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SHERPA Position Paper

CHANGE IN PRODUCTION AND DIVERSIFICATION OF THE RURAL ECONOMY

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Headline messages

Green and digital transitions will form part of a much-needed transformational change of European rural areas, and the necessary and significant adjustments require changes in the production and diversification of the rural economy. These adjustments offer new development opportunities in and for rural areas, which will contribute to the continued improvement of the resilience of rural communities and the post-COVID19 pandemic recovery of rural areas.

This SHERPA Position Paper aims to contribute to the debate by presenting opportunities, challenges, and recommendations for production changes and the diversification of the rural economy as identified by eight regional and national SHERPA Multi Actor Platforms (MAPs), and by the EU-level MAP. The MAPs identified these elements by collecting and organising the views of MAP members (representing science, society, and policy communities) through various MAP meetings and additional communication.

Figure 1 – Location of the SHERPA Multi-Actor Platforms (MAPs) working on the topic at hand.

Overall, the eight MAPs identified a variety of opportunities and challenges related to the process of changing the production and diversifying the rural economy, and each developed recommendations on what could be done to contribute to this process. For instance, changing business models (especially in agricultural businesses) through the adoption of new business solutions and innovative approaches is viewed as a key driver, facilitating change in production and diversification of the rural economy. Additionally, digitalisation processes and the enhancement of related infrastructure (including broadband) were identified as a possibility to help overcome the divide between urban and rural areas. In addition, the idea of ensuring basic services (housing, education, health, etc.) in rural areas to improve the quality of life in rural areas was suggested in order to attract businesses and people to move to rural areas, supported by the adoption of an integrated and cross-sectoral strategy, with actions tailored to the specific needs of the rural areas. Other ideas to facilitate the change in production and diversification of the rural economy include:

- Community empowerment based on mutual trust to achieve an equitable green transition;
- Improving access to funding for businesses in rural areas;
- Ensuring and improving the sustainable management of resources, also in the utilisation of renewable energy;
- Implementation of flexible practices to anticipate skills needs, through the development of diverse training and employment services in specific areas;
- Improvement of key areas and sectors, such as smart rurality, bioeconomy, food chains.
- The knowledge and insights contributed by the MAPs are synthesised in this SHERPA Position Paper, and will inform future discussions on changes in production and diversification of the rural economy.

1. Diversification of the rural economy: Entrepreneurship, employment and new business models enabling environmental sustainability

Opportunities

Several opportunities relating to entrepreneurship, employment and new business models in rural areas were identified by MAPs. A recurrent element mentioned in the MAP position papers is **tourism**, which is seen as a prime opportunity through which the economic activity of rural areas can be diversified. More than one MAP pointed out that the tourism potential of rural areas is largely unexploited. According to the Danish MAP, nature has become a very important element related to tourism activity, and, in this regard, the potential to leverage the attractiveness of and natural assets in rural areas should be further explored. As an example, shelter camping and "glamping"[1] sites are activities particularly well-suited for rural areas and have the potential to attract high numbers of tourists.

In relation to this, opportunities stemming from **remote working** were also highlighted. Since the beginning of the COVID-19 pandemic, increasing numbers of companies have switched to remote working, whether in part or in full. This model, alongside a digitalisation process that has gathered pace in recent years, has increased the potential for rural areas to attract people who want to relocate, whilst at the same time favouring the retention of local people.

Another opportunity that was mentioned related to the cultural significance and the climate of rural areas. The Bulgarian MAP highlighted how the cultural and historical features of Bulgarian rural areas, together with the favourable climate and overall high quality of life (such as "slow living", clean air, high quality local food), can encourage young people to settle in rural areas for a limited period - or even permanently. In addition, **multi-locational living**, linked to both leisure and work transition and seasonal work, can draw new actors and activities to rural areas, thus revamping the vitality of municipalities and regions. In addition to work mobility and job-driven relocation, another remarkable trend is also the growing role of rural areas as a living space for young families and for the elderly. The **silver economy** – especially elder care and the potential for developing sheltered housing – represent a good opportunity for rural areas where there are unexploited human and natural resources, as well as unused building stock.

1 Glamping is defined as outdoor camping with amenities and comforts (such as beds, electricity, and access to indoor plumbing)

The **accelerated digitalisation** process was also noted by several MAPs as a very important opportunity, especially in the domains of **education and accessibility**. According to MAPs, both digital opportunities and cooperation opportunities (such as between education and training organisations) have the potential to be further exploited to strengthen accessibility to higher education and vocational training, especially in sparsely populated areas. This element of education and accessibility is crucial to generating a virtuous cycle, in which cultural change encourages economic activity and networks, which, in their turn, support local and regional vitality. This can further help to attract new actors and foster welcome **changes in ownership and generational patterns**. The Finnish MAP pointed out that creating a new business culture based on sustainable use of natural resources can also contribute to raised awareness of issues including environmental justice, eventually resulting in more sustainable business models.

The Polish MAP clearly sees such new business models as a much-needed means to move towards the diversification of the rural economy. However, there is need to support the creativity of citizens and the exchange of ideas, beginning with the availability of public spaces where people can meet, integrate, and plan common activities. Finally, both the Slovenian and Spanish MAPs acknowledged the role of countryside in providing a range of commodity and non-commodity type of goods. In addition to the provision of local food, it offers space for leisure, recreation and living.

Challenges

Along with the opportunities described above, the MAPs also identified several challenges which can hamper the diversification of economic activities in rural areas. They are as follows:

- High unemployment rates characterising many rural regions. According to the Polish MAP, unemployment in more peripheral rural areas – particularly those at a distance from Warsaw and its commuting hinterland – is a challenge which is still being tackled by supporting entrepreneurship and the development of new skills and business. In relation to this, the Bulgarian MAP mentioned the so-called "unemployment paradox" – that economic activities suffer from a lack of labour, whilst at the same time there is surplus of people actively seeking work, as evidenced by high unemployment rates.

- Lack of a qualified workforce in rural areas, in addition to suboptimal professional training provisions, which do not meet needs of rural areas.

- Regulatory barriers. In some cases, diversification and the shift to more sustainable business models are not possible due to regulations preventing agricultural buildings from being used for non-agricultural purposes, or preventing disused farms from being bought by firms which are not registered as agricultural enterprises.

- Lack of mobility and interconnectivity. This can still represent a problem in rural areas and undermine their potential for developing tourism-related activities.

- Low retention of women and young people in rural areas.
- Lack of entrepreneurial culture and – where there are entrepreneurs – the instruments and confidence to act are often lacking, as highlighted by the Slovenian MAP.
- Poor integration of rural markets. Rural areas have smaller markets than cities; thus in order to compete with global suppliers (in terms of price, quality, and variety of products), additional attention needs to be given to their regional/national/global market integration.
- Generalised lack of, and/or poor quality, services and support for businesses established in rural areas.

Recommendations

Building on the opportunities and challenges identified above, the following recommendations have been brought forward by the MAPs:

1. Designing a national strategy to introduce and support remote working and develop multi-service centres to bring together public, private and third sector services, and launch trials and the development of community-based entrepreneurship remote working. For this purpose, there is a need to develop operation and funding models for multi-service centres, and to promote opportunities for location-independent work through (community-based) remote working facilities. It would also be beneficial to assess the socio-economic and regional economic impacts of existing broadband connections at municipal and business level in rural areas.
2. Promoting the development of business activities which rely on the sustainable use of natural resources. This includes the creation of new business models such as the sharing economy and the platform economy, as well as generating knowledge about the potential to further develop the localised use of natural resources. It also requires developing sustainable tourism as part of rural entrepreneurship (including multi-sectoral entrepreneurship).
3. Providing sufficient assistance for entrepreneurs in the early and subsequent stages of the diversification process. This may come from public funds to invest in human and social infrastructure, prioritising the real needs of rural communities. It should include funding for launching a business, decreasing the administrative burden faced by microenterprises barriers seeking to engage with public sector procurement opportunities, and support for the creation of highly educated professionals able to drive forward a successful diversification process.
4. Providing information, activation and incentives for the development of cooperatives and social entrepreneurship in rural areas (such as tax benefits). This should be accompanied by an investigation of possibilities to create financial instruments that support service production in villages, combining public and private funding. To develop social entrepreneurship, competition law should take into account the overall regional economic impact of social entrepreneurship, and the promotion of a societal sustainable transition. Finally, there is need to map the scope and potential of social entrepreneurship in rural areas.
5. Increasing the decentralisation of rural areas, with special emphasis on the management, decision-making, and fostering of horizontal and vertical partnership and cooperation for long-term strategic planning by involving all relevant stakeholders in the process. This may also include adapting the regulatory framework to better support diversification needs in rural areas.

2. Smart rurality, smart communities, and digitalisation

Opportunities

MAPs identified several opportunities for smart rurality, smart communities, and digitalisation. Firstly, it has been acknowledged that the concept of 'smart' still lacks a common definition and its wider understanding is still limited. Consequently, there is some merit in wider discussions that lead to a clear definition reflecting a common understanding of 'smart' rurality and 'smart' communities – between the national government, science representatives, and local communities. Along with the definition of the 'smart' concept, there is room for improvement – and thus opportunity creation – in **spreading knowledge about 'smart' rurality and 'smart' communities** in national languages, to build understanding of the issue in the whole country and rural regions.

'Smart' is not always about information technologies (IT), as pointed out by the Polish MAP. While digital solutions play a relevant role in smart rurality and communities, in most cases they are also about 'thinking outside the box', putting people and the environment together as partners and making everybody count. The communication and co-creation channels involving multiple components of the rural society contribute to making rurality and communities 'smart'.

However, **'smart' also necessarily encompasses IT-based solutions**. To promote diversification and rural development, relevant opportunities lie in the use of digital tools for business, the use of digital services, digital marketing, website editing, digital tools for advertising and product marketing, the ability to analyse data, secure data management, the identification and exploitation of trends, and knowledge of existing user platforms in tourism, sales, post office, e-banking, and more. There are also many digital options that can reduce dependence on physical mobility and facilitate rural life – such as social services, e-shopping, universal access to digital identity, e-procurement, digital rural health centres – and enable working from home, as highlighted by the Slovenian MAP.

The Bulgarian MAP put forward a series of advantages that digitalisation could bring to Bulgarian rural areas, such as optimising production processes, increasing income and the yields of farmers and overall improving the viability of rural areas, establishing a sustainable bio-industry, and ensuring food safety in a context of increased industrialisation and when new non-conventional technologies are applied to food processing. Other advantages identified by the Bulgarian MAP are increasing competitiveness of economic activities, increased demand

for Bulgarian products in the single European and global markets, creating the conditions to increase income and improve quality of life, attracting and retaining young people, and attracting investment in new cutting-edge technologies.

Another factor underpinning the fact that smart solutions and digitalisation create opportunities is the **COVID-19 pandemic**, which has accelerated digitalisation in many rural communities. This was discussed by the Danish MAP, which emphasised how increased remote working (even post-pandemic) has the potential to create new opportunities for rural areas. In fact, increased remote working could potentially encourage peoples' relocation to rural areas (as noted in the previous section) or enable people to spend more time in the countryside whilst residing in holiday homes. As a positive example, research shared by the Finnish MAP has shown that telecommunication policy in Finland has been successful, and the continued (and improved) availability of broadband infrastructure in rural areas is encouraged.

According to the Lithuanian MAP, relevant governance opportunities may emerge by **interlinking LEADER and Smart Villages** programmes, and making 'Smart Villages' part of the local development strategies (LDSs). This approach would enable a model for smart rurality and smart community development support. The Lithuanian MAP also called for improvement in the **European Innovation Partnership (EIP)** programme implementation rules at the national level, to make them simpler and more flexible. Finally, the acceleration of joint initiatives between science, business, and farmers may result in benefits for better smart rurality. Communities are also highlighted as beneficiaries in this respect.

Challenges

Despite significant opportunities to strengthen smart rural communities, several challenges affect the development of smart solutions in rural areas, as follows:

- Underlying the challenges mentioned above, an overarching challenge is posed by the lack of a clear and common definition of the 'smart' concept at different levels and in different contexts. For instance, concepts of 'smartness' and 'digitalisation' are overly simplified and vague at supranational level (such as the European Rural Parliament). As mentioned by the Lithuanian MAP, there is a lack of understanding of the 'smart villages' concept at national authority level, and general confusion about the concepts of 'smart' and 'smartness' in the rural context.

- Digital technologies are themselves a challenge. Understanding, identifying, developing, and implementing digital solutions requires many human, physical, economic, and institutional assets which need to be combined or developed. As noted, for example, by the Slovenian and Danish MAPs, the development of digital infrastructure remains a major challenge.

- In relation to the development of digital infrastructure, a key challenge for smart rurality is the availability of broadband access. In Finland at the end of 2018, broadband was available in 27,191 population grids, which corresponds to 27.2% of inhabited population grids. Despite the growing presence of digital infrastructure (including broadband and mobile data network coverage) across rural regions, its development is not homogeneous and needs to be levelled up.

- A constraint to the development of digital technologies is the **lack of digital knowledge, skills, and competence** at administrative, managerial and executive levels. As mentioned by the Polish MAP, there are knowledge gaps regarding drivers of such solutions, their sustainability, and their green credentials (including compatibility with European Green Deal).

- Furthermore, **investment in digital infrastructures and technologies** is mostly limited to the private sector and is fragmented between individual farms or entrepreneurs. For this reason, as mentioned by the Bulgarian MAP, there is a lack of comprehensive information at national level about investments which have been made so far, levels of resulting digitalisation, and technologies available for precision agriculture.

- The development of digital technologies poses a **challenge in terms of potential labour redundancy**, for example, removing the need for certain roles or human functions through automation or digital replacement. Job displacement is a relevant socio-economic implication worth considering. It is also worth noting where people cannot be replaced, as underlined by the Slovenian MAP.

Recommendations

Building on the key challenges and opportunities discussed previously, the MAPs suggest the following recommendations relating to smart rural areas and digitalisation:

1. **Extending the scope and geographical coverage of broadband availability.** Avoiding the widening of the digital divide requires top-down coordination in broadband construction, and more regionally-tailored public funding. Particular attention should be paid to farms and households in underdeveloped rural areas.

2. **Defining the common meaning of 'smart' rurality** and 'smart' communities in collaboration with and among national governments, science representatives and local communities. Smart Village (and Smart Town) approaches should be promoted as a modern dimension of entrepreneurship and collaboration for the benefit of local communities. **Knowledge concerning 'smart' rurality and 'smart' communities** should be disseminated in the national language, to encourage overall understanding of the concepts across the whole country.

3. Establishing a model for smart rurality and smart community development support by **interlinking LEADER and Smart Villages programmes**, and incorporating Smart Villages into Local Development Strategies (LDSs). **European Innovation Partnership (EIP) programme implementation rules should be improved** at the national level (to simplify them and make them more flexible) and joint initiatives between science, business, and farmers, should be accelerated. **Digital knowledge and skills for administrative, managerial and executive staff** needs expanding, based on a clear understanding of their contribution to the development of the sector, its competitiveness and profitability, as well as advisory services.

4. Facilitating quick and easy **access to services and systems** such as e-government, mail and banking. It is important to connect platforms that enable the digitalisation of public procurement (including group supply, and thus improve the negotiating position in the value chain), eliminate duplication/overlaps, ensure the provision of all necessary services, and to offer relevant information in one place.

5. **Balancing out digitalisation and the "natural" way of living** in rural areas. The right level of digitalisation must be observed in rural areas, especially in tourism, where what might be expected is actually a retreat into nature and away from technology.

6. Encouraging **technology transfer** in the field of agriculture, and emphasising on collective solutions that are inclusive for all farm sizes. It is necessary to introduce digital solutions and precision technologies in a wide range of agricultural activities, and to support digitalisation in supporting different forms of cooperation between farms and in value chains, to make them more effective and economical.

3. Bioeconomy and sustainable management of resources

Opportunities

MAPs identified several opportunities related to the bioeconomy and the sustainable use of resources. Almost all **MAPs considered research and the adoption of innovative practices and technologies** applied to bioeconomy and resource management **as a great opportunity** for sustainable rural development.

According to the MAPs, various sectors can benefit from the use of innovative solution. The Danish and Romanian MAPs concur that innovation would be beneficial to the **energy sector,** for instance, through the identification of biomass sources and the development of smart equipment and renewable energy sources (solar, biomass, water). MAPs in Bulgaria and Denmark highlighted the importance of R&I in the **agricultural sector.** Applied research and the creation of advanced models and technologies are essential to the production of healthy food, and improved quality of life. Examples of agri-related innovative solutions include the application of breeding techniques for livestock, modified feeding to reduce methane emissions, the adoption of new crops with lower environmental impact for human consumption, the use of biochar for carbon sequestration, and new barn technologies. The Danish MAP reported that innovation should be adopted also for the **conversion of industrial and household waste** into new products in the context of a circular economy model.

The MAPs recognised that **education, training and knowledge sharing**, play an important role in the transition to bio-based economy in rural areas. Tailored training, dissemination materials, platforms, and research institutions/infrastructure for the exchange of information are valuable tools to improve the eco-efficiency of rural areas and their economies. According to the Lithuanian MAP, it is important to build the capacity of public servants (especially those of central government ministries) through continuous training, whereas the Romanian and Bulgarian MAPs stress the importance of educational programmes and training to accelerate the adoption of bioeconomy solutions at all levels.

Some MAPs suggested that acceleration of bioeconomy development and the sustainable management of resources should be facilitated by **cooperation and partnership between business, science and government actors.** New forms of private-public partnerships are needed, especially when it comes to the development of new circular business structures and processes.

The environmental features of rural areas make these territories favourable to the development of ecological, traditional, and local production and/or agri-tourism, as mentioned by the Polish MAP. Moreover, growing interest in society for more sustainable lifestyles offers new opportunities for income diversification, including sustainable forms of production and the need for authentic experiences in nature.

Challenges

Various challenges were identified by the MAPs:

- There is a **lack of understanding and awareness of the bio-based economy concept** according to the MAPs from Lithuania and Poland and this affects both public authorities and consumers.

- **Common strategies and policies to support the transition to a bio-based economy** are often missing. The Lithuanian MAP reports a lack of common long-term strategies for their green innovation and environmental plans, while the Polish MAP links the lack of complementary strategies to great economic and scientific divergence at regional level. In Slovenia, the MAP notes that ill-fitting public policies and market mechanisms represent a challenge to sustainable management of resources, because of their long-term inability to enhance and value agricultural land, traditional landscapes, and rural areas. This includes the inappropriate management of tourism flows in some areas, which are also characterised by a lack of basic infrastructure. Additionally, according to the Romanian MAP the absence of a national and/or regional strategy and an integrated vision for the bioeconomy represents a challenge to the sustainable development of rural areas.

- The **economic sustainability of bio-based solutions**, including biomass, is another challenge reported by the MAPs. The MAP in Bulgaria notes volatile raw material prices for energy production, together with the costs of transport of the material to the treatment facilities, that make investment unsustainable for raw material investors. Moreover, they stress that politics has an active influence on the price of energy and electricity, resulting in price fluctuations that can undermine or complicate investment decisions. The Romanian MAP reveals that significant amounts of biomass are under-utilised in Transylvania, and that the territorial distribution of biomass from agriculture is a challenge to the efficient use of this resource.

Recommendations

Building on the key challenges and opportunities discussed above, the MAPs suggest the following recommendations:

1. Developing/rejuvenating a common long-term strategy for bioeconomy and sustainable management of resources at national government level, with dedicated support for marginalised rural areas. This strategy should consider the regional economic impact of local bioenergy systems. There is a need to mobilise business, science, and government actors in the acceleration of bioeconomy development and the sustainable management of resources.

2. Popularising the bioeconomy concept in its entirety (beyond the production of agricultural raw products), as well as the cost-benefit ratio that circularity in the rural economy can generate for the community, the business sector and the environment. There is a need to ensure continuous education for public servants, as well as society, consumers, and investors, by disseminating sufficient information on the bioeconomy and the sustainable management of resources (including market trends and innovative solutions), exchanging good practices and successful business models, developing education and professional training provision, and promoting collaboration.

3. Developing appropriate skills in agricultural production practices, which are both environmentally and economically sustainable. There is indeed a need for technological development for biomass capitalisation, the facilitation of access to innovation, knowledge transfer at the rural micro-regional level, and ongoing professionalisation.

4. Improving local knowledge to achieve successful bioeconomy which requires about industrial traditions, resources, actors, and cooperative partners. Social enterprises and a place-based development concept could be used in regions to generate bioeconomy benefits and support the development of disadvantaged peripheral areas, which are not competitive enough on their own to generate endogenous growth.

5. Increasing financial support in order to implement bio-based solutions in rural areas, including fiscal facilities for adopting green solutions. This can be an incentive / significant driver for the involvement of all (public and private) rural actors in circular economy.

6. Achieving economies of scale, the latter requiring horizontal integration, while also improving knowledge on the features of such specific markets, is an overall priority.

4. Farm diversification and food chains

Opportunities

Opportunities related to the diversification of farm activities and to new models of supply chains have also been identified by MAPs. Various **governance** opportunities arose in MAP discussions; for instance the Romanian MAP acknowledged that there is **strong political support** to aid supply chains linked to quality food, coupled with a **strong institutional/legal framework** for the certification of (local) food products within national and EU quality schemes (PDO, PGI, TSG, etc.), resulting in positive momentum to push farms in this direction.

The Lithuanian MAP proposed consideration for **enhancing the role of Local Action Groups** (LAGs) to make them fully-fledged decision-making bodies. This is seen as a potential opportunity to support efforts of rural economic diversification. The opportunities offered by the **2nd Pillar of the CAP (Rural Development Programme –RDP– measures)** have been highlighted by the Romanian MAP, considering the financial support that this tool offers (and will continue to offer in the next CAP cycle) for the creation and support of short agri-food supply chains. The Bulgarian MAP underlined the importance of **public-private partnerships** and **joint collective actions** as innovation brokers in the context of diversification of rural economies and, hence, as enablers of this process.

Beyond the governance framework, MAPs also identified opportunities to facilitate the diversification and shortening of supply chains in certain market models. For instance, the Polish MAP advocated for fostering channels for the **direct sale** of products, such as fairs and farmers markets. Direct sales channels and platforms (provided that access is free of charge for farmers) represent both a way of encouraging short vertical supply chains (from producers to consumers), and a mechanism of stimulating farmers to seek higher added-value products and, hence, to diversify their production. Although not a market model or a form of farm diversification per se, the Polish MAP also supported the role of **organic farming** as a form of specialisation which can capture market opportunities, especially where rural areas are in proximity to large urban centres with high latent demand for organic products (such as Warsaw).

At a **social level** (including both consumers but also in general citizens and civil society), the Romanian MAP associated the ongoing **shift in consumer preferences** with a trend towards local, traditional, high quality and environmentally friendly food. This is resulting in increasing demand for agri-food premium products which conform to European or national quality schemes. In turn, it represents an opportunity for the diversification of farm activities and product portfolios (such as including organic agricultural products and integrating farms into shorter supply chains). Such a change in demand is of greater relevance where it is accompanied by a legal framework that favours and encourages the shift towards quality products. However, it should be noted that this shift in consumer preferences is not observed systematically in all territories, and a lack of consumer awareness has also been mentioned in certain MAP position papers.

In addition to consumer demand, socially-oriented opportunities identified by MAPs also include the **migration of new inhabitants** to rural areas, as an important vector of change for the structure of the rural economies as mentioned by the Romanian MAP, and the **social capital** of rural areas, especially where reinforced by 'creative individuals with innovative ideas and entrepreneurial initiatives'. Leveraging such individuals, as well as building on already established good practices and positive contractual relations in resilient value chains, is mentioned by the Slovenian MAP as a clear opportunity to drive the diversification of farm activities.

The Lithuanian and Bulgarian MAPs also highlighted opportunities related to **knowledge management**, including better **exploitation of the knowledge** generated by local research institutions (such as local universities dealing with agricultural science), that can help in lowering the cost of innovative solutions and technological investments, as well increasing the adaptability and their applicability in local conditions. Other opportunities mentioned were the importance of **pilot projects,** to kick-off the design and implementation of real-life short supply chains with all actors concerned, to be scaled up in subsequent phases, and opportunities offered by **systems thinking** applied to the farm context.

Finally, despite its undisputed challenge to economies in general, the COVID-19 pandemic was also mentioned as a powerful reminder of the importance of short agri-food chains. It can be considered, therefore, as an opportunity to further drive the diversification and shortening of supply chains.

Challenges

Alongside these opportunities, MAPs also identified several challenges linked to this topic, which can be structured into the same categories of governance, market, socio-demographic and knowledge dimensions.

- The Romanian MAP, interestingly highlighted challenges linked to governance which include a rather rigid regulatory framework applicable to the diversification of farm activities. The legal framework could be further adjusted to allow diversification within agricultural production (such as enabling a shift towards the production of quality products) rather than a shift to different economic activities, like the introduction of new income sources which are not directly linked to farming (such as agri-tourism).

- Legislative and public support barriers were also identified by the Slovenian MAP, which underlines the legal and administrative uncertainties farmers face as soon as they seek

to venture away from classic farming business models. Moreover, the Romanian MAP also identified a challenge stemming from low levels of information and advice regarding opportunities to diversify farm activity – for example through rural development programmes and other government initiatives.

- Alongside this lack of institutional infrastructure, (Bulgarian and Lithuanian) MAPs also identified a lack of physical infrastructure needed to implement farm diversification and short supply chains, such as lack of sewerage, telecommunication connections and broadband.

- The following points were mentioned in MAP discussions regarding market aspects (including market access and structure), mainly revolving around the involvement of small farms and the implementation of short supply chains. Both the Romanian and Lithuanian MAPs agreed that there is a gap between larger and smaller farms in terms of options to diversify their activities and access shorter supply chains, resulting in barriers for the latter. Interestingly, a reluctance to collaborate among small actors was identified as a potential barrier to market access by smaller producers on the market, which also experience less economies of scale. Other reasons behind this gap, as reported by MAPs, are excessive fragmentation of agricultural supply, low homogeneity of the quality of products coming from small farms, and the competition from large transnational retailers.

- The opportunities offered by the 'direct sale' model mentioned by the Polish MAP (see previous section) appear to be hindered by administrative burdens, costs and taxes, which farmers still have to bear to gain access to local markets and platforms.

- Socio-demographic factors are a potentially controversial element in the diversification of farm activities. Although generational renewal and shifts in consumer preferences towards high quality products are clearly seen as opportunities, opposing trends (i.e. ageing rural populations and depopulation) are also observed across EU territories. Some MAPs comment that there are fewer educated consumers in some regions, who are perhaps less interested in pursuing quality and innovation in their consumption habits, due to low awareness of the benefits of local/regional products for the economy, environment and for health. Moreover, limited knowledge of quality schemes (at both national and EU levels) – amongst both producers and consumers – is pointed out by the Romanian MAP, despite the fact that quality schemes are a useful tool for encouraging diversified agricultural production. This can result in confusion among consumers, who may be faced with a high number and variety of quality schemes/labels, and are unable to make informed choices. Demographic change also plays a role in diversification. Despite the arrival of rural inhabitants in some areas, depopulation (usually linked to rural-urban migration) and population ageing are still observed and, according to the Bulgarian MAP, can discourage entrepreneurs to invest resources in rural areas in favour of urban areas or other assets (such as tourism attractions).

- Knowledge gaps also seem to hinder the opportunities discussed above. Firstly, due to traditionally production-oriented agricultural education and consulting systems, there is weak knowledge of topics such as marketing, finance, administrative procedures, and food safety rules across the relevant actors (as mentioned by the Slovenian MAP). As a result, the diversification of activities beyond farming is hindered. Even within farming, the Polish MAP identified that there is a lack of knowledge and guidance provided to farmers to diversity their production, and to better align to changing environmental and climate conditions and emerging trends.

- As an overarching mindset paradigm, the Lithuanian MAP ascribes limited understanding of the food chain to the lack of the application of the so-called systems thinking at all levels of food production.

Recommendations

Building on the opportunities and challenges identified, the MAPs suggest the following recommendations to foster the diversification of farm activities and food chains:

1. Closing the legislative gap and designing a policy framework that enables both large and small farms to apply diversification strategies, and engage with short(er) food supply chains (also facilitating access to direct sales channels). This implies providing appropriate physical and administrative infrastructure to allow for diversification, as well as implementing short supply chains, and ensuring targeted support through public procurement to EU/national/local programmes promoting quality schemes.

2. Strengthening partnerships between policy makers, public administration, researchers, and representatives of the agri-food sector, to ensure evidence-based and proactive participation by all actors in the design and implementation of public policies and programmes. In this context, the role of Local Action Groups (LAGs) should become more involved in decision-making.

3. Ensuring support for diversification and modernisation of the small/family farms by strengthening the role of cooperatives, promoting the production of traditional/local crops, and acknowledging the role of organic farming in diversification.

4. Supporting the better positioning of micro-enterprises and small to medium-sized firms on the local and international markets, through investments in innovative products, and using media channels and digital tools to increase product visibility.

5. Fostering consumer awareness and confidence regarding the merits of locally-produced foods, and/or via short supply chains, by promoting appropriate labelling and promotion schemes and establishing local/micro-regional brands. These actions would help to contribute to the differentiation of products from rural micro-areas, and to their collective recognition by both producers and consumers.

6. Deepening understanding and fostering systems thinking in the fields of farm diversification and short food supply chains, by clearly defining 'food systems', 'local food systems', and 'regional food systems'. In this regard, there is need to perform an in-depth analysis of the need for qualifications and professional training in the context of farm diversification, to substantiate educational and training programmes aimed at meeting training needs and, subsequently, to enable the creation of new types of jobs. This includes supporting the growth of an entrepreneurial mindset in rural areas by means of education and training, and facilitating the handover of farming activities to younger generations, while bridging the generation gap in rural economies.

5. Other topics

Two MAPs identified other topics as relevant for the diversification of the economy in rural areas (Danish and Bulgarian MAPs). In particular, the Danish MAP identified:

- Education and competences;
- Liveability of rural areas; and
- Financing.

The Bulgarian MAP identified one other important topic:

- Agroecology.

Opportunities

Opportunities related to **education and competences** are associated with the green transition. In particular, the green transition will require a wide range of competences. Instruction will be fundamental to guarantee those skills needed for the new jobs the green transition will create. Moreover, an education system that envisages the presence of schools, universities and institutes in rural areas may support a higher level the young generation in rural populations, together with professionals working in education who may reside close to their workplace.

In recent years, the **liveability of rural areas** has received renewed focus and interest, especially as sustainability, the environment and climate have moved their way up the political and public agenda. With specific reference to the Danish situation, the MAP recognised some of the reasons for relocating to rural areas as lower housing prices, a desire for more community involvement and the opportunity to be closer to natural areas. This trend and narrative ought to be expanded and linked to the sustainability agenda. It is needed to counteract the self-reinforcing mechanisms of **financing** that contribute to the polarisation of the housing market into separate urban and rural markets to contribute to the development in rural areas. Finally, MAP Denmark sees potential in exploiting the opportunities for the housing stock in rural areas, such as redundant farm buildings, to be used in better, alternative ways.

The development of rural areas is also bound to **agroecology** to increase the sustainability of the agriculture sector. This is especially true for those places where the environmental problems are still limited, as in the case of the Bulgarian MAP territory, characterised by a small nitrogen footprint in the soil, as well as low agrochemical residues in agricultural products, and where greenhouse gas emissions are lower than the EU average per unit area. At the current stage of development in Bulgaria, it is essential to engage with rural areas generating commitments for the future. To adapt to and mitigate climate change, the concepts of circular economy and renewable energy sources are fundamental in establishing a New Economic Cycle, based on the valorisation of climate, historical heritage, biodiversity and environment. These, in turn, foster the wellbeing and welfare of rural communities.

Challenges

For each topic described in the previous section, the MAPs also identified challenges that we list below:

- Education and competences: When referring to the Danish MAP, the main challenge about relocating education programmes away from the four main cities concerns the potential effects on those groups of people who cannot and do not have the opportunity to relocate. Although there are discussions between the MAP members about relocating educational programmes, there is agreement about the importance of creating a good study environment and building study environments that dovetail with vocational strengths, the needs of businesses and research opportunities if the efforts are to succeed.

- Liveability of rural areas and financing: The challenges for increasing the settlement in rural areas are related to the access to services that need to be a central point on the agenda when promoting rural in-migration. MAP Denmark considers schools, childcare and health facilities to be essential public institutions and services that should be adapted to meet local needs, which implies that they should be organised differently compared to urban areas. In addition, there is a need for expanded infrastructure in rural areas which provides easier access to natural areas. When referring to financing, the main challenge is the lenders' reluctance to approve loans to buy or renovate houses in rural areas. It is not uncommon for people who want to buy or renovate a house in a rural area to have their mortgage application rejected because the house has a specific postcode.

- Agroecology: MAP Bulgaria underlines the tendency to increase the use of nitrogen fertilizers per unit area, which may create a risk of water pollution with nitrates in the future. Moreover, scientists expect a reduction of total plant production due to the reduced amount of used plant protection products, which in turn will lead to a decrease in productivity and yield. Finally, the reduction of pesticides is expected to have two effects: on one hand, deterioration of appearance and durability, and on the other, supplying the population with healthier food.

Recommendations

Building on the opportunities and challenges identified, the MAPs suggested the following recommendations to foster the diversification of farm activities and food chains:

- Education and competences: MAP Denmark underlines the importance of analysing the competency value chains and the types of competences needed to support development in rural areas, mainly referring to new business areas related to the agricultural sector and the environmental services that rural areas can offer.

- Liveability of rural areas and financing: MAP Denmark emphasises the importance of the support of public agencies to the local communities, in terms of advice and facilitation for planning better management of rural areas. Two municipalities, Lemvig and Bornholm, represent good practice, having hired relocation consultants. When it comes to relocating to rural areas, MAP Denmark finds that one of the main problems is obtaining a mortgage.

- Agroecology: MAP Bulgaria makes the following suggestions to support agroecology and reinforce the diversification of rural areas:

    - Increase in public support for agri-environmental agriculture to become a provider of public goods for less intensive production, with a reduced and aimed for neutral carbon footprint in coming decades;
    - Support for the development of precision and digital agriculture, which will enable the expansion of agri-environmental aspects and will support the agricultural sector developing predominantly in rural areas;
    - Attraction of young people and creating conditions for improving the demographic situation in rural areas based on ecology and easier access to clean and quality food;
    - Development of services based on the sustainable, environmentally friendly economy in rural areas suitable for building green energy, ecological tourism, organic farming, maintenance of valuable ecological places, etc.

Contribution from the SHERPA EU MAP

The EU-level MAP met to discuss the topic of change in production within, and diversification of, the rural economy, informed by the main findings of the MAP Position Papers. EU-level MAP members reflected on recommendations developed by national and regional MAPs regarding this topic, and discussed how policy interventions at the European Union (EU) level could support these recommendations.

Provision of an enabling framework at EU level

In the current programming period, the EU provides an enabling framework as well as an unprecedented amount of funding to Member States via the Multiannual Financial Framework, more specifically the Common Agricultural Policy, the Cohesion Policy, the EU Recovery Fund and the Just Transition Fund. A wide range of actions are eligible for support (such as refurbishment of housing, supporting entrepreneurship, development of digital infrastructure, supporting research and innovation, etc.) and can be financed accordingly.

The national and regional governments of the Member States can develop their own tailor-made approaches to support the rural economy, based on what is needed in their rural areas and communities. The EU even makes it possible for a group of citizens to come forward and develop a local partnership under the Community-Led Local Development (CLLD) approach. In turn, local partnerships can apply for and receive EU funding, with funding awards based on balanced eligibility and selection criteria. Member States and regions should consider designing equivalent options and accommodate multi-funded CLLD in their programmes to support rural economic diversification strategies.

Development of strategies at regional and national levels

This enabling framework and funding should encourage Member States to develop national and regional strategies focussed on realising positive structural rural economic change. Multiple levels of government (national, regional and local) should translate their national, regional, and local rural diversification objectives into place-based and integrated bottom-up strategies, which can be supported by EU funding through the frameworks outlined above.

Alongside EU policies and funding, national and regional strategies could include instruments such as tax incentives for businesses, start-ups, and relocation of universities to rural areas. Via EU funds, companies and start-ups in rural areas can receive extra co-financing or more support to prepare business plans. Research institutes and universities can receive funding to link and support businesses to rural areas to facilitate rural economic diversification and innovation. Such instruments, when implemented effectively, can encourage high productivity activities in rural areas, and incentivise highly qualified people to move to them.

In addition, Member States can make use of EU policy frameworks and funding when developing new national and regional strategies, because governance structures and legal frameworks in rural areas must adapt to both reflect and support the evolution and diversification of the rural economy over time. Member States need to assess how they can enhance the administrative capacity and ensure digitalisation, including that of public services, in rural areas. If this can be efficiently achieved, then it can make rural areas more attractive to new business.

Adaptation of the 'smart' concept to national and regional levels

There is no common EU-level definition of 'smart' in the rural development context. A common definition would not effectively encompass the diversity and heterogeneity of rural areas across the EU; what may be considered 'smart' in a remote mountainous rural area is different to what is seen as 'smart' in a growing affluent rural area in the vicinity of urban areas. Several initiatives launched at EU level (pilot project on smart eco-social villages, two preparatory actions on smart rurality, and thematic working groups of the European Network for Rural Development) represent a reference for the design and delivery of 'smart' actions.

This provides Member States and Managing Authorities with the opportunity to develop their own tailored and place-specific definitions. It is more important that European countries - and their multiple levels of governance - determine what is considered 'smart' for their own areas, so that this definition can be used to support changes in production and diversification in the rural economy.

Development of knowledge and skills

Knowledge is key to transforming production and achieving diversification in the rural economy. This includes knowledge about the technical requirements for diversification, and knowledge about making the transition to short(er) supply chains to support local agricultural production. There is a need to define the steps necessary to enable rural economic diversification beyond farming and forestry. The EU offers support via several programmes and funds focused on innovative and smart solutions (such as Horizon Europe, the Long-Term Vision for Rural Areas and its Rural Pact and Rural Action Plan). This provides a significant pool of knowledge and good practices available, which can be shared between relevant stakeholders.

Possibilities should be created to support entrepreneurs to use and /or improve their skills to develop tangible business activities in rural areas, and to use their knowledge to create opportunities to further diversify the rural economy. European research can play an important role in this, by linking research centres and/or institutions to entrepreneurs.

The nature of the knowledge and skills required for rural diversification covers those of concepts, technologies and tools. It is also necessary to have the skills to enable the start-up and running of businesses, particularly for the micro-businesses which are a significant employer in many rural areas. Guidance includes what and how to apply for funding, how to develop business plans, take account of risk, and organise accounting. Associated is the need for 'soft skills', such as managing customer interactions, and contributing to business groups.

Finally, there is a need for additional resources to facilitate skills development for enhanced productivity and diversification of rural economies as the skills needed in the rural economy have changed significantly in recent years. Precision farming for example requires new skills, as do marketing and selling products on the internet, attracting tourists via search engines, or promoting business and destinations online. This requires support and resources in the form of funding, networks and training provision, and infrastructure for providing emergency assistance for SMEs and micro-businesses.

The EU MAP position has been developed based on oral and written comments from its members, each participating in a personal capacity as an individual expert.

Concluding remarks

The knowledge that the MAPs shared on the main topics covered in this Paper (entrepreneurship, employment, and new business models; smart rurality, smart communities and digitalisation; bioeconomy and sustainable management of resources; and farm diversification and food chains) are valuable, as they are based on the input from science, society and policy communities that reflected on these topics from the rural point of view. They considered multiple facets related to changes in the production and diversification of the rural economy and identified opportunities, challenges, and recommendations in relation to this topic based on the context of their own rural areas. This is evident as the knowledge and insights (opportunities, challenges and recommendations) provided by the eight MAPs on these topics reflect the heterogeneity of the multitude of European rural areas. They are representative of the specific local context of the rural areas that the MAPs exemplify.

Nevertheless, when looking at the opportunities, challenges and recommendations developed by the various MAPs, several parallels can be identified. Opportunities provided by digitalisation and innovative technologies were highlighted in discussions of entrepreneurship, employment, and new business models, as well as smart rurality, smart communities and digitalisation, and bioeconomy and sustainable management of resources. Likewise, opportunities brought forward by attracting and retaining rural inhabitants as well as and education, training, and knowledge management arose in MAP discussions of farm diversification and food chains, bioeconomy and sustainable management of resources, and entrepreneurship, employment, and new business models.

The same thing can be seen when analysing challenges identified by the eight MAPs in relation to changes in production and the diversification of rural areas. Challenges related to socio-demographic factors (such as ageing rural population, depopulation) are mentioned under the topics farm diversification and food chains as well as entrepreneurship, employment, and new business models, while challenges related to unemployment and qualified workforce were mentioned under these two topics and smart rurality, smart communities, and digitalisation. Similarly, challenges related to rigid regulatory frameworks and regulatory barriers were identified under the topic of entrepreneurship, employment and new business models, bioeconomy and sustainable management of resources, and farm diversification and food chains.

When it comes to the recommendations developed by the MAPs, some recur in several topics discussions. Strengthening the provision and access of services, including broadband, is recommended for the improvement of entrepreneurship, employment, and new business models, as well as smart rurality, smart community and digitalisation; re-design of the governance of rural areas and the relevant regulatory framework (such as developing a common long-term strategy, designing a policy framework) are recommended for the improvement of entrepreneurship, employment, and new business models, bioeconomy and sustainable management of resources, and farm diversification and food chains. Lastly, support and training to inhabitants of rural areas (such as continuous education, developing appropriate skills, improving local knowledge) are recommended under all topics discussed.

This shows that even though the knowledge and insights provided by the MAPs in this exercise are diverse and reflect the uniqueness of the represented rural areas, there are opportunities, challenges, and recommendations when it comes to change in production and the diversification of rural areas that are shared among the represented rural areas. The knowledge and insights that are synthesised into this SHERPA Position Paper will inform future discussions on changes in production and diversification of the rural economy.

Annex. Supporting documents

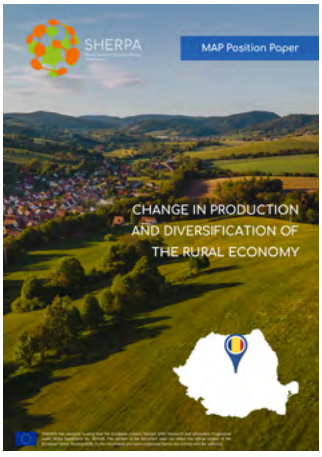
BULGARIA

DENMARK

FINLAND

LITHUANIA

ZIELONE SĄSIEDZTWO, POLAND



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