of climate change. These are mainly related to biodiversity, soil, water, renewable energy and climate action (Lindskog, 2004; OECD, 2018; OECD, 2019). Adaptation capacity is fostered by the preservation of natural resources, development of green infrastructure and creation of environmental services. As a consequence, environmental policies and innovation can foster job creation in Europe (EEA, 2019).

This also means that the resources managed primarily by rural people become more essential. For example, the forestry sector is essential to mitigation of, and adaptation to, climate change. However, a major barrier to the implementation of emergency responses and adaptation measures may be a lack of trained personnel in rural areas (EEA, 2013).

Climate change can provide rural areas with new opportunities of development, relying on the valorisation of environmental resources and on new jobs and skills for climate adaptation. Growing demands from the urban population for access to nature can contribute to develop a tourism driven ecosystem services as an essential part of rural development (RUBIZMO project). Such opportunities will increase if the transition towards a diversified rural economy and a bioeconomy occurs. These can be grasped if rural communities are able to develop the new skills necessary for taking up these jobs.

The PEGASUS project researched new approaches to the delivery of environmental public goods by agriculture and forestry in the EU. The project's results highlighted the need for more flexible approaches to using public support in the CAP so that a variety of actors can benefit from it and work collaboratively, e.g. along supply chains.

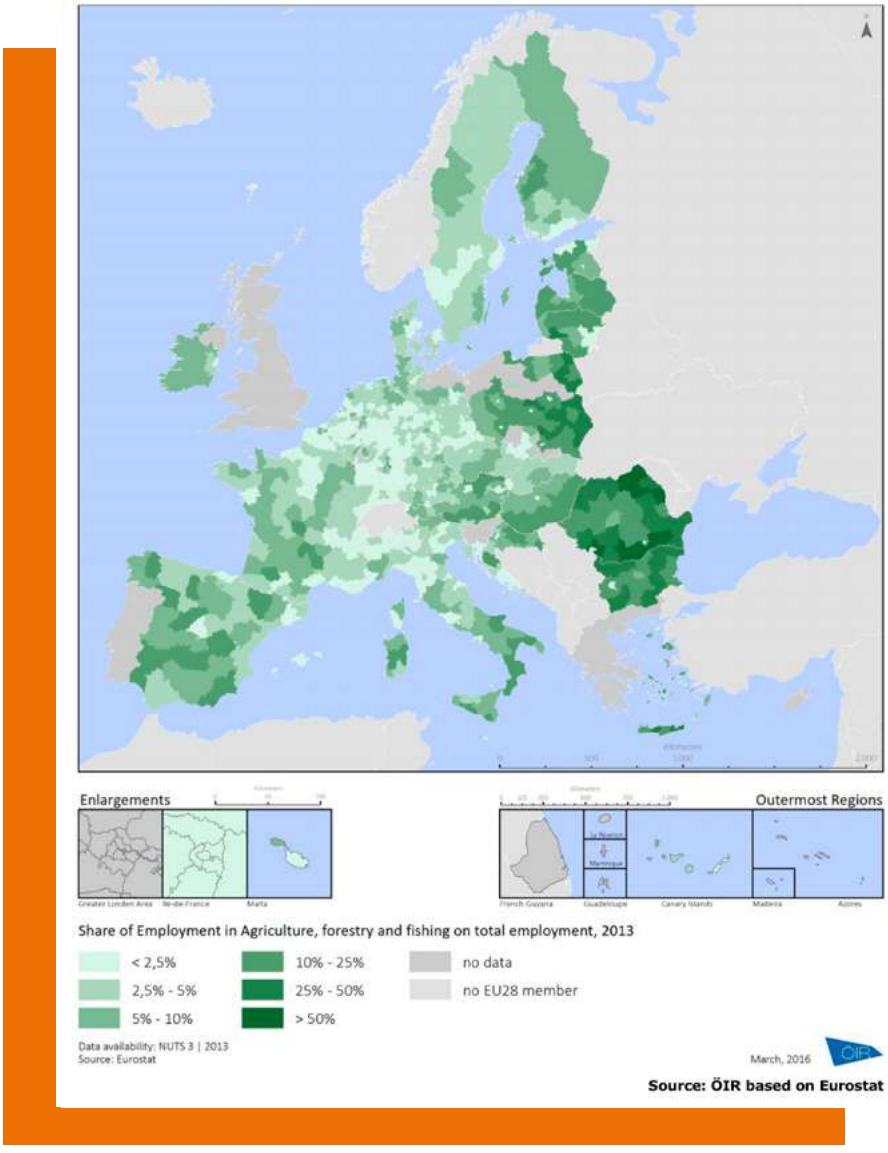
However, also opportunities can be very differentiated. The PROVIDE project showed that the provision of public goods brings completely different issues in intensive areas (characterised by trade-offs and conflicts), areas of high touristic potential (with a good chance to have opportunities from public goods provision) and marginal areas under risk of abandonment (in which forest-related carbon sink actions can actually be of great interest). The connection (or lack of) with urban areas is key to exploit some of these opportunities. In addition, governance and policies (and hence institutional innovation) are key to address this area of concern, due to the public goods nature of many of the services involved. The LANDMARK project showed that the societal demands for the delivery of public goods, aiming at improving the soil functions, vary considerably between Member States (Schulte *et al.*, 2019).

3. Change in production and diversification of the rural economy

Various characteristics and drivers influence labour markets, labour trends and employment potential in rural areas (RURALJOBS project), as well as human and institutional capacities to innovate and to create new forms of governance (ETUDE project). Emergence of global value chains has been a key trend in recent decades, with certain production tasks progressively shifting to emerging economies with lower labour costs. The ensuing relocation of production has been partly offset by expansion of the service sector, increasingly contributing to

employment opportunities and the creation of added-value. The impact of these trends has, however, disproportionately affected some rural areas. Service-oriented businesses can increase their productivity through access to a pool of specialised labour and knowledge networks available in more densely populated areas. These processes have consequently resulted in the creation of higher value added and paid jobs in cities, and often led to the loss of employment opportunities and a drop in wage levels in rural areas (OECD, 2018 and 2019).

Figure 3. Share of employment in agriculture, forestry and fishing on total employment, in the EU on NUTS3 level, 2013.



Source: European Parliament, 2016b

Share of agriculture, forestry and fishing in the total employment varies among the EU-27 regions, with north-eastern, eastern and southern regions having more than 10% of the total (Figure 3). The lack of jobs in some areas is an important challenge throughout Europe, especially in rural areas and even more so in the most peripheral regions. The European Agenda 2020 for new skills and jobs, prioritises improvement of employee flexibility, recognising their need for security and adaptation of skills, a combination known as 'flexicurity' (Copus

et al., 2006; SEGIRA, 2010). However, there is a question as to the number of people facing a lack employment and income security in rural areas (employed or self-employed). In addition, unemployment rates vary between northern and western Member States, and eastern Member States. In the rural areas of eastern Europe, primary sector employment is higher (over 20%), indicating under-employment (Eurostat, 2017b; European Commission, 2018) and a lack of alternative job opportunities (ESPON, 2012).

There is considerable potential in a more diversified rural economy through the agricultural and forestry sectors as well as through services. This could lead to a 'soft re-industrialisation', according to RUBIZMO project, for example through the concept of bioeconomy. The implementation of the virtuous principles of a 'circular economy' (e.g. via short food chains), community energy systems and the 'silver tourism' economy also create new opportunities. There is a steadily increasing trend towards regional and local-based food systems. In particular, cities and metropolis are developing food-oriented rural-urban linkages (ROBUST project) or food strategies that give preference to local sourcing, even though food policies would be more appropriate than agri/rural policies in that respect (GLAMUR project).

Diversification offers scope for simultaneous development of rural-urban economic linkages that strengthen labour markets and offer more opportunities to young people in rural areas (Marsden, 2009). Beneficial links with functional urban areas have implications for jobs, services and infrastructure development, among other considerations.

4. Infrastructure and basic services

A major challenge in rural areas is the sub-optimal level, or even absence, of basic services. Most services are scarce, with poor levels of accessibility in peripheral areas. In addition to limited access to health and education, local infrastructure is weak, in particular that of transport facilities to urban centres where the needed services are located.

As highlighted in the SEGIRA study, the lack of appropriate infrastructure can represent a key barrier to growth and accessibility of rural areas, contributing to a lack of attractiveness of these regions and creating a barrier for many businesses and corresponding job creation (European Commission, 2017a).

With distance being a defining concept of 'rurality' (European Commission 2017a), accessibility of basic services (i.e. the link between services and users) and remoteness, heavily influence the quality of life and cost of living in rural areas. Many rural areas are distant from major urban centres which makes all forms of connectivity expensive. Access to healthcare services has been reported to be difficult to some extent for 27% of people living in a village or in the countryside, as compared with 21% in more urban areas (Eurofound, 2014).

The lack of appropriate infrastructure is closely linked to the demographic trend. When the population decreases, there is no longer a critical mass to justify government provision of services and infrastructure. This leads to what the OECD calls the 'circle of declining rural regions' (OECD, 2006). Another reason for the lower quality and quantity of services in rural areas is that urban delivery tends to be the norm. New technologies are not always adapted to rural areas, and thus local skills and knowledge are needed to trigger adoption (Esparcia, 2014).

Not all European countries have a smart grid for regular electricity supply, which is a basis for accessing the modern telecommunication systems. However, regarding electricity supply in rural areas, decentralised smart grids could significantly contribute to improve electricity distribution, energy storage capacities as well as telecommunication delivery (SmartRuralGrid project).

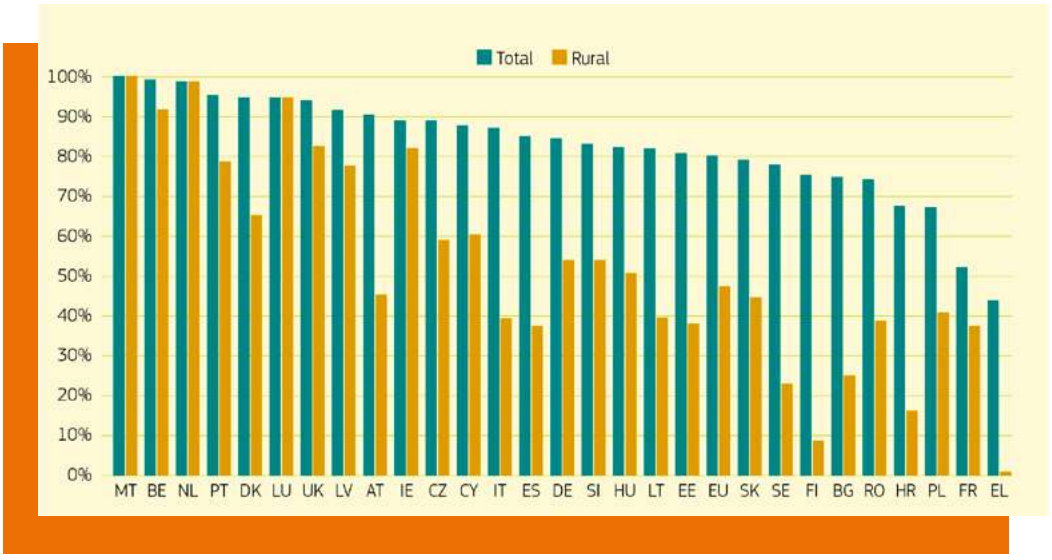
Evidence shows that a decline in public transport services, shops closing, social care systems not working, environmental services compromised, can trigger social innovations through a reconfiguration of governance, led by civil society (Slee *et al.*, 2020; SIMRA project).

5. The rise of digitalisation and smart ruralities

In 2003 people living in rural areas in most EU Member States had the lowest access to internet on a daily basis (Wilthagen and Tros, 2004). Since then, some progress has been made, but in 2017, the were still only 40% of rural households with next generation access, compared to 76% of total EU households (Figure 4; European Commission, 2017b; ENRD, 2018).

Rural areas face substantial barriers that restrict access to high-speed broadband services, and as a result this slows down the digitalisation of activities, constrains access to online services, and produces a widening connectivity and digital gap between lagging rural areas and metropolitan areas (Figure 5; Warren, 2007).

Figure 4. Next Generation Access coverage (percentage of households, 2017).



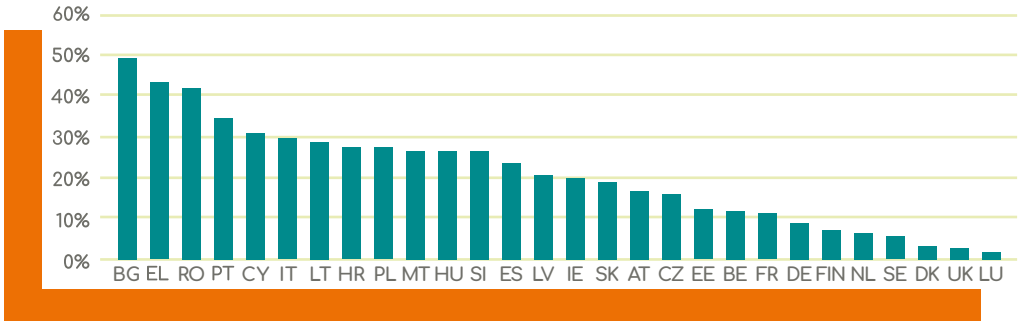
Source: ENRD, 2018

Rolling out digital infrastructure in rural areas is a challenge; however, digitalisation also holds great promises for these types of territory. Studies indicate that ICT implementation improves the livelihoods of rural communities. As Salemink *et al.* note: "*high-speed broadband is regarded as a prerequisite for people's access to education and information, e-health, recreational purposes, and entrepreneurial and (agro)business activities*" (2017b, p. 558). Proper broadband access could help overcome the challenges caused by rural remoteness, enhance connectivity and help build bridges with other regions through digital mobility.

Similarly, technological breakthroughs offer opportunities for the long-term development of rural areas. Emerging technologies, such as automation and artificial intelligence, decentralised energy generation, cloud computing and the Internet of Things, will open up new production possibilities and transform how goods and services are accessed.

Product innovation and labour productivity are likely to be impacted by changes in agriculture, forestry, mining, and associated sectors. These changes will create new job and business opportunities but also remove jobs due to automation or change of means of processing. Advances in communication technologies and digital literacy will unlock new ways of accessing services (OECD, 2018 and 2019).

Figure 5. Percentage of individuals in sparsely populated areas who have never used the internet, 2016.



Source: ENRD, 2018

To be truly beneficial to rural areas, digitalisation will have to address the specific needs of rural communities and rural SMEs (Randall *et al.*, 2020). Priorities of intervention and technological solutions will need to be tailored to specific contexts. Rural communities should strengthen their capacity to deal strategically with digitalisation processes and to identify sustainable digitalisation pathways, being aware that digitalisation may also have unintended impacts. Rural communities should learn how to anticipate and assess the changes that digitalisation will generate, identify alternative solutions, and involve local actors in the identification of priorities.

The 'Smart Villages' concept developed by the ENRD offers a new and effective approach towards community-led local development, building capabilities of rural communities. Smart villages serve as laboratories in which local people and policy-makers from different levels develop and test innovative solutions to deal with challenges faced by many rural areas (Smart Villages Pilot Project, 2018; ENRD, 2018). An example of such a solution is enabling access to public services through a place-based digital platform for elderly people (MOBIL-AGE project).

6. Inequalities and well-being in rural areas

The Treaty of Lisbon, Article 184 identifies as an objective of the European Union to reduce disparities between levels of development in different areas. Particular attention is given to rural areas, especially those facing challenges of "*severe and permanent or natural or demographic handicaps*", such as areas with very low population density, islands and mountain regions.

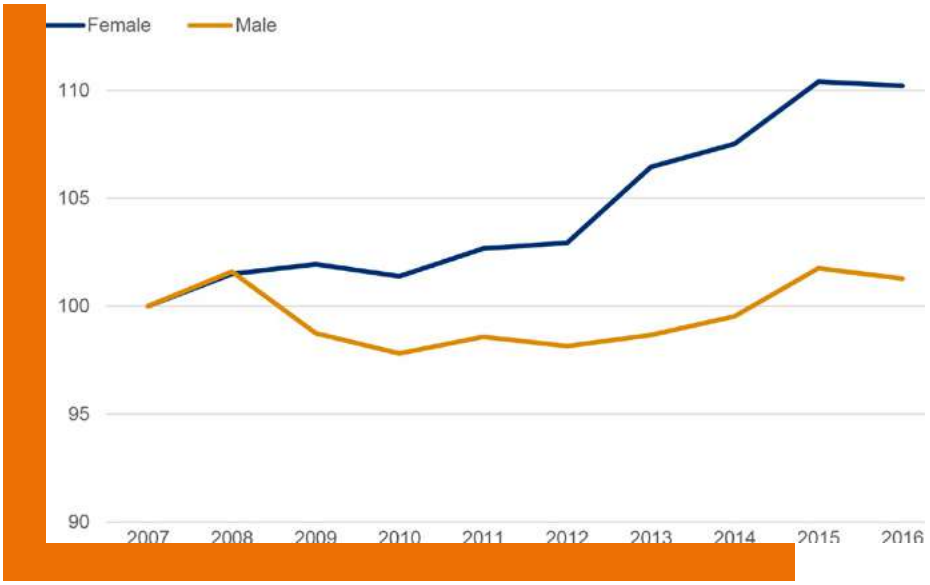
Building on the OECD Rural Policy 3.0 and findings reported by SHERPA in Féret *et al.* (2020; D3.2), human well-being in rural areas is a policy aspiration that follows closely behind that of farming-driven rural policy (OECD, 2018; Féret *et al.*, 2020). According to the OECD, human

well-being is improved when inequalities are addressed, which is as a result of reductions in social and economic inequalities enabling an improvement in collective well-being. Hence, assessing the quality of life in rural areas becomes a transversal and overarching objective that encompasses some of the other trends detailed above.

Measuring social disparities and inequalities helps to document the well-being of populations living in placed-based contexts. Knowledge capitalisation related to material living conditions in rural areas for rural dwellers has been summarised by the OECD in its work on regional well-being. Various specific socio-economic dimensions have been documented as being of relevance, for example gender pay gap, risk of poverty and housing in rural areas.

In almost all Member States of the EU, the gender gap in employment rates is higher in rural areas than in urban areas. Women tend to be employed in lower wage jobs (e.g. health and social care services), and men more represented in higher wage primary sectors and associated manufacturing (e.g. agriculture, forestry and mining) (OECD, 2019). Ongoing structural change in primary sectors and rural manufacturing have contributed to increasing differences between employment rates for men and women in remote regions (Figure 6). These trends are not apparent in other types of lower density regions. These changes will likely aggravate declining household income trends and may result in longer-term detachment from the labour market.

Figure 6. Employment rate growth by gender in remote regions after the crisis (2007 = 100).



Source: OECD, 2019

Women account for less than one third of self-employed individuals in the EU (OECD and European Union, 2017). In addition to a lack of skills, socio-cultural issues create barriers, especially in the rural areas of developing countries (OECD, 2016). Women face specific difficulties related to gender stereotypes, weaker social networks, and lack of role models. This can adversely impact the rate of female entrepreneurship, which is considered an important driver for economic growth. The situation of women with low levels of education is particularly adverse in rural areas (European Commission, 2008). Evidence from the FEMAGREE and SIMRA projects show how barriers to the empowerment of women in rural areas can be mitigated, or overcome, with economic and social benefits through social innovations (e.g. on-farm provision of care for children and the elderly, Gramm *et al.*, 2019; Marini Govigli *et al.*, 2019).

In 2015, the rate of people at-risk-of-poverty or social exclusion was higher among the population living in rural areas (25.5 %), compared to those living in cities (24 %) or towns and suburbs (22.1 %). This pattern is similar to that shown in the demographic ones (see sub-section 1 above) on the predominance of rural populations within the eastern regions of and in the Baltic countries (Eurostat, 2017a).

However, relationships can emerge between rural and urban areas in which support from one can be offered to the other. An example identified in the SIMRA project is of the 'Baba Residence' (baba-means grandmother in Bulgarian) which brings together urban youth and elderly people living in low-density and remote villages in Bulgaria. This initiative helps preserve traditions, crafts and stories from the villages and to use them as a vibrant source for innovative solutions that can meet the needs of the villages (Slee *et al.*, 2020; SIMRA Collection of examples of Social Innovation in the Balkans).

Seeking a better quality of life can be related to access to housing in rural areas, where the housing price is more affordable for young families with children. Rural areas offer space, nature and attractive prices for housing compared to cities and suburbs, as well as local employment. Residential migration in rural areas coupled with commuting to work in cities requires trade-offs between purchasing power, daily commuting and expected gains from a better quality of life in rural areas. However, this can create pressures on access to housing for those already living in rural communities who then cannot afford to buy or rent because of price increases created by migration from towns and cities. Increases in the amount of teleworking would alleviate such trade-offs. For example, in 2015 the burden rate for housing costs was lowest for rural dwellers (9.1 %), compared to people living in towns and suburbs (10.6 %) and those living in cities (13.3 %) (Eurostat, 2017a).

According to the PoliRural project, rural attractiveness is very much influenced by territorial capital and rural assets (i.e. environmental, socio-cultural, economic, human and institutional) as well as by perceptions of quality of life. Exploring OECD data on regional well-being dimensions (OECD, 2020) might be of particular interest for the Multi-Actor Platforms, in topics such as trust in rural governance at a municipal level, vitality of social fabric, participation to local social life, etc.

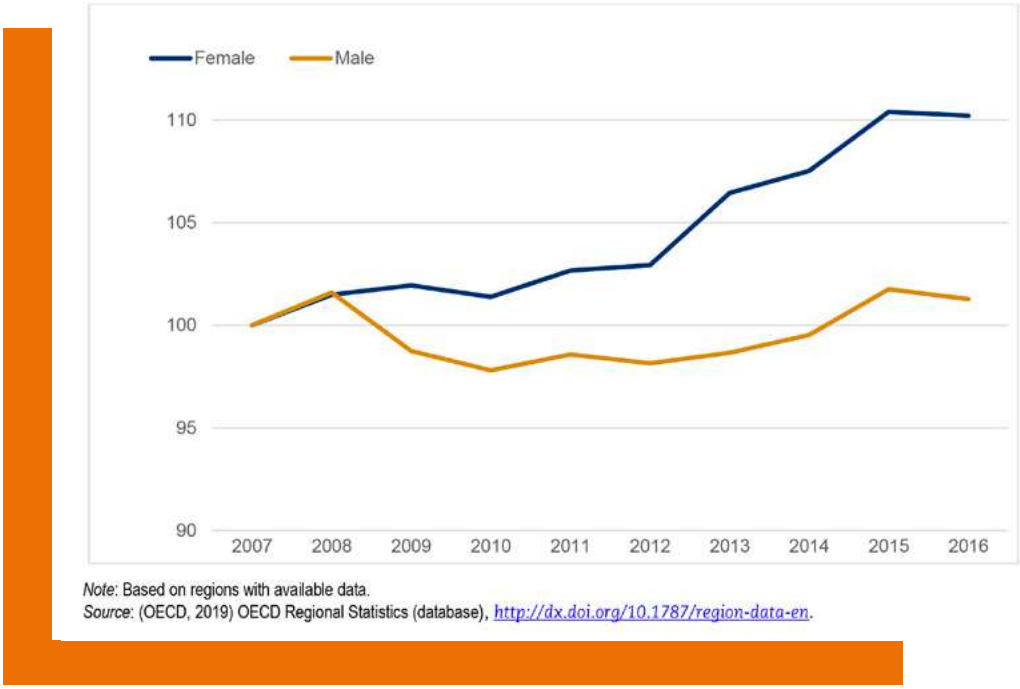
7. Land-use change and competition

Rural land resources contribute to food security, supply raw materials (such as biofuels), provide a platform for most human activities and secure a series of environmental services. However, conflicting demands on land have a significant impact on the supply of key ecosystem services. In Europe, land take (defined by the EEA as the increase of artificial surfaces over time) dominates, resulting in land fragmentation (30% of land area) and degradation (Figure 7; EEA, 2015). Such a conversion from different land cover types into artificial surfaces (housing areas; green urban areas; industrial, commercial and transport units; road and rail networks; etc.) removes productive areas from its land resources (Tóth, 2012), which has a direct impact on its capacity to produce food (Gardi *et al.*, 2013). Such negative impacts can be referred to as dysfunctions and disservices and can further affect the economy or human health (van Vliet *et al.*, 2017).

The drivers of this historic EU trend are varied: demographic (population density, migration), economic (globalisation, off-farm employment, urbanisation, local demand), technological (land improvements, new breeds and cultivars, mechanisation), institutional (land consolidation,

subsidies, tenure security, land-use planning, political shifts), and socio-cultural (recreation and tourism, societal demand for ecosystem services). All of these drivers are affected by location factors (accessibility, climate, topography, soil quality) (Meyfroidt *et al.*, 2018). These drivers lead to different trends and trajectories (van Vliet *et al.*, 2015): (i) a growing rate of conversion of cropland to artificial surfaces due to population growth; (ii) the joint occurrence of intensification on productive agricultural land and deintensification of more marginal locations as a result of the globalisation of agricultural markets; (iii) changes in land management and on-farm diversification due to societal change and the change from rural to urban societies in large parts of Europe; and (iv) land abandonment or decrease in land management intensity especially in central-eastern Europe and in mountainous Mediterranean areas. In addition, the rate of forest areas has increased in the EU because of farmland abandonment (VOLANTE project).

Figure 7. Percentage decline of arable land area due to land take by economic site and infrastructure development (2000-2006).



Source: EEA, ETC SIA based on Corine Land Cover

The multi-functional nature of rural, natural and peri-urban areas lead to conflicts that emerge from opposing views about their use, such as noise pollution, visual blight, health hazards, nature conservation, preservation of the past and changes to the neighbourhood or to the landscape (von der Dunk *et al.*, 2011). Reductions in land availability over time is expected to lead to an increase in 'land grabbing' in Europe (Bunkus and Theesfeld, 2018). In order to ensure a sustainable long-term vision for rural and peri-urban areas, there is a need for new management through territorial governance, taking into account negotiations and conflict relations (Torre and Darly, 2014).

Limiting 'land take' is an important policy target at regional and sub-regional levels. Balancing land-recycling, compact urban development, place-based management and green infrastructure will provide positive effects by increasing land resource efficiency, with the objective of achieving appropriate proportions between the multiple services provided by land. Policies and related targets would inform decisions regarding the efficient use of land resources and balance the demand for, and supply of, the finite land resource (EEA, 2015).

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