



ROMANIA

Romania Mountain Area Development Support (P176070)

Output 3 - Ex-ante report on the impact of proposed public policies/measures on mountain area development

November 2023



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Abbreviations and Acronyms

ATUs/LAUs	Administrative Territorial Units/Local Administrative Units
CAP	Common Agriculture Policy
EU	European Union
EUR	Euro
GDP	Gross Domestic Product
IPCC	Intergovernmental Panel on Climate Change
LRAs	Local and Regional Authorities
NACE	<i>Nomenclature statistique des Activités économiques dans la Communauté Européenne</i> Statistical Classification of Economic Activities in the European Community
OIR	Austrian Institute for Spatial Planning (ÖIR)
PPS	Purchasing Power Standard
RAS	Reimbursable Advisory Services
RON	Romanian leu
TIA	Territorial Impact Assessment

1 Introduction

This report represents “Output 3 - Ex-ante report on the impact of proposed public policies/measures on mountain area development” under the Reimbursable Advisory Services Agreement (RAS) Romania Mountain Area Development Support. The report covers:

- Review and refinement of the problem definition
- Review of the scenario building and planning
- Assessment of relevance, coherence, and efficiency of selected policy options under the with Strategy scenario
- Assessment of potential territorial impacts of proposed Policy Options: social, economic, environmental and governance at territorial level
- Guidance of a design of the M&E framework of the draft intended Strategy.
- Recommendations on how to enhance the draft outline integrated Strategy, including to the Implementation Plan

The preparation of the ex-ante has been carried out in parallel to the development of the Strategy, providing inputs to it during the process.

Furthermore, the report has been structured along the guidance provided for Ex-Ante Assessments of legal acts according to Gov. Decision no. 379 of March 23, 2022¹. It provides the needed assessments to support the subsequent stages of Strategy approval/adoption, complementing relevant information for these purposes, also provided directly in the Strategy document.

The report is linked to the application of the TIA Quick Check methodology and supporting tool developed for Romania as a key element of the socio-economic impact assessment. The methodology applied is well established and has been implemented for a range of policies at European and Member State level. It is furthermore recognized by the EU Better Regulation Guidelines as one of the two recommended Territorial Impact Assessment methodologies. The report consolidates the input received from the participating experts and provides conclusions and recommendations developed by the TIA experts delivering the RAS.

¹ [HOTARARE 443 30/03/2022 - Portal Legislativ \(just.ro\)](https://portal.just.ro/HOTARARE/44330/03/2022)

2 The need for a Mountain Integrated Strategy and problems addressed

2.1 Description of the current situation - problem definition

Methodological approach of the ex-ante assessment: The ex-ante assessment conducted an independent review of the relevant challenges, reflected this assessment with the identified challenge areas and problems, and on this basis provided a validation and recommendations for improvement. The main challenges for mountain regions in general and for Romania in particular were identified on the basis of desk research and diagnostic document review. The project team reviewed the documents developed in the diagnostic phase and critically reflected on them with external sources. The review therefore included:

- all diagnostic studies and results of stakeholder consultation carried out during the diagnostic phase of the project. These sources provided valuable insights into the challenges and concerns expressed by different stakeholders, ensuring that their perspectives were taken into account.
- In addition to the diagnostic studies and stakeholder analyses, the project team screened for national and international strategies as well as a broader literature review of challenges faced by mountain regions in general, to ensure a comprehensive understanding of these issues.

The triangulation of sources provided a comprehensive independent review of the problem definition from an external perspective. The challenges identified in the review were mapped against the key problem areas identified in the strategy development. In addition, an assessment of the coherence of the key issues, causes and consequences, as well as the outline of the issues was carried out, and recommendations for improving coherence were made.

In addition to desk review two workshops were done one in person with relevant stakeholders from central, regional and local public and private on September 21-22 (Transfagarasan Mountains, Sibiu County) and online technical discussions regarding possible funding options on November 6 with relevant central, regional and local EU financing stakeholders.

Uptake of the recommendation: The review and triangulation showed that the challenges identified are consistent with the independent review and are being addressed, so no general change to the challenge areas was recommended. Concrete suggestions were made for reformulating and improving the coherence of the problem definition and the key issues outlined made. The ex-ante recommendations were generally taken into account in the process and the resulting problem definition is consistent with the external review.

2.1.1 Process developing the problem definition

The problem definition was developed in a comprehensive process involving a range of independent studies investigating historical development and current status on a broad range of aspects. The process involved extensive desk research, interviews as well as stakeholder consultation activities, in order to ensure a comprehensive and complete picture relevant to mountain regions. This allowed the strategy development to deduce objectives and measures targeted at fostering the strengths and mitigating the weaknesses of the Mountain Area.

Extensive data collection and assessment activities including a broad range of indicators (e.g. economic, environmental and social indicators) set a solid baseline for the further activities. In total, 14 background studies and analyses were conducted in this framework:

- Prospective Document Romania Mountain Area: Then and Now.
- Romania Mountain Area Development Support - Romanian Mountain Area Diagnostic Report: Synopsis
- Romania Mountain Area Development Support - Romanian Mountain Area Diagnostic Report (Full report)
- Romania Mountain Area Development Support - Mountain Tourism: Deep Dive
- Romania Mountain Area Development Support - Approaches to Support Downstream Value Chain Integration
- Romania Mountain Area Development Support - Draft Guidance Note with good practice approaches to stakeholder consultations
- Romania Mountain Area Development Support - Review of Mountain Product Quality Scheme in Romania
- Romania Mountain Area Development Support - Romania's Mountain Natural Resources: Technical Assessment Report
- Romania Mountain Area Development Support - Romanian Mountain Area Agri-food sector: A deep dive
- Romania Mountain Area Development Support - Unleashing opportunities for the bioeconomy in the mountain regions of Romania
- Romania Mountain Area Development Support - Water Nitrate Pollution in Romanian Mountain Area
- Massif Group Factsheets (socioeconomic and environmental data)
- Socioeconomic Indicators Metadata for the Mountain Area
- Environmental indicators Metadata for the Mountain Area

In addition related to the topic of tourism, three case studies on “Via transilvanica”, “Gastronomy local point: Gastrolocal Vama Buzaului” and “Tara dornelor ecotourism destination” were conducted.

Complementing the data driven approach applied in drafting the above reports and assessments, stakeholder engagement was emphasized strongly in the problem definition. Stakeholders from sectoral backgrounds (e.g. Tourism), administrative backgrounds (e.g. National Mountain Agency) or local/regional backgrounds were involved in a series of workshops, amongst which the Territorial Impact Assessment workshops of key relevance for the development of the ex-ante assessment. These meetings were designed to capture the perspectives of community members, industry stakeholders, and government representatives. The strategy development team was involved in the facilitation of the strategy, ensuring a comprehensive understanding of the on-the-ground realities and assimilating this feedback into the analyses. Of note, not all meetings focused exclusively on the problem definition but also provided feedback and gathered input on other aspects such as measures and actions as well as indicator development. The following stakeholder meetings in Bucharest and selected locations in the Mountain Area (as well as online) were held from Oct. 6th, 2022 until November 7th, 2023:

- Meeting stakeholders Tourism - MARD, Bucharest
- Meeting with Mountain Area relevant stakeholders - Nicolesti - Harghita County
- Meeting with Mountain Area relevant stakeholders - Lunca Ilvei - Bistrita County
- Meeting DAJs - Online
- Meeting Mountain farmers - Online

- Workshop with the staff of the National Mountain Area Agency - Vatra Dornei, Suceava County
- Workshop Mountain Area relevant stakeholders - Baile Herculane, Caras Severin County
- Workshop Mountain Area relevant stakeholders - Deva, Hunedoara, County
- Workshop Research/academic institutions - Cristian Mountains Research Institute Sibiu, County
- Workshop to co-create the vision and roadmap for the Strategy for the Integrated Development of Mountain Areas in Romania - Bucharest World Bank, office
- Workshop to co-create the vision and roadmap for the Strategy for the Integrated Development of Mountain Areas in Romania - Apuseni Mountains, Zlatna, Alba County
- Workshop- Ex-ante evaluation Strategy for the integrated development of mountain areas in Romania - Cartisoara, Sibiu County
- Technical discussions on financing options for the Strategy for the integrated development of the mountain area in Romania (Ex ante evaluation) - Online
- Workshop - presentation of pillars and objectives of the Strategy for integrated development of the Mountain Area in Romania - Obarsia Lotrului, Valcea County

Further complementing the stakeholder meetings conducted, a range of thematic online workshops (online) was implemented focusing on agricultural aspects involving mountain area farmers and the Agricultural Directorates of the counties. These workshops investigated particular aspects of farming such as pig farming, beekeeping or organic farming of relevance. The following workshops were conducted between January and February 2023:

- January 26th, 2023, on the topic of meat production, with farmers, producers and other relevant stakeholders from the mountain area of Braşov and Prahova counties;
- January 26th, 2023, on the topic of sheep farming, with farmers and other relevant stakeholders from the mountain area of Alba, Sibiu and Hunedoara counties;
- February 1st, 2023, on the topic of beekeeping; with beekeepers and other relevant stakeholders from the mountain area of Vâlcea county;
- February 1st, 2023 on the topic of cattle farming; with farmers and other relevant stakeholders from the mountain area of Harghita and Suceava counties;
- February 2nd, 2023 on the topic of pig farming, with farmers and other relevant stakeholders from the mountain area of Arad, Hunedoara and Gorj counties;
- February 2nd, 2023 on the topic of potato production, with farmers and other relevant stakeholders from the mountain area of Covasna county;
- February 3rd, 2023 on the topic of fruit orchards, with farmers and other relevant stakeholders from the mountain area of Caraş-Severin and Mehedinţi counties;
- February 6th, 2023 on the topic of berry production, with farmers and other relevant stakeholders from the mountain area of Maramureş county; and
- February 7th, 2023 on the topic of organic farming, with farmers and other relevant stakeholders for this topic from Cluj county.

Finally, three surveys on the general topic of “perceptions of Mountain Area development”, the Mountain Product Labeling Scheme as well as a survey of Tourism Stakeholders were conducted. Overall, these surveys created a significant output of over 1,500 respondents. This allowed to further contextualise the answers received from stakeholder involvement and ultimately better reflect the challenges identified.

The resulting output of these extensive activities is the presented comprehensive problem definition. It can be considered a solid background for the ensuing strategy developments and ensures the strategy to be anchored in a sound assessment of the situation on the ground, the most relevant challenges as well as strengths. The extensive data-backing of the research as well as the community involvement are particularly positive, as these safeguard the applicability of the strategy in the respective regions. The review can underline the sound design of the process in developing the problem definition, tapping on a broad array of sources and including extensive research.

2.1.2 *Review of challenges for mountain areas in Europe in general and Romania specifically*

In order to reflect on the problem definition provided and the scenario developed, the ex-ante assessment has reviewed challenges relevant for mountain regions in general and Romania in particular. Based on this review, the completeness of the problem definition has been verified and the prioritization of challenges could be reflected. The purpose of this task did not include a comprehensive reproduction of the diagnostic phase of the project, but rather provide external validation to the task undertaken. Therefore, a brief overview of the respective challenges and their relevance is presented below.

For the purpose of validation through the ex-ante assessment, the main challenges for mountain regions in general and for Romania in particular were identified on the basis of desk research and document review. The project team reviewed the documents developed in the diagnostic phase and critically reflected on them with external sources. The review therefore included:

- all **diagnostic studies and results of stakeholder consultation** carried out during the diagnostic phase of the project. These sources provided valuable insights into the challenges and concerns expressed by different stakeholders, ensuring that their perspectives were taken into account.
- In addition to the diagnostic studies and stakeholder analyses, the project team screened for **national and international strategies** (going beyond mountain development) which are of relevance for the mountain regions.
- Finally, the project team conducted a **broader literature review** of challenges faced by mountain regions in general, to ensure a comprehensive understanding of these issues. This broader perspective allows us to reflect on main challenges beyond the Romanian perspective.

The triangulation revealed that most of the challenges identified at the international level are also relevant for Romania. Indeed, some challenges seem to be more pronounced due to the different socio-economic structure of some regions. However, some challenges that are common to mountain regions, e.g. in the Alps, are less pronounced or relevant to only a few regions in the Romanian context.

2.1.2.1 *Climate change*

European mountain areas are often disproportionately affected by climate change. This is both evident for mountainous ecosystems as well as existing economic structures. Because of the challenging terrain, both wildlife and humans needed to adapt to those conditions, leading to specialized environments (e.g., strong focus on one economic sector) that are highly vulnerable to external changes (Terzi *et al.*, 2019, p. 759). Disruptions to these unique ecosystems can also have severe consequences for surrounding areas. Increased natural disasters, droughts and shorter snow seasons present a threat to destabilize the current water flow, effecting agriculture and the usage of hydropower (Climate ADAPT, 2022).

Situation in Romania

Romania's Carpathian Mountains, like many European mountain areas, are increasingly vulnerable to the impacts of climate change, including increased landslides, extreme weather events, and significant temperature shifts. These changes pose serious threats to agriculture, forests, water resources and local livelihoods. While the National Strategy for Climate Adaptation is under public debate in Romania, local mobilization for climate change adaptation planning is still insufficient, and specific plans for disaster risk reduction by local authorities are lacking. However, there are opportunities for mitigation and increased resilience, such as forest conservation, climate-smart agriculture, stronger institutional frameworks and adaptation planning, etc. Despite the daunting challenges, proactive measures and adaptation strategies are critical for the mountain region to effectively respond to and combat the impacts of climate change. This response is particularly urgent given the unique vulnerabilities of the Carpathian ecosystems and economic structures, which, if disrupted, could have far-reaching consequences.

- A study spanning from 1987 to 2018 has unveiled significant climate trends, notably showcasing a pronounced warming pattern in the southern Carpathian Mountains. While these mountainous regions are not the most severely affected areas in the country, Romania is susceptible to heat-waves and droughts, and climate change is intensifying their frequency. These changes are expected to have repercussions on various aspects, including the survival of specific tree species, the productivity and stability of grasslands and the biodiversity they support, the availability of freshwater for households, livestock, plants. Lastly also the structural integrity of human constructions including energy generation and recreational activities occurring in the tourism industry. (Nagavciuc et al., 2022, p. 14)
- Alterations in climate conditions, which involve reduced precipitation, diminish the suitability and yield of crops specific to mountainous regions, such as potatoes and fruit trees. This mandates the introduction of irrigation systems to mitigate droughts, leading to an increased frequency of natural disasters (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, p. 123)
- Romania stands as one of the European nations grappling with a significant incidence of landslides. Approximately 42% of Romania's landmass is exposed to conditions conducive to landslide occurrence. Instances of collapses and rockfalls are particularly prevalent in the Carpathian Mountains and sub-Carpathian regions, characterized by slopes comprising sturdy rocks riddled with numerous cracks and fissures. (Grozavu & Patriche, 2021, p. 1129)
- The Carpathian countries have limited capacity to take measures to help forests and forestry adapt to climate change. None of them has yet directly addressed climate change in its forestry legislation (although the issue is usually included in national strategies). Adaptive capacity is substantially lower in the Romanian and Serbian part of the Carpathian region compared to the Western Carpathians. (Climate ADAPT, 2023)

2.1.2.2 Loss of biodiversity

Due to their remoteness, mountainous areas act as a refuge for global plant and animal population. Mountains harbor around 50% of the most biodiverse regions of the world and play a key role in the maintenance of the global biodiversity (Payne et al., 2020, p. 530). Not all species are expected to be affected in the same way by changing climate conditions. Populations that are restricted to high-altitude peaks and plateaus must deal with a growing number of mid-slope species invading their territories. It is forecasted that already widespread species are going to further increase in number and inhabit even larger areas while smaller populations are more likely to go extinct (Wu-Bing, 2023).

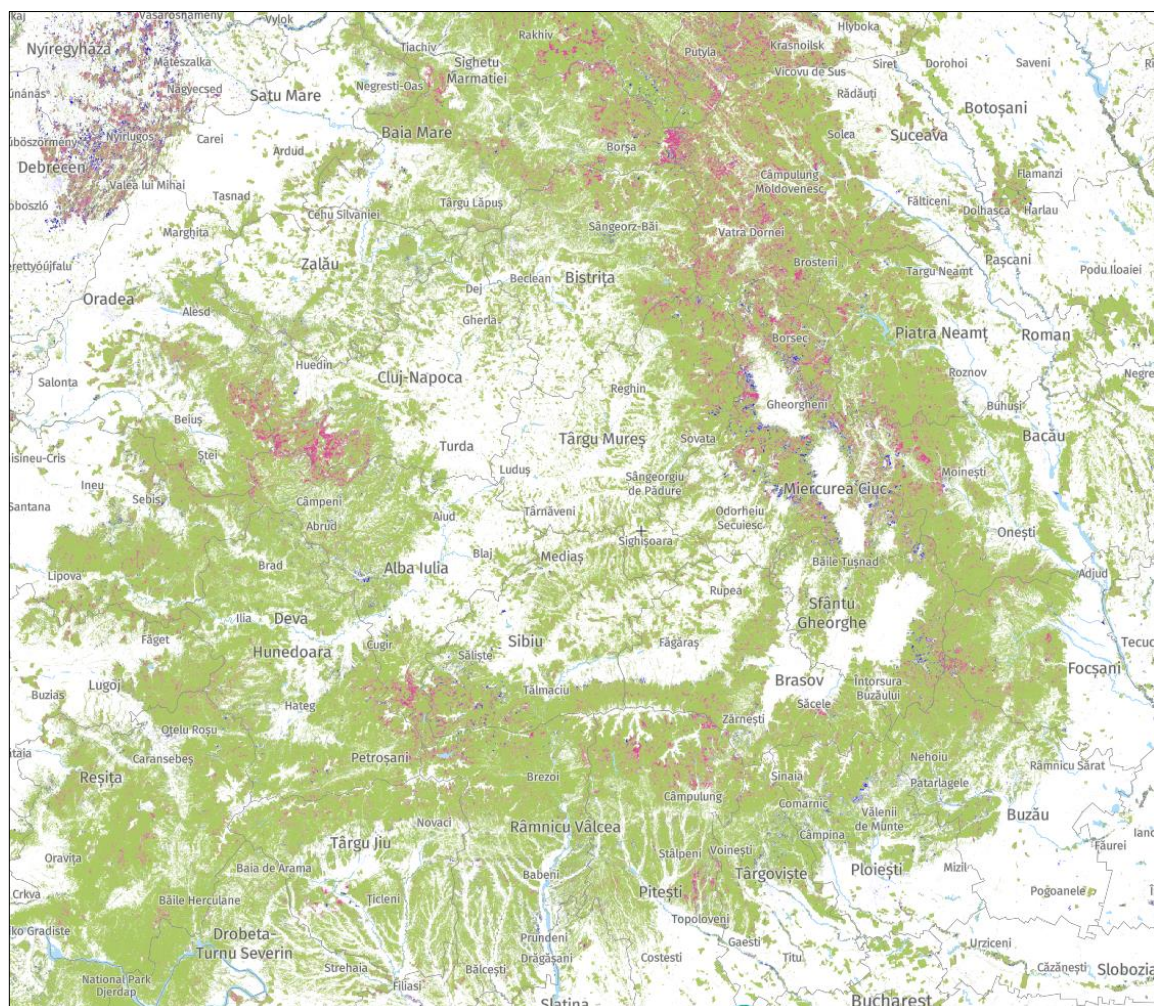
Situation in Romania

In Romania's Mountain Area, the balance between biodiversity conservation and resource use is being challenged by illegal logging, neglected pastures and increasing tourism, as well as by ambitious national

and EU environmental targets. Efforts to curb illegal logging and forest degradation have improved with initiatives such as the Timber Traceability System (SUMAL), but the phenomenon persists, while some agricultural practices and changes in livestock numbers pose a threat to the region's rich biodiversity if appropriate measures are not implemented. Addressing these issues will require increased conservation efforts, more balanced resource management, and greater stakeholder engagement to protect these vital ecosystems.

- Climate change poses significant threats to Romanian biodiversity. These threats include alterations in species behavior due to increased stress, changes in habitat distribution and composition, the rise of invasive exotic species, potential extinction of ecosystems associated with wet areas, modifications in freshwater and marine aquatic ecosystems, and the risk of extinction for certain flora and fauna species (Albertson et al., 2017, p. 26)

Figure 1. Tree cover development - stock, loss between 2000-2022 and gains between 2000-2020²



green: stock | pink: loss between 2000-2022 | purple: gains between 2000-2020

Source: (Global Forest Watch, 2023)

- Half of the Carpathian forests is in Romania. The region provides an important refuge and corridor for the migration of diverse species and hosts exceptional biodiversity. (Albertson, Andresen and Cittadino, 2017, p. 24-25) However, there is an increasing risk of wildfires. As global temperatures rise, Romania's climate is transitioning towards a more southern European pattern. Rising temperatures lead to evaporation and vegetation drying out, creating conditions for heatwaves and

² Tree cover loss is not always deforestation. It includes human-caused and natural loss as well as of temporary and permanent endurance.

wildfires. Changes in the water cycle, including droughts, exacerbate this risk. Experts note that heatwaves, a major factor in wildfires, will become more intense and frequent due to climate change, amplifying the wildfire threat, also for Romanian biodiversity. (Popa, 2023)

- Deforestation is a phenomenon that occurs intensively in Romania due to the important timber industry. With the aid of satellite images, it has been calculated that 317,000 hectares of Romanian forest were lost to logging between 2001 and 2017. Half of these trees were in national parks or conservation areas and were hundreds of years old. (See Figure 1; Global Forest Watch, 2023) The mountainous regions/massifs are particularly affected and, in case of further progress, consequences in the field of biodiversity loss, climate change or natural disasters are to be expected. (Kucsicsa & Dumitrică, 2019)
- Climate change is likely to result in an upward shift of the tree line, impacting the species composition within grassland ecosystems. Given that grasslands often support more vulnerable and less common species compared to shrubs and forests, this shift could result in a reduction in biodiversity (Albertson et al., 2017, p. 26)
- The pollution of mountainous regions with excess nutrients has played a role in promoting eutrophication, extending its effects downstream to the Black Sea. This extensive eutrophication is now negatively affecting biodiversity, marine ecosystems, and the recreational and economic worth of marine resources. (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, p. 98)

2.1.2.3 Accessibility (road/rail/digital/electricity network)

Mountainous regions are in most cases more sparsely populated than the national average, which makes the provision of modern infrastructure challenging and expensive. The challenges of good accessibility through public transport are especially prevalent under the aspects of an aging population that is often dependent on bus or rail connections and the fact that many of those connections present an economic loss for the provider. Areas with a strong tourism sector also have to deal with the challenge of a strongly varying demand for transport needs, depending on the season (Camarero and Oliva, 2019, p. 100). In those cases, the transport infrastructure is often more tailored to the needs of tourists than to local population (Euromontana, 2021a). Similar challenges occur with regards to the provision of electricity grids in mountainous areas. The low density and the seasonal fluctuation of electricity consumption prevents a cost-effective connection of all households (Forget & Ayroles, 2021).

Remoteness, lack of certain services or market failures could be mitigated to an extent by expansion of modern digital infrastructure. However, currently 25% of rural EU-areas do not have broadband internet access (Euromontana, 2020, p. 4-5).

Situation in Romania

- In Romania, the Mountain Area's challenges are less about road quality and more about limited public transport and rail access, which particularly affects the rural poor. Despite a well-developed digital infrastructure, Internet access is hampered by quality, affordability and low digital literacy among the population. The sparsity of the population makes it difficult to provide modern infrastructure and public transport, and almost half of the mountainous regions are not connected to national roads. This isolation, combined with limited access to utilities and the risk of being overlooked for infrastructure improvements in favor of urban growth areas, severely impacts the socio-economic development and quality of life in these remote regions. In addition, the country's struggle with participation in lifelong learning and retention of ICT talent reflects broader education and workforce challenges. The only nationwide public eGovernment service is related to online tax payments. Digitization could provide benefits especially to citizens in mountainous, deltaic and rural areas, as well as generally lead to simplified administrative procedures, reduced bureaucracy and improved citizen-administration interactions. (ESPON, 2020, p. 29)

- In Romania, the mountainous areas and Danube Delta are identified as inner peripheries according to access to services of general interest. Access to utilities is difficult for inhabitants of these areas. For example, in Alba County there are still 495 households without electricity located in 28 settlements, some of them sparsely populated. (ESPON, 2020, p. 12) The socio-economic problems of the Apuseni Mountains area are related to the high degree of dispersal in the territory of human settlements, which determines major deficiencies in the provision of technical and public infrastructure. (Ciolac *et al.*, 2019, p. 10)
- Despite ongoing efforts to bridge the rural infrastructure gap, many remote mountain regions still face accessibility issues, with nearly half of mountain Administrative Territorial Units (ATUs) lacking connections to national roads. The Southern and Nordic Groups of mountain regions are particularly affected, with the highest concentration of ATUs lacking national road access. This hampers the quality of life and attractiveness of these areas, leading to lower population densities in remote mountain regions. (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, p. 42)
- As most of the mountain region in Romania is in distance to the growth poles such as Bucharest and other major cities, there is a risk that the improvement of connectivity will be pushed back concerning the prioritization of projects. (OECD, 2020, p. 20)

2.1.2.4 *Reduced access to basic services*

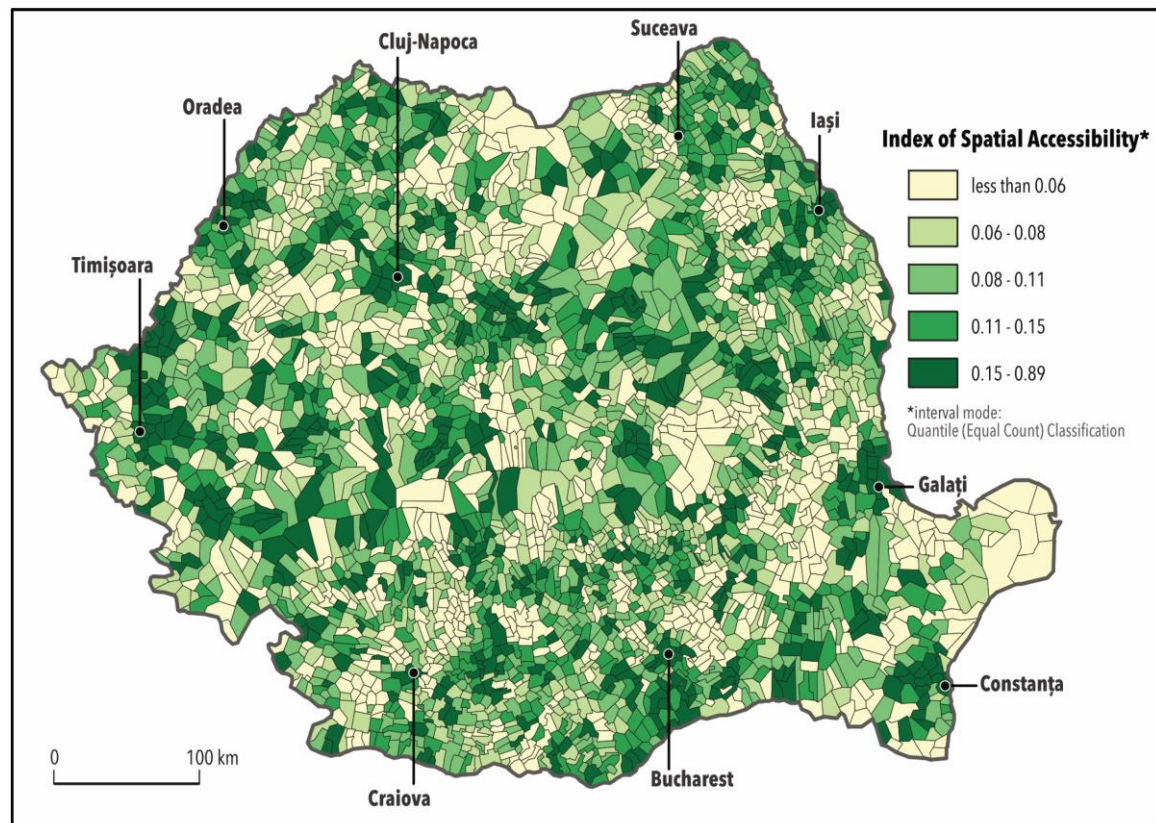
Mountain areas often grapple with limited access to basic services due to a combination of geographical remoteness, challenging terrain, low population density, extreme weather conditions, economic constraints, resource scarcity, environmental conservation efforts, seasonal tourism fluctuations, sparse healthcare facilities, and cultural isolation. These factors collectively contribute to the difficulties faced by mountain communities in maintaining and providing essential services. In some EU member states, more than half of the inhabitants of mountainous regions need to travel over an hour to the nearest hospital (European Parliament. Directorate General for Parliamentary Research Services., 2020, p. 6). There is also a lack of general practitioners to provide basic medical services to the local population. Mountain territory interest groups criticize the lack of governmental programs/incentives to attract general practitioners to Mountain Areas (Euromontana, 2020a, p. 4).

Situation in Romania

In Romania's rural Mountain Area, residents face challenges in accessing basic social services like healthcare and education, alongside issues with utility connectivity and high energy costs. Despite a relatively higher number of schools, accessing education is difficult, and there is a notable struggle in attracting and retaining qualified staff in educational and healthcare sectors. This often necessitates travel to urban areas for essential services. While housing and utility access are on par with national trends, disparities between urban and rural areas are significant, and energy costs are exacerbated by colder climates and limited heating options. The region's geographical remoteness, challenging terrain, and economic constraints add to these difficulties, highlighting the need for infrastructure improvements and targeted solutions to address these unique challenges.

- The primary reasons these areas are categorized as inner peripheries are rooted in their distinctive mountainous terrain. In the case of the Carpathians, the challenge lies in the lack of access to regional centers and essential services, while the Apuseni Mountains face inner periphery classification due to their economic limitations and high levels of poverty. (ESPON, 2020, p. 17)

Figure 2. Index of Spatial Accessibility concerning hospitals



Source: (Dumitrache et al., 2020)

- Local mountain stakeholders also expressed concerns about the inadequate infrastructure in mountain regions. These areas suffer from a lack of investment in essential utility connections, insufficient waste disposal services, pollution originating from neighboring regions that detrimentally affect the environment and local livelihoods, and a scarcity of communication technology and equipment for local law enforcement and emergency services. (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, p. 17)
- In the Apuseni Mountains, Romania, the population has easier access to hospital services (see Figure 2). However, there is an important lack of pharmacies in the region. In most of the area, there is only 1 pharmacy for more than 5,000 people, this is four times less pharmacies than in the rest of the country. (Euromontana, 2020a, p. 3)
- Although the geographical distribution of education institutions in mountainous regions is acceptable, a considerable proportion of compulsory schoolchildren drop out earlier. Thus, 25.4% of pupils from rural regions in Romania drop out of their compulsory schooling earlier (compared to 11% on average in the EU). (OECD 2020, p. 20)

2.1.2.5 Depopulation and aging population

Mountain Areas do have on average a higher percentage of senior citizens living in them than non-mountainous regions. The percentage of people over 65 years of age in mountain areas is expected to increase from 21% in 2011 to around 30% in 2050 (European Commission. Joint Research Centre., 2021, p. 28). Even though the percentage of senior citizens is increasing, the overall population as well as the population of senior citizens in mountain areas is declining in most EU Member States (European Commission. Joint Research Centre., 2021, p. 29). The trend of over-ageing is fueled by the outwards migration of youths and especially women, which is even visible in areas with an overall

net-positive migration-balance (Euromontana, 2014, p. 9). The lack of young people affects the resources necessary for elderly care which in return could lead to forced migration of senior citizens to urban areas in order to receive proper care (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, p. 11).

Situation in Romania

In Romania's Mountain Area, demographic decline is largely driven by the outmigration of younger individuals seeking better economic prospects, leading to an increasingly aged population. The percentage of seniors is projected to rise significantly by 2050, exacerbating the challenges in elderly care and potentially forcing seniors to relocate to urban areas for necessary services. This depopulation trend, particularly in labor-intensive sectors like agriculture, is leading to the abandonment of traditional activities. Forecasts suggest a significant reduction in both the young and working-age populations, while the elderly population shows varied trends across different regions. This ongoing demographic shift poses serious challenges to maintaining economic vitality, service provision, and sustainable development in the area.

- One of the primary concerns among mountain communities is the depopulation of these areas, which is often viewed as an unavoidable trend. The aging population is partly attributed to youth migration out of mountain regions, where traditional activities like agriculture are seen as physically demanding with low returns. This has led to the abandonment of agriculture and pastures, contributing to depopulation. (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, pp. 120-121)
- As already mentioned, the mountain regions in Romania are suffering not only from a decline in population but also from a thinning out of younger people. For the period between 2015 and 2050, a decline of at least 10% is predicted for the < 15s and the 15-65s. For the > 65s in the predominant area of the Romanian Carpathians, a stable development rate of between -10% and 10% is predicted for the same period. In some regions, especially in the western part of the mountainous area, there is also a shrinkage rate of more than 10% among the elderly. (European Commission. Joint Research Centre., 2021, p. 28)
- Areas at risk of becoming sparsely populated areas are localized in central Dobrogea, large Eastern and Western Carpathian areas and disparately in Brăila County and at the southern border areas. These areas are often affected by poor accessibility and aging. Areas with low but stable population potential are found in the north-east counties and in the central Transylvania, particularly in the mountainous areas. If demographic decline continues in these areas, they will rapidly reach thresholds below which service provision and economically and socially sustainable development become challenging. (ESPON, 2020, p. 15)

2.1.2.6 Decreasing role of agriculture

Agriculture in mountainous areas, in Europe and globally, is declining due to several key factors. The rugged terrain limits available arable land and makes farming more challenging and costly. Economic viability is compromised as production costs rise and transportation becomes expensive. Climate change brings unpredictable weather and pests, posing further threats. Furthermore, Rural-to-urban migration reduces the agricultural workforce and vital knowledge. Additionally, government policies may favor lowland agriculture over mountain farming, exacerbating the decline. Due to the challenging terrain in mountain areas the agricultural productivity is noticeable reduced, leading to many cases of land abandonment (European Commission. Joint Research Centre., 2021, p. 27). Another approach to offsetting a declining population involves shifting labor away from agriculture towards other sectors.

Situation in Romania

In Romania's Mountain Area, agriculture, forestry, and tourism are crucial for rural livelihoods, yet they face significant challenges due to a combination of structural problems and ineffective government policies. In agriculture, many small-scale farms remain inefficient due to limited land and labor productivity, exacerbated by challenging terrain and climate change effects. Additionally, government policies often overlook the specific needs of mountain farming, leading to land abandonment and a shift in labor towards other sectors. In forestry, inefficiencies in the regulatory framework hinder investment, while tourism development is hampered by the lack of effective public-private partnerships and inadequate support for stakeholders. The lack of economic diversification, a legacy of the planned economy, further renders these communities vulnerable to market fluctuations. These issues collectively contribute to the under-performance of these key sectors and underline the need for improved policy interventions and support mechanisms. Addressing these sector-specific challenges is crucial for sustainable economic development and exploiting the full potential of agriculture, forestry, and tourism in the Mountain Area.

- The factors contributing to employment reduction in agriculture are evident. During the period between 2017 and 2021, agricultural wages typically ranked 18th out of 21 sectors. Additionally, roughly 28 percent of the poorest 40 percent of income earners in the Romanian economy were involved in subsistence agriculture (World Bank, 2018).
- Romanian inner peripheries are generally located in rural territories characterized by unsuitable terrain for agriculture, particularly in the mountains. (ESPON, 2020, p. 17)
- According to a case study in the Apuseni Mountains, Romania, it showed that the tourist potential is not yet fully capitalized. This is evident in the form of lack of local brands, tourist products, specialized training and of guidance to tourist areas. Lastly the potential is impaired because of a poor cooperation at local level (Ciolac, R. et al. 2019).
- In summary, the mountainous agriculture of Romania faces a decline due to a combination of factors. These include lower economic returns compared to sectors like tourism and services, limited access to markets, and inadequate infrastructure and support services. These challenges collectively discourage investment in agriculture and contribute to its diminishing role in these areas.

2.1.2.7 Lack of employment opportunities

The previously mentioned outwards migration of youth is strongly connected to lack of employment opportunities. Especially young adults with academic degrees are unable to find adequate employment if they return to their hometowns. Mountain areas often struggle to offer their well-educated youth fitting jobs, due to the lack of local economic diversification (Euromontana, 2022). A possible emancipation from agricultural work is tourism. However, even though tourism is linked to great economic potential it is insufficient to provide enough economic diversification and is often limited to a certain time of the year. Therefore, many jobs linked to tourism are seasonal and not suitable for a year-round stable income. Certain tourism practices also raise environmental concerns, and it is questionable if practices can be maintained over a longer period (Carbone, 2018, pp. 21-22). The described struggles of mountain areas lead to a significantly lower PPS (purchasing power standard) than their non-mountainous counterparts (Eurostat, 2021).

Situation in Romania

- The dwindling population and the outmigration of the young and educated segments of society exert a notable influence on the mountainous economy, particularly affecting the available labor force. In Romanian mountain counties, employment has experienced a steady decline, with an annual rate of approximately 1.6 percent since 2012. This decline comes at a time when the economy of mountain counties has been expanding at an annual rate of 2.8 percent over the period from 2012 to 2020. As a result, the decreasing employment, especially among the younger

and educated workforce, poses a significant obstacle to economic growth in these regions (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, p. 28)

- From 2008 to 2020, Romania experienced a decline of 700,000 agricultural workers. Some of them left the labor force, while others found employment in manufacturing, construction, and services, where job losses were less pronounced. This trend was observed in both mountainous and lowland regions (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, p. 64)
- The Apuseni Mountains include six counties and three development regions, the solution of the various problems regarding the development of the area embraces a large number of institutions, or the correlation of measures and actions that will be undertaken in each region will have to extend beyond the administrative boundaries of the regions. (Ciolac *et al.*, 2019, p. 10)
- Romania ranked in the top three productive countries within the context of mountain tourism. Although it has not had much impact on international tourism, this may be changing, as Romania has recently become a favored destination for more tourists due to its natural appeal. (Zeng *et al.*, 2022, p. 19) There is an annual increase in the number of resorts and winter destinations, and with this increase, there comes a need for increasing the supply and quality of tourism in mountain areas for winter sports. (Bacoș and Gabor, 2021, p. 157)
- The PPS per inhabitant in mountain regions in 2021 ranged from EUR 15,000 to EUR 24,300 in the mountainous regions whilst it has been 53,900 in the Bukarest region (Eurostat, 2021).

2.1.2.8 Social inclusion

Women are an essential part to maintain daily life in mountain areas by strongly contributing to economic, ecological and social development. However, in governmental masterplans for mountain areas women's issues are almost never specifically addressed, even though they are vital for rural life and belong to the groups with the highest tendencies to leave mountainous areas. Women face discrimination, own less (valuable) land on average and often do not possess the necessary means to react to emerging challenges. (FAO, 2018)

Migrants moving into mountain regions can be categorized into three groups: all of them with their own needs, potentials and possible areas of conflict.

- (1) Migrants by choice are affluent people, often from an urban background. Their migration to mountain areas is often seasonal and for lifestyle-reasons.
- (2) Migrants by necessity move there for seasonal work (mostly linked with the tourism sector) or move to rural areas due to high rents in urban areas.
- (3) Migrants by force are refugees that flee from conflict (Perlik and Membretti, 2018, p. 251).

Situation in Romania

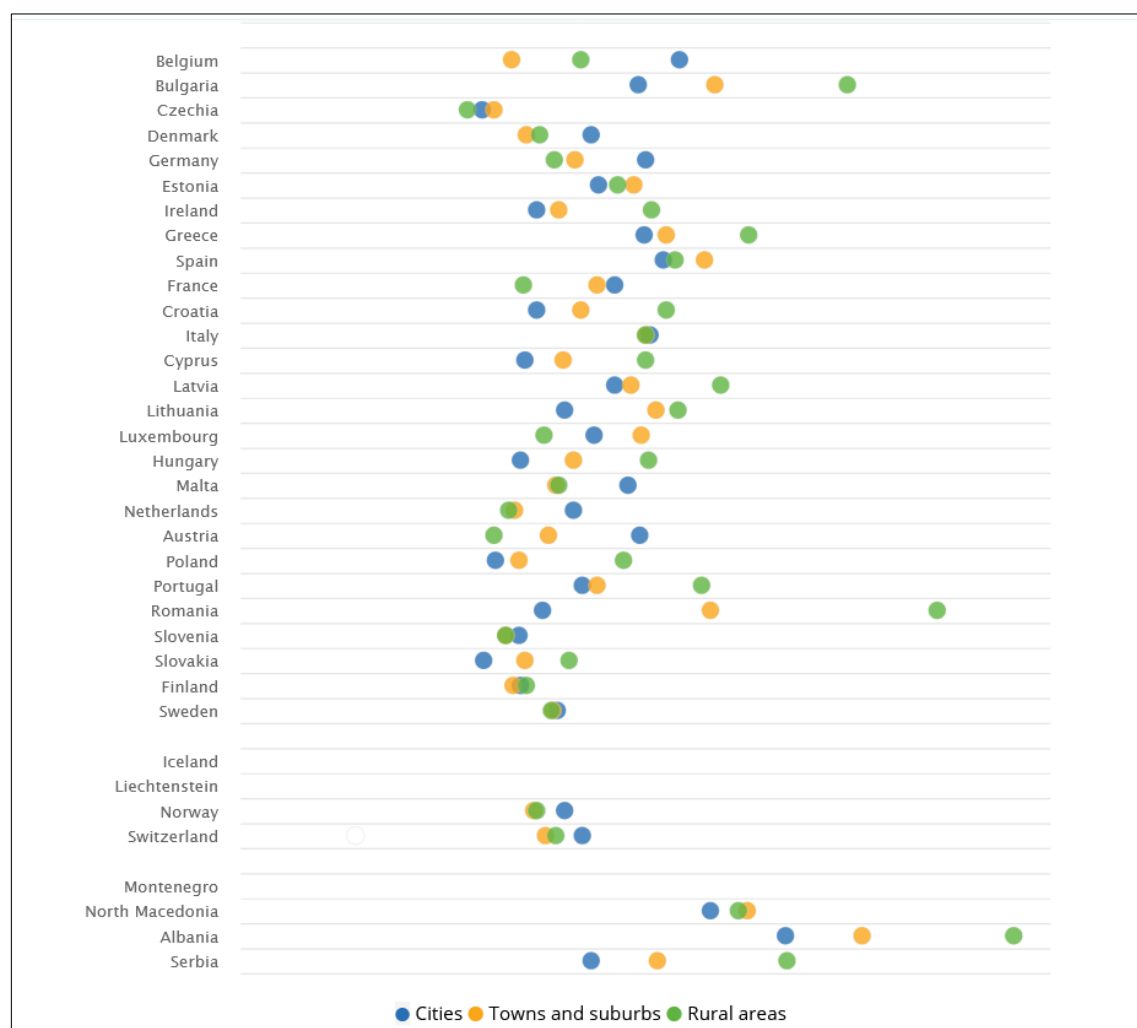
In Romania's Mountain Area, living standards lag behind the rest of the country, with rural incomes nearly 3.5 times lower than urban ones, albeit the rural-urban disparity is slightly less pronounced here than in other regions. Poverty rates are lower and employment rates higher in these mountains compared to the lowlands, yet understanding these trends requires examining factors like migration and social exclusion. The rise of rural tourism offers economic opportunities but also risks cultural erosion and socioeconomic disparities. Addressing these interconnected issues is vital for enhancing living standards and sustainable development in the Mountain Area.

- Under current conditions, rural tourism appears to be the main vector of change. This phenomenon emerged in the late 1990s, when some Bucharest-based tourists, who visited villages during the socialist era, decided to build their holiday homes there, benefiting from privatization and the deflation of land values. [...] The penetration of urban lifestyles and tourism-related commodification risks the annihilation of local traditions and cultures, together with the possibility

of land grabbing and increasing socioeconomic disparity. However, in a context lacking in endogenous entrepreneurship, amenity migration and tourism may be able to ease the economic transition from subsistence farming to multifunctional agriculture. (Gretter *et al.*, 2017, p. 101)

- Additionally, Romania stands out with the largest poverty disparities between its rural and urban areas among EU member states. To provide some perspective, in 2021, the at-risk-of-poverty or social exclusion rate was 12.2 percent in urban zones and considerably higher at 32.8 percent in rural areas within Romania. (See Figure 2; Eurostat Explained, 2022)
- From a brief analysis of women’s participation in informal employment in the prevailing rural sector, agriculture (Figure 3), higher participation can be observed in several Member States (Romania by far the highest with 77.0%). (Kovačiček, 2019, p. 23-24)

Figure 3. People at risk of poverty or social exclusion, in percentage (grouped in cities, towns plus suburbs and rural areas) in 2021



Source: (Eurostat Explained, 2022)

2.1.2.9 Imprecise governance and mismatch of policies

Mountainous areas often require specific governance due to their challenging geography, ecological sensitivity, water resource significance, disaster vulnerability, unique agricultural practices, tourism dependence, transportation limitations, and cross-border considerations. Tailored governance approaches are essential to address these distinctive characteristics and ensure sustainable development while preserving the environment and supporting mountain communities. Measures are often

taken, for example, to protect biodiversity and prevent disasters, but also to enable local people to live and work. In addition to private individuals, agricultural or other enterprises, public institutions or companies also depend to a large extent on legal certainty and the quality of governance. (Sala, 2021)

Situation in Romania

Romania's Mountain Area faces governance challenges due to an outdated system that lacks a robust, multi-sectoral approach and sufficient stakeholder representation. The current focus on agriculture fails to meet the region's diverse needs, with policies often shaped by central government mandates rather than local input, leading to resistance and non-compliance. The unique characteristics of mountainous areas, including ecological sensitivity and disaster vulnerability, require tailored governance. Issues in forest sector management and land registration reforms highlight the need for more inclusive and adaptive governance. A shift towards a bottom-up, participatory approach is essential to address these challenges, ensuring sustainable development and effective support for mountain communities in Romania.

- The tensions and gaps in mountain resource governance in Romania stem from an outdated governance system that has not adapted to the significant changes over the past 30 years. This includes the shift to a market economy, which privatized forests and concessions in mountain areas. The governance model relies on rigid laws and regulations, often lacking input from local stakeholders, leading to misunderstandings and mistrust between regulators and the regulated. These issues have been evident in forest sector consultations and the designation of protected areas, highlighting the need for more inclusive and adaptive governance approaches. (World Bank & Ministerul Agriculturii și Dezvoltării Rurale, 2023, p. 105)
- Although there is consensus on the need to adjust the way land registration and cadaster are reformed, the initiated reform is met with criticism due to its rigidity. Furthermore, the present delays are attributed to legislative issues, technical land surveying, and procedural problems (Păunescu et al., 2022, p. 2)
- Prevailing funding programs are in accordance with national and European policies. Nonetheless, the programs could benefit from more consideration for the specific needs and conditions of Romania's mountainous areas. A more bottom-up and participatory approach is asked for by certain stakeholders. (Adascalitei, 2017, p. 16)

2.1.3 Prioritization of challenges

The triangulation of sources has revealed a number of different challenges relevant to mountain regions. As outlined in section 1, Romanian mountain regions generally face similar challenges as mountain regions in other parts of Europe or the world. Nevertheless, some regional specificities could be identified that are particularly important to be addressed by the Strategy. These specificities are based on the unique characteristics of Romanian mountain regions, which are not reflected in the same way by other regions in Europe.

The research undertaken by the strategy development team has already conducted an extensive analysis of the most relevant challenges. Based on this research, a concise problem definition has been developed. It will form the basis for the development of a policy scenario, the definition of policy options and subsequently the design of actions to address the identified challenges. In order to refine the problem definition, the identified challenges forming the basis have been assessed against the broad literature review conducted in the context of the ex-ante analysis.

To identify the most relevant challenges the project team has developed a systematic approach combining expert judgement and insights from the identified literature. In the initial step an extensive list as outlined above has been compiled outlining all potentially relevant challenges. In order to allow for the design of adequate policy responses to all challenges of high relevance, they have to be prioritized in the policy development process.

For the purpose of the ex-ante assessment, two core criteria form the foundation for prioritization: the potential severity of a challenge's impact and the anticipated persistence or likelihood of its occurrence over time. These aspects are assessed in a three-tier ranking system (low, medium and high) for each identified challenge. Expert judgment, informed by the existing literature, guides the evaluation of each aspect. For assessing the severity in particular potential economic, environmental and social impact are taken into account based on the accessible information. For assessing the likelihood of occurrence or persistence, in particular historical data, climate and geographic factors as well as socio-economic trends are considered.

The prioritization however is not to be misunderstood as a ranking of more important issues which need support and less important issues which do not require action. In particular, no challenge identified ranked "low" in terms of severity and persistence/likelihood. The exercise however led to the identification of several key areas and sub-aspects which do require particular attention:

1. **Demographic Challenges and Economic Opportunities:** The Mountain Area's accelerating demographic decline, marked by the outmigration of its youth, underscores an urgent need to revitalize local economies. Prioritization should first aim at bolstering economic opportunities that can retain and attract the population. This includes enhancing access to quality education and healthcare, which are pivotal in improving living standards and reducing out-migration potentials. Special focus on remote areas is necessary to counter the aging population structure and support the sustenance of active economic life.
2. **Living Standards and Utility Services:** Given the lag in living standards and local human development indices, efforts must be channeled towards improving income levels through diversified economic activities and better-paying jobs. Prioritization should involve boosting connectivity and energy affordability, tackling the wide disparities between urban and rural amenities. Addressing the high energy costs and improving housing conditions in colder, high-altitude climates will contribute significantly to enhancing quality of life.
3. **Infrastructure and Mobility:** Road and infrastructure development, lagging partially behind other regions, still presents mobility challenges, particularly in terms of public transportation and the provided access to essential services. Therefore, efforts should be made to enhance transportation services and connectivity, enabling mobility in particular for the rural poor and facilitating economic activities.
4. **Digital Inclusion and Skills Development:** Despite a digital infrastructure in principle not lagging behind too far in comparison to other regions, the low digital skills of the population, coupled with affordability issues, call for targeted interventions. Priorities include not only expanding access to digital services and their affordability but also investing in digital literacy programs and lifelong learning opportunities, thus enabling the population and local businesses to fully leverage digital advancements.
5. **Agriculture, Forestry, and Tourism Enhancement:** Agriculture, forestry, and tourism are key sectors with untapped potential. Addressing these with, investment support, and effective regulatory frameworks can stimulate growth. Prioritizing public-private partnerships and enhancing support systems for stakeholders in these sectors will drive sustainable development and economic diversification.
6. **Ecosystem Conservation and Climate Action:** The region's ecosystems are valuable national assets in climate and biodiversity targets but face numerous stressors. Prioritization here involves bolstering conservation efforts, curbing illegal logging, and managing pasture and water systems more effectively. Compensating landowners for biodiversity measures and engaging community stakeholders in resource management can align conservation with economic interests.

7. **Climate Adaptation and Community Resilience:** The growing climate vulnerability presents both a challenge and an opportunity. Prioritized actions should focus on developing a comprehensive adaptation strategy, enhancing disaster risk reduction, and fostering climate-resilient agricultural practices. Encouraging renewable energy and energy efficiency measures will serve dual purposes: bolstering environmental resilience and community self-reliance.
8. **Institutional Empowerment and Stakeholder Involvement:** Lastly, a strong institutional framework is essential for implementing robust, multi-sectoral policies. Strengthening the existing institutions, building awareness and increasing capacities for implementing responses to Mountain Area challenges will facilitate better coordination among institutions and stakeholders, ensuring that policies reflect local needs and foster existing development potentials.

As outlined the assessment correspondingly revealed no challenge to be of “low” persistence/likelihood and severity. The strategy for Romania’s Mountain Area should therefore adopt a holistic approach, targeting interventions for sustained, inclusive growth and development, while preserving environmental heritage and fostering resilient communities across thematic areas. With a strategic horizon up to 2035, phased prioritization of interventions is crucial due to financial, technical, and human resource constraints. A key aspect of prioritization is thus also linked to the availability of financial resources for implementing actions, which due to the reliance on external funding sources can significantly affect the potential positive impacts to be achieved for the respective objectives.

In the initial phase, high-priority interventions addressing urgent needs with immediate impact should be launched. These include among others in particular socio-economic measures supporting sustained economic diversification, improving of access to basic utilities, education and healthcare. Medium-priority interventions, to be introduced methodically, include improving internet infrastructure, accessibility and investing in climate adaptation plans to increase resilience throughout sectors and territories. Lower-priority initiatives, important but not immediately critical, can be gradually implemented as resources allow.

The prioritization of aspects furthermore needs to take into account the existing funding sources identified in the strategy, as well as the capacities of funding programs to adapt to the requirements. This will allow for recalibrating priorities and providing a realistic judgement on the implementation potentials and achievements.

2.2 Expected changes - theory of change and coherence

Methodological approach of the ex-ante assessment: *The ex-ante assessment reviewed the theory of change proposed by the Strategy, developed objectives and measures and assessed the internal coherence of the approach. The respective objectives and measures of the five pillars were reviewed and a critical reflection was provided on:*

- The structure of the objectives and their relation to each other
- The potential of developed actions to contribute to the respective measures and objectives
- Cross-effects and potential goal conflicts between the objectives and measures

The structure was reviewed based on the project team’s experience in various ex-ante assessments and program and strategy development processes, considering the thematic breadth of issues, the depth and level of detail sought, and the implementation capacities of various programs. Finally, internal coherence and potential goal conflicts were reviewed based on the defined actions and example projects outlined for each objective.

Contribution to the strategy development: *The ex-ante team provided detailed feedback on the structure of the objectives and actions in September 2023, and accompanied the restructuring and refinement process towards the final version with ad hoc inputs on ongoing developments. This*

process allowed the ex-ante team to provide direct input to the development and discuss recommendations directly with the team.

Uptake of the recommendation and remaining recommendation: The development of the overall framework and structure took into account the input from the ex-ante, but must be seen as a joint process, mainly driven by the strategy development. Ongoing discussions allowed for ad hoc integration of ex-ante feedback and recommendations, which were ultimately reflected in the strategy development.

2.2.1 Theory of change and relevance

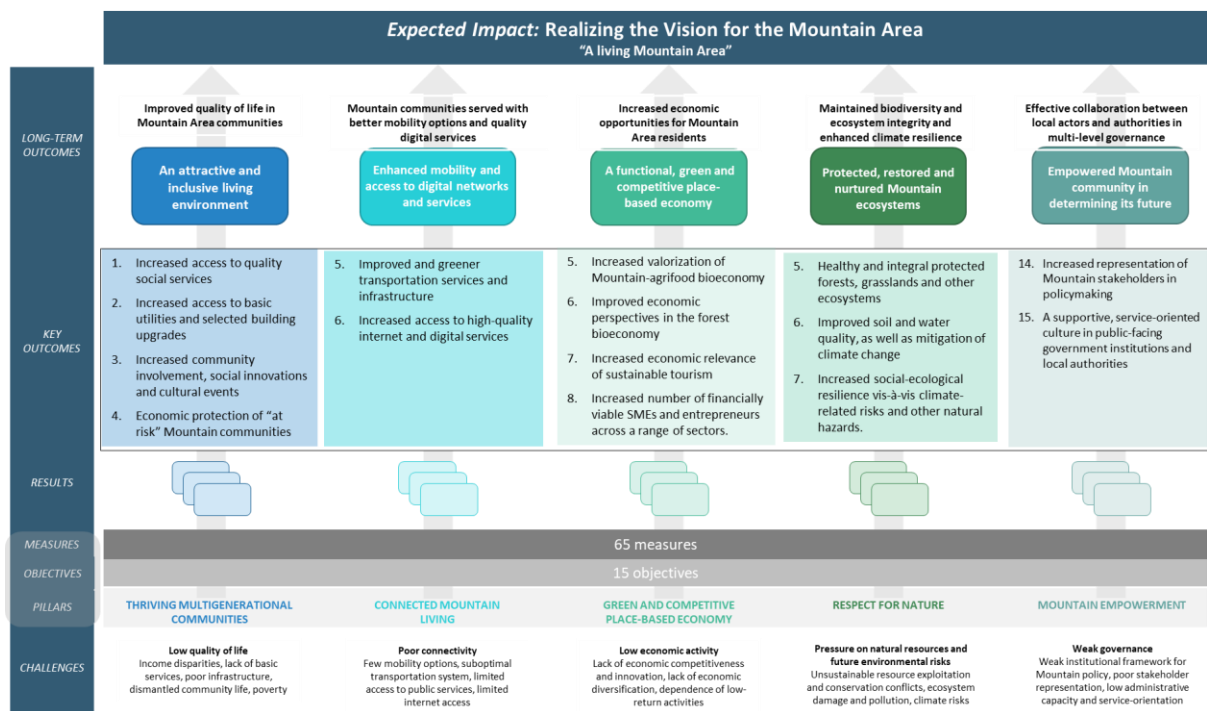
The Strategy presents a theory of change as key element structuring the policy responses within the five pillars developed. The vision outlined defines: “By 2035, Romania’s Mountain Area will be a territory of growing opportunity where natural landscapes, public services, and private initiatives harmoniously complement each other to advance residents’ quality of life and foster a “living” Mountain Area“ for which the five pillars of the strategy are defined:

- Pillar I: Thriving Multigenerational Communities (Attractive and Inclusive Mountain Communities)
- Pillar II: Connected Mountain Living (Mobility and Digital Connectivity)
- Pillar III: Green and Competitive Place-Based Economy
- Pillar IV: Respect for Nature
- Pillar V: Mountain Empowerment (Representative and Supportive Government)

Following the theory of change, these five pillars are responding to the five main challenge areas identified for the Romanian Mountain Area:

- Challenge Area 1: Demographic Decline and Low Living Standards
- Challenge Area 2: Isolation and Connectivity: Limited Quality of Public and Private Services in Mountain Area Communities
- Challenge Area 3: Lack of Economic Competitiveness and Innovation
- Challenge Area 4: Pressure on Natural Resources and Environmental Management Systems
- Challenge Area 5: Weak Governance and Low Institutional Capacities to Access Funding and Service Mountain Communities

Accordingly, the theory of change is visualized in the following figure, which provides a clear link between the Pillars - Objectives - Measures and corresponding Outcomes. The following section assesses how the key issues are addressed and how the challenges are reflected in the strategy. The tables reviewed are presented in the “integrated perspective” for each challenge area, providing an overview of the key issues and root causes, allowing reflection on how the Strategy’s objectives, actions and results address them, and highlighting potential gaps. It should be noted that the tables presented here are illustrative as they represent key parts of the integrated perspective for each challenge, but the assessment covers the entire problem definition including the textual parts in the Strategy. Key recommendations concern however the alignment of the extensive textual parts and the presentation of integrated perspective and tables in the strategy.



The subsequent tables represent the integrated perspective on each of the challenge areas. They outline the key problems and root causes.

Challenge Area 1: Demographic Decline and Low Living Standards

Key Problems	Root Causes	Potential consequences
<ul style="list-style-type: none"> Demographic decline, dominated by out-migration. Lower incomes in the Mountain Area 	<ul style="list-style-type: none"> Limited lucrative economic opportunities, over-reliance on low productivity farming and other informal activities. Lack of skills to start own initiatives. Low numbers of skilled professionals in sectors such as education and healthcare. Low-density areas. Urban-centric development. 	<ul style="list-style-type: none"> Lack of recruitable/skilled workforce Loss of economic dynamism and lack of entrepreneurial initiatives Decreased attractiveness of the Mountain Area Land abandonment and ecological deterioration Health risks and school abandonment Social isolation and fragility Loss of traditions, cultural heritage and food diversity. Pollution.

The key problems outlined will be addressed through the overall strategy, however, the Strategy's aspiration in relation to demographic stabilization, is not so focused on population numbers, but rather on tackling the economic need for outmigration so that people no longer feel forced to move away, and the socioeconomic environment enables them to remain in nearly any part of the Mountain Area if they so wish.

Therefore, the demographic decline, which is linked to limited employment opportunities and economic diversification, limited innovation potential and low accessibility and service provision, is addressed in particular by Pillars I and III. Pillar I provides measures for several of the outlined causes particularly linked to service provision. The key problem of lower incomes, linked is reflected in particular in Pillar III. The challenge area is thus clearly reflected in the strategy and the link between objectives and results is established.

Recommendation: Reflect in the summary table, under the outlined key problems the aspects on “lower living standards in mountain areas”, which is properly discussed in the text, but narrowly presented in the table, focusing on an income-centered key problem and root causes. This would also improve coherence within the strategy in relation to the respective Pillar I objectives. It would furthermore better reflect the intended outcomes of Pillar I interventions.

Challenge Area 2: Isolation and Connectivity: Limited Quality of Public and Private Services in Mountain Area Communities

Key problems	Root causes	Potential consequences
<ul style="list-style-type: none"> ▪ The Mountain Area poorer access to education and medical services. ▪ Access to public utilities, while not worse than in lowlands, is still far worse than the average in EU Member States. ▪ Isolation and limited mobility of residents in sparsely populated parts of the Mountain Area due to limited transportation density (road, rail, cable, air) and services (public transportation, rideshare) ▪ Limited economic access to digital services 	<ul style="list-style-type: none"> ▪ Difficulties in attracting educated professionals to Mountain Areas, due to low living standards. ▪ Low “returns” on investment in public infrastructure and services due to low and declining population density ▪ Lack of vision for alternative mobility solutions (with low hard-infrastructure requirements) ▪ Geographic and terrain challenges ▪ Low digital skills of businesses and population. ▪ Unaffordability of Internet for some groups 	<ul style="list-style-type: none"> ▪ Unattractive living conditions ▪ Limited professional/economic opportunities and earning potential. ▪ Social isolation and suboptimal health ▪ Limited interest for businesses to invest in the Mountain Area

The key problems outlined are addressed mainly through Pillars I and II of the Strategy, with limited links to Pillars III to V. Key issues related to health services, education and access to public services are addressed mainly through Objectives 1 and 2, while issues related to mobility and digital connectivity are addressed through Objectives 5 and 6. Not all of the actions proposed in the Strategy are clearly rooted in an identified need, particularly in relation to education (e.g. the need for kindergarten/daycare is not prominent in the challenges, yet in the actions proposed. On the other hand, main gaps in relation to higher education are identified but not addressed).

Recommendation: Improve the presentation of the table summarizing the challenge area 2, to reflect discussions presented in the section. Specifically, reflect physical access to the Internet in the key issues to improve coherence with actions under Objective 6, and include limited access to health care in the root causes, beyond the low return on investment aspect, to highlight the potential high demand and the need for the strategy to emphasize this aspect. In addition, review the alignment between challenges and measures/actions on education to improve the coherence based on the outline above.

Challenge Area 3: Lack of Economic Competitiveness and Innovation

Key problems	Root causes	Potential consequences
<ul style="list-style-type: none"> ▪ Attrition of the workforce in the Mountain Area ▪ Large share of land and labor in inefficient micro-farms ▪ Poor access of small farms to social support, advisory and marketing services ▪ High level of rural poverty 	<ul style="list-style-type: none"> ▪ Outmigration, particularly of the young and educated, due to lower living standards. ▪ Romania has underinvested in public good instruments for small and medium-sized farm support, including cadaster, advisory services and marketing assistance for small farms. 	<ul style="list-style-type: none"> ▪ Limited investment in the agri-food and forestry bioeconomy ▪ Lack of attractive jobs and professional opportunities ▪ Lack of business innovation and entrepreneurship ▪ Land abandonment ▪ Environmental degradation

Key problems	Root causes	Potential consequences
<ul style="list-style-type: none"> ▪ Limited investment, outdated technology, and low level of added value in the agriculture, forestry and wood sector ▪ Continued existence and vulnerability of single-industry towns and weakly diversified ATUs ▪ Insufficiently supported tourism sector ▪ Low added value of the forest bioeconomy retained in the Mountain Area 	<ul style="list-style-type: none"> ▪ Expensive and difficult to reallocate land and labor from micro-farms to viable agricultural producers. ▪ Lack of an agreed-upon forestry regulatory regime that balances the interests of conservation and forest landownership. ▪ Market access and other infrastructure deficiencies ▪ Low levels of collective action ▪ Bureaucratic requirements and complex regulatory environment 	

The key problems outlined are addressed mainly through Pillar III of the strategy, and also partially also through Pillars I and II. The issues related to key sectors are clearly outlined and the respective root causes identified for Agriculture and forestry. For tourism and more broadly SME and innovation, root causes are not fully apparent from the integrated presentation. Overall the challenges identified are addressed by the Strategy.

Recommendation: In order to clearly delineate between the challenge areas, issues mainly related to other challenge areas (e.g. out-migration) should be reflected there and only a cross-link be inserted. Otherwise, underlying general issues which have spin-off effects are reflected repeatedly for each challenge area. Furthermore it is recommended to remove “reallocation of land” from the root causes as this mainly represents a potential measure and not a root cause of the issues.

Challenge Area 4: Pressure on Natural Resources and Environmental Management Systems

Key problems	Root causes	Potential consequences
<ul style="list-style-type: none"> ▪ Unsustainable forest harvesting practices, illegal logging ▪ Low forest and timber productivity & value addition ▪ Technologically outdated equipment in forest ▪ Low energy efficiency of biomass heating installations ▪ Decreasing extent and health of managed grasslands ▪ Water pollution and eutrophication linked to agricultural runoff and residential wastewater ▪ Soil contamination due to historical mining activities ▪ Ecosystem damage linked to unsustainable tourism & other economic activities ▪ Increasing climate risk leading to aridity, landslides, extreme weather. 	<ul style="list-style-type: none"> ▪ Weak consultation and communication with stakeholders on policy process related to natural resource management ▪ Complex institutional and administrative framework and lack of reliable mechanism for control and market transparency (particularly in the forest sector) ▪ Tensions and complexities of protected area management and policy implementation ▪ Lack of proper legal frameworks to incentivize investments in environmental technologies, low energy efficiency. ▪ Loss of interest in traditional agrarian activities (such as shepherding) ▪ Intensification of agriculture ▪ Inadequate sewage/water infrastructure ▪ Tensions between competing goals (conservation and economic opportunities) and poor implementation of compensation frameworks. ▪ Climate change ▪ Depopulation (reducing opportunities for grassland management) 	<ul style="list-style-type: none"> ▪ Loss of biodiversity and other ecosystem services (including cultural ones) ▪ Undermining of the Mountain Area’s core assets and bioeconomy (agriculture, forestry, tourism, new sectors) ▪ Environmental degradation ▪ Unfulfilled potential to store carbon, reduce emissions, and mitigate climate change ▪ Diminished resilience of ecosystems and Mountain communities

The key problems outlined are addressed mainly through Pillar IV of the Strategy, with slight positive contributions from other pillars. The strategic objective is clearly aligned with the problem definition, but not all objectives show an equally strong link to the key problems. In particular, the role of land use and forestry in climate change mitigation (objective 12) and the management of protected areas are not clearly linked to the key issues outlined. Nevertheless, all key issues are addressed and there are no gaps in the framework.

Recommendation: The key problems summarized in the challenge table do not reflect the problems associated with land use changes (deforestation) and associated threats of biodiversity loss and climate change, which are well discussed in the text. The description of the challenges could benefit from strengthening the relevance of protecting forest in relation to biodiversity conservation and climate change mitigation.

Challenge Area 5: Weak Governance and Low Institutional Capacities to Access Funding and Service Mountain Communities

Key problems	Root causes	Potential consequences
<ul style="list-style-type: none"> ▪ Lack of an integrated territorial development strategy ▪ Narrow focus of Mountain-specific policies and programs ▪ Suboptimal policies, poorly tailored and communicated to the MA ▪ Tensions between regulated and regulators/authorities ▪ Lack of implementation capacity and motivation ▪ Lack of funding 	<ul style="list-style-type: none"> ▪ Centralized agenda setting with poor participation (especially in implementation) ▪ Weak culture of collective action ▪ Political and technical weakness of subnational and MA agencies, including bureaucratic excesses ▪ Lack of coordination and overlapping or unclear roles of different government agencies ▪ Lack of data systems and tools for making evidence-driven policy ▪ Lack of local capacity to capture and mobilize relevant funding ▪ Institutional shifts and lack of policy continuity 	<ul style="list-style-type: none"> ▪ Weak implementation of existing policies ▪ Lack of ownership of local authorities and stakeholders on development efforts ▪ Inadequate addressing of Mountain-specific needs and opportunities ▪ Persistence of territorial gaps and potential widening of those gaps across all the challenge areas described ▪ Incapacity to address future risks (e.g. climatic, environmental, food security)

The key problems identified are mainly addressed under Pillar V, but several other governance and policy related actions are defined in particular under Objectives 9, 10, 11, 12 and 13. Issues related to policy making are clearly outlined in the problem definition and addressed by the Strategy, in particular through Objective 14. Issues addressed by Objective 15 are partially outlined in the problem definition, mainly in relation to gaps in administrative capacity and funding. Other actions defined under Objective 15 do not have a clear corresponding key issue.

Recommendation: outline key issues related to problems with local public administration and lack of digital skills and available e-government services.

2.2.2 Internal coherence of the strategy

The internal coherence of the strategy was assessed on the basis of the objectives, measures and actions outlined. The actions and initiatives outlined are examples that indicate a direction of development and clarify the intent of the measures. However, they are not considered to be the final implementation proposals of the strategy. At the objective level, the ex-ante team assessed the

potential conflicts and contributions between objectives. The assessment followed the OECD definition of coherence (“*The extent to which other interventions (particularly policies) support or undermine the intervention and vice versa.*”³) and was made in four distinct categories:

- 0: No positive or negative cross-effect
- 1: potential positive relation
- 2: clear positive relation
- 3: potential negative relation

The assessment is presented in detail in annex X and revealed in principle clear internal coherence of the strategy where the majority of objectives have either a positive or no influence on other objectives. Only between Pillar III and Pillar IV some potential negative influence could be identified based on the example actions provided.

Pillar I shows strong internal coherence within the measures of Pillar I itself as well as with Pillar II. In particular measures related to the improved accessibility (Obj. 5) and improved internet access (Obj. 6) have the potential for positive influence on Mountain residents access to various services both virtually as well as in situ. The majority of measure relations of these pillars thus show clear positive relation. Furthermore, strong coherence is observed in particular between Measure 4 and all measures of Pillar III related to the economic development of the Mountain Area.

While no adverse effects are particularly expected, overall coherence of Pillar I with Pillar IV of the strategy is not strong. Infrastructure development in relation to Objective 1 and 2 can, depending on the implementation, in principle have adverse effects on the environmental objectives of Pillar IV, however this is strongly related to the concrete projects implemented and does not create a conflict on objective level.

Pillar II shows particularly strong coherence with Pillars I and III. For Pillar I, internet access and connection quality constitute a precondition for various services proposed in relation to e-health or education. In addition, a strong positive link with Objective 15 on government services is created in relation to e-government. For Pillar III, likewise internet accessibility is a precondition for innovativeness and contributes to implementation of smart specialization strategies. In addition, touristic services depend more and more on high quality internet connection, and tourist demand for such services increases. The strongest connection is thus established in relation to Objectives 9 and 10. Physical connectivity on the other hand is of high importance for all objectives under Pillar III. The emphasis by the actions proposed is laid on sustainable public transport, thus positive effects are created as a spin-off from general accessibility for population and workforce. These actions are again of highest importance for tourism and SME/entrepreneurship thus showing a strong link to objectives 9 and 10.

No general adverse effects are expected as creation of physical infrastructure with the potential to create conflicts with Pillar IV is not a key action proposed. Further synergies with Pillars IV and V are however also not very distinct, and internal synergies within Pillar II are limited.

Pillar III shows very strong coherence within the objective itself, focusing on the development of complementary sectors and strengthening local, cross-sectoral value chains. Potential synergetic relations are visible for all objectives defined. Furthermore, the strongest potential contribution of all activities can be identified in relation to Objective 4 under Pillar I. For relations to Pillar II, the objectives under Pillar III mainly benefit from the improved accessibility and can in turn lead to a higher rentability of the investments thus increasing the likelihood of them being financed out of funding programs.

³ 4. Understanding the six criteria: Definitions, elements for analysis and key challenges | Applying Evaluation Criteria Thoughtfully | OECD iLibrary (oecd-ilibrary.org)

Adverse effects on the other hand are possible in relation to Pillar IV in particular, depending on the implementation of actions. Mountain tourism has the potential for challenging already stressed ecosystems in particular as nature-based tourism is a key element of the strategy. Likewise, forestry and agricultural measures can lead to both positive and negative consequences, e.g. in relation to soil and water quality. Increased erosion or pollution through higher intensity agriculture or forestry sectors can particularly influence objective 12. Nevertheless, the indicative examples for actions as well as some of the measures (e.g. measure 7.6) underline a positive relation to objective 12 in particular. The concrete implementation thus is crucial for ensuring no goal conflicts arise from the deployment of the strategy.

Pillar IV shows particularly strong internal coherence within pillar IV due to the nature of the selected measures and outlined example actions which are mutually beneficial and interconnected. Furthermore, the governance-focused measures and example actions present in all objectives show the potential to positively influence the related objectives in Pillar V. Some positive synergies towards economic objectives are seen as well, in particular related to mountain tourism.

Adverse effects through implementation are not directly implied by the measures and potential actions. Nevertheless, protection regimes established and strengthened could to an extent hamper specific developments related to forestry (mainly) and agriculture (to a limited extent) in Pillar III. As the measures defined do not imply going beyond the legal requirements already defined, these potential adverse effects are not likely to materialize.

Pillar V finally is identified as support for the overall development and implementation of the strategy, however, it does not place particular focus or emphasis on specific aspects. It is thus likely that synergies will materialize in relation to the governance-oriented elements of Pillars I through IV. Measures related to the development of internet access (objective 6) show a strong link to e-government services.

Adverse effects on other objectives in relation to Pillar V are not expected.

Recommendations

No critical goal conflicts have been identified in the internal coherence review. In relation to Pillar III and IV, some conflicts are possible depending on the concrete implementation of the Strategy, mainly in relation to economic development and potential negative impacts on natural capital. The expected adverse effects are however limited due to the focus of measures and outlined actions.

In particular in relation to mountain tourism, carrying capacity as a concept should be presented in relation to the development of actions, in particular for measure 9.5. Furthermore, any measures and actions related to nature-based tourism should emphasize the sustainable use of natural capital to avoid exploitation and negative long-term effects, even in the absence of visitor management plans.

Pillar V currently is developed in a broad manner and has the potential for cross-cutting synergies. Where possible, clearer indication on responsibilities in relation to specific objectives could be given to strengthen the coherence with other Pillars.

For potential goal conflicts between Pillars II and IV depending on the concrete implementation, no further recommendations on strategy level are provided. These goal conflicts cannot be addressed on strategy level but require project-based assessments and potentially countermeasures.

Table 1: Internal coherence

		Problem Definition														
		Pillar I				Pillar II		Pillar III				Pillar IV			Pillar V	
		-1 Improve Mountain residents' access to quality healthcare, education, and other social services in towns and rural areas	-2 Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas	-3 Revitalize civic and cultural life in Mountain towns and Mountain rural areas	-4 Economically support and protect "at-risk" rural Mountain communities	-5 Enable Mountain residents' mobility within and beyond the Mountain Area	-6 Enable more Mountain Area residents to benefit from internet access	-7 Enable profitable and competitive Mountain agrifood value chains	-8 Strengthening economic opportunities in the Mountain forest bioeconomy (and the non-food bioeconomy at large)	-9 Increase the economic weight Mountain tourism	-10 Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors	-11 Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests	-12 soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)	-13 Enhance the social-ecological resilience of the Mountain Area in the face of climate and other risks	-14 Increase the representation of Mountain stakeholders in relevant policymaking	-15 Foster more supportive service on the part of public-facing government entities operating in the Mountain Area
Objective	Measures	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	Reflection	
Pillar I																
-1 Improve Mountain residents' access to quality healthcare, education, and other social services in towns and rural areas			2	1	0	2	2	0	0	1	1	0	0	0	0	2
-2 Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas	2			2	1	2	1	0	0	1	1	0	0	1	0	1
-3 Revitalize civic and cultural life in Mountain towns and Mountain rural areas	1	2			0	2	1	1	1	2	0	0	0	0	0	0
-4 Economically support and protect "at-risk" rural Mountain communities	0	1	0			1	1	2	2	2	2	0	0	0	1	1
Pillar II																
-5 Enable Mountain residents' mobility within and beyond the Mountain Area	2	2	2	1		0	1	1	2	2	0	0	1	0	0	0
-6 Enable more Mountain Area residents to benefit from internet access	2	1	1	1	0		0	0	2	2	0	0	0	0	0	2
Pillar III																
-7 Enable profitable and competitive Mountain agrifood value chains	0	0	1	2	1	0		2	2	2	3	1	1	0	1	1
-8 Strengthening economic opportunities in the Mountain forest bioeconomy (and the non-food bioeconomy at large)	0	0	1	2	1	0	2		1	2	3	1	1	0	0	0
-9 Increase the economic weight Mountain tourism	1	1	2	2	2	2	2	1		1	1	3	2	1	0	0
-10 Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors	1	1	0	2	2	2	2	2	1		0	0	0	0	0	0
Pillar IV																
-11 Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests	0	0	0	0	0	0	3	3	1	0		2	2	1	1	1
-12 soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)	0	0	0	0	0	0	1	1	3	0	2		2	1	1	1
-13 Enhance the social-ecological resilience of the Mountain Area in the face of climate and other risks	1	1	0	0	1	0	1	1	2	1	2	2		1	2	2
Pillar V																
-14 Increase the representation of Mountain stakeholders in relevant policymaking	0	0	0	1	0	0	0	0	1	0	1	1	1		0	0
-15 Foster more supportive service on the part of public-facing government entities operating in the Mountain Area	2	1	0	1	0	2	1	0	0	0	1	1	2	0		
Overall Judgement:																

2.2.3 External coherence

In addition to the internal coherence assessment, the ex-ante team reviewed the overarching strategic policy framework in order to identify potential conflicts or synergies requiring specific attention. However, the strategic nature of the document, which cannot implement actions and projects on its own but acts rather as a guidance and coordination strongly limits the amount of potential conflicts. Furthermore, the strategy considers a wide range of relevant policies and policy framework in the development and shows strong alignment with the respective objectives. The considered policies and policy frameworks include:

- The United Nations (UN) 2030 Agenda for Sustainable Development and Romania’s Sustainable Development Strategy 2030 (GD No. 877/2018)
- The European Commission Political Guidelines 2019-2024 including
 - EU Climate Adaptation Strategy and Romania National Strategy on Adaptation to Climate Change 2023-2030
 - The EU Biodiversity Strategy for 2030 and National Strategy and Action Plan for Biodiversity Conservation 2014-2020
 - The EU Forest Strategy for 2030 and Romania National Forest Strategy 2030 (FS30) (GD No. 1227/2022)
 - The EU Circular Economy Action Plan and Romania’s Circular Economy Strategy 2022 (GD No. 1.172/2022) and Action Plan (Decision no. 927/2023)
 - The EU Farm to Fork Strategy (F2F)
- EU Common Agricultural Policy 2023-2027 and the Romanian National Cap Strategic Plan
- EU Rural Vision 2040 and the EU Rural PACT
- EU Cohesion Policy 2021-2027
- EU Urban Agenda and Romania’s Urban Policy 2022-2035 (National Integrated Urban Development Strategy for Resilient, Green, Inclusive and Competitive Cities- GD 1575/2022)
- EU Digital Agenda 2020-2030
- National strategies:
 - National Housing Strategy 2022-2050 GD No 842/2022)
 - National Strategy on Social Inclusion and Poverty Reduction 2022-2027 GD No 440/2022)
 - National Strategy regarding the Rights of Persons with Disabilities “A fair Romania” 2022-2027 GD No 490/2022)
 - Strategy of the Romanian Government for the Inclusion of Romanian Citizens belonging to the Roma Minority 2012-2027 (GD No 560/2022)
 - National Strategy for the Social Inclusion of Homeless People 2022-2027 (GD No 1491/2022)
 - National Strategy for Preventing and Combating Sexual Violence “SINERGIE” 2021-2030 (GD No 592/2021)
 - National Strategy for Employment 2021-2027 (GD No 558/2021)
 - National Health Strategy for Romania 2023-2030 (GD No 1004/2023)
 - Strategy for the Development of Human Resources in Health 2022-2030 (GD No 854/2022)
 - National Strategy for Research, Innovation and Smart Specialization 2022-2027 (GD No 933/2022)
 - National Railway Infrastructure Development Strategy 2021-2025 (GD No 985/2020)

- National Strategy concerning Intelligent Transportation Systems 2022-2030 (GD No 867/2022)
- National Policy Framework for Market Development Regarding Alternative Fuels in the Transport Sector and for the Installation of Relevant Infrastructure in Romania (GD No 34/2017)
- National Road Safety Strategy 2022-2030 (GD No 682/2022)
- National Strategy on Education for the Environment and Climate Change 2023-2030 (GD No 59/2023)
- Flood Risk Management Strategy 2010-2035 (GD No 846/2010)
- Disaster Risk Reduction Framework and the Fire Protection System (draft prepared not yet approved)
- Sectoral policies:
 - Romania's National Strategy for the Development of Tourism 2023-2035 (under consultation)
 - Strategy for the Development of Spa Tourism (GD No 571/2019)
 - Romania's National Strategy for the Development of Ecotourism 2019-2029 (GD No 358/2019)
- Territorial and mountain specific strategies
 - Romania's Territorial Development Strategy 2035
 - The Sustainable Development Strategy of Tourism in the Carpathian Mountains
 - Romania's Strategic Guidelines for the Sustainable Development of Less Favored Mountain Areas (approved as an annex to the PNDR 2014-2020)
 - Romania's Mountain Law 2018 (Law 197/2018)

Figure 4. Policy layers



Source: ÖIR 2023

The policy framework in the context of the ex-ante assessment was analyzed taking into consideration these different layers of policies on international/EU level, national and regional level, as well as the cross-cutting sectoral- and territorial strategies. The comprehensive inclusion of strategies and policies in the review supports high-level alignment with the Strategy. The broad nature of many

of the policies considered, and the correspondingly broad nature of the Strategy, leads to potential synergies and potential conflicts across the objectives of the Strategy. Nevertheless, overall alignment with the strategic policy framework is ensured.

Several objectives of the Strategy strongly support other policies, e.g. in relation to the EU Vision for Rural Areas and the Common Agricultural Policy, the Cohesion Policy, the Digital Agenda, the National Tourism Strategy and many others. Potential conflicts in implementation may arise in particular in relation to nature conservation and sustainable development, if sustainability principles are not taken into account, e.g. in relation to tourism development or agricultural and forestry development. However, the Strategy places a clear emphasis on supporting only those activities that do not have significant negative impacts on the environment and sustainability, so no general coherence problem could be identified at the strategy level. However, out of the large range of policies considered, several groups with higher potential for issues related to coherence could be identified. Policy examples where coherence issues may arise nevertheless have to be monitored to ensure positive interactions between the strategies and policies on hand.

The aims of the UN SDG potentially lead to minor conflicts in coherence considering that certain measures aimed at economic prosperity, in particular in relation to tourism, may inflict disadvantageous effects on the environment (goal 15). In particular, the development of economic or social matters has to be balanced with the preservation of essential natural functions. The health of the mountain protected forests and grasslands may be influenced by certain SDGs on the other hand. Due to the mostly clear focus of the strategy on sustainable measures outlined in the corresponding actions, no critical issue related to coherence could be identified, thus no further action in relation to high-level alignment is recommended. The monitoring alignment of Mountain Strategy and SDGs suggest, that any cross-relation will be mostly mutually beneficial.

The policy sphere of the EU Political Guidelines 2019-2024 may also offer small risks in terms of coherence. Especially Pillar III with its spotlight on economic growth may be hampered by environmental preservation obligations such as outlined by the Biodiversity Strategy on EU- and national level. A thorough consideration between interests has to be made to avoid disadvantageous effects through the focus on agriculture, industry and tourism sector in the mountain regions.

Moreover, the Common Agricultural Policy and its measures may create minor negative coherence effects if the multi-faceted interactions between the policies are not taken into account. By example, economic diversification, especially tourism, may be delayed by the ongoing dominance of agriculture in the region, even though several policy measures to support this diversification exist. Furthermore even considering the improved environmental performance of the CAP, nature conservation issues still arise. The balance of a viable and competitive agriculture on the one hand and a preserved and unimpeded natural environment (including as one of the basic factors for tourism on the other hand) is challenging to achieve. Sectoral coordination for these aspects is of key importance, in order to foster the maximum possible mutually beneficial development paths. While no critical conflict in relation to coherence can be identified, reflection and consideration, in particular in the framework of the National Mountain Council (being comprised of - amongst others - the relevant ministries for these partially conflicting aspects as well as representatives of the civil society and further relevant stakeholders) is key to avoid conflicts in implementation.

Ultimately, the implementation of actions in relation to the strategy rely on further programs and external funding. The specific design of these actions, programs and funding schemes is determining the coherence with specific strategies and policies to a greater extent than the definition of indicative actions in the Mountain Strategy can. Involvement and strengthening the role of broad coordination and advisory bodies such as the NMC who can keep track of the wide range of activities implemented under the numerous objectives will considerably improve a coherent development between the Mountain Strategy and further policies.

3 Socioeconomic impact

3.1 Methodological approach of the assessment of socioeconomic impacts

3.1.1 Territorial impact assessment supplemented by literature-based analysis

Due to the high relevance of territorially differentiated effects, the key methodological approach applied for the assessment of socioeconomic impacts has been the Territorial Impact Assessment (TIA). This approach was used to assess the following impacts:

- Social impact (including Impact on fundamental human rights and freedoms)
- The macroeconomic impact (including the impact on the business environment)
- The impact on the environment
- Governance impacts

The concept of territorial impact assessment (TIA) aims to show the regional differentiation of the impact of legislation, strategies and broader policies. The TIA Quick Check is a hybrid methodology adaptable to any policy and supported by a calculation and mapping tool that can be used to support policymakers and practitioners in identifying potential ex-ante territorial impacts of new legislation and policies. It is originally developed for the European level and has been applied in multiple settings and on a broad range of topics by the European Commission as well as the Committee of the Regions. For Romania, a specific approach and tool has been set up to work on the ATU/LAU level. The “TIA Quick Check” approach combines a workshop setting for identifying systemic relations between a policy and its territorial consequences with a set of indicators describing the sensitivity of Romanian regions.

This approach helps to steer an expert discussion about the potential territorial effects of a policy proposal by checking all relevant indicators in a TIA workshop. The results of the guided expert discussion are judgements about the potential territorial impact of a policy, in different thematic fields (the economy, society, the environment, governance) for a range of indicators.

The tool translates the combination of the expert judgements on exposure with the different sensitivity of regions into maps showing the potential territorial impact of a policy at the ATU/LAU level. These maps serve as a starting point for further discussion of different impacts of a specific policy on different regions. Consequently, the experts participating in the workshop provide important input to this quick check on the potential territorial effects of a policy proposal.

The TIA quick check approach is based on the following steps:

- Identifying the potential territorial effects of the Mountain Strategy on the economic, societal, environmental and governance related development of the mountain region by a group of experts in a TIA-workshop through drawing a systemic picture showing of these effects
- Selecting indicators describing the identified potential territorial effects of the Mountain Strategy on economy, society, environment and governance
- Judging the intensity of the potential effects by the workshop participants
- Calculating and mapping the potential territorial impact according to the selected indicators by combining the expert judgement with the regional sensitivity

The TIA approach allows to identify relevant impacts of the Mountain Strategy. However, as not all effects can be pinned down to quantitative numbers and as for not all effects indicators are available to describe them on ATU/LAU level, further impacts were identified based on literature review and expert analysis.

3.1.2 Territorial impact assessment workshop

The TIA-workshop on the Mountain Strategy was held on 21st and 22nd of September 2023 and brought together a number of experts representing different organizations and LRAs.

In the first step, the participating experts discussed the potential effects of the Mountain Strategy, using a territorial or place-based approach. This discussion revealed potential territorial impacts in all discussed thematic fields, thus economic, societal, environmental and governance-related impacts aspects. The participants identified potential linkages between implementation of the selected measures and the effect on territories, including interdependencies and feedback loops between different effects (see Figure 5).

In order to account for the complexity and thematic broadness of the strategy, the drafting of a systemic picture was conducted in two stages. In the first stage, each Pillar of the strategy was discussed separately in parallel poster-sessions, with participants allocated to Pillars based on their expertise and background. (Pillars 2 and 5 were grouped in one discussion.) Consequently, four individual systemic pictures were created by the participants on potential impact, which subsequently were consolidated into one picture, showing potential territorial impacts of the Mountain Strategy.

The consolidation was implemented through a plenary discussion, thus safeguarding the review and amendment of any individual assessments made for the individual Pillars. The discussion revealed strong interrelations between the Pillars and multiple interdependencies leading to effects on the ground only if specific preconditions are met.

Figure 5. Workshop findings: Systemic picture



Source: Territorial impact assessment expert workshop, 21-22 September 2023

In order to assess the potential effects pictured in the systemic picture, suitable indicators were to be selected for the impacts that the experts discussed in the fields of the economy, the environment, society and governance. The availability of data for all ATU/LAU regions posed certain limitations on the indicators that can be used, however the comprehensive data collection in the Territorial Observatory in Romania allowed for the identification of suitable indicators for most of the fields discussed. (In those cases, where no relevant indicator could be identified, an additional expert judgement on the impacts is provided.)

For the selected indicators the **workshop participants estimated the potential effects of the Mountain Strategy**. They judged the potential effect on the territorial welfare along the following scores:

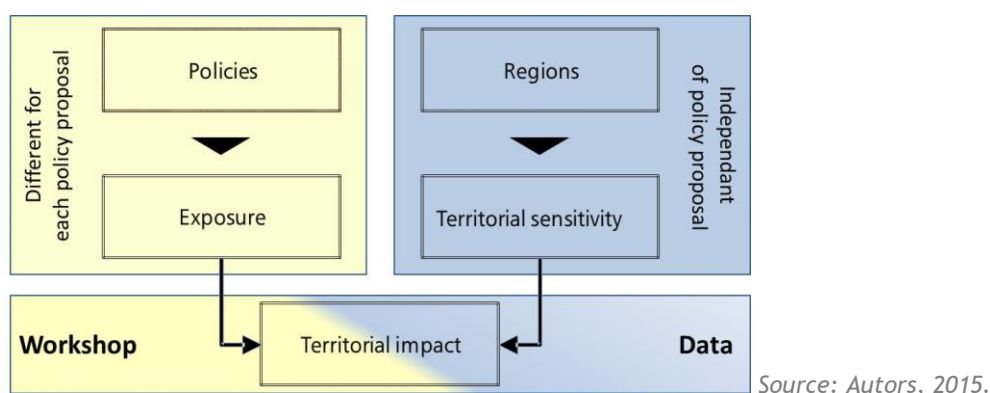
- ++ strong advantageous effect on territorial welfare (strong increase)
- + weak advantageous effect on territorial welfare (increase)
- o no effect/unknown effect/effect cannot be specified
- - weak disadvantageous effect on territorial welfare (decrease)
- -- strong disadvantageous effect on territorial welfare (strong decrease)

Based on the expert judgement and the underlying territorial sensitivity provided through the selected indicators, the “territorial impact” value for each LAU was calculated by combining the quantitative indicator-data describing the regional sensitivity with the expert judgment gathered through workshops on the strength of the potential effects.

The applied approach is based on the vulnerability concept developed by the Intergovernmental Panel on Climate Change (IPCC). It combines the expert judgement determining the “exposure” caused by the objectives of the Mountain Strategy with the quantitative indicators describing the “territorial sensitivity” of the individual LAU. The combination of those two factors allows to calculate the potential territorial impact for each individual LAU (see Figure 6).

- “Territorial Sensitivity” describes the baseline situation of the region according to its ability to cope with external effects. It is a characteristic of a region that can be described by different indicators regardless of the topic analyzed.
- “Exposure” describes the intensity of the potential effect of the three infrastructure measures on a specific indicator. Exposure illustrates the experts’ judgement, i.e. the main findings of the expert discussion at the TIA workshop.

Figure 6. *Exposure x territorial sensitivity = territorial impact*



The result of the territorial impact assessment is presented in maps. The maps show the potential territorial impacts based on a combination of the expert judgement on exposure with the territorial sensitivity of a region, described by an indicator on LAU level.

3.1.3 *Limitations of the outcome*

Several limitations in relation to the assessments made have to be pointed out to put the respective outcome in the right perspective in terms of further uptake in strategy development

- **Thematic broadness of the strategy:** The strategy addresses 24 objectives (not including sub-objectives) in five Pillars, all of which had to be discussed in one single workshop. An effort was made to cover all objectives and pillars in order not to leave out crucial effects, which correspondingly leads to broad coverage but limited depth of the assessments.
- **Clarity of the actions:** At the time of the assessment, the actions were in an early draft stage. The list was made available to the experts participating, however with the caveat of an early draft.
- **For Pillar 5 of the strategy focusing to a large extent on governance aspects,** only an early draft was available at the time of the workshop. Consequently, assessments in relation to governance were only possible to a limited extent.
- **Data limitations:** several of the effects discussed target issues, which are not, or only to a limited extent, depicted by existing indicators. While geographic resolution generally is good, thematic depth or collection/calculation methods lead to limitations in several instances. For instance data on employment, overnight stays or public transport. Nevertheless, all indicators are provided by reliable public sources, mainly the territorial observatory of Romania. Thus, keeping in mind the respective limitations, the general reliability of the data is not in question.

Based on the described limitation especially concerning the number of indicators available that could be used for the calculation of impacts the assessment was broadened by a further assessment based on literature review and expert analysis.

3.2 *General description of the estimated benefits and costs as a result of the entry into force of the normative act*

The strategy itself is not tied to a concrete budget and thus does not lead to any changes to budgets, increase or decrease expenditures or require concrete changes to existing budgets. The implementation of the strategy and funding of outlined measures is tied to various funding programs (e.g. Cohesion Programs or the CAP) and further legal and funding adaptations. Thus, the strategy itself does not cause direct costs or benefits.

3.3 *Social impact (including impact on fundamental human rights and freedoms)*

3.3.1 *Reducing population loss in mountainous areas*

The common umbrella of all Pillars and Objectives of the Mountain Strategy is to improve the quality of life in mountain areas in order to keep people in mountain areas and to attract people living in mountain areas. Mountain areas should be an attractive place of living. In line with this overall goal of the Mountain Strategy, one of the main expected effects is to contribute to stabilizing the population in the region. This effect largely coincides with the potential to reduce the out-migration of residents, especially young professionals, by improving local infrastructure and accessibility. It is noteworthy that several aspects and effects mentioned in other areas are identified as preconditions or strong drivers supporting effects on societal aspects. In particular, positive economic developments and improvements in connectivity are considered crucial. A reduction in out-migration is expected to improve the long-term viability of peripheral communities that might otherwise struggle to maintain basic services for their local populations.

In the TIA workshop two indicators were selected to picture the effects of the Mountain strategy on population development: young demography and migration rate.

“Youth-friendly Mountain villages” - reducing young out-migration in Swiss mountain regions

A survey conducted by the Swiss Center for Mountain Regions revealed, up to 25% of residents of mountain municipalities cannot imagine living in the area in the future. As a reaction, the label for “youth friendly mountain villages” was introduced, encouraging the necessary developments (including infrastructure, services, housing, school/education and training and exchange formats) and supporting the active inclusion of young residents in policymaking. The label led to the improvements in municipalities such as Veysonnaz (550 inhabitants, main village situated at 1,200 MASL) introducing among other measures support for affordable housing in the form of a flat-sharing platform and associated financial support. In a village dominated by detached housing which would otherwise be unaffordable for young residents, this measure allows them to gain some level of independence from their parents without having to move to more distant areas with affordable small appartements. As a key success factor, the active involvement of the young residents in the design of the measures and also the certification process for the label is identified (SAB, 2022)

TIA-indicator: Migration rate

Reducing out-migration, although directly addressed as an objective of the Mountain Strategy, was considered to be one of the aspects depending on the overall successful implementation of the Strategy. If successfully implemented, a number of objectives and actions may combine to achieve this main objective.

A complete reversal of the trend of out-migration from affected regions is unlikely, as regions struggling to provide basic services to their population are unlikely to become “pull” regions for people from outside. However, it may be possible to stabilize and reduce out-migration by retaining the local population and attracting individual in-migrants. Therefore, a number of elements are key, in particular the ability of upland areas to generate employment and income.

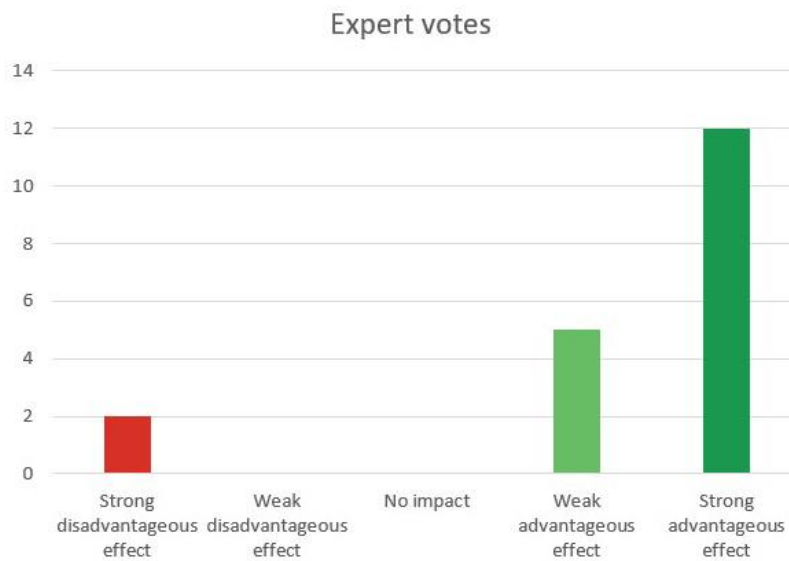
Due to the variety of factors influencing this indicator, the experts of the workshop considered that the strategy has the potential to have strong beneficial effects. Even though the experts in the area of migration tend to assume a positive result (12 strong advantageous impact; 5 weak advantageous impact), it is noteworthy that 2 experts assume a strong disadvantageous impact⁴.

The indicator “Migration rate” represents the net migration within a specified time interval (2007-2021) by calculating the algebraic difference between the number of people immigrating and those emigrating due to changes in residence. It does not account for external immigration. It is assumed that regions with a higher migration rate would have a higher sensitivity to the Mountain Strategy.

Based on the expert judgement and the given sensitivity, more than half (52%) of the municipalities are attributed potential for a very high positive impact. For 31%, a high impact is to be expected, and last but not least, 17% of the regions can expect a moderate positive impact. Map 1 shows the potential territorial impact in relation to migration rate. While patterns visible are diffuse in nature, lower potential impacts can generally be observed in large parts of the Apuseni mountains and the Făgăraș Group. For the Central group, strong regional level divergences can be identified, with both highest and lowest impact potentials concentrated in one group. The majority of the Parâng Group as well as the Northern Group and the Banatului and Poiana Rusca Mountains finally see the highest potentials for very high positive impacts.

⁴ The workshop discussions suggest, that those two participants misunderstood the voting exercise and meant to vote for a strong advantageous effect

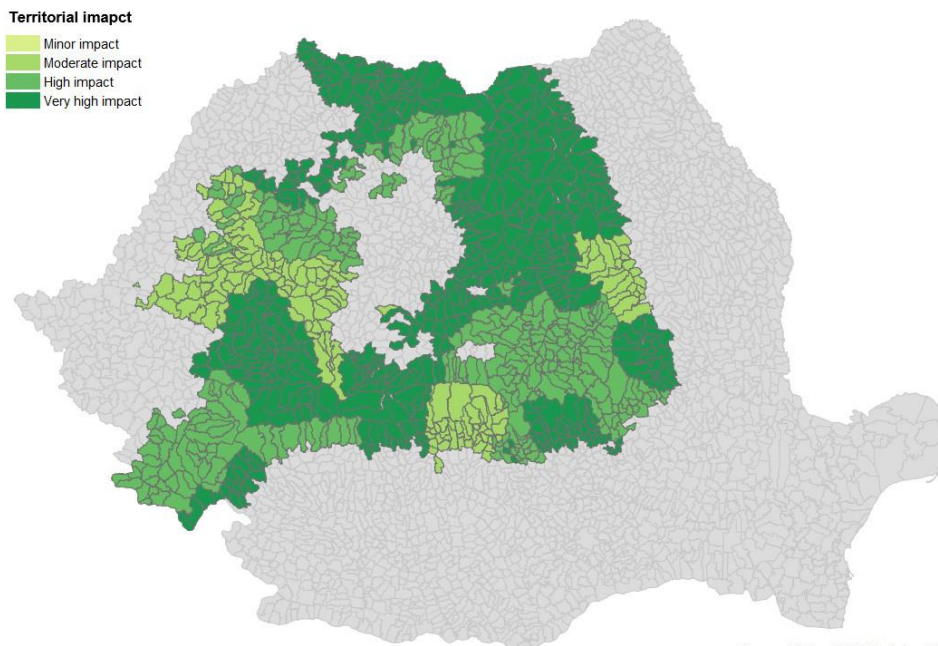
Figure 7. Result of the expert judgement: Migration rate



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 1. Migration rate - expert judgement: Strong advantageous effect

12 Migration rate



Source: National TIA Workshop Romania
Origin of data: National Institute of Statistics

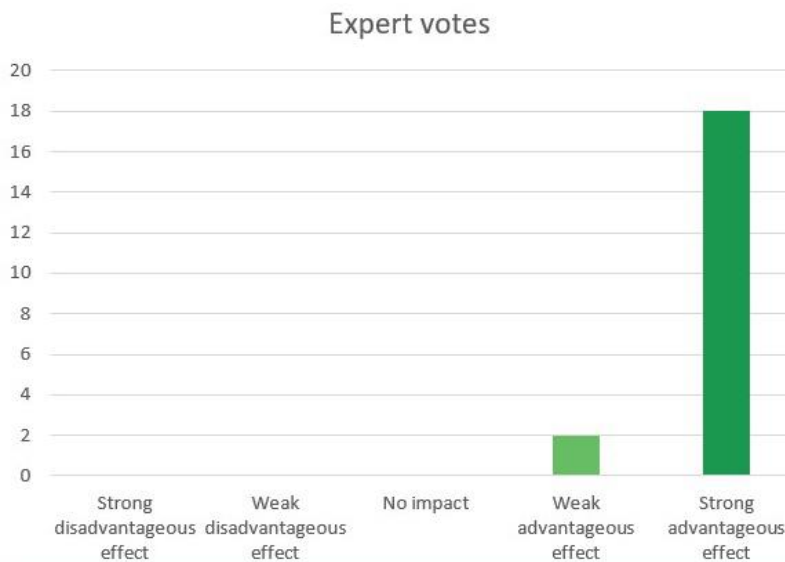
Source: Territorial impact assessment expert workshop, 21-22 September 2023

TIA-indicator: Young demography

Young demography was the second indicator that was chosen to picture the effect of the Mountain Strategy on the population development. The indicator “Young demography” signifies the percentage of individuals with Romanian citizenship who reside within Romania’s territory as of January 1st of the reference year, restricted on the age group of 0 to 14 years. It is assumed that municipalities that have a higher share of young people could benefit stronger in keeping young people in the area.

Actions from various pillars are likely to positively influence this indicator. A key factor will be the effectiveness of improving local infrastructure as well as job opportunities. Spin-off effects of multi-use infrastructure developed mainly for tourism but benefiting local youth as well can be expected. Due to the multitude of factors positively influencing this indicator, 18 experts assessed that the Strategy could have a “strongly advantageous effect” and two assessed that it would at least have a “weakly advantageous effect”. No one implied a negative effect of the Strategy on the share of young people.

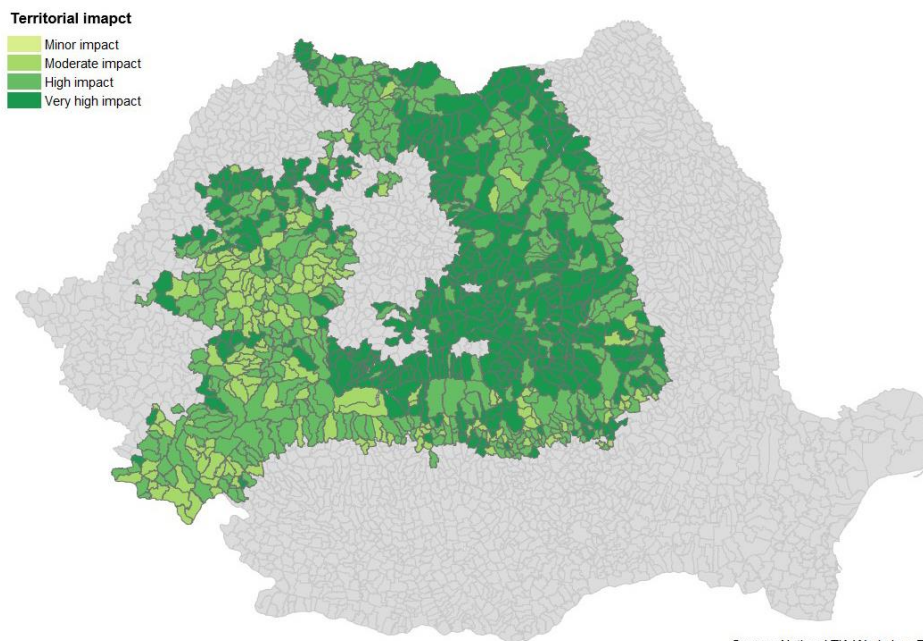
Figure 8. Result of the expert judgement: Young demography



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 2. Young demography - expert judgement: Strong advantageous effect

13 Young demography



Source: National TIA Workshop Romania
Origin of data: National Institute of Statistics

Source: Territorial impact assessment expert workshop, 21-22 September 2023

Based on the expert judgement 42% of the regions could assume a very high positive impact, 40% a high positive impact and 18% a moderate positive impact. Map 2 shows the potential territorial impact in relation to young demography. On a broad scale, a clear east-west divide is visible from the resulting patterns, with highest impact potentials concentrated in the North, Central and South Group as well as the Făgăraș and Parâng Group.

3.3.2 Connectivity

The Strategic Objective II: “Enhance Mountain Area residents’ connectivity in towns and rural areas” and especially Objective 5: “Enable Mountain residents’ mobility within and beyond the Mountain Area” address directly the need to improve access within the mountain area.

When implementing the proposed actions, improved connectivity, both within the mountain regions and between the mountain regions and the lowlands, is a clear impact of the strategy. While improved transport connectivity is expected to bring significant benefits, it may also have potential negative consequences.

Particularly in the peripheral regions of the mountain areas, better access to other parts of the country has the potential to tackle the loss of labor and contribute to value added within the region itself. This effect is particularly likely in the case of urban centers that are within easy reach of peripheral regions and act as a pull factor for labor.

Infrastructure development

Several case studies have shown that infrastructure development and connectivity projects have a positive impact on the associated regions. In the example of the Saulkrasti motorway bypass (Latvia), this was reflected in reducing travelling time, improving safety separating long and short distance traffic and diverting long-distance flows from more densely populated areas. In the case of the Rio Antirio Bridge in Greece, the project achieved its stated objectives of reducing travel time between Peloponnese and the mainland (European Commission, 2018, p.61-64).

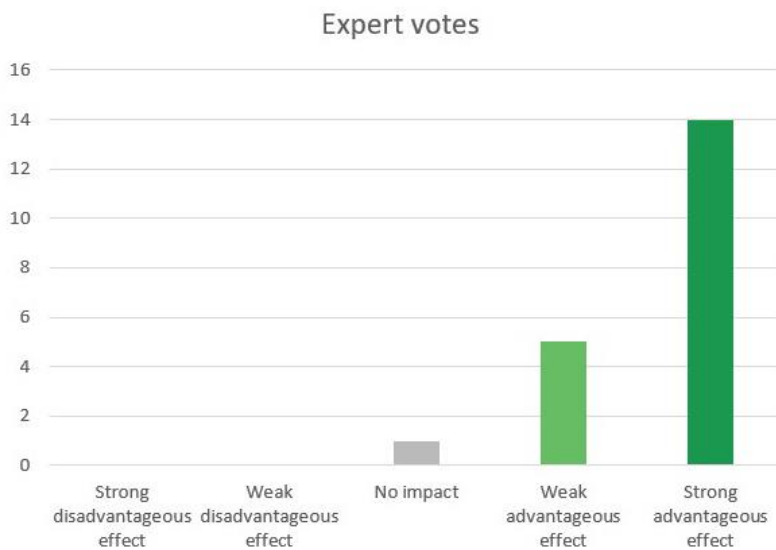
Public transport uptake

As the proposed actions focus strongly on improving public transport, territorial effects in this field were assessed with an indicator on public transport uptake. The details of the indicator applied are presented in the sections below. In particular actions in relation to Pillar II are likely to improve the regional situation in relation to this indicator, as per design of the policy. Some spin-off effects from further actions, notably in relation to tourism and the touristic needs are expected, however mainly with limited spatial reach and linked to singular destinations. The experts underlined the caveat, that public transport in particular in mountain regions has only a limited share of the overall transport capacity, and informal transport needs to be taken into account as well. Nevertheless, the experts assessed, that the Strategy has the potential to exert strong advantageous effects.

The indicator “Public transport uptake” represents the number of passengers using public road transport vehicles and metro services within a locality’s administrative-territorial area, relative to the total population. It combines passengers with tickets and those with season tickets, expressed as a proportion of the total population.

Among the expert opinions, the expectation of a strong (14) or weak (5) advantageous effect of this aspect again predominates. However, one expert does not expect any significant impact from changes in the area of public transport. In the case of public transport, negative proportionality is assumed. This means that a lower base level in the respective region opens up a better development opportunity for the mountain strategy.

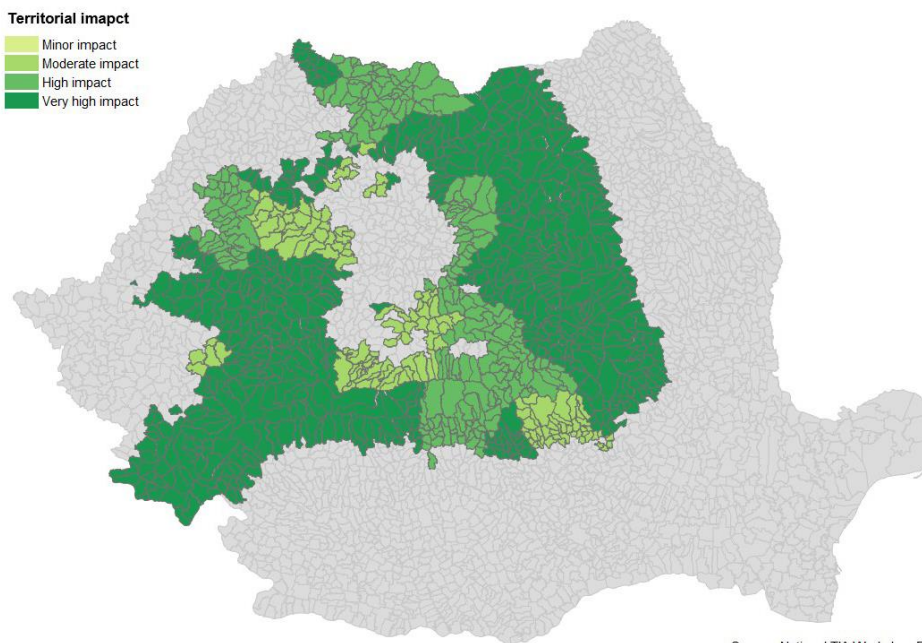
Figure 9. Result of the expert judgement: Public transport uptake



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 3. Public transport uptake - expert judgement: Strong advantageous effect

54 Public transport uptake



Source: National TIA Workshop Romania
Origin of data: National Institute of Statistics

Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 3 shows the potential territorial impact in relation to public transport uptake. 63% of the ATU/LAU would benefit from a very high positive impact. Additionally, a high positive impact is expected for 23% of the regions, while 14% would still benefit from at least a moderate positive impact. The patterns clearly highlight a relation between proximity to urban regions and deficits of public transport uptake throughout the mountain regions. Lowest impact potentials are concentrated in the Apuseni mountains well as the Făgăraș and Parâng Group, in particular in regions surrounding urbanized regions such as Cluj, Sibiu, Brasov or close to Ploiești urban area. The majority of regions has a high potential positive impact in relation to public transport, indicating a strong gap and a clear urban/suburban-rural divide. The potential territorial impacts thus do show a clear concentration of

lower impact potentials and an abundance of regions with very high impact potentials indicating a strong need for action.

3.3.3 Healthcare

Objective 1: “Improve Mountain residents’ access to quality healthcare, education, and other social services in Mountain “hub” towns and rural areas” target at the development of access to healthcare. Especially the measures 1.1 “Developing community health and social assistance centers in Mountain hub towns” and 1.2 “Establishing telehealth, mobile health, and elder care in remote parts of the Mountain Area” support actions to improve the quality of supply in rural remote areas.

These proposed improvements result in better access to health services, which is important given the severe shortage of health workers throughout the mountain regions. A key aspect in this respect is related to improved digital connectivity, which is likely to improve access to services such as telemedicine, which can address this shortage.

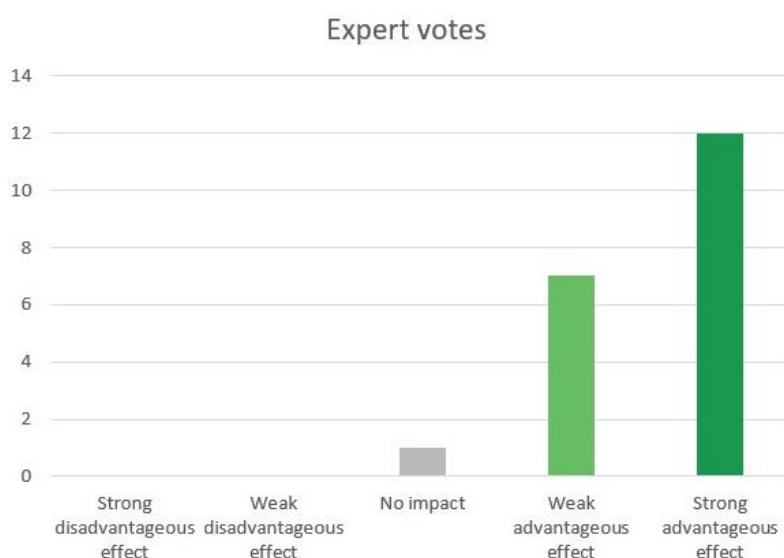
TIA-indicator: doctors available for the population

A key indicator describing the effect in relation to the broader health care system is the number of doctors in relation to the total population. (The indicator “doctors available” refers to the count of doctors (excluding dentists) who apply modern medical principles to study, diagnose, treat, and prevent various human ailments in relation to the total population.)

The issue of health care is directly addressed in Pillar I of the Mountain Strategy, but some spin-off effects of Pillar II related to digitalization and telemedicine are also relevant.

The availability of a doctor in a community is one aspect of a basic health care supply. However, further aspects have to be taken into account. Including the connectivity and the, actual availability (i.e. opening hours, 24-hour services, etc.). Both aspects cannot be addressed by the available indicator. Therefore, in the workshop the experts considered that the strategy has the potential to have strong beneficial effects, but several caveats need to be made regarding the actual availability and accessibility of services to all citizens.

Figure 10. Result of the expert judgement: Doctors available



Source: Territorial impact assessment expert workshop, 21-22 September 2023

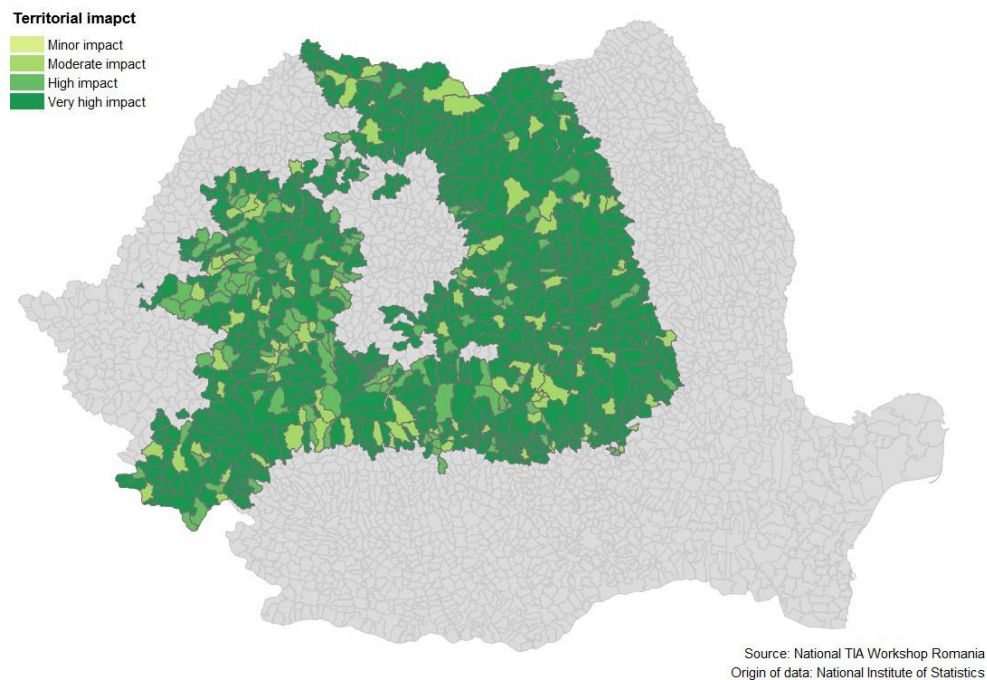
There is widespread agreement among the experts that the implementation of the Mountain strategy would have a positive effect. 12 experts assume a strong advantageous effect, 7 a weak advantageous

effect and 1 expert expects no impact. It is assumed that the fewer doctors are available at the moment, the greater the assumed impact of the Mountain Strategy could be.

Map 4 shows the potential territorial impact in relation to doctors available as a proxy for healthcare provision in general. It is evident from the map, that no clear regional differentiation can be identified. The majority of overall regions (3/4 of all regions) have the potential for very high positive impacts, indicating a distinctive gap throughout all massifs. Strikingly, urban proximity does not change the impact potentials, thus even the majority of regions close to urban areas (or even in urban areas) does experience similar gaps. 14% would benefit from a high positive impact and 11% from a moderate positive impact.

Map 4. Doctors available - expert judgement: Strong advantageous effect

45 Doctors



Source: Territorial impact assessment expert workshop, 21-22 September 2023

3.3.4 Educational attainment

Objective 1 “Improve Mountain residents’ access to quality healthcare, education, and other social services in Mountain “hub” towns and rural areas” and therein especially the measures 1.1 “Developing community health and social assistance centers in Mountain hub towns” and 1.3 “Developing daycare, kindergarten, after-school programming, and innovative schooling models in Mountain rural areas” address directly measures for improving education. Therefore, the strategy has the potential to improve educational facilities and programs. The proposed actions focus on the pupils in the primary and secondary education concentrating on remote areas, where there is a lack of day-care, kindergarten and after school facilities. Thus, there will be less impact in higher education.

Consequently, there is potential to reduce urban-rural disparities beyond the suburban regions if adequate funding can be secured. Younger residents are likely to benefit significantly from the strategy, as multiple impacts target areas relevant to them, including education, connectivity and employment opportunities.

Georgian development of high mountain regions

Georgian mountain regions have, as many others across the world, been suffering from continuous out-migration, limited economic development potentials and lack of services. As a consequence, lacking attractiveness for professions in the education- and healthcare sector (as in other sectors) led to a gap in needs and supply of teachers and medical staff. The quality of services provided by those sectors therefore saw declines against the overall upward trend of the country. A system introduced by the government building on the new Mountain Law in 2015 provided financial incentives for professionals working in healthcare or education in defined “high mountain regions”, increasing salaries by 20-35%. Evaluations found these bonuses to provide sufficient incentives to improve the attractiveness of the mountain regions. Initial positive dynamics observed are estimated to lead to long-term reverse of the negative development trends (CDE 2019)

3.4 *The macroeconomic impact (including the impact on the business environment)*

Pillar III: Green and Competitive Place-Based Economy directly addresses the economic development of the Mountain Area-in voracious fields including agriculture and agrifood value chains, the mountain forest bioeconomy, tourism and the development of smart specialization industries across sectors, especially taking into account SMEs. Thus, the Mountain Strategy is likely to have a wide range of economic impacts, with a strong focus on the dominant sectors of tourism, agriculture and forestry.

In the TIA Workshop discussions on the overall impact of the strategy were diverse. While a wide range of potential impacts were considered, two primary sectors, tourism and agriculture, were expected to have the strongest impacts. Forestry was recognized as a third key sector, although the experts acknowledged that the impacts of the strategy could be limited by structural and legal factors related to the forestry industry. Economic diversification is an explicit objective of the strategy and is generally expected to stimulate innovation and wider economic prosperity.

The objectives related to the green economy were identified as leading to an improvement in relation to agrotourism, promoting the timber industry and facilitating the operation of leisure businesses. These overall effects are subject to several interdependencies. In particular, the general economic stimulation was identified as a critical precondition for attracting people to settle in mountain areas, which in turn was seen as a precondition for promoting economic diversification outside the existing key sectors.

3.4.1 *Agriculture, Forestry and Industry*

Especially Objective 7: “Enable profitable and competitive Mountain agrifood value chains” targets on the improvement of economic sector of agriculture by supporting agrifood producers’ capacity to competitively supply (local) markets, supporting value addition, stimulating demand for Mountain agrifood products and helping agrifood actors access public subsidies and technical assistance. Objective 8: “Strengthening economic opportunities in the mountain forest bioeconomy (and the non-food bioeconomy at large)” is focusing on the support of the development of forestry, whereas Objective 10: “Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors industry” addresses support for other sectors of the industry.

The territorial impact of agriculture, forestry and industry can be assessed by two main indicators, namely employment and entrepreneurship in the respective sectors. Both indicators of the territorial observatory combine agriculture, forestry and industry. So the analysis of both indicators combines these three sectors. Consequently, the experts of the TIA workshop noted that although both agriculture and forestry are addressed by the strategy, measures related to agriculture seem to have a

greater potential for positive impacts. This is mainly due to the fact that they are already linked to other sectors by the strategy, whereas forestry is still considered as a separate sector. Agritourism and the marketing of agricultural products to tourists and for sale outside the mountain areas have the potential to gradually improve the situation of agricultural entrepreneurs and also to improve the income generation of very small farms.

This positive effect of supporting agriculture was e.g. documented for the Austrian agricultural sector. Even though there was an extensification of farming, there has been an increase in production and producer surplus as well as in the volume of employment in agriculture. Moreover, the results show that the impact of the program was not only strong in those regions to which a lot of funds flow directly. Due to the economic interdependence through the purchase of inputs and the induced effects from the changed use of income, those regions in which only a few beneficiaries of the program are located also benefit. (WIFO, “Interim assessment of the effects of the Rural Development Program Development Programme 2014-2020” 2019, p. 77 + 98)

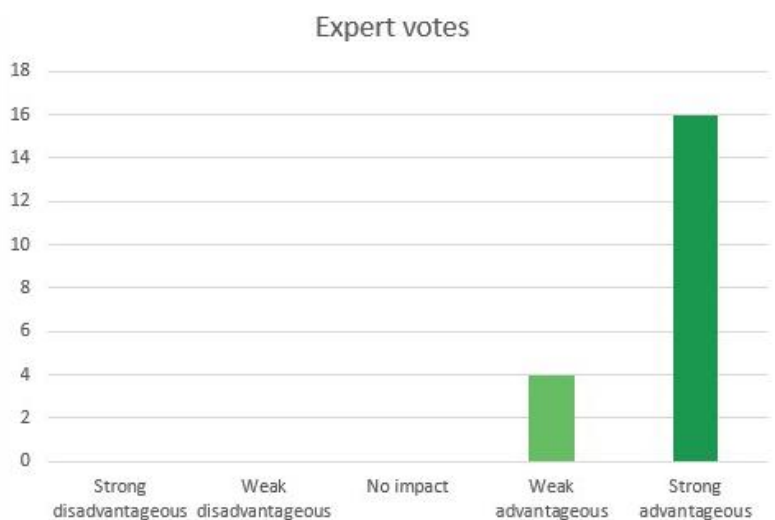
The impacts on forestry, on the other hand, are considered to be an improvement compared to the business-as-usual scenario. The impacts on industry can be considered as more limited, as the strategy does not emphasize these aspects strongly. For both indicators, the experts consider that the strategy has the potential to generate strong beneficial effects, but emphasize that this is particularly relevant for the agricultural aspects and less pronounced for forestry and industry. The potential territorial impacts do not show a strong clustering effect, with potentially high positive impacts spread across the different massifs. However, a slight concentration of potential positive effects can be observed in relation to entrepreneurship.

Employment - Agriculture, Forestry, Industry

The indicator “Employment - Agriculture, Forestry, Industry” depicts those employees actively involved in income-generating roles within these three sectors. This encompasses individuals engaged in contractual employment or self-employment, with income derived from sources such as wages and payment in kind. (This category does not include military personnel, prisoners, or individuals employed by political and public organizations.) The metric is presented as a percentage of the overall employed workforce. It is supposed that regions with a higher employment rate in these three sectors will also respond better to measures targeting these sectors.

In this particular field, the experts of the workshop foresee a solely positive impact, with 16 holding a strong advantageous outlook and 4 expressing a weak advantageous effect.

Figure 11. Result of the expert judgement: Employers - Agriculture, Forestry, Industry

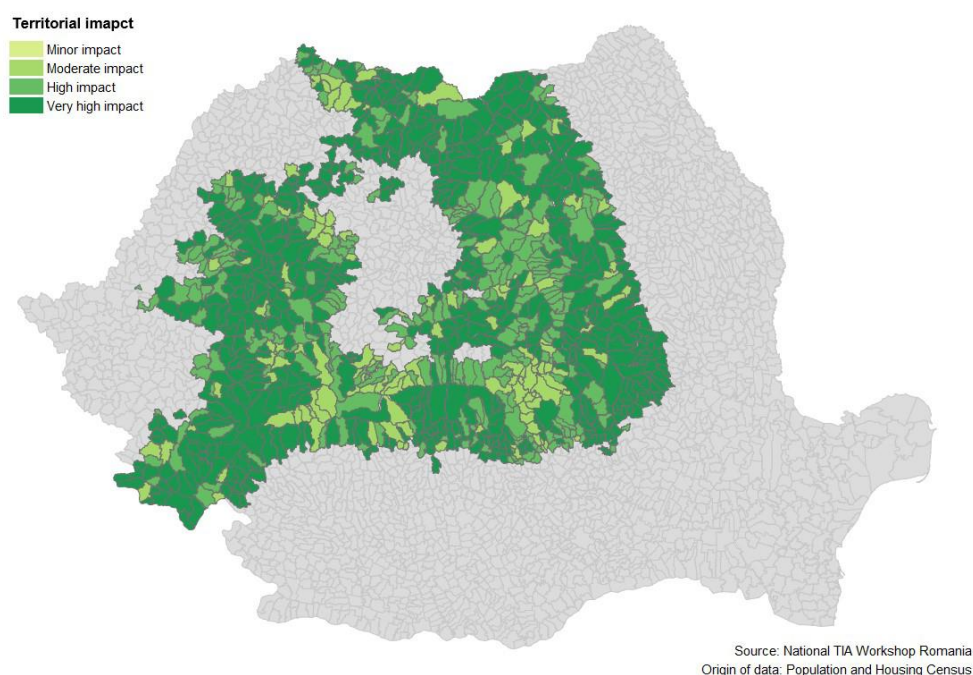


Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 5 shows the potential territorial impact in relation to economic development taking into account the employment in the Agriculture, Forestry and Industry sector. 60% of the ATUs/LAUSs are assumed to have a very high positive impact. Another 27% are expected to have a high positive impact and 13% a moderate positive impact. Territorial patterns emerging do not show a differentiation by masif, however a difference in potential impacts between central mountain regions and the fringes of the Mountain Area can be identified. Complementarity between those patterns and tourism regions can be identified in a cross-comparison.

Map 5. Employment - Agriculture, Forestry, Industry - expert judgement: Strong advantageous effect

16 Employers - Agriculture, Forestry, Industry



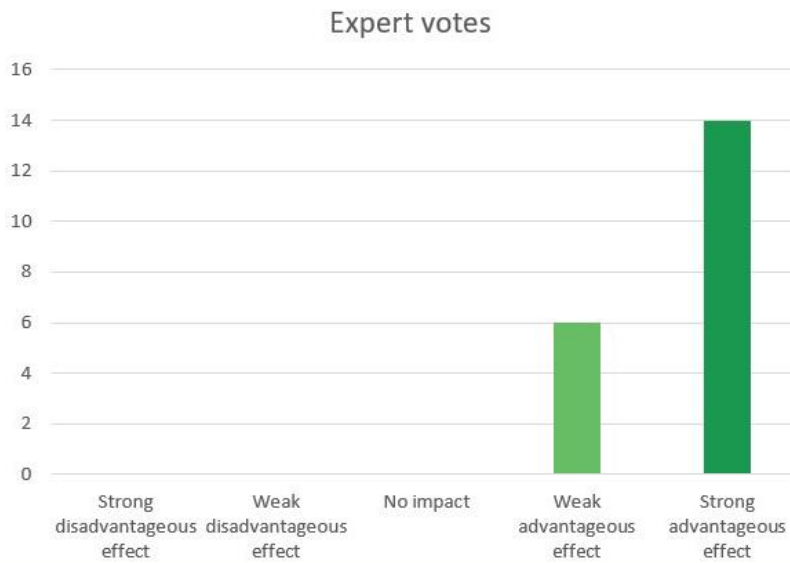
Source: Territorial impact assessment expert workshop, 21-22 September 2023

Entrepreneurship - Agriculture, Forestry, Industry

The indicator “Entrepreneurship - Agriculture, Forestry, Industry” counts active enterprises engaged in producing goods or services during the observation period and reports them by industry according to NACE Rev. 2 in Agriculture, Forestry, and Industry sectors. Along with a higher indicator value per region, a higher sensitivity towards the mountain strategy is assumed. According to the experts, the projected effect is clearly advantageous, as 14 experts expect a strong and 6 a weak advantageous effect.

Map 6 shows the potential territorial impact in relation to economic development taking into account the entrepreneurship in the Agriculture, Forestry and Industry sector. A very high positive impact is also expected in 56% of the surveyed regions, a high positive impact is expected for 25% and a moderate positive impact for 19%. Contrasting the patterns visible for employment, the potential impacts in relation to individual enterprises unveils lower probability of positive impacts in the Banatului and Poiana Rusca Mountains as well as Retezat, Parâng and Parts of Bucegi Group. On the other hand, Apuseni Mountains as well as Făgăraș and Nordic Group are particularly positively impacted.

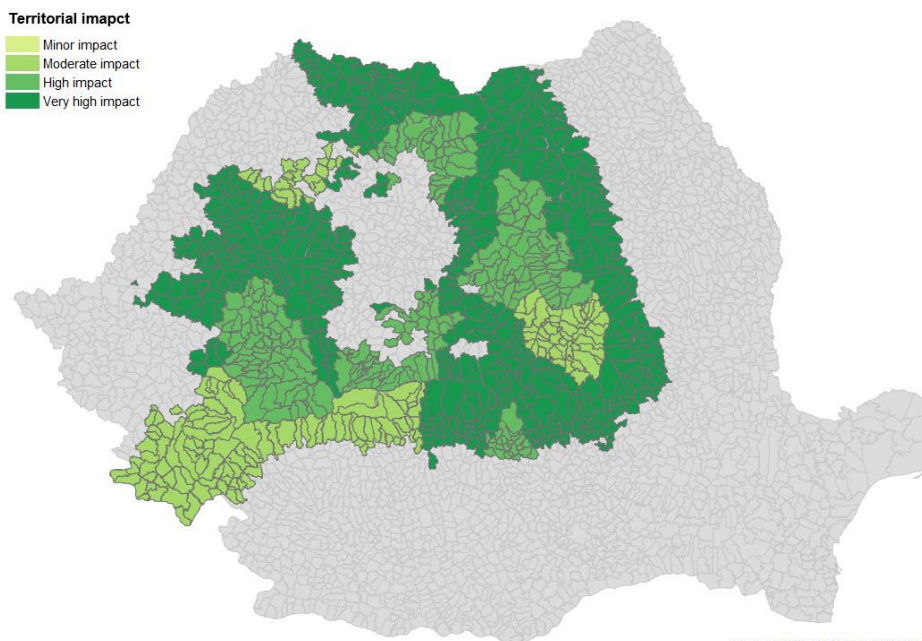
Figure 12. Result of the expert judgement: Entrepreneurship - Agriculture, Forestry, Industry



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 6. Entrepreneurship - Agriculture, Forestry, Industry - expert judgement: Strong advantageous effect

105 Entrepreneurship - Agriculture, Forestry, Industry



Source: National TIA Workshop Romania
Origin of data: National Institute of Statistics

Source: Territorial impact assessment expert workshop, 21-22 September 2023

Three key limitations of the indicator have to be taken into account nonetheless. First of all, the number of enterprises, is considered, but not the size (neither in terms of employees nor turnover). Secondly, very small farms and subsistence agriculture are in most cases not covered by the indicator and thus create a biased view on the distribution of farms. Finally, location of the enterprise is usually accurate for industrial sectors, however does not necessarily coincide with the actual fields or forests utilized by agriculture- or forestry sector.

3.4.2 Territorial effects on tourism

The experts highlighted tourism as an important driver of economic prosperity and growth in mountain areas. The existing cultural landscape has significant economic potential as it contributes to the high-quality landscape and natural capital of the region. This in turn is likely to have spin-off effects for tourism as a key marketing approach. Consequently, the improvement of tourism is directly addressed by Objective 9 of the Mountain Strategy “Increase the economic weight of Mountain tourism”. Agricultural regions in particular are likely to benefit from additional marketing potential and improved green tourism.

Tourism Additionally to Objective 9, tourism can benefit from multiple further development addressed in the Mountain Strategy, as impacts, e.g. the improvement of natural capital through Pillar IV or improving connectivity through Pillar II. In turn, tourism-related infrastructure improvements are likely to improve the local population’s access to several key infrastructures, including transport, but also leisure. In the TIA workshop the territorial impact of tourism was assessed using three main indicators, namely overnight stays, employment and turnover in the tourism sector.

Oltenia de sub Munte: Romanian region aspires to become a UNESCO Geopark

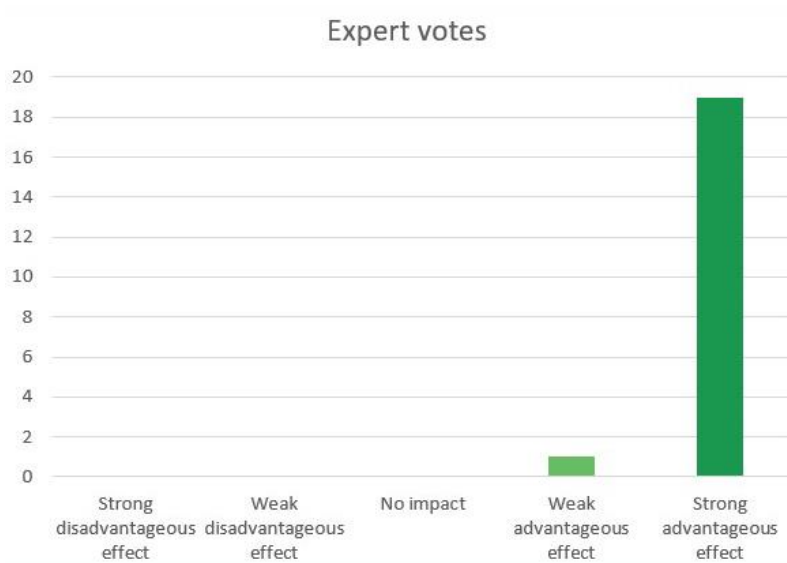
The key to a successful transition into long-term development in mountainous areas is dependent on the availability of funding that can be accessed and local innovation. Oltenia de sub Munte, a region located in southern Romania, is a prime example of this phenomenon. The Kogayon Association has been working diligently to achieve UNESCO geopark status for this region. The economic potential of Oltenia de sub Munte is closely intertwined with its aspirations to become a UNESCO geopark, as the process of earning the designation is more important than the designation itself. Over the past few years, public funding amounting to more than EUR 150 million has been predominantly allocated towards enhancing the road infrastructure in Oltenia de sub Munte. This investment has greatly improved the accessibility of the region’s attractions, laying the groundwork for potential expansion in tourism. Nevertheless, further funding is necessary to ensure the region’s growth is sustained and enhanced, particularly in the development of water and sewage infrastructure. The geopark project owes its success to the unwavering support of the community, as demonstrated by surveys that boast a 96% approval rate. This robust and enthusiastic collaboration among locals has laid a solid groundwork for the Oltenia de sub Munte project. This partnership between the community and the project is paving the way for a prosperous future in the region, where economic potential is in harmony with sustainable development. (Fodor, 2023)

Overnight stays in hotels/capita

The indicator “Overnight stays in hotels/capita” depicts the number of overnight stays in tourist accommodations. An overnight stay is each night for which a person is registered in a tourist accommodation establishment, whether or not physically present in the room and is expressed relative to population. As the Mountain Strategy is tapping on the improvement of existing tourist structures and potentials regions with a higher number of overnight stays per capita are expected to be affected higher than regions with less existing tourism. Sensitivity is thus directly proportional to the number of overnight stays per capita.

19 of the 20 experts participating in the TIA workshop attributed a strong, advantageous effect on “overnight stays in hotels/capita”. Only one expert expected a weak advantageous effect.

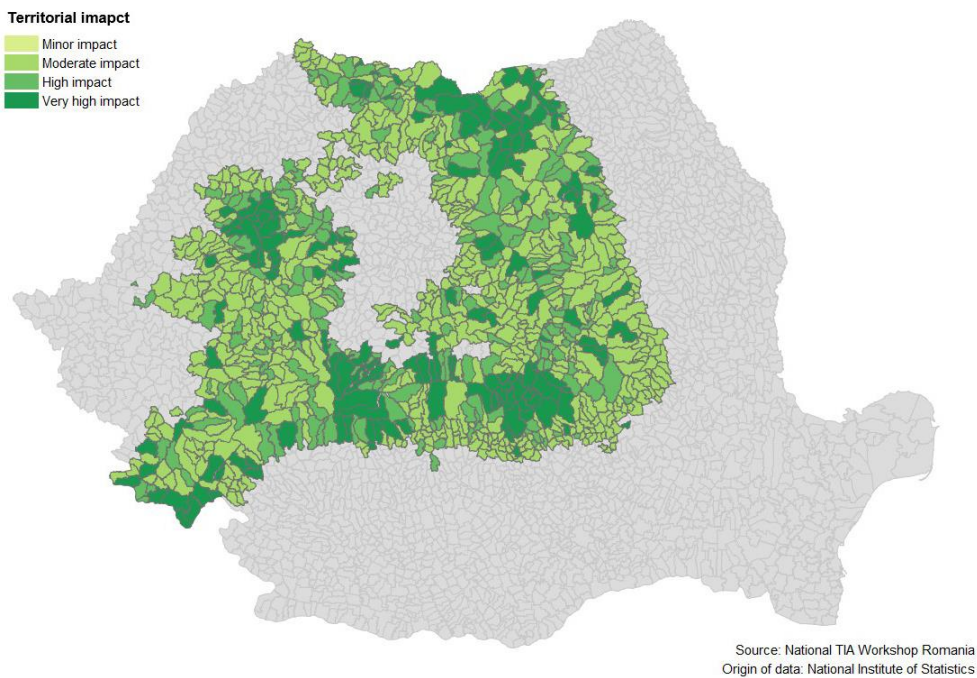
Figure 13. Result of the expert judgement: Overnight stays in hotels/capita



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 7. Overnight stays in hotels/capita - expert judgement: Strong advantageous effect

146 Overnight stays in hotels / capita



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 7 shows the potential territorial impact in relation to touristic development taking into account overnight stays per capita. It combines the expert judgement of a strong advantageous effect with the given sensitivity of regions. The majority of regions (63%) has potential for a minor positive impact in this regard, with further 20% expecting a high, and 17% a very high positive impact. The highest potential impacts are clustered in four main regions in the Apuseni Mountains, the Nordic Group, the Parâng Group and at the intersection of the Bucegi and Făgăraş Group. In comparison with the further tourism indicators, a much clearer concentration can be identified, thus highlighting key benefitting

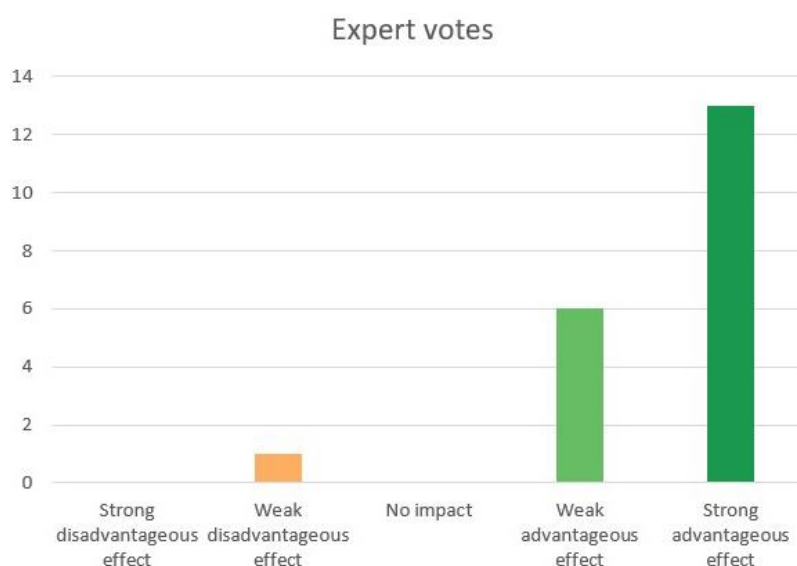
regions. Nevertheless, limitations in relation to irregular overnight stays not counted by the indicator applied have to be taken into consideration in interpreting the map.

Turnover in the hotels and restaurants sector

The indicator “Turnover in the hotels and restaurants sector” is a financial metric, which sums up the revenue from selling goods, merchandise, services, and includes discounts and allowances given to customers in hotels and restaurants. As the Mountain Strategy is tapping on the improvement of existing tourist structures and potentials it is alleged that regions with a higher turnover in the hotel and restaurant sector are expected to be affected higher than regions with a lower turnover. Therefore, the level of sensitivity rises in direct proportion to the turnover within the hotels and restaurant sector. Limitations of the indicator are given as it does not include informal tourism.

The majority of workshop participants agreed that turnover in the hotel and restaurant sector will tend to have a beneficial effect (13 strongly advantageous, 6 weakly advantageous). Only one expert was concerned about a weak disadvantageous effect.

Figure 14. Result of the expert judgement: Turnover in the hotels and restaurants sector



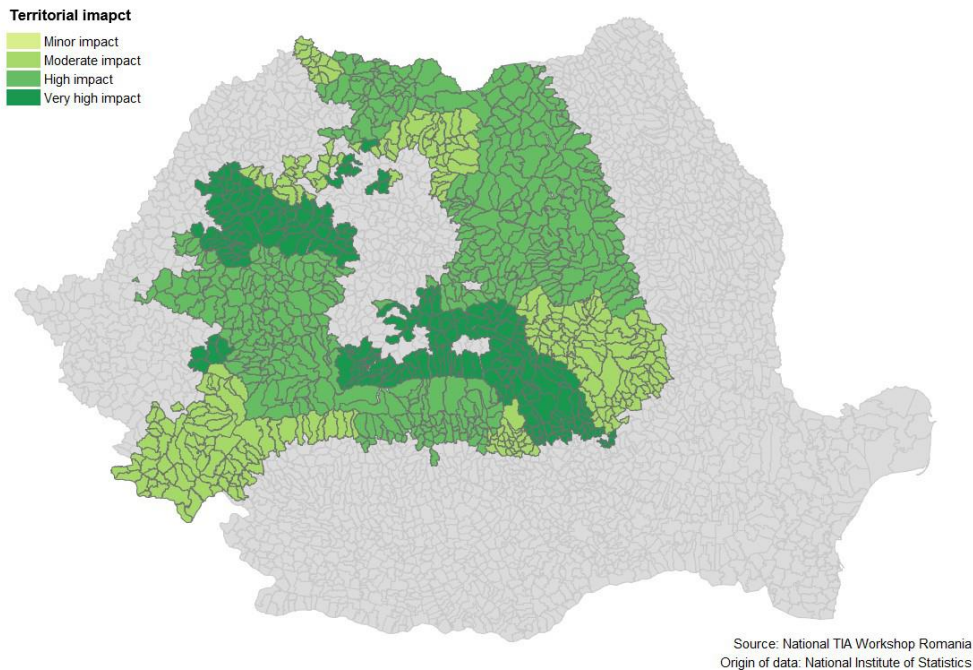
Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 8 illustrates the potential territorial implications of the Mountain Strategy concerning the turnover in the hotels and restaurants sector combining expert opinions of a substantial beneficial impact with the regions’ established sensitivity. Nearly half of the regions (48%) have potential for a high positive impact in this regard, with further 23% expecting a very high, and 29% a moderate positive impact.

The potentials are considered highest in the Apuseni Mountains as well as in the Mountain Regions close to Sibiu, Brasov and on the Brasov-Bucharest axis. While further indicators imply a high importance of tourism throughout the region, turnover seems to be concentrated in a lower number of key benefitting regions. This nevertheless does not diminish the local importance tourism might have in municipalities even when overall turnover is lower. Peripheral, non-urban or close-to-urban-regions generally have an expectation of lower turnover based on these assessments.

Map 8. Turnover in the hotels and restaurants sector - expert judgement: Strong advantageous effect

131 Turnover - Hotels and restaurants sector



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Employment - Hotels and restaurants

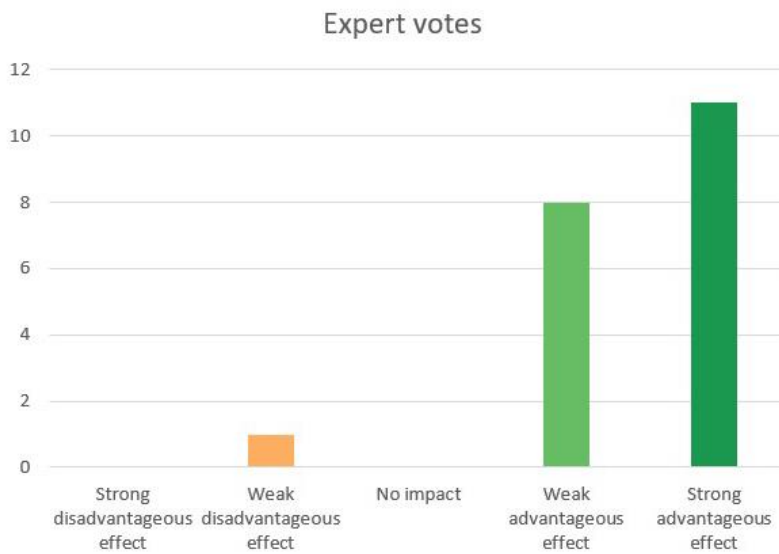
The positive effects in tourism will include effects concerning the employment in hotels and restaurants. The indicator “Employment - Hotels and restaurants” represents the proportion of the civilian workforce engaged in income-generating roles within the hotel and restaurant sector. This encompasses individuals working under contracts, engaging in self-employment, freelancing, or contributing as unpaid family workers. It includes various income sources such as wages and payment in kind. Notably, this category excludes military personnel, prisoners, and employees of political and public organizations. Regions with a higher concentration of employment in the hotel and restaurant sector are anticipated to benefit from the Mountain Strategy. Sensitivity to this effect is directly linked to the level of employment within these sectors.

The majority of the experts participating in the TIA workshop concurred that a significant workforce presence in the hotel and restaurant industry tends to yield positive outcomes, with 11 experts expecting a strong advantageous effect and 8 expressing a weak advantageous effect. One expert held a contrary view, anticipating a weak disadvantageous effect.

The subsequent map illustrates the potential territorial impact of the Mountain Strategy.

Map 9 shows the potential territorial impact in relation to the employment in the hotels and restaurants sector incorporating expert judgments of a strong positive effect alongside regional sensitivity levels. A predominant share of regions (43%) displays potential for a high positive impact, with an additional 35% expecting a very high positive effect and 22% anticipating a moderate positive impact.

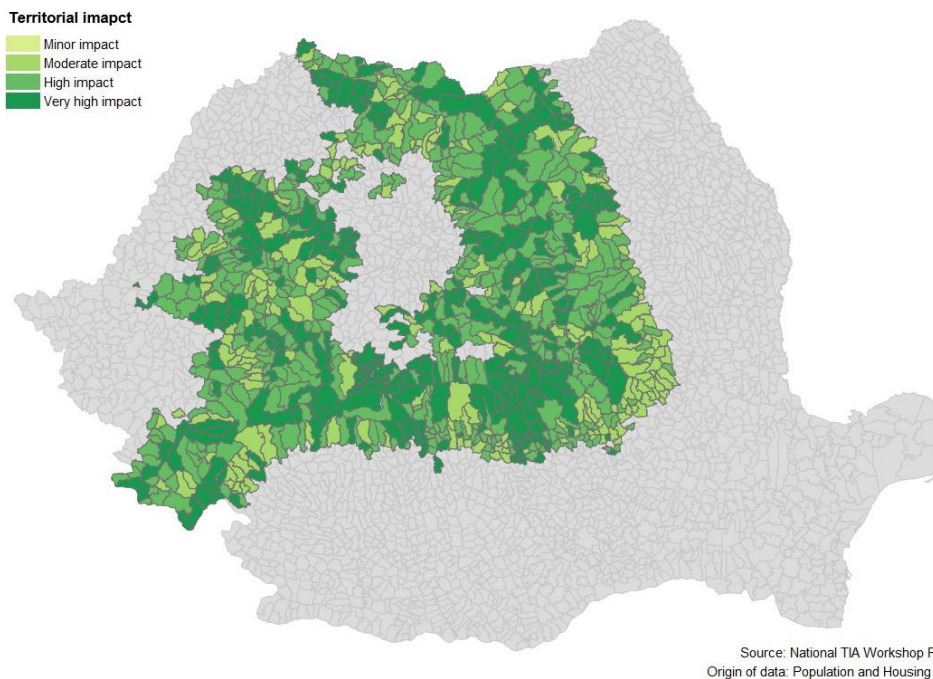
Figure 15. Result of the expert judgement: Employers - Hotels and restaurants



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 9. Employment - Hotels and restaurants - expert judgement: Strong advantageous effect

24 Employers - Hotels and restaurants



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Similar to turnover limitations of the indicator were raised by the participants, as it is only able to depict a subset of the touristic happenings in the area. No clear clusters of high or low impact potentials are emerging from the map, but rather regions with very high potential impact are scattered throughout all massifs, both close and distant to urban areas. Strikingly, the patterns indicate a higher potential impact in central mountain regions as compared to regions at the fringes of the Mountain Area.

3.4.3 Attracting investments from outside

The experts participating in the workshop stressed that the strategy is likely to attract the interest of investors from outside the mountain areas by increasing local innovation. Improving the conditions for private-public investment cooperation through a coherent strategy, especially for tourism and larger projects, is crucial in this respect. These conditions are likely to attract additional investment over and above the funding available at EU and national level, thus contributing to economically viable structural projects. This would further contribute to a positive economic development.

3.4.4 Higher public income

A key effect of improved economic development highlighted by the experts is furthermore the increase in local budgets through higher tax revenues. This increased revenue can not only stimulate economic growth, but also increase the independence of local governments, allowing them to better respond to the needs of their communities. As a result, positive spill-over effects in terms of social infrastructure are expected to benefit smaller peripheral communities in particular.

3.5 The impact on the environment

The Strategic Objective IV of the Mountain Strategy “Protect, restore, and nurture the integrity, health, and resilience of Mountain ecosystems and biodiversity” under Pillar IV: “Respect for Nature” directly addresses the environmental status of the mountain area. Consequently, the implementation of the Strategy can contribute to a number of environmental impacts, some of which are interrelated with other environmental impacts, or more broadly with impacts in other areas. A Strategic Environmental Impact Assessment (SEA) was conducted analyzing the impacts of the Mountain Strategy on the environment. Consequently, the section “The impact on the environment” is not further elaborated in the ex-ante impact assessment to avoid any duplication of work.

3.6 Assessing the costs and benefits from the perspective of innovation and digitization

Digital connectivity was identified as a key factor in attracting people from urban areas to mountain regions. Consequently, the Mountain strategy Addresses this issue in Objective 6: “Enable more Mountain Area residents to benefit from internet access.” This overall objective is broken down into three proposed measures: Measure 6.1. “Expanding internet infrastructure in small towns and rural areas” supports actions to strengthen the internet (broadband) infrastructure in rural areas. Measure 6.2. “Endowing communities with equipment for internet access” aims at developing further access point to high-speed internet in remote rural areas. Measure 6.3. “Develop Mountain Area residents’ digital competences” focuses on strengthening the internet-skills of the people and potential users. Additionally, Measure 1.2. “Establishing telehealth, mobile health, and elder care in remote parts of the Mountain Area” under Objective 1: “Improve Mountain residents’ access to quality healthcare, education, and other social services in Mountain “hub” towns and rural areas” focus on developing the supply of health-related internet services.

Implementing these objectives and measures can support a positive development on the mountain areas. A good access to high-speed internet is a location factor for people and business. It can make living in rural areas more attractive to urban citizens with the option to work remotely. As urban dwellers are unlikely to change or leave their jobs in the short term, teleworking is seen as a key component in retaining and attracting talent. This provides an opportunity for growth beyond the primary sector and tourism, as knowledge and innovation in a variety of fields can - in the long term - open up opportunities in sectors not yet established in mountain regions.

Moreover, collaboration between businesses is expected to benefit from digitalization, especially when it goes beyond the primary sector. Enhanced digital connectivity provides rural enterprises with the opportunity to amplify their productivity by implementing advanced technologies, such as precision agriculture, smart logistics, and augmented reality applications. This includes chances in digital marketing, which could be crucial for long-term growth in tourism-related sub-sectors. These effects were already recognized during the development of the enlargement of Vodafone's network in Romania (Deloitte LLP, 2021).

Particularly in the peripheral regions of the mountain areas, better access to other parts of the country has the potential to contribute to a loss of labor and value added within the region itself. This effect is particularly likely in the case of urban centers that are within easy reach of peripheral regions and act as a pull factor for labor. However, improvements in digital connectivity can bridge further distances and create such “drowning” effects outside the peripheral regions and into more remote areas.

The costs of digitalization activities in line with the Mountain Strategy cannot be defined at this stage, as the strategy itself is not tied to a concrete budget and thus does not lead to any changes to budgets, increase or decrease expenditures or require concrete changes to existing budgets. The implementation of the strategy and funding of outlined measures is tied to various funding programs (e.g. Cohesion Programs or the CAP) and further legal and funding adaptations. Thus, the strategy itself does not cause direct costs or benefits.

3.7 Other information

3.7.1 Increasing implementation capacities through governance

Successful implementation of the Mountain Strategy will require significant efforts at local and other levels of government. The capacity of public authorities to implement the elements related to their area of responsibility is key to bring the various elements to the ground. Taking into account the specific circumstances and challenges of mountain areas, local and regional expertise is needed to implement the strategy effectively and according to local needs. Consequently, the Mountain Strategy addresses governance by an own Pillar (Pillar V: Mountain Empowerment (Representative and Supportive Government) and accordingly with the Strategic Objective V: “Empower the Mountain Area to determine and pursue its own aspirations”.

One of the likely impacts of the Strategy in the governance area is the improvement of administrative capacity at local and regional level. As these authorities are tasked with implementing the Mountain Strategy in different areas, their capacity to translate its principles into concrete actions and to support local actors in their respective implementation efforts is expected to increase. This, in turn, fosters impacts beyond the immediate scope of the Strategy, particularly in the implementation of elements such as the EU Structural Funds.

However, capacity problems are common and it may be difficult to take on significant new and innovative tasks to support implementation at local level. Measures improving the governance help to avoid a overburdening of public authorities with the relevant tasks.

A key governance effect of the strategy is the expected increase in the capacities of local and regional government to fulfil their tasks in a subsidiary way. This effect is closely linked to the strategy's impact on economic development. As economic activity in upland areas generates higher tax revenues, local and regional authorities will become more financially independent and better able to support activities beyond their core functions.

The economic growth resulting from these activities not only strengthens local budgets, but also contributes to the development of local expertise and administrative capacity, in particular with regard to access to funding from public and private sources. This positive feedback is likely to improve the quality of projects and proposals submitted for funding. If local authorities are able to clearly identify and

(administratively) support projects that are in line with the objectives of the strategy, the likelihood of their successful funding and implementation increases.

3.7.2 *Improved access to finance and investment opportunities*

During the territorial impact assessment workshop, the access to funding in Mountain areas was discussed. Funding gaps for a broad range of activities were pronounced in the Mountain Areas and connected to the special circumstances and constraints. Adding to those constraints, local authorities are less likely than in other parts of the country to have the capacity to access such funding opportunities. Of note, this effect is to a lesser extent a Mountain-Lowlands disparity as rather an Urban-Rural disparity. Generally larger administrative bodies tend to have increased administrative capacities for such activities, and at the same time the respective regions provide better preconditions to actively support funded activities.

Although the strategy does not provide funding per se, it is likely to lead indirectly to increased access to funding for local projects, which may help to kick-start innovative endeavors. The efficient economic use of natural capital, including forests, pastures and grasslands, is expected to improve through strategically coordinated approaches and better access to finance. Local projects are crucial in this respect, as they play a key role in keeping added value within communities and counteracting the risk of knowledge and innovation drain. Measure 15.3 “Establish specific mechanisms to help Mountain stakeholders access available public funding and technical resources and handle administrative requirement” proposes actions to increase the amount of funding received in mountain areas e.g. through grant-writing and administrative assistance entities, development of a mechanism for coordinating funding requests from Mountain stakeholders or training grant writing for local actors. These activities support the increase of incoming funding into the mountain area.

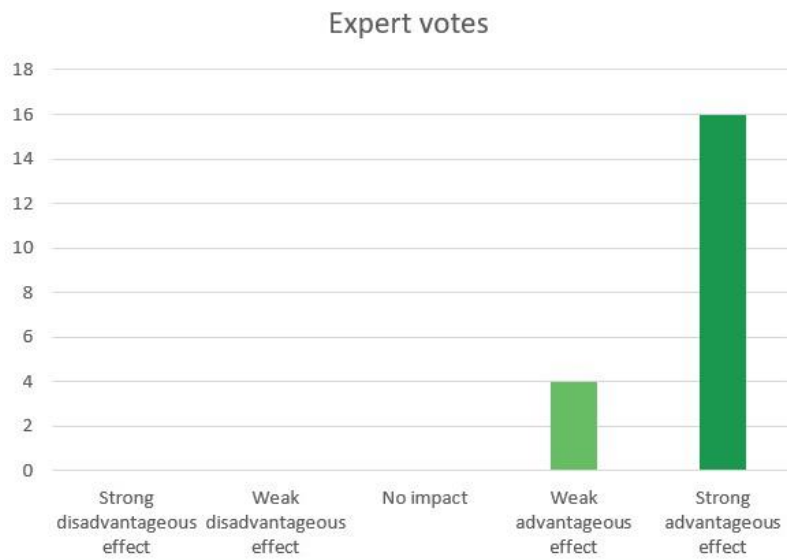
If capacity building for local authorities and increased resources are targeted by the strategy, it has the potential to exert strong advantageous effects as per the experts assessments.

In order to depict the potential impact of the Mountain Strategy on the access to funding, the indicator of the territorial observatory “funding from national programs cleared” was chosen by the experts of the TIA workshop as a proxy indicating the regions capacities to attract and access funds stimulating local level development. This indicator quantifies the proportion of funding obtained from national programs in relation to the local budget that has been approved. It is assumed that regions with a lower share of funding from national programs at the moment are expected to catch up by the supporting measures and thus would be affected more positively than regions that are already firm with funding opportunities.

Without much objection, the experts agree on an advantageous effect of the Mountain Strategy in this respect: 16 strongly advantageous and 4 in favor of a weak advantageous effect.

Map 10 shows the likely territorial impact for funding potentials depicted via funding from national programs as a proxy. Here, a very high positive impact is expected for 57%, which is complemented by 28% regions with a high positive impact and 15% with a minor positive impact. Concerning the territorial pattern, no clear regional clusters are emerging and potentials for both high and low impacts are scattered throughout the map. Some slightly higher potentials can be identified though in the Retezat Group and the Banatului and Poiana Rusca Mountains. Notably, 2/3 of all regions have the potential for very high positive impacts, thus indicating a pronounced gap in funding access in the past

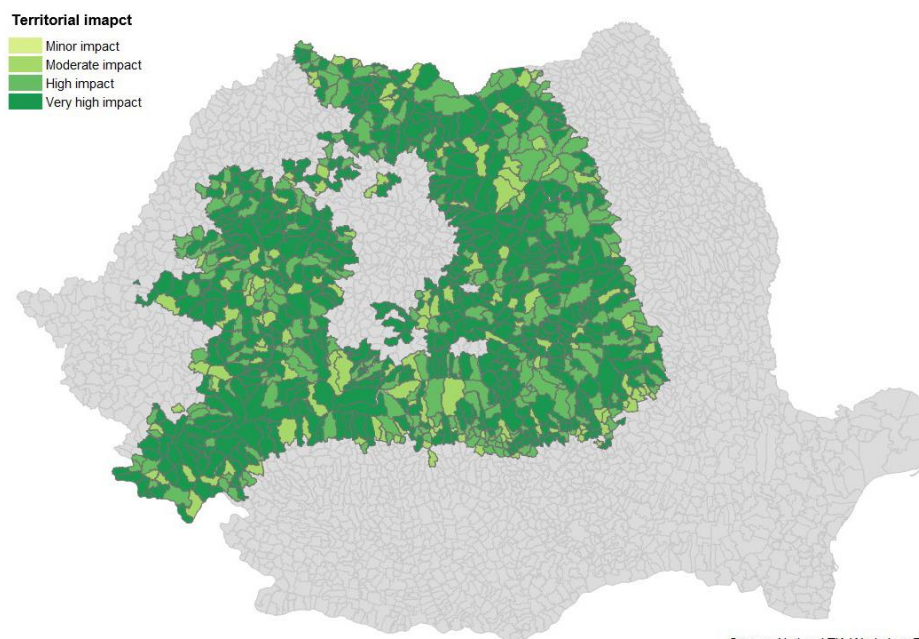
Figure 16. Result of the expert judgement: Funding from national programs cleared



Source: Territorial impact assessment expert workshop, 21-22 September 2023

Map 10. Funding from national programs cleared - expert judgement: Strong advantageous effect

100 funding from national programmes cleared



Source: National TIA Workshop Romania
 (estimates based on data from Ministry of Regional Development, Ministry of Agriculture Forests and Rural Development, Ministry of Investment and European Projects)

Source: Territorial impact assessment expert workshop, 21-22 September 2023

4 The financial impact of the Strategy

Methodological approach of the ex-ante assessment: The ex-ante assessment implemented the review of potential funding sources from EU funding identifying potential thematic overlaps and theoretically available funds. The review was based on crossing intervention fields from all relevant ESI funds on national level (all programs) and regional level (all programs except Bucharest-Ilfov), all intervention fields of the CAP Strategic Plan and all measures of the NRRP. The assessment focuses on potential thematic overlaps, however could not consider the already committed or spent resources. Some gaps thus might arise where concrete availability of funding is not given under all circumstances.

Contribution to the strategy development: the ex-ante assessment conducted the full review for funding sources as well as for indicators in consultation with the strategy drafting team and provided the corresponding sections to the strategy.

Uptake of the recommendation and remaining recommendation: The information provided by the ex-ante assessment was fully taken up by the strategy.

The strategy itself is not tied to a concrete budget and thus does not lead to any changes to budgets, increase or decrease expenditures or require concrete changes to existing budgets. The implementation of the strategy and funding of outlined measures is tied to various funding programs (e.g. Cohesion Programmes or the CAP). The respective potential funding sources are identified below. The strategy has been brought to the attention of the respective Managing Authorities and the respective measures and envisaged projects have been outlined. It is in the discretion of the Managing Authorities though to make any concrete funding decisions which have to be in line with their regulations and guidelines on project selection and funding. Some funding gaps could nevertheless be identified which can be addressed by the programs in the subsequent programming periods (post 2027).

4.1 General recommendations for implementing the strategy

Short term measures

- Review of available budgets and capacity by Managing Authorities for implementation of projects in mountainous regions could provide a realistic picture of the status quo and build the basis for a roadmap towards the end of the programming period 2021-2027. Such a roadmap can provide valuable information for intermediaries and supporting institutions when guiding potential beneficiaries or authorities in general linked to project development.
- Information and awareness raising for program authorities is required to effectively support the implementation of the Strategy. Within the limits of the established administrative procedures and selection criteria for projects, those projects from mountainous regions could be particularly supported. This could entail information campaigns as well as targeted support outlined below for applicants.

Medium term measures

- Key limitations for mountain regions when trying to access funding are linked to the implementation provisions of the respective funds. This includes e.g. selection criteria related to the effectiveness of measures outlining the amount of population potentially benefiting from a specific measure. Such selection criteria do take into account the national level needs in prioritization, however carry the potential to disregard the local/regional level needs. An adjustment of these selection criteria - to the extent allowed by the European policy framework - is recommended for the post 2027 programming period of EU funds. This can include e.g. territorial provisions for

specific measures, or general adjustment of the weight of such factors disadvantaging the mountain regions from the outset.

- Specific objectives of the strategy should be taken into account when designing the post 2027 EU funding framework and funding programs. While in general the level of alignment is already high in the current programming period, the specific circumstances of mountainous regions still require specific adjustments to setting priorities and objectives. The specific sectoral structure of mountain regions for example currently leads to a dependence on the CAP funding for multiple activities, which could be addressed by ERDF programs as well.
- The alignment of the post 2027 funding framework is already required at the start of programming efforts in the years 2025/2026. The strategy thus can be taken into consideration from an early point onwards creating a high impact potential.

Supporting measures

- Key limitations in accessing funding have been identified in relation to the capacities of potential beneficiaries/applicants to fulfil the administrative requirements and develop successful project applications. It is thus recommended to further develop supporting structures capable of guiding and assisting these potential beneficiaries for the ongoing as well as for the future programming period.
- An integrated support structure is beneficial for successful implementation of the integrated strategy. Administrative structures beyond the immediate funds concerned should be considered and capacity building activities supported, which allow the respective Managing Authorities (and other program bodies) to support beyond their respective fields and guide potential applicants.
- Existing bodies such as Regional Development Agencies, the National Mountain Agency, LAGs and other institutions could act as such supporting bodies outside of their respective official capacities as Managing Authorities (where applicable).

4.2 Funding review and input provided to the strategy

A set of funding sources is available, in theory, to support themes or initiatives proposed by the Strategy, more specifically the EU funding to Romania in the current programmatic cycle 2023-2027, particularly through the Partnership Agreement (Cohesion Policy), the Resilient and Recovery Facility (RRF) and the Common Agriculture Policy (CAP), as well as some sources at national level. Most of the actions linked to these funds are not currently explicitly targeted at the Mountain Areas but cover, to a large extent, the set of measures proposed by the Strategy. Therefore, to the extent that Mountain stakeholders can have access to those funds, the Strategy's funding builds on existing funding frameworks.

Nevertheless, the lack of focus on the Mountain Area requires increased attention from the various funds. Several high-level EU and national strategies (as mentioned in Chapter 3) already call for special attention to be paid to (rural) Mountain communities and support measures linked to their specific needs. At present, Mountain communities in particular face considerable difficulties in accessing funding for specific themes, due to several barriers to access, including those related criteria for application and evaluation of proposals. Clear recommendations are presented in more detail, under Section 8.3 to address these issues in the forthcoming reviews and reprogramming cycles, as well as in the new programming period after 2027.

4.3 Possible Sources of Financing

The following section corresponds to the report "Draft Outline Integrated Strategy for the Development of Romania's Mountain Area: 2023-2035" delivered on 10.11.2023 contains an assessment of

potential funding sources for the implementation of the strategy which show a thematic link to the objectives and measures of the Strategy. These thematic links have been established based on the available information related to intervention fields of the corresponding programmes, the priorities set and the potential beneficiaries outlined. The assessment shows the potential correlations, however no information related to the concrete implementation status, progress of the individual programmes or upcoming thematic calls could be taken into account. Nevertheless, considerable thematic overlap between the Strategy and the available funding sources could be established which can be further explored in implementation in the short term. Furthermore, medium-term measures on program level as well as supporting measures for an effective implementation could be identified as outlined below.

A set of potential funding sources has been identified for the various objectives and measures proposed by the Mountain Area Strategy. A detailed overview of these links between funding sources and respective programs is presented in Annex 5. The table in the annex shows the funds that can potentially contribute to the objectives of the Strategy based on the selected intervention areas or priorities and investments. The analysis covers both national and regional programs, so it must be stressed that not all potential links apply to the territory covered by the Mountain Area.

Furthermore, the analysis only indicates potential synergies based on the thematic focus of the respective programs. In several cases, programs/plans designed before the preparation of the draft outline Strategy may contribute to its objectives. On the other hand, in some cases, allocations may already exceed the available budget for a specific priority or intervention area and no additional projects contributing to the Strategy can be implemented under this specific program. The following sections present the potential synergies identified at the program level.

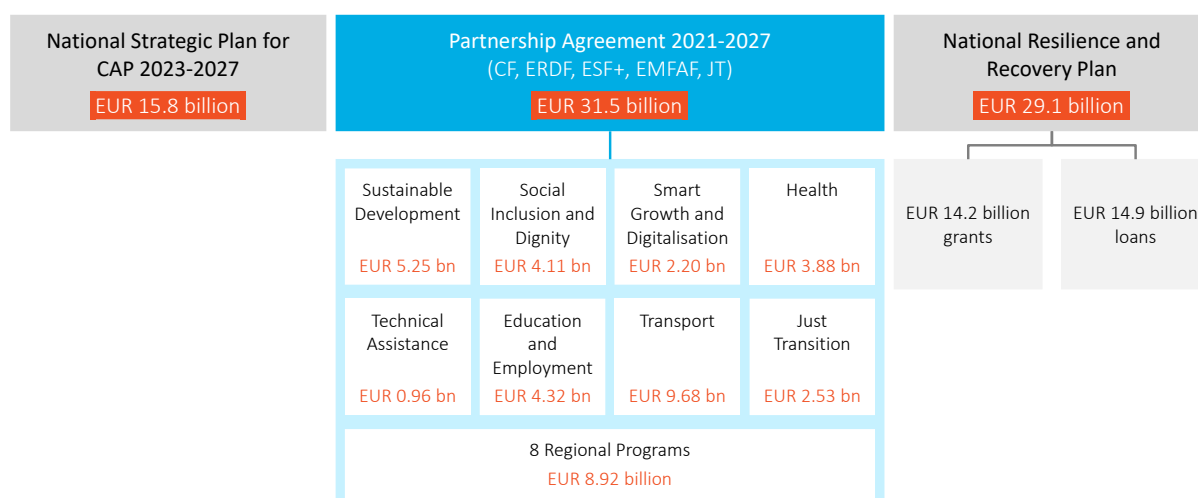
4.3.1 EU Funds

For the period 2021-2027, the European Commission's programming covers the EU's overarching priorities and budget allocations, with a strong focus on key priority areas and funding categories. In addition to the long-established funds from previous periods, new sources of funding have emerged, partly linked to existing programs and partly implemented through new programs, mainly linked to the efforts to overcome ongoing crises and to develop into a resilient Union fit for further emerging challenges. In particular, the Recovery and Resilience Facility is the largest additional source of funding. In addition, new rules for the CAP have removed the EAFRD, and thus the rural development aspect, from the funds covered by the Common Provisions Regulation, and grouped the former rural development programs under the CAP Strategic Plan, together with CAP direct payments and sectoral programs.

In total, the Romanian allocation of funds from these sources amounts to over EUR 76 billion (Figure 17), consisting of:

- EUR 15.8 billion through the CAP funds for the 2021-2027 period, as part of its collaborative agreement with the Commission - National Strategic Plan (PNS 2023-2027)
- EUR 31.5 billion through the Cohesion Policy for the 2021-2027 period, as part of its Partnership Agreement with the Commission.
- EUR 29.1 billion through National Resilience and Recovery Plan (PNRR until 2026).

Figure 17. European Funds to Romania, 2023-2027



Source: Elaboration based on the data available on MARD and MIPE sites

Some of these funds are only loans. Overall, these funds are intended to promote economic, social and territorial cohesion throughout the country, facilitating its transition to a more environmentally conscious and digitally advanced nation. In addition, both national and regional programs will be implemented in a complementary manner during the current programming period.

The Partnership Agreement (PA) for Romania for the programming period 2021-2027 aims at ensuring synergies and complementarities between the European funds and the programs through which they are implemented. It covers the 5 policy objectives related to the "Common Provisions Regulation" (Regulation (EU) 1060/2021) as well as the Just Transition objectives. The PA creates the necessary framework for synergies with the National Recovery and Resilience Plan (PNRR), with implications for appropriate coordination between the Recovery and Resilience Mechanism and the operational programs, under cohesion policy, established within it, as well as with the actions of the National CAP Strategic Plan (PNS). The Ministry of Investment and European Projects is responsible for monitoring the implementation of the PA and the PNRR, thus avoiding overlap or duplication of funding. Coordination with the Ministry of Agriculture and Rural Development (MARD) is implemented to ensure the same level of control in relation to the implementation of the National CAP Strategic Plan.

4.3.2 EU - National level programs under the Partnership Agreement (Cohesion Policy)

The 2021-2027 programming period implements several thematic programs, 7 not counting the technical assistance program, providing the framework for the implementation of funds under the partnership agreement.

i) Education & Employment Program

The Education and Employment Program aims to unlock human potential at the national level by improving the relevance of education, promoting digital literacy and creating a resilient labor market. It allocates its budget to various priorities, including the modernization of labor market institutions, youth employment, access to employment, entrepreneurship, early childhood education, dropout prevention and support for disadvantaged groups, improving the quality of education, improving vocational training and lifelong learning. The Ministry of Investment and European Projects is the Managing Authority (MA). The resources assigned to the 10 priorities contribute, in particular, to the *objective Improve Mountain residents' access to quality healthcare, education, and other social services in towns and rural areas (Obj. 1) of the Strategy.*

ii) Transport Program

The overall objective of the Transport Operational Program is to implement investments that respond to Romania's development needs in order to sustainably reduce the development gaps in transport infrastructure. The program will also take into account the challenges posed by the COVID-19 pandemic. Specific objectives include the development of a sustainable, resilient and intermodal TEN-T network and the improvement of national, regional and local mobility. The Managing Authority for this national program is the Ministry of Transport and Infrastructure. Moreover, it includes eight priorities which show synergies to the strategies objectives Enable Mountain residents' mobility within and beyond the *Mountain Area Strategy, strategic objective 5 and to a smaller extent Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests (Strategic Obj. 11)*.

iii) Sustainable Development

The program supports the transition to a resource-efficient, competitive economy, underpinned by Romania's National Sustainable Development Strategy 2030 and in line with the UN's 2030 Agenda for Sustainable Development. The program aims to improve living standards, environmental quality, energy efficiency and infrastructure. The Managing Authority is the Ministry of Investments and European Projects. The budget is divided into four priorities: water and sanitation infrastructure and circular economy, environmental protection and adaptation to climate change, and energy efficiency and emission reduction. These priorities provide synergies for achieving the *Mountain Area Strategy, strategic -objectives 2 (Improve building quality and access to basic utilities in Mountain towns and towns and rural parts of the Mountain Area), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 13 (Enhance the social-ecological resilience of the Mountain Area in the face of climate and other risks) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area)*.

iv) Health

The program aims to promote a nation of healthy and productive citizens through equitable access to quality health services. It finances investments in both pre-hospital and hospital care and in the resilience of the health system. Specifically, it focuses on areas such as cancer diagnosis and treatment, transplantation, communicable disease control (including healthcare-associated infections), the national blood transfusion system, and more. The managing authority for this program is again the Ministry of Investments and European Projects, which carries out the task through its specialized structure. The seven priorities of the program show synergies to the implementation of the *objectives 1 (Improve Mountain residents' access to quality healthcare, education, and other social services in towns and rural areas), 6 (Enable more Mountain Area residents to benefit from internet access, 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area)*.

v) Social Inclusion

The Social Inclusion Funding Program aims to reduce poverty and promote social inclusion at national level in line with the principles of the European Pillar of Social Rights. In particular, it includes improving the efficiency of the labor market, facilitating access to quality jobs, increasing access to quality education, promoting the socio-economic integration of marginalized communities and migrants, ensuring gender equality in the labor market, promoting active inclusion and supporting the most disadvantaged. The Ministry of Investments and European Projects is the Managing Authority for this fund. In total 11 priorities of the program show synergies for reaching the objectives of the mountain strategy. More precisely, it can support the fulfilment of the *Mountain Area Strategy, strategic objectives 1 (Improve Mountain residents' access to quality healthcare, education, and other*

social services in towns and rural areas), 2 (Improve building quality and access to basic utilities in Mountain towns and rural parts of the Mountain Area),3 (Revitalize civic and cultural life in Mountain towns and Mountain rural areas life) and 14 (Increase the representation of Mountain stakeholders in relevant policymaking).

vi) Just Transition

The Just Transition Fund (JTF) aims to support the territories most affected by the transition to climate neutrality and to prevent the deepening of regional disparities. The strategic vision of the JTF is to support the economic diversification of the most affected territories, along with measures for retraining and active inclusion of workers and job seekers. It also aims to transform industrial processes for a transition to a climate-neutral economy. In Romania, the counties of Dolj, Galați, Gorj, Hunedoara, Mureș and Prahova are eligible for JTF funding. In this case, the 7 priorities help to foster the *Mountain Area Strategy, strategic objectives 1 (Improve Mountain residents' access to quality healthcare, education, and other social services in towns and rural areas), 2 (Improve building quality and access to basic utilities in Mountain towns and rural parts of the Mountain Area), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area) and 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors).*

vii) Smart Growth

The program emphasizes private investment in research, development and innovation (RDI) and smart specialization (SI), strengthening public-private partnerships and reducing RDI fragmentation. It aims to build a resilient entrepreneurial ecosystem, in particular through a dedicated HUB and the digital transformation of SMEs. In terms of digitization, the focus is on refining public services, adopting a big and open data approach, and ensuring IT interoperability. The managing authority for this national program is the Ministry of Investment and European Projects. The priorities 1-3 of the Smart Growth program are expected to contribute to the achievement of the objectives of the mountain strategy. In particular, Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors (Objective 10) and Foster more supportive service on the part of public-facing government entities operating in the Mountain Area (Objective 15).

viii) Technical Assistance

The Technical Assistance Program is intended for the coordination and control system of funds and the management of national programs implemented by the Ministry of Investments and European Projects. This program includes national programs that do not have a priority for technical assistance, such as the Health Program, the Sustainable Development Program, the Smart Growth, Digitalization and Financial Instruments Program, as well as the Technical Assistance Program itself. The aim of the program is to support the efficient and effective implementation of all European funds throughout Romania. Through its specialized structure, the Managing Authority for the Technical Assistance Program is the Ministry of Investments and European Projects. The technical assistance could contribute to the achievement of the objectives of the Strategy to strengthen the administrative capacity of the relevant stakeholders for Mountain Area policy implementation EU - regional level programs (Territorial Programs-Cohesion Policy).

In addition to national level programs, 8 macro regional level operational programs are implemented in the 2021-2027 period. While developed to the specific needs of the region, the overall potential contributions to the Mountain Strategy are similar in nature across all regional programs.

i) Operational Program West Region

The vision of the Regional Program West (POR W) 2021-2027 is to have a region that is competitive at the European level, with a high level of research and development, innovation, and digitalization. It aims to be capable of attracting and capitalizing on investments, both internally and internationally, and to provide its citizens with efficient public services in communities with a high quality of life. The eligible area for the POR W covers the following counties within the West Development

Region of Romania: Arad, Caraș-Severin, Hunedoara, and Timiș. Thus, the fund shows potential synergies to the *Mountain Area Strategy, strategic objectives 2 (Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas), 3 (Revitalize civic and cultural life in Mountain towns and Mountain rural areas), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 9 (Increase the economic weight Mountain tourism), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 12 (Improve the soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area).*

ii) Operational Program South-Muntenia Region

The overall objective of the South-Muntenia Regional Program (POR S) 2021-2027 is to stimulate smart, sustainable, and balanced economic growth. This will lead to an improvement in the quality of life in local communities by supporting the innovation and digitalization capacity of local administration and the regional economy, sustainable development of infrastructure and services, as well as by harnessing the cultural and tourism potential of the region. The geographic area includes the counties of Argeș, Călărași, Dâmbovița, Giurgiu, Ialomița, Prahova, and Teleorman. The South-Muntenia Regional Development Agency serves as the Managing Authority for POR S. The fund shows potential synergies to the *Mountain Area Strategy, strategic objectives 2 (Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas), 3 (Revitalize civic and cultural life in Mountain towns and rural parts of the Mountain Area), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 9 (Increase the economic weight Mountain tourism), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 12 (Improve the soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area) through the resources in the priority 1-7 area.*

iii) Operational Program South-West Oltenia Region

The South-West Oltenia Regional Program (POR SW) 2021-2027 covers various areas such as innovation/research, technology transfer, boosting the competitiveness of SMEs, digitalization for the benefit of citizens, energy efficiency, urban development, mobility and accessibility, green infrastructure and biodiversity, educational infrastructure, tourism, cultural heritage, and integrated territorial development. The South-West Oltenia region comprises 5 counties: Dolj, Gorj, Mehedinți, Olt, and Vâlcea. The South-West Oltenia Regional Development Agency is the managing authority for the POR SW. Within the program, resources are allocated to 8 priorities, which in turn fund potential synergies to the *Mountain Strategic objectives 2 (Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas), 3 (Revitalize civic and cultural life in Mountain towns and rural parts of the Mountain Area), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 9 (Increase the economic weight Mountain tourism), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 12 (Improve the soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area).*

iv) Operational Program North-West Region

The North-West Regional Program (POR NW) 2021-2027 proposes interventions in six counties of the North-West Development Region for the development of research, innovation, and digitalization capacity, improving the energy performance of existing public and residential buildings, valorizing degraded spaces in urban areas, promoting sustainable urban mobility, investing in the county road network and educational infrastructure, as well as actions to harness the cultural and tourist potential. The eligible area includes the counties of Bihor, Bistrița-Năsăud, Cluj, Maramureș, Satu Mare and Sălaj. The North-West Regional Development Agency serves as the managing authority for POR NW. There are eight priorities in the program, with synergies expected to the *Mountain Area Strategy, strategic objectives 2 (Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas), 3 (Revitalize civic and cultural life in Mountain towns and rural parts of the Mountain Area), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 9 (Increase the economic weight Mountain tourism), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 12 (Improve the soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area).*

v) Operational Program North-East Region

The overall objective of PR North-East (POR NE) 2021-2027 is to stimulate balanced development based on a process of smart, sustainable, and inclusive economic growth that leads to an improvement in the quality of life and the reduction of intra and interregional development disparities. The North-East Region comprises the counties of Bacău, Botoșani, Iași, Neamț, Suceava, and Vaslui, being the largest region in Romania in terms of both area and population. The Regional Development Agency of the North-East Region serves as the managing authority for the POR NE. The fund shows potential synergies to the *Mountain Area Strategy, strategic objectives 2 (Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas), 3 (Revitalize civic and cultural life in Mountain towns and rural parts of the Mountain Area), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 9 (Increase the economic weight Mountain tourism), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 12 (Improve the soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area) through the resources in the priority 1-7 area.*

vi) Operational Program South-East Region

The general objective of the Regional Program South-East (POR SE) 2021-2027 is to increase regional economic competitiveness and improve the living conditions of local communities by supporting the development of the business environment, infrastructure, and services. This is aimed at reducing intra-regional disparities and promoting sustainable development through efficient resource management, harnessing demographic and innovation potential, and assimilating technological progress. The South-East Region comprises 6 counties (Brăila, Buzău, Constanța, Galați, Tulcea, Vrancea) with a total area of 35,762 km² (the second-largest in Romania, representing 15% of the total national area). The Regional Development Agency of the South-East Region serves as the managing authority for the POR SE. The fund from priorities 1-7 also shows potential synergies to the *Mountain Area Strategy, strategic objectives 2 (Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas), 3 (Revitalize civic and cultural life in Mountain towns and Mountain rural areas), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 9 (Increase the economic weight Mountain tourism), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain*

protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 12 (Improve the soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)), 13 (Enhance the social-ecological resilience of the Mountain Area in the face of climate and other risks) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area).

vii) Operational Program Central Region

The Central Regional Program 2021-2027 will finance interventions aimed at transforming the region into a competitive one through innovation and dynamic enterprises for a smart, digital economy with environmentally friendly communities, sustainable and accessible urban mobility, education, sustainable and attractive tourism. Eligible areas are the counties of Alba, Braşov, Covasna, Harghita, Mureş, and Sibiu. For this program, the Regional Development Agency of the Central Region fulfills the role of the managing authority. *The fund shows potential synergies to the Mountain Area Strategy, strategic objectives 2 (Improve building quality and access to basic utilities in Mountain towns and rural Mountain areas), 3 (Revitalize civic and cultural life in Mountain towns and rural parts of the Mountain Area), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 9 (Increase the economic weight Mountain tourism), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 12 (Improve the soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)) and 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area) through the resources in the priority 1-9 area.*

4.3.3 PNS 2023-2027

The objectives of the CAP in Romania are to create an environment for profitable food production, to contribute to food security through agriculture, to ensure sustainable management of natural resources and climate change mitigation, and finally to maintain the spatial balance and diversity of rural areas. The MARD is the Managing Authority responsible for the implementation of the PNS. Although the PNS does not specifically target mountain areas, it includes provisions and measures that may be relevant to Mountain Areas.

From the broad number of PNS interventions, particular synergies with the Strategy's are, with *objectives 4 (Economically support and protect "at-risk" rural Mountain communities), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 7 (Enable profitable and competitive Mountain agrifood value chains), 8 (Strengthening economic opportunities in the Mountain forest bioeconomy (and the nonfood bioeconomy at large)), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests) and 12 (Improve the soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution) of the Mountain Area Strategy are supported in particular.*

A key issue linked to the PNS funding and objectives of the Strategy however is the fact, that smallest scale farmers (below 1 ha farm size) are not eligible for some of the payments. In addition, although for a range a programs some specific criteria for Mountain Area farmers have been included, improvements are needed in the ranking systems for applications, which in multiple cases, benefit larger scale farmers, thus providing a limitation from the outset to Mountain Area farmers. Furthermore, support systems and capacity are needed to help Mountain Area farmers access these programs, including facilitating access to commercial financing.

4.3.4 NRRP/PRRN

The Romania Recovery and Resilient Plan (NRRP/PNRR) aims to help mitigate the immediate damage to the economy and society caused by the corona virus. It also aims to make the Romanian economy and society greener, more digital and more resilient in the aftermath of the corona virus, and better prepared for the challenges and opportunities of environmental and digital change. The PNRR contains a large amount of potential funding opportunities covering both grants and loans. Nevertheless, the structure of the fund leads to considerable difficulties for mountain regions in accessing resources. Overall the RRF shows synergies to a large number of themes covered by the Strategy, in particular objectives 1 (Improve Mountain residents' access to quality healthcare, education, and other social services in towns and rural areas), 3 (Revitalize civic and cultural life in Mountain towns and Mountain rural areas), 5 (Enable Mountain residents' mobility within and beyond the Mountain Area), 6 (Enable more Mountain Area residents to benefit from internet access), 8 (Strengthening economic opportunities in the Mountain forest bioeconomy (and the nonfood bioeconomy at large)), 9 (Increase the economic weight Mountain tourism), 10 (Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors), 11 (Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests), 13 (Enhance the social-ecological resilience of the Mountain Area in the face of climate and other risks), 15 (Foster more supportive service on the part of public-facing government entities operating in the Mountain Area).

4.3.5 National sources

i) National Investment Program Anghel Saligny 2021-2028

This program is coordinated by the Ministry of Development, Public Works, and Administration (MLPDA) and beneficiaries include public authorities. As part of this program, it is possible to finance the construction, rehabilitation, consolidation, modernization or extension of infrastructure from the following areas: water provision and water treatment plants, sewage and wastewater treatment systems, including for rainwater drainage, public roads, bridges, including pedestrian walkways and bicycle crossings, gas distribution infrastructure. *This program is relevant for the Mountain Area Strategy, strategic objectives 2 and 5 of the Mountain Strategy.*

ii) National Program "Safe and healthy schools" (February 2023 - February 2027)

The program, also coordinated by the Ministry of Development, Public Works and Administration, aims to fund interventions for the seismic consolidation, rehabilitation, modernization, and the increasing of energy performance of buildings with a pre-university educational function, including of those dedicated to special education. *This program is relevant for the Mountain Area Strategy, strategic objective 2, and in particular Measures 2.3 and 2.4.*

iii) The National Construction Program of Public or Social Interest (January 2023 - December 2027)

This program is administered by the National Investment Company and eligible activities comprise the building, rehabilitation, modernization, equipping and extension of the following types of buildings: sport halls and arenas, swimming pools, buildings with a cultural destination (houses of cultures, folk schools, traditional arts and crafts schools, cultural centers), education facilities (including for research, cafeterias, dormitories and cultural and sports-related annexes), ice-skating rinks, health centers (hospitals, buildings hosting multiple doctors' offices), cinema halls, roads of local or county interest, wastewater treatment and water provision systems (including septic tanks, micro installations for water purification, sewage and public water distribution infrastructure). In addition, it also makes allocations to emergency investments and works required to prevent or mitigate calamities due to accidents or natural hazards, including earthquakes, landslides, fires, technical accidents. There is also a subprogram for the rehabilitation of blocks of flats in disadvantaged localities, based exclusively on a previous national program - see guide for details -as well as an allocation for any

other objectives in the construction sector which are not already covered by other existing programs. *This program is relevant for Mountain Area Strategy, strategic objectives 1, 2, 3, 5 and 13.*

iv) Others

The above-mentioned national programs include funding sources for which local authorities can act as beneficiaries. In addition, there exist other thematic programs that can support various activities of individual citizens or of economic operators. These programs are not listed here as most of them are short-term, with limited application periods and, as such, they cannot be leveraged as funding sources for implementing the Mountain Strategy at scale. However, local authorities' advisory services should maintain an updated list of such funding calls and inform Mountain Area residents of relevant opportunities.

5 Measures regarding the implementation, monitoring and evaluation of the Strategy

Methodological approach of the ex-ante assessment: For monitoring, the ex-ante assessment reviewed the available indicators from funding programs, SDGs and the territorial observatory on the respective link to the measures and objectives implemented through the strategy. In particular output- and result indicators produced for European funds were taken into consideration due to their clear link to the strategy and the already established monitoring systems. Furthermore, all indicators identified fulfil the SMART criteria and do not require additional assessment and definitions different from the ones defined by the programs.

The recommended monitoring arrangements have furthermore been outlined based on the institutional framework of the Mountain Area and the evaluation experiences developed in further strategies and programs.

Contribution to the strategy development: the ex-ante assessment conducted the full review for funding sources as well as for indicators in consultation with the strategy drafting team and provided the corresponding sections to the strategy.

Uptake of the recommendation and remaining recommendation: The information provided by the ex-ante assessment was fully taken up by the strategy.

5.1 Proposed indicator framework

The following section corresponds to section 6.2 of the draft Strategy and was developed by the ex-ante team.

5.2 Indicators

The indicator system for monitoring the Proposed Strategy has been developed to allow for a judgement on the objective level. The indicators are indicative and have to be integrated into a final monitoring and evaluation plan in line with the requirements of the implementing authority. They have been developed considering the main outcomes of the Proposed Strategy, however creating a reasonable effort in monitoring without the need for extensive additional data collection. The indicator system is largely based on sets of indicators that are already being collected through Romania's obligations vis-à-vis the EU Cohesion funds, the Common Agricultural Policy and the Recovery and Resilience Facility as well as indicators available from official sources.

Due to the strong alignment with the existing strategic and legal framework, the additional effort required for monitoring progress of the strategy can thus be minimized. Nevertheless, even for existing indicators it can be necessary to adapt the collection to the specific requirements of the mountain strategy, i.e. evaluating progress for the Mountain Area and not for the country as a whole. Furthermore, several indicators require the expansion of the existing data collection beyond the individual programs that currently monitor them.

In addition to the existing frameworks, several more innovative and mountain specific measures require the collection of additional indicators not yet covered by existing monitoring systems in place. These indicators consider mainly outputs or build on readily available information sources, thus it is possible to collect and apply them in monitoring and evaluation without creating overbearing administrative effort.

For monitoring the overall progress of the Proposed Strategy, a set of key indicators for each pillar has been defined, building on the more detailed, output-oriented indicator framework on specific objective level. These are presented in Table 2. Specific Objectives, Expected Outcomes and Key Indicators.

Table 2. Specific Objectives, Expected Outcomes and Key Indicators

SPECIFIC OBJECTIVES	EXPECTED OUTCOMES	KEY INDICATORS
Pillar I: Thriving multigenerational communities		
Strategic Objective I: Enhance the attractiveness and inclusiveness of small Mountain towns and rural areas to multigenerational Mountain communities		
(1) Improve Mountain residents' access to quality healthcare, education, and other social services in Mountain hub towns and rural areas	<ul style="list-style-type: none"> ▪ Increased access to quality social services 	Percentage of mountain population with access to healthcare and basic utilities ⁵
(2) Improve building quality and access to basic utilities in Mountain towns and rural parts of the Mountain Area	<ul style="list-style-type: none"> ▪ Improved living conditions: access to basic utilities and selected building upgrades 	Percentage of young mountain population with access to daycare and quality education facilities ⁶
(3) Revitalize civic and cultural life in small Mountain towns and rural areas	<ul style="list-style-type: none"> ▪ Increased community involvement in setting up bottom-up initiatives, social innovations and cultural events 	Percentage of vulnerable and remotely located population benefiting from economic programs/incentives ⁷
(4) Economically support and protect "at-risk" rural Mountain communities	<ul style="list-style-type: none"> ▪ Economic protection of "at risk" Mountain communities 	
Pillar II: Connected mountain living		
Strategic Objective II: Enhance Mountain Area residents' connectivity in towns and rural areas		
(5) Enable Mountain residents' mobility within and beyond the Mountain Area	<ul style="list-style-type: none"> ▪ Improved and greener transportation services and infrastructure 	Percentage of mountain municipalities serviced by appropriate public transport ⁸
(6) Enable more Mountain Area residents to benefit from internet access	<ul style="list-style-type: none"> ▪ Increased access to high-quality internet and digital services 	Percentage of mountain population with access to broadband internet
Pillar III: Green and competitive place-based economy		
Strategic Objective III: Stimulate the Mountain Area's economic opportunities, while capitalizing on its regional strengths		
(7) Enable profitable and competitive Mountain agrifood value chains	<ul style="list-style-type: none"> ▪ Increased valorization of Mountain agrifood bioeconomy 	Average farm income in mountain areas ⁹
(8) Strengthening economic opportunities in the Mountain forest bioeconomy (and the nonfood bioeconomy at large)	<ul style="list-style-type: none"> ▪ Improved economic perspectives in the forest bioeconomy 	GVA created by forestry in mountain areas ¹⁰

⁵ Municipality-based assessment building on monitoring of the strategy outputs, the corresponding programs and the population data

⁶ Municipality-based assessment building on monitoring of the strategy outputs, the corresponding programs and the population data

⁷ Municipality-based assessment building on monitoring of the strategy outputs, the corresponding programs and the population data

⁸ Individual evaluation based on public transport availability and distances to stations. If appropriate, service levels can be taken into account as well

⁹ To be determined from FADN database or monitoring system for the CAP

¹⁰ Based on Eurostat GVA indicators

SPECIFIC OBJECTIVES	EXPECTED OUTCOMES	KEY INDICATORS
(9) Increase the economic weight of Mountain tourism	<ul style="list-style-type: none"> Increased economic relevance of sustainable tourism in rural areas and small-towns Increased number of financially viable SMEs and entrepreneurs across a range of sectors 	GVA created by tourism in mountain areas ¹¹
(10) Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors		
Pillar IV: Respect for nature		
Strategic Objective IV: Protect, restore, and nurture the integrity, health, and resilience of Mountain ecosystems and biodiversity		
(11) Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems	<ul style="list-style-type: none"> Healthy and integral protected forests, grasslands and other ecosystems Improved soil and water quality, as well as mitigation of climate change Increased social-ecological resilience vis-à-vis climate-related risks and other natural hazards 	Share of the area under protection regimes ¹²
(12) Improve soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)		Average soil quality ¹³
(13) Enhance the social-ecological resilience of the Mountain Area in the face of climate and other risks		Share of municipalities with up-to-date climate change adaptation and disaster emergency plans ¹⁴
Pillar V: Mountain empowerment		
Strategic Objective V: Empower the Mountain Area to determine and pursue its own aspirations		
(14) Increase the representation of Mountain stakeholders in relevant policymaking	<ul style="list-style-type: none"> Increased representation of Mountain stakeholders in policymaking A supportive, service-oriented culture in public-facing government institutions and local authorities 	Satisfaction rate with public facing government entities ¹⁵
(15) Foster more supportive service on the part of public-facing government entities operating in the Mountain Area		

The list of operational outcomes and indicators at the measured level are detailed below.

Table 3. Operational outcomes and indicators

SPECIFIC OBJECTIVES	EXPECTED OUTCOME (Objective level)	MEASURES	MEASURE OUTCOMES
PILLAR I: THRIVING MULTIGENERATIONAL COMMUNITIES			
Strategic Objective I: Enhance the attractiveness and inclusiveness of small Mountain towns and rural areas to multigenerational Mountain communities			
Result: An attractive and inclusive living environment		Outcome: Improved quality of life in Mountain Area communities	
Objective 1: Improve Mountain residents' access to quality	Increased access to quality social services	1.1 Developing community health and social assistance centers in Mountain hub towns	Residents' closer-to-home access to basic medical and social assistance services
		1.2 Establishing telehealth, mobile health, and elder care in remote parts of the Mountain Area	Access to first-line healthcare and elderly care in residents' own localities

¹¹ Based on Eurostat GVA indicators

¹² GIS based assessment

¹³ Building e.g. on the land suitability assessment methodology

¹⁴ GIS based assessment

¹⁵ To be developed based on a targeted survey in the region, taking into consideration in particular regional- and local level government entities.

SPECIFIC OBJECTIVES	EXPECTED OUTCOME (Objective level)	MEASURES	MEASURE OUTCOMES
healthcare, education, and other social services in towns and rural areas		1.3 Developing daycare, kindergarten, after-school programming, and innovative schooling models in Mountain rural areas	Access for working families to child care facilities near their homes Children from vulnerable and remote communities are able to attend school
		1.4 Developing integrated programs for attracting and retaining essential workers and professionals to/in Mountain rural areas	Increased interest of young and established workers and professionals from essential sectors are to take up traineeships and jobs in the Mountain Area Increased opportunities for residents to continue learning and develop their skills
Objective 2: Improve building quality and access to basic utilities in small Mountain towns and rural parts of the Mountain Area.	Improved living conditions: access to basic utilities and selected building upgrades	2.1. Supporting the installation of off-grid technologies in remote parts of the Mountain Area	Access to off-grid electricity generation, heating, water and sanitation systems for residents in remote areas
		2.2 Expanding and upgrading utility connections in more densely populated Mountain areas	Access to collective facilities and utilities for the provision of electricity, heating, water, sewage and waste disposal for residents in more densely populated areas.
		2.3 Improving housing quality in risk-prone areas and vulnerable Mountain communities	Reduced housing susceptibility to Mountain-specific disasters in risk-prone areas and vulnerable communities
		2.4 Subsidizing critically-needed improvements to public buildings	Adequate heating systems supporting year-round operations in schools, healthcare facilities and other public buildings Overall improved conditions in public buildings
Objective 3: Revitalize civic and cultural life in Mountain towns and Mountain rural areas	Increased community involvement in setting up bottom-up initiatives, social innovations and cultural events	3.1 Supporting and amplifying “smart village” and other community-driven social innovation initiatives	Enhanced ability of residents with civic initiatives to implement their ideas Replication of existing successful rural development initiatives of large NGOs into the Mountain Area
		3.2 Supporting youth-oriented community initiatives and youth programming	Access to financial and technical support for youth interested in leading civic initiatives
		3.3 Supporting cultural activities relating to Mountain traditions and heritage, as well as diversity and innovation	Increased offering of cultural events, programs and activities to engage in Preserved local practical knowledge
Objective 4: Economically support and protect “at-risk” rural Mountain communities	Economic protection of “at risk” Mountain communities	4.1 Developing an economic inclusion program for qualifying residents of “at risk” Mountain communities	Reduced economic burden of living in remote and “at-risk” communities for the respective residents
		4.2 Helping subsistence farmers and rural households diversify their incomes	Increased diversification of economic activities in subsistence rural households
PILLAR II: CONNECTED MOUNTAIN LIVING			
Strategic Objective II: Enhance Mountain Area residents’ connectivity in towns and rural areas			
Result: Enhanced mobility and access to digital networks and services			Outcome: Mountain communities served with better mobility options and quality digital services
Objective 5: Enable Mountain residents’ mobility within and beyond the Mountain Area	Improved and greener transportation services and infrastructure	5.1 Developing mobility services with a focus on facilitating Mountain rural residents’ access to hub towns and urban centers	Improved mobility services connecting rural areas to hub towns and urban centers, including dedicated school transport for children
		5.2 Repairing and developing targeted green mobility infrastructure	Greener mobility infrastructure, regularly maintained
Objective 6: Enable more Mountain Area residents to benefit from internet access	Increased access to high-quality internet and digital services	6.1 Expanding internet infrastructure in small towns and rural areas	Expanded internet infrastructure
		6.2 Endowing communities with equipment for internet access	Improved resident access to equipment (kiosks, personal computing equipment) for using digital services
		6.3 Develop Mountain Area’s residents digital competences	Increased residents’ skills and availability of support for using relevant digital services

SPECIFIC OBJECTIVES	EXPECTED OUTCOME (Objective level)	MEASURES	MEASURE OUTCOMES
PILLAR III: GREEN AND COMPETITIVE PLACE-BASED ECONOMY			
Strategic Objective III: Stimulate the Mountain Area's economic opportunities, while capitalizing on its regional strengths			
Result: A functional, green and competitive place-based economy			Outcome: Increased economic opportunities for Mountain Area residents
Objective 7: Enable profitable and competitive Mountain agrifood value chains	Increased valorization of Mountain agrifood bioeconomy	7.1 Enhancing the provision of agrifood support services through multistakeholder partnerships and Mountain-focused knowledge and innovation networks	Increased access to agrifood support services through active knowledge and innovation networks
		7.2 Strengthening collective action for value chain self-organization and competitiveness improvements	Enhanced value chains via increased organization and collective action of agrifood producers
		7.3 Enhancing food safety compliance and the sustainable commercialization of high-value foraged foods	Improved food safety compliance, including for foraged foods
		7.4 Expanding targeted support for quality differentiation and marketing of Mountain agrifood products	Increased value-added through better quality differentiation and marketing of Mountain agrifood products
		7.5 Expanding efforts around Mountain agrifood product market development and promotion	Increased demand for Mountain agrifood products through better promotion and market access
		7.6 Enhancing the climate resilience of Mountain agrifood value chains	More climate resilient agrifood value chains and agricultural practices
		7.7 Integral support to Mountain farm successors and agro-entrepreneurs	Easier business entry and increased viability of farm successors and agro-entrepreneurs
		7.8 Supporting the transfer of land to active Mountain farmers	Easier land transfer
		7.9 Provision of targeted technical support to Mountain agrifood producers to overcome administrative and legal barriers to accessing CAP/PNS and other public sector support	Increased access of agrifood producers to CAP/PNS and other public sector support
		7.10 Expanding mechanisms to facilitate agrifood producers' access to finance	Increased access to finance for agrifood producers
Objective 8: Strengthening economic opportunities in the Mountain forest bioeconomy (and the nonfood bioeconomy at large)	Improved economic perspectives in the forest bioeconomy	8.1 Supporting sustainable timber and non-timber value chain developments with a focus on enhanced technology adoption/infrastructure and training/skills	Increased number of foresters and processors benefitting from improved technology, infrastructure and training
		8.2 Strengthened quality assurance, product differentiation and market transparency in timber and non-timber forest products	Improved traceability systems and product differentiation through ecolabels
		8.3 Support for Mountain bioeconomy research and development	Improved understanding of innovation opportunities in the Mountain bioeconomy
		8.4 Stimulating demand for Mountain bioeconomy products and services	New markets and/or increased demand for Mountain bioeconomy products and services
Objective 9: Increase the economic weight of Mountain tourism	Increased economic relevance of sustainable tourism in rural areas and small-towns	9.1 Strengthening actors and efforts relating to the promotion of Mountain tourism	Integrated promotion of Mountain tourism destinations
		9.2 Enhancing the quality and modernization of tourism facilities and services in Mountain hubs	Improved touristic facilities and services
		9.3 Investing in shared tourism infrastructure based on strategic planning	New tourism infrastructure, strategically selected
		9.4 Supporting the involvement of rural and small town SMEs in the Mountain tourism economy, with a focus on urban-rural linkages (aligned to SMEs section below).	Ease of access to market and increased viability of new SMEs
		9.5 Sustainable planning, developing, and managing tourist flows to small Mountain towns and rural areas	Coordinated tourist flows through route and service management

SPECIFIC OBJECTIVES	EXPECTED OUTCOME (Objective level)	MEASURES	MEASURE OUTCOMES
		9.6 Anticipating and mitigating climate threats and unwanted social and environmental impacts of tourism on small Mountain towns and rural areas	Mitigation of unwanted social and environmental tourism impacts
Objective 10: Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors	Increased number of financially viable SMEs and entrepreneurs across a range of sectors	10.1 Strengthening business development and acceleration services for Mountain SMEs, entrepreneurs, and businesses in smart specialization sectors (including agrifood, forestry, and tourism)	Enhanced and supported business innovation and entrepreneurship environment
		10.2 Facilitating industry-level innovation aligned with smart specialization and improve the business enabling environment.	Improved business environment and new initiatives around regional/local smart specialization
		10.3 Establish financing schemes and instruments targeting Mountain SMEs and businesses in smart specialization sectors (including agrifood, forestry, and tourism)	Improved access to (co-)finance for SMEs and other smart specialization businesses
		10.4 Develop market-aligned vocational and professional training programs involving economic operators, and attracting in-demand technical and professional skills	Increased availability of skilled labor force in line with industry needs
PILLAR IV: RESPECT FOR NATURE			
Strategic Objective IV: Protect, restore, and nurture the integrity, health, and resilience of Mountain ecosystems and biodiversity			
Result: Protected, restored and nurtured Mountain ecosystems			Outcome: Maintained biodiversity and ecosystem integrity and enhanced climate resilience
Objective 11: Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests.	Healthy and integral protected forests, grasslands and other ecosystems	11.1 Improving forest use monitoring, zoning, and timber tracking, in alignment with provisions of the Forest Strategy 2030	Sustainable use of forest resources
		11.2 Improving and implementing eco-compensation relating to biodiversity protections with a focus on adequately compensating forest owners and expand the use of payments for environmental services	Reduced conservation conflicts and law non-compliance
		11.3 Supporting sustainable energy biomass use to combat energy poverty	Alleviating energy poverty
		11.4 Supporting Mountain Forest owners' take-up of forest-conservation practices, technologies, and infrastructure	Increased adoption by forest owners of conservation practices, technologies and infrastructure
		11.5 Encouraging the revitalization and climate-adaptation of high-altitude pastoralism	Increased interest in and revitalization of pastoralism
		11.6 Supporting social-ecological research on effective ecosystem restoration and management approaches, notably for grasslands and forests	Increased knowledge about state-of-the-art ecosystem restoration practices
		11.7 Restoring, rehabilitating, or rewilding degraded ecosystems	Restored, rehabilitated and rewilded ecosystems
		11.8 Ensuring the effective management of protected areas, including through civic and community participation	Improved effectiveness of protected area management
Objective 12: Improve soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)	Improved soil and water quality, as well as mitigation of climate change	12.1 Investing in residential wastewater treatment with a focus on nutrient pollution hotspots	Reduced nutrient pollution from wastewater
		12.2 Reducing pollution and increasing carbon sequestration in agriculture with a focus on soil and manure management	Reduced nutrient pollution from agricultural activities
		12.3 Protecting and enhancing carbon sinks with a focus on enhancing tree and other vegetative cover	Increased tree and vegetation cover
		12.4 Mitigating greenhouse gas emissions with a focus on residential heating and transportation	Reduced greenhouse gas emissions through improved household and transportation energy efficiency

SPECIFIC OBJECTIVES	EXPECTED OUTCOME (Objective level)	MEASURES	MEASURE OUTCOMES
		12.5 Assessing and developing carbon finance opportunities across Mountain sectors	Increased understanding of carbon finance opportunities
		12.6 Continuing to remediate and reconvert contaminated sites	Remediation of contaminated sites
Objective 13: Enhance the social-ecological resilience of the Mountain Area in the face of climate and other risks	Increased social-ecological resilience vis-à-vis climate-related risks and other natural hazards	13.1 Developing climate change adaptation and disaster emergency plans at the local and massif levels	Reduced susceptibility to climate change effects and increased preparedness for disaster emergency
		13.2 Developing disaster response capacity in small Mountain towns and rural areas	Increased capacity for disaster response
		13.3 Building environmental awareness through school and professional training curricula and certification requirements	Increased awareness and knowledge of environmental and climate topics
PILLAR V: MOUNTAIN EMPOWERMENT			
Strategic Objective V: Empower the Mountain Area to determine and pursue its own aspirations			
Result: Empowered Mountain community in determining its future			Outcome: Effective collaboration between local actors and authorities in multi-level governance processes
Objective 14: Increase the representation of Mountain stakeholders in relevant policy-making	Increased representation of Mountain stakeholders in policymaking	14.1 Strengthening the National Mountain Area Agency and its advisory bodies	Increased capacity and power of ANZM to implement Mountain policies
		14.2 Increasing Mountain authorities' policy-making roles and capacities	Increased role of Mountain authorities in policy-making across all relevant sectors
		14.3 Enhancing mechanisms for stakeholder consultation and participation in local planning and policy-making	Increased stakeholder participation and influence on policy-making
Objective 15: Foster more supportive service on the part of public-facing government entities operating in the Mountain Area	A supportive, service-oriented culture in public-facing government institutions and local authorities	15.1 Developing a supportive and service-oriented culture in local government and public-facing parts of government agencies	More service-oriented local authorities
		15.2 Piloting e-government and innovative administrative service delivery models catering to rural and remote Mountain residents	More e-government solutions for Mountain residents (to avoid unnecessary travels)
		15.3 Establish specific mechanisms to help Mountain stakeholders access available public funding and technical resources and handle administrative requirements	Improved stakeholder access and management capacity vis-a-vis public funding

5.3 Mechanisms for Monitoring the Proposed Strategy

The following section corresponds to section 6.3 of the Draft Strategy and was developed by the ex-ante team.

5.3.1 Institutional responsibilities for Monitoring and Evaluation (M&E)

The overall monitoring and evaluation function of the Proposed Strategy falls under the responsibility of the **Ministry of Agriculture and Rural Development**. It is proposed that the National Mountain Area Agency acts as monitoring and evaluation unit (M&E unit) and consequently takes over the coordination of the monitoring of the implementation of the Proposed Strategy and the organization of the evaluation, with inputs of relevant Directorates within MARD, and the different Ministries and entities with roles in Proposed Strategy implementation. It is proposed that the evaluations themselves are conducted by an independent external evaluation team that is contracted for the interim and the final evaluation by the M&E unit.

The main tasks of the M&E unit are as following:

- Monitoring the Mountain Strategy and collecting the relevant information;
- Preparing the annual implementation report;

- Setting up a concrete evaluation plan, drafting the evaluation questions and tendering the interim evaluation and the final evaluation;
- Accompanying and supporting the interim and the final evaluation conducted by an independent external evaluation team with data, information and contacts;
- Organizing the link and feedback loops between the results of the evaluation with the relevant actors implementing the strategy.

The main tasks of the independent external evaluation team are as following:

- development of a methodological approach;
- conducting the evaluation in close exchange with the M&E unit;
- answering the evaluation questions;
- drafting recommendations for the next steps of the implementation of the Mountain Strategy including an exchange with the Ministry of Agriculture and Rural Development.

5.3.2 Annual Implementation Reports

The Annual Implementation Report (AIR) provides information on the annual progress concerning the implementation of the Proposed Strategy. It focuses on the following topics:

- (a) For each proposed measure and exemplary proposed action or initiative of the Proposed Strategy the status of its implementation is assessed.**

For each objective and for each listed measure the status of its implementation will be analyzed along a common implementation progress scale. This “implementation progress scale” could e.g., include the following stages of implementation:

- The proposed action was further discussed to be implemented;
- The requested changes/projects/funding options/etc. to implement the proposed action were in the pipeline (“What is their current status?”);
- The proposed action was implemented (In how many regions/communities/projects); and
- No relevant activity towards the implementation could be identified.

Furthermore, it will be analyzed whether additional actions that were not described in the Mountain Strategy were set up in line with one of the objectives and measures of the Mountain Strategy. These actions could also be assessed along the defined “implementation progress scale”.

Envisaged result

This detailed assessment of the progress of the implementation allows to get a clear picture with respect to which objectives defined by the Mountain Strategy are on a pathway to being realized, and which are facing difficulties.

- (b) The defined indicators for monitoring the Proposed Strategy are collected.**

Based on the indicator system for monitoring the Proposed Strategy the relevant indicators are collected by the M&E unit, from inputs/contributions from Ministries and partner entities as well as the own data generated by MARD and ANZM. The developed indicator system includes output indicators as well as result indicators and context indicators to enable an assessment of the different aspects of the intervention logic of each objective of the Mountain Strategy.

However, to assess the impact of the implementation of the Proposed Strategy on the ground, the development of the indicators has to be mirrored against the status of its implementation.

Envisaged result

The collection of the indicators defined allows for the analysis of the extent to which the outcomes expected as a result of the Proposed Strategy are reflected in the development of the region.

The AIR should be presented to relevant stakeholders, including the National Mountain Council and Massif Committees, and reflected upon in an interactive exchange format.

5.3.3 Setting up the Monitoring System

Based on the required relevant information of the monitoring to draft the AIR, standards for the monitoring system have to be set up. Once developed, they contribute to a smooth and standardized provision of information for the AIR and the evaluations.

The following tools will be developed in order to set up the monitoring system. It will include:

- **A standardized indicator collection procedure:**
Several proposed monitoring indicators are already collected by other organizations, others can be found in the Territorial Observatory and others need to be collected as primary data. The defined indicator collection procedure will include:
 - A clearly defined workflow to get those indicators that are already collected by other organizations based on agreements on data exchange;
 - A clear identification of the indicators collected through the Territorial Observatory;
 - A clear procedure of how to get those primary data that need to be collected by the M&E unit by itself; and
 - A clear methodology on how to disaggregate indicator values to infer the value corresponding to the Mountain Area, in those cases where data is only available at a higher level than ATU level (e.g. only county-level data is available).
- **A standardized procedure to assess the status of the stage of implementation of the Proposed Strategy.**
In order to collect the status of the implementation of each measure and each proposed action and to provide an overview along the objectives, a standardized procedure of information collection and assessment of the stage of implementation will be set up, with contributions of Ministries and partner institutions with roles in the implementation of the Proposed Strategy. It will include the following aspects:
 - For each proposed measure one or a few key Partner implementing institutions will be identified as mainly responsible for the implementation. They will be contacted periodically, depending of the indicator to be collected, but not less than once a year, for a very short report on the status of the implementation. This could be also done through a short interview, but mechanisms need to be discussed and agreed with relevant partners with responsibility in the Proposed Strategy implementation. The list of the main actors of a measures' implementation will be set up once and then used for the annual check-in; and
 - The proposed "implementation progress scale" will be further elaborated and tailored to the needs of the institutional setting.
- **A standardized structure of the AIR:**
Based on the tools of information collection developed a standardized structure of the AIR will be developed. It will include:
 - The structure of the chapters of the report; and
 - The structure of the data collection file (Excel-file) enabling the comparison of timelines in the future.

5.3.4 Interim and Final Evaluations

The interim evaluations and the final evaluation aim at contributing to the further development of the Proposed Strategy and its implementation. In order to get additional external insights into its status, it is recommended to conduct the evaluations by an independent external evaluation team.

The evaluation will follow the Strategic Planning Manual of the Government's General Secretariat¹⁶. Consequently, it will include all the relevant steps:

1. Identifying stakeholders: Who needs to receive evaluations and why?
2. Defining evaluation questions: What are the questions that the evaluation needs to answer?
3. Evaluation planning: Who will be conducting the research and how, which data will be collected?
4. Data selection and methodology: How will the data be collected, verified, selected and analyzed?
5. Preparing the report: What is the format, who needs it?
6. Implementing the lessons learnt: Who and how will ensure that the lessons learnt are integrated into further activities?

Taking the frame of the Strategic Planning Manual of the Government's General Secretariat into account, the M&E unit will set up an **evaluation plan**. It will set the frame for the evaluations including its timing. It will also define the evaluation questions to be answered.

A first set of **evaluation questions** will include the following questions:

- How advanced is the implementation in relation to the different objectives?
- Why is the status of the implementation of some actions more advanced than that of others? What are success factors? What are hindering factors?
- To what extent are the objectives of the Proposed Strategy still relevant?
- To what extent is there still coherence between the Proposed Strategy and its objectives and the EU, national and sub national policies, strategies and instruments? If it had changed: Why?
- How successful and efficient has the link between the objectives of the Proposed Strategy and the existing funding sources been? In which cases has it been efficient and why? In which cases has it been less efficient and why?
- To what extent does the existing governance system support the efficient implementation of the Proposed Strategy?
- What is the most relevant impact of the Proposed strategy at the point of the evaluation?
- How can the Proposed strategy further be integrated in existing or upcoming funding programs?

These questions mentioned above could be part of the interim evaluations, which will focus on assessing the progress of the implementation and on governance related questions.

The final evaluation will provide more comprehensive answers to the questions above. Additionally, it can include questions about potential impacts. Consequently, further **additional questions for the final evaluation** could be answered, as e.g.:

- How did the selected indicators develop? What is the contribution of the Proposed Strategy to this development and which other relevant developments must be considered?
- In how far were the objectives of the Proposed Strategy reached? Is there a difference between the objectives?

¹⁶ <https://sgg.gov.ro/docs/File/UPP/doc/manual-planificare-strategica.pdf>

- What were the reasons for a successful implementation of the objectives and reaching the targets? What were the obstacles to not reaching them?
- What are the potential upcoming needs of people living in the Mountain Area to be considered when adapting the Proposed Strategy for the future?

Based on the evaluation questions, the interim evaluation as well as the final evaluation will be tendered by the M&E unit. The evaluations will be conducted by an independent external evaluation team in close cooperation with the M&E unit. The M&E unit will support the evaluation by providing data and information and by organizing stakeholder contacts for interviews, focus groups, or workshops.

It is recommended that the evaluation follows a “learning-oriented approach” focusing on questions such as “How?” and “Why?”, to get insights for improving the implementation of the Mountain Strategy. This would call for a theory-based evaluation approach based on the “theory of change”.

To strengthen the “learning-oriented approach” the recommendations should undergo a feedback loop with the stakeholders to encourage mutual learning.

In terms of timing, the first interim evaluation should be conducted after about two years from the approval of the Strategy. The concrete timing shall be oriented on the planning cycles of the European ERDF and CAP funding periods. The results of the first interim evaluation should support the position of the Mountain Area in the negotiations for the new funding period 2027 and forward. The following evaluations and the final evaluation shall be in line with other relevant planning cycles.

5.3.5 Updating the Proposed Strategy

Based on the results of the evaluation, the necessity of an update of the Proposed Strategy should be assessed. This activity should be done at the initiative and under the strict control of the Ministry for Agriculture and Rural Development. Any major changes to the objectives should be validated in consultation with stakeholders.

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Annex A: Methodological approach for prioritization of challenges

A.1 Climate change

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	HIGH
	A1. Climate Change	high
	A2. Natural Hazards	high
	A3. Air, Water and Soil Quality	medium
	A4. Biodiversity and stress of natural resources	high
B. Social	The identified challenge has direct negative social consequences:	MEDIUM
	B1. Public health and safety	high
	B2. Demographic Structure	low
	B3. Income distribution and social protection	low
	B4. Identity and Traditions	low
C. Economic	The identified challenge has direct negative economic consequences:	HIGH
	C1. Employment Level	high
	C2. Economic Diversification	medium
	C3. Regional GDP	medium
	C4. Critical economic sectors ¹⁷	high

The climate crisis has the potential to have a significant negative impact on Romania's mountain regions. The likely damage to the environment is considerable and the social dimension will also be affected in various criteria. The economic dimension is particularly affected, as current and future critical economic sectors are highly dependent on climatic factors and will likely be negatively influenced. The overall severity is therefore **high**, as it changes the basis of life for humans and nature in mountainous regions to an unknown extent.

A.2 Loss of biodiversity

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	HIGH
	A1. Climate Change	medium
	A2. Natural Hazards	medium
	A3. Air, Water and Soil Quality	high
	A4. Biodiversity and stress of natural resources	high

¹⁷ Sectors that are of significant relevance to the region or have the clear prospect of becoming so. Currently, this category puts the emphasis on the sectors of agriculture and tourism.

Dimension	Assessment criteria/sub-criteria	Weight or score
B. Social	The identified challenge has direct negative social consequences:	MEDIUM
	B1. Public health and safety	medium
	B2. Demographic Structure	low
	B3. Income distribution and social protection	low
	B4. Identity and Traditions	high
C. Economic	The identified challenge has direct negative economic consequences:	HIGH
	C1. Employment Level	medium
	C2. Economic Diversification	medium
	C3. Regional GDP	medium
	C4. Critical economic sectors	high

The damage to biodiversity can be judged as threatening to various dimensions and criteria. In particular, the potentially intensifying interactions with climate change and the dense connection of current economic infrastructures with the environment and nature lead to considerable dependence on a good status of biodiversity for the mountain regions. The overall judgement is therefore a **high** potential severity level.

A.3 Accessibility (road/rail/digital/electricity network)

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	LOW
	A1. Climate Change	medium
	A2. Natural Hazards	low
	A3. Air, Water and Soil Quality	low
	A4. Biodiversity and stress of natural resources	low
B. Social	The identified challenge has direct negative social consequences:	MEDIUM
	B1. Public health and safety	high
	B2. Demographic Structure	low
	B3. Income distribution and social protection	medium
	B4. Identity and Traditions	low
C. Economic	The identified challenge has direct negative economic consequences:	HIGH
	C1. Employment Level	medium
	C2. Economic Diversification	high
	C3. Regional GDP	medium
	C4. Critical economic sectors	medium

The population and the economy cannot develop optimally in the wake of poor connectivity. The economic dimension in particular is impacted, and spin-off effects create negative impacts on the social sector. Environmental aspects are not particularly affected. Therefore, the level of damage assumed in the area of connectivity is **medium** compared to the other challenges.

A.4 Limited access to basic services

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	LOW
	A1. Climate Change	low
	A2. Natural Hazards	low
	A3. Air, Water and Soil Quality	low
	A4. Biodiversity and stress of natural resources	low
B. Social	The identified challenge has direct negative social consequences:	HIGH
	B1. Public health and safety	high
	B2. Demographic Structure	medium
	B3. Income distribution and social protection	high
	B4. Identity and Traditions	low
C. Economic	The identified challenge has direct negative economic consequences:	MEDIUM
	C1. Employment Level	medium
	C2. Economic Diversification	high
	C3. Regional GDP	low
	C4. Critical economic sectors	medium

Reduced access to basic services tends to make mountain regions unattractive for people and as a spin-off effect also for businesses. This results in a competitive disadvantage, which can, however, be partially compensated for under certain circumstances. The environmental criteria are not particularly affected by this. Therefore, reduced access to basic services has a **medium** degree of severity.

A.5 Depopulation and aging population

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	LOW
	A1. Climate Change	low
	A2. Natural Hazards	low
	A3. Air, Water and Soil Quality	low
	A4. Biodiversity and stress of natural resources	low
B. Social	The identified challenge has direct negative social consequences:	HIGH
	B1. Public health and safety	low
	B2. Demographic Structure	high
	B3. Income distribution and social protection	low
	B4. Identity and Traditions	high
C. Economic	The identified challenge has direct negative economic consequences:	HIGH
	C1. Employment Level	medium
	C2. Economic Diversification	medium

Dimension	Assessment criteria/sub-criteria	Weight or score
	C3. Regional GDP	high
	C4. Critical economic sectors	high
<p>The depopulation and ageing of the population of the mountain region has immense negative potential, as it impacts all major criteria in some way. This phenomenon has been identified as a key challenge, as it can interact to amplify other unfavorable influences and is furthermore prone to creating a spiraling effect and downwards trend. Especially in the area of work and social cohesion, grave consequences are to be expected. Consequently, it is given a high severity rating.</p>		

A.6 Decreasing role of agriculture

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	LOW
	A1. Climate Change	low
	A2. Natural Hazards	medium
	A3. Air, Water and Soil Quality	low
	A4. Biodiversity and stress of natural resources	low
B. Social	The identified challenge has direct negative social consequences:	HIGH
	B1. Public health and safety	medium
	B2. Demographic Structure	high
	B3. Income distribution and social protection	medium
	B4. Identity and Traditions	high
C. Economic	The identified challenge has direct negative economic consequences:	HIGH
	C1. Employment Level	high
	C2. Economic Diversification	medium
	C3. Regional GDP	medium
	C4. Critical economic sectors	high
<p>The declining importance of agriculture is already continuously bringing change to the region. As a major sector, its decline is upsetting for the region and creates considerable needs for diversification. As agriculture is not only an economic aspect, but also considerably influences the social dimension and identity and traditions, this area is considered to have a high severity.</p>		

A.7 Lack of employment opportunities

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	LOW
	A1. Climate Change	low
	A2. Natural Hazards	low
	A3. Air, Water and Soil Quality	low
	A4. Biodiversity and stress of natural resources	low

Dimension	Assessment criteria/sub-criteria	Weight or score
B. Social	The identified challenge has direct negative social consequences:	MEDIUM
	B1. Public health and safety	low
	B2. Demographic Structure	high
	B3. Income distribution and social protection	high
	B4. Identity and Traditions	low
C. Economic	The identified challenge has direct negative economic consequences:	HIGH
	C1. Employment Level	high
	C2. Economic Diversification	medium
	C3. Regional GDP	high
	C4. Critical economic sectors	medium

The lack of job opportunities affects the Romanian mountain regions in many ways. Especially in the economic and social spheres, this situation creates unfavorable conditions. Even if this factor is surpassed by a few challenges in terms of severity in the given area, and more specifically decline of key sectors is presenting a bigger challenge than broader lack of employment, it falls into the **medium** classification due to its potential high impacts on the economy in particular.

A.8 Social inclusion

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	LOW
	A1. Climate Change	low
	A2. Natural Hazards	low
	A3. Air, Water and Soil Quality	low
	A4. Biodiversity and stress of natural resources	low
B. Social	The identified challenge has direct negative social consequences:	HIGH
	B1. Public health and safety	high
	B2. Demographic Structure	medium
	B3. Income distribution and social protection	high
	B4. Identity and Traditions	high
C. Economic	The identified challenge has direct negative economic consequences:	MEDIUM
	C1. Employment Level	medium
	C2. Economic Diversification	medium
	C3. Regional GDP	low
	C4. Critical economic sectors	medium

Social inclusion currently shows significant gaps in the Mountain Area and by its nature has a particular impact on the social dimension. This has a knock-on effect on the economic dimension. The environmental dimension is not particularly affected. However, on the basis of the criteria taken into account as a whole, it appears to be similarly serious as some other phenomena, which is why it is rated as **medium** in this assessment.

A.9 Imprecise governance and mismatch of policies

Dimension	Assessment criteria/sub-criteria	Weight or score
A. Environment	The identified challenge has direct negative environmental consequences:	MEDIUM
	A1. Climate Change	medium
	A2. Natural Hazards	medium
	A3. Air, Water and Soil Quality	medium
	A4. Biodiversity and stress of natural resources	high
B. Social	The identified challenge has direct negative social consequences:	MEDIUM
	B1. Public health and safety	medium
	B2. Demographic Structure	medium
	B3. Income distribution and social protection	low
	B4. Identity and Traditions	low
C. Economic	The identified challenge has direct negative economic consequences:	MEDIUM
	C1. Employment Level	medium
	C2. Economic Diversification	medium
	C3. Regional GDP	medium
	C4. Critical economic sectors	high

Imprecise governance and mismatch of policies have both far-reaching and uncertain consequences that are difficult to predict. The potential impacts are broad, however can vary between fields or dimensions. Furthermore, this is a cross-cutting issue, which means that this field is assigned a **medium** severity.

(1) Climate change

As a global phenomenon, the effects of the climate crisis on the Romanian mountain region can hardly be averted (Alberton, M.; Andresen, M.; Citadino, F.; Egerer, H.; Fritsch, U.; et al., n.d., p. 22,25,26). Concerning the Romanian mountain regions, a climate change induced anomaly in autumn precipitation already has been registered (World Bank, 2023, p. 41). The consequences are generally difficult to assess, but an increased risk to humans and the environment from natural disasters, among other things, can be expected. Consequently, this is also difficult to push back at the local level and a **high** probability of occurrence and persistence can be assumed.

(2) Loss of biodiversity

Similarly, the decline in biodiversity is a wide-reaching thematic, but the general evidence is clear. There is a trend of 20% of the total arable land becoming decertified and furthermore less than 10% of once common grassland and shallow marsh ecosystems still remain (Secretariat of the Convention on Biological Diversity, 2023). It can be addressed at regional and local levels to a certain extent (Benedek, 2018, p. 101). Damage to biodiversity resulting from the climate crisis, on the other hand, is more complex to address. Considering the current low level of effective action, a **high** probability of occurrence is assumed for this topic.

(3) Accessibility (road/rail/digital/electricity network)

Severe gaps in accessibility in the various sub-regions can already be identified. By Example, with about 900 km length, Romania has one of the smallest highway networks across the member states while being the 8th largest by total area. Furthermore, the average speed of trains ranges between 15 to 40 km/h, depending on whether it is a freight or a passenger rail (European Investment Bank,

2023) The mountainous regions do not make an exception in this regard. Due to uneven geological and physical features, the establishment of networks of any kind has been a challenge. However, since concrete and effective measures can realistically be implemented, the assessment settles at a **medium** level (European Parliament, 2019, p. 5).

(4) Reduced access to basic services

Reduced access to basic services is a well-known problem and should therefore be considered with a high probability of occurrence and a historically high persistence. For example, in remote parts of the mountain region, residents have to travel by car for several hours on average to reach a hospital of the highest level I or II (Dumitrache et al., 2020). Nevertheless, access to basic services can be improved for the population even with selective measures, which is why a **medium** rating is reasonable. (Euromontana, 2021b)

(5) Depopulation and aging population

Depopulation and ageing of the population is a dynamic phenomenon. Even though some regions in Romania are even more clearly affected, for a large part of the municipalities in the mountain region there is a shrinkage of moderate to strong proportions. Internal and external migration flows intensify the negative demographic dynamic of rural areas compared to urban centers (Guran-Nica & Rusu, 2015, p. 131). Although the general direction of development can be observed since several years, it is also subject to unexpected turns and external influences. However, since an overall increase in the region's prosperity can be expected to be accompanied by an improvement in demographics, this challenge has a **medium** level of probability of occurrence or persistence. (Huzui-Stoiculescu, 2018, pp. 9, 13)

(6) Decreasing role of agriculture

The decline of agriculture is a long and deep process that will probably persist in the region in the near future (Oțiman, 2011, p. 340). Even it is a supra-regional trend, job loss is threatening on a collective and individual level. Moreover, the already disadvantaged group of women are particularly affected (Bucharest University of Economic Studies, Romania & Mavrodin, 2021, p. 59). Nevertheless, it can be assumed that this process will settle down at a certain level due to the pursued diversification of the economy and the creation of new jobs. For this reason, a **medium** degree of persistence can be observed for this issue in the Romanian mountain region.

(7) Lack of employment opportunities

The lack of job opportunities is a recent phenomenon in relative terms, which also depends heavily on the development of critical sectors. Analyses have shown that there is a mismatch of skilled labor supply and demand (European Commission, 2019, pp. 10, 12). Because the current state is in need of improvement, a **medium** probability of occurrence/persistence can be exhibited with regard to the rapidly responding dynamics of a labor market.

(8) Social inclusion

Given the theme of social inclusion, deficiencies are already real. By example, the Romanian mountainous regions are show some of the lowest results in the "Female Achievement Index" across the regions of the member states (European Commission, 2021). At the same time, they can be well addressed, even on a local scale. Therefore, a **low** probability of occurrence or persistence can be assumed if suitable strategies are in place.

(9) Imprecise governance and mismatch of policies

Regarding the imprecise government and mismatch of policies, a **medium** impact can be observed in terms of persistence (Ungureanu et al., 2020, p. 507). It is noted that transposition and personalization of policies is crucial to create a governance, which also takes the special requirements of mountain regions in account (Manta, 2022). Some of the policy impacts have a long unfolding time, but, on the other hand, some can also be countered quickly (Benedek, 2018, p. 103).

Annex B: Measures and Operational Indicators

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
Pillar I: Strategic Objective I: Enhance the attractiveness and inclusiveness of small Mountain towns and rural areas to multigenerational Mountain communities.						
Objective 1: Improve Mountain residents' access to quality healthcare, education and other social services in towns and rural areas	Increased access to quality social services	1.1: Developing community health and social assistance centers in Mountain hub towns 1.2: Establishing telehealth, mobile health, and elder care in remote parts of the Mountain Area 1.3: Developing daycare, kindergarten, after-school programming, and innovative schooling models in Mountain rural areas 1.4: Developing integrated programs for attracting and retaining essential workers and professionals to/in Mountain rural areas	Number of community health centers	number	RCR73: Annual number of users of new or upgraded healthcare facilities. 6S9: Annual number of users of new or upgraded social assistance units	MySMIS, monitoring system
			People having access to mobile health	number		<i>Evaluation "Health" program and other programs supporting the measures</i>
			Number of patients evaluated/cared for	number	01PSR14: Number of patients evaluated/cared for	MySMIS, monitoring system
			Annual number of users of new or upgraded educational structures	number	RCR71: Annual number of users of new or upgraded educational structures	MIPE
			Percentage of children in daycare	%	Number of children enrolled in kindergarten	National Institute of Statistics (Territorial observatory)
			Number of participants in supported programs	number		<i>Annual implementation reports - evaluation across programs</i>

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
			Percentage of participants employed in the mountain area after 6 months	%		<i>Additional evaluation making use of ESF common indicator</i>
Objective 2: Improve building quality and access to basic utilities in small Mountain towns and rural parts of the Mountain Area.	Improved living conditions: access to basic utilities and selected building upgrades	2.1: Supporting the installation of off-grid technologies in remote parts of the Mountain Area 2.2: Expanding and upgrading utility connections in more densely populated Mountain areas 2.3: Improving housing quality in risk-prone areas and vulnerable Mountain communities 2.4: Subsidizing critically-needed improvements to public buildings	Population benefiting from off-grid technologies installed	number	Electricity generation by photovoltaic technology and wind on-shore in MWh/km ² (proxy)	ESPON LOCATE
			Population connected to utility networks	share	Percentage of households connected to the sewerage network	Population and Housing Census (Territorial observatory)
			Number of improved houses	number	electricity supply network piped water hot water	Population and Housing Census (Territorial observatory)
			Number of improved public buildings	number	Percentage of dwellings with bathroom toilet	Territorial observatory
Objective 3: Revitalize civic and cultural life in Mountain towns and Mountain rural areas	Increased community involvement in setting up bottom-up initiatives, social innovations and cultural events	3.1: Supporting and amplifying “smart village” and other community-driven social innovation initiatives 3.2: Supporting youth-oriented community initiatives and youth programming 3.3: Supporting cultural activities relating to Mountain traditions and heritage, as well as diversity and innovation	Participants in supported events and programs	number	Participation rate in education and training (proxy)	Eurostat
			Number of municipalities with supported activities	number		<i>Annual implementation reports - evaluation across programs</i>
			Number of cultural and tourist sites supported	number	RCO77: Number of cultural and tourist sites supported	Smart Growth programme

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
Objective 4: Economically support and protect “at-risk” rural Mountain communities.	Economic protection of “at risk” Mountain communities	4.1: Developing an economic inclusion program for qualifying residents of “at risk” Mountain communities	Number of vulnerable mountain population benefiting from support.	Number		<i>Additional evaluation done in strategy implementation based on monitoring from all programs¹⁸</i>
		4.2: Helping subsistence farmers and rural households diversify their incomes	Number of subsistence farmers accessing support for non-agriculture business development and training.	Number		
Pillar II: Strategic Objective II: Enhance Mountain Area residents’ transportation and physical connectivity.						
Objective 5: Enable Mountain residents’ mobility within and beyond the Mountain Area	Improved and greener transportation services and infrastructure	5.1: Developing mobility services with a focus on facilitating Mountain rural residents’ access to hub towns and urban centers	Capacity of environmentally friendly rolling stock for collective public transport	passengers	RCO57: Capacity of green rolling stock for collective public transport	Transport programme
		5.2: Repairing and developing targeted green mobility infrastructure	Average travel time to urban centers by public transport	minutes	Accessibility potential by rail	ESPON Accessibility Scenarios
Objective 6: Enable more Mountain Area residents to benefit from internet access	Increased access to high-quality internet and digital services	6.1: Expanding internet infrastructure in small towns and rural areas	Share of population with access to broadband internet	share	Percentage of households with broadband access	Eurostat
		6.2: Endowing communities with equipment for internet access 6.3: Develop Mountain Area’s residents digital competences	Participants in implemented services and trainings supporting digital competences	share	Participation rate in education and training (proxy)	Eurostat

¹⁸ Requires the definition of “vulnerable population” taking into account factors such as altitude, driving time (car and public transport) to urban centers, to public services (schools, healthcare, administration etc.), and depopulation rates. Grid-based definition requires additional monitoring efforts. Municipality-based definitions can be used for approximation.

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
Pillar III: Strategic Objective III: Stimulate the Mountain Area's economic opportunities, while capitalizing on its regional strengths						
Objective 7: Enable profitable and competitive Mountain agrifood value chains	Increased valorization of Mountain agrifood bioeconomy	7.1: Enhancing the provision of agrifood support services through multistakeholder partnerships and Mountain-focused knowledge and innovation networks	Number of farmers benefiting from advice, training, knowledge exchange or participating in EIP	number	R1 CAP	Common Agricultural Policy indicators
		7.2: Strengthening collective action for value chain self-organization and competitiveness improvements	Number of advisors receiving support to be integrated in the AKIS	number	R2 CAP	Common Agricultural Policy indicators
		7.3: Enhancing food safety compliance and the sustainable commercialization of high-value foraged foods	Share of farmers carrying the „mountain product“ label	%		Common Agricultural Policy indicators
		7.4: Expanding targeted support for quality differentiation and marketing of Mountain agrifood products	Share of farms benefiting from CAP investment contributing to climate change mitigation and adaption	%	R16 CAP	Common Agricultural Policy indicators
		7.5: Expanding efforts around Mountain agrifood product market development and promotion	Share of young farmers	%		Common Agricultural Policy indicators
		7.6: Enhancing the climate resilience of Mountain agrifood value chains, through local technology adaptation (machinery/equipment) & adoption of improved practices	Share of farms participating in producer groups, producer organizations, local markets, short supply chain circuits and quality schemes	%	R10, CAP	Common Agricultural Policy indicators
		7.7: Integral support to Mountain farm successors and agro-entrepreneurs				
		7.8: Supporting the transfer of land to active Mountain farmers				

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
		7.9: Provision of targeted technical support to Mountain agrifood producers to overcome administrative and legal barriers to accessing CAP/PNS and other public sector support 7.10: Expanding mechanisms to facilitate agrifood producers' access to finance				
Objective 8: Strengthening economic opportunities in the Mountain forest bioeconomy (and the nonfood bioeconomy at large)	Improved economic perspectives in the forest bioeconomy	8.1: Supporting sustainable timber and non-timber value chain developments with a focus on enhanced technology adoption/infrastructure and training/skills	Number of foresters and processors benefiting from infrastructure improvements	number		Additional evaluation based on Common Agricultural Policy implementation monitoring system
		8.2: Strengthened quality assurance, product differentiation and market transparency in timber and non-timber forest products	Participants in training programs	number	Participation rate in education and training (proxy)	Eurostat
		8.3: Support for Mountain bioeconomy research and development 8.4: Stimulating demand for Mountain bioeconomy products and services	Employment in the forest industry	number, share	Civilian employed population (by activity fields)	National Institute of Statistics (Territorial observatory)
Objective 9: Increase the economic weight Mountain tourism	Increased economic relevance of sustainable tourism in rural areas and small-towns	9.1: Strengthening actors and efforts relating to the promotion of Mountain tourism	Number of cultural and tourist sites supported	number	RCO77: Number of cultural and tourist sites supported	Smart Growth programme
		9.2: Enhancing the quality and modernization of tourism facilities and services in Mountain hubs	Number of visitor management plans adopted	number	Number of overnight stays in tourist accommodation facilities	National Institute of Statistics (Territorial observatory)
			Touristic overnight stays	number		

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
		<p>9.3: Investing in shared tourism infrastructure based on strategic planning</p> <p>9.4: Supporting the involvement of rural and small town SMEs in the Mountain tourism economy, with a focus on urban-rural linkages (aligned to SMEs section below)</p> <p>9.5: Sustainable planning, developing, and managing tourist flows to small Mountain towns and rural areas</p> <p>9.6: Anticipating and mitigating climate threats and unwanted social and environmental impacts of tourism on small Mountain towns and rural areas</p>	Bed places available	number	Tourist accommodation establishments with tourist accommodation functions	National Institute of Statistics (Territorial observatory)
Objective 10: Support SMEs, entrepreneurship, and the development of smart specialization industries across sectors	Increased number of financially viable SMEs and entrepreneurs across a range of sectors	10.1: Strengthening business development and acceleration services for Mountain micro and SMEs, entrepreneurs, and businesses in smart specialization sectors (including agrifood, forestry, and tourism)	SMEs introducing marketing or organizational innovation	number	RCR04: SMEs introducing marketing or organisational innovations	POCIDIF; SMIS
		10.2: Facilitating industry-level innovation aligned with smart specialization and improve the business enabling environment.	Small and medium-sized enterprises (SMEs) introducing product or process innovation	number	RCR03: Small and medium-sized enterprises (SMEs) introducing product or process innovations	POCIDIF; SMIS; MySMIS, monitoring reports
		10.3: Establish financing schemes and instruments targeting Mountain SMEs and businesses in smart	Enterprises supported with financial and non-financial support	number	RCO02: Companies supported by grants RCO03: Companies supported by financial instruments, RCO04:	RCO02: Smart Growth and Health programme; RCO03: Smart Growth and Sustainable development programme; RCO04:

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
		specialization sectors (including agrifood, forestry, and tourism) 10.4: Develop market-aligned vocational and professional training programs involving economic operators, and attracting in-demand technical and professional skills			Enterprises receiving non-financial support	Smart Growth programme
Pillar IV: Strategic Objective IV: Protect, restore, and nurture the integrity, health, and resilience of Mountain ecosystems and biodiversity						
Objective 11: Assure the integrity and health of Mountain protected forests, grasslands, and other ecosystems, and strictly protected old-growth and primary forests.	Healthy and integral protected forests, grasslands and other ecosystems	11.1: Improving forest use monitoring, zoning, and timber tracking, in alignment with provisions of the Forest Strategy 2030	Area under protection	km ² , share	Area of protected areas; Surface area of Natura 2000 sites RCO37: Area of Natura 2000 sites subject to protection and restoration measures	Protected areas and Natura 2000: Ministry Of Development, Public Works and Administration RCO37: Sustainable development programme
		11.2: Improving and implementing eco-compensation relating to biodiversity protections with a focus on adequately compensating forest owners and expand the use of payments for environmental services	Population affected by energy poverty	share	Percentage of persons affected by lack of adequate heating At-risk-of-poverty rate	EU-SILC (ad-hoc extraction from HH050), Eurostat
		11.3: Supporting sustainable energy biomass use to combat energy poverty 11.4: Supporting Mountain Forest owners' take-up of forest-conservation practices, technologies, and infrastructure 11.5: Encouraging the revitalization and climate-adaptation of high-altitude pastoralism 11.6: Supporting social-ecological research on effective ecosystem	Restoration measures supported by the national forest fund	area		Monitoring of the national forest fund

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
		restoration and management approaches, notably for grasslands and forests 11.7: Restoring, rehabilitating, or rewilding degraded ecosystems 11.8: Ensuring the effective management of protected areas, including through civic and community participation				
Objective 12: Improve soil and water quality and mitigate climate change (mitigate and prevent environmental and climate pollution)	Improved soil and water quality, as well as mitigation of climate change	12.1: Investing in residential wastewater treatment with a focus on nutrient pollution hotspots	Population connected to public waste water facilities or access to off-grid solution	number	RCR42: Population connected to at least secondary public waste water treatment facilities	Sustainable development programme
		12.2: Reducing pollution and increasing carbon sequestration in agriculture with a focus on soil and manure management	Share of UAA under supported commitments to reduce emissions or to maintain or enhance carbon storage	%	R14, CAP	Common Agricultural Policy indicators
		12.3: Protecting and enhancing carbon sinks with a focus on enhancing tree and other vegetative cover	Share of forest and other vegetation land-cover classes	%	Share of forest area	National Institute of Statistics (Territorial observatory) or CORINE Land Cover
		12.4: Mitigating greenhouse gas emissions with a focus on residential heating and transportation	Number of flats/houses benefiting from increased energy efficient heating or isolation	number		Territorial observatory
		12.5: Assessing and developing carbon finance opportunities across Mountain sectors	Reconverted contaminated sites	number, area		<i>Additional evaluation, based on funding programs implementation</i>
		12.6: Continuing to remediate and revert contaminated sites				

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
Objective 13: Enhance the social-ecological resilience of the Mountain Area in the face of climate and other risks	Increased social-ecological resilience vis-à-vis climate-related risks and other natural hazards	13.1: Developing climate change adaptation and disaster emergency plans at the local and massif levels	Number of climate change adaptation and disaster emergency plans	number	RCR37: Population benefiting from climate-related natural disasters other than floods or wildfires (proxy)	Sustainable development program
		13.2: Developing disaster response capacity in small Mountain towns and rural areas	Investments in new or optimized systems for monitoring, preparedness, alerting and response to natural disasters	EUR	RCO24: Investments in new or optimised systems for monitoring, preparedness, alerting and response to natural disasters	Sustainable development program
		13.3: Building environmental awareness through school and professional training curricula and certification requirements	Population benefiting from protection measures against climate related natural disasters	number	RCR37: Population benefiting from climate-related natural disasters (other than floods or wildfires)	Sustainable development program
Pillar V: Strategic Objective V: Empower the Mountain Area to determine and pursue its own aspirations						
Objective 14: Increase the representation of Mountain stakeholders in relevant policymaking	Increased representation of Mountain stakeholders in policymaking	14.1: Strengthening the national National Mountain Area Agency and its advisory bodies	Investment through ITI	EUR		<i>Monitoring systems of the EU funds</i>
		14.2: Increasing Mountain authorities' policymaking roles and capacities	Participants in training programs implemented	number	Participation rate in education and training (proxy)	Eurostat
Objective 15: Foster more supportive service on	A supportive, service-oriented culture	15.1: Developing a supportive and service-oriented culture in local	Participants in training for local authorities	number of local authorities trained	Participation rate in education and training (proxy)	Eurostat

Specific objective	Expected outcome	Measures	Indicator	Unit	Common indicator	Source
the part of public-facing government entities operating in the Mountain Area	ture in public-facing government institutions and local authorities	government and public-facing parts of government agencies	Users of new and optimized public digital services and products and processes	users/year	RCR11: Users of new and optimised public digital services and products and processes RCR12: Users of new and optimized digital services, products and processes developed by businesses	RCR11: POCIDIF; SMIS; Smart Growth, Health and Sustainable development programme RCR12: Smart Growth programme
		15.2: Piloting e-government and innovative administrative service delivery models catering to rural and remote Mountain residents				

