

RURAL MOUNTAIN AREAS: BETWEEN VULNERABILITY AND SUSTAINABLE GROWTH

CHENDE DRAGOȘ CIPRIAN¹, IANCU TIBERIU¹, ADAMOV TABITA*¹, CIOLAC MARIANA RAMONA¹, PASCARIU ANKA¹, GORDAN MARIUS¹, MILIN IOANA ANDA¹

¹*University of Life Sciences “King Mihai I” from Timisoara, Faculty of Management and Rural Tourism*

*Corresponding author’s e-mail: tabitaadamov@usvt.ro

***Abstract:** The sustainable development of rural mountain areas is a strategic priority in the context of the social, economic, and environmental challenges these regions face. The aim of this article is to analyze the opportunities and obstacles specific to sustainable development in Romania’s mountain villages, with a focus on balancing the use of local resources with the preservation of natural and cultural heritage. The study also seeks to identify action paths tailored to the geographic, demographic, and economic characteristics of these regions. The results show that rural mountain regions have significant potential for sustainable development through the promotion of agrotourism, traditional products, and renewable energy sources. However, persistent challenges remain, such as poor infrastructure, depopulation, and limited access to public services. The main conclusion is that sustainable development in these regions requires an integrated, multisectoral approach, supported by coherent public policies and the active involvement of local communities.*

***Key words:** sustainable development, mountain areas, rural villages, local resources, agrotourism, public*

INTRODUCTION

Mountain tourism in Romania is one of the most popular forms of tourism in our country, offering unique opportunities to explore the impressive mountain landscapes and enjoy the clean, unpolluted air. Romania has a variety of mountains, from the Carpathian Mountains, the highest in the country, to the Apuseni Mountains and the Banat Mountains.

In Romania, mountain tourism benefits from exceptional natural conditions. The diversity of landscapes, protected natural areas with numerous endemic species of flora and fauna, spectacular road routes, and winter sports resorts make our country a mountain tourism destination with real development potential. [6,10]

Mountain tourism in Romania also offers opportunities to discover and experience local culture and traditions. Visiting mountain villages allows you to meet the inhabitants of these areas, who will share their stories and customs with you. You can also taste traditional dishes and enjoy drinks specific to the area. [3,7]

Mountain tourism has become, in recent decades, a central topic in research on the sustainable development of rural areas, due to its capacity to generate alternative income for local communities and to sustainably exploit natural landscapes. According to the World Tourism Organization [8,13], tourism in mountain regions is experiencing constant annual growth, being considered a tool for economic diversification and protection of natural and cultural heritage.

The specialized literature emphasizes that mountain areas are recognized for the essential ecosystem services they provide, but also for their increased vulnerabilities to climate change and excessive tourist pressure. [2,12] Thus, tourism development in these regions must respect clear principles of sustainability.

Mountain tourism must be managed carefully to avoid overburdening local infrastructure, degrading biodiversity and altering traditional cultural values. In the same

sense, stresses the need for participatory governance in mountain areas, which includes local actors in decisions related to tourism planning.

In the Romanian context, studies conducted by [1,9] shows that areas such as the Eastern and Southern Carpathians offer significant potential for the development of alternative forms of tourism (ecotourism, agrotourism and cultural tourism), but their success depends on adequate infrastructure, access to financing and the maintenance of local traditions.

Also, the research demonstrates that responsible mountain tourism can contribute to the preservation of rural landscapes, stopping depopulation and strengthening the identity of local communities, if integrated into a coherent public policy framework [5,11].

Mountain areas hold multiple resources for sustainable development, if they are exploited responsibly. First, the tourism potential is significant. Agrotourism, ecotourism and cultural tourism can generate sustainable income for local communities [4].

In conclusion, mountain tourism in Romania offers unique opportunities to enjoy the impressive mountain landscapes and relax.

The main limitations of the research may be related to the limited and fragmented availability of statistical data for mountain areas, the difficulty of capturing in a unified way the highly diverse realities of these regions, the inability to clearly isolate the effects of development policies from the influence of natural or socio-demographic factors, as well as the relative nature of measuring sustainability, which often depends on qualitative indicators and subjective perceptions.

MATERIALS AND METHODS

The aim of this study is to analyze the opportunities and obstacles specific to sustainable development in mountain villages in Romania, focusing on the balance between the use of local resources and the conservation of natural and cultural heritage. It also aims to identify courses of action adapted to the geographical, demographic and economic particularities of these regions.

In this sense, the statistical analysis of existing data at the national level indicated the need to develop tourism activities in rural mountainous areas, tourism being a real chance for economic recovery for these areas.

RESEARCH RESULTS

Rural mountain areas in Romania occupy approximately 30% of the national area and play an essential role in maintaining ecological balance, conserving biodiversity and preserving cultural traditions. [15] However, these regions face complex challenges arising from geographical isolation, depopulation, poor infrastructure and limited access to public services. The sustainable development of these regions is a strategic priority in the context of the United Nations 2030 Agenda and the EU Strategy for Mountain Regions.

Table 1.
Evolution of accommodation structures in the mountain area, 2010-2024

	2010	2015	2020	2021	2022	2023	2024	2010/ 2024
Total accommodation units	5222	6821	8610	11736	12201	12697	13538	+61.43
Total accommodation units in the mountain area	1038	1822	2370	3358	3515	3691	3959	+73.78
Total agrotourism guesthouses	1354	1918	3022	3460	3484	3498	3578	+62.16
Total agrotourism guesthouses in the mountain area	432	820	1217	1317	1334	1333	1364	+68.33

Source: NIS, <http://statistici.insse.ro:8077/tempo-online>

Rural mountain regions have considerable potential for the development of sustainable tourism, especially agritourism, ecotourism and cultural tourism. According to data INS (2024), the number of accommodation facilities in mountain areas increased by 73.78% between 2010 and 2024, values higher than the national average, 61.43%, (table 1). Regarding the evolution of agrotourism guesthouses, a reception structure often found in the mountainous area, they registered an increase of 68.33% during the analyzed period.

Another promising sector in the development of mountain areas is the promotion of traditional and organic products (cheeses, berries, honey), supported by mountain certification initiatives. Also, natural resources (water, biomass, solar energy) provide premises for investments in renewable energy sources, in line with the European Green Deal. [14]

Figure 1 shows the structure of accommodation units in the mountain area in 2024.

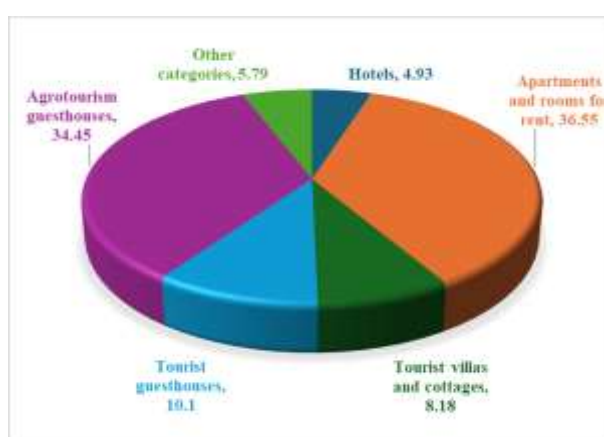


Figure 1. Structure of accommodation units, in the mountain area, 2024

Source: NIS, <http://statistici.insse.ro:8077/tempo-online>

Agrotourism guesthouses, as an accommodation unit specific to rural mountainous areas, represent, by 2024, 34.45% of the total accommodation units, an aspect that supports the development of rural tourism as a way of revitalizing these areas.

Table 2.

Evolution of accommodation capacity

	2010	2015	2020	2021	2022	2023	2024
Existing accommodation capacity (number of places)							
Total	35426	55775	63943	78547	81134	82911	86242
Agritourism guesthouses	6733	14807	20836	21784	21815	22282	23031
Accommodation capacity in operation (number of places-days)							
Total	10126289	16004784	12895299	18918207	20651789	21960648	22557032
Agritourism guesthouses	1790528	3854249	3754100	4872074	5317426	5744957	5764413

Source: NIS, <http://statistici.insse.ro:8077/tempo-online>

Regarding the existing and operational accommodation capacity in the mountain area, Table 2 is presented.

Outbound tourism is on a permanent rise, as evidenced by the constant increase in accommodation capacity, both in the case of existing and operational capacity. During the period 2010-2024, the increase in operational accommodation capacity was achieved at an average rate of 58.92% in the case of existing accommodation capacity and 55.11%. In the

case of agrotourism guesthouses, the growth rate was 70.76% for existing accommodation capacity and 68.94% for operational accommodation capacity.

Table 3.

Evolution of tourist overnight arrivals in the mountain area

	2010	2015	2020	2021	2022	2023	2024
Tourist arrivals (number)							
Total	814973	1528583	1295105	2102750	2443761	2689496	2734281
ROMANS	728320	1356404	1269109	2048348	2340588	2534420	2553064
foreigners	86653	172179	25996	54402	103173	155076	181217
Accommodation capacity in operation (number of places-days)							
Total	1772859	3258394	2613246	4186048	4782278	5290189	5383366
ROMANS	1578441	2912868	2552251	4084054	4589049	4999593	5036865
foreigners	194418	345526	60995	101994	193229	290596	346501

Source: NIS, <http://statistici.insse.ro:8077/tempo-online>

Another proof of the development of tourist activity in mountainous areas and evidence of their economic growth is the evolution of the number of tourists and overnight stays (table 3) in accommodation structures specific to these areas.

In 2024, 18.77% of tourist arrivals, at national level, were registered in the mountain area. In the period 2010-2024, they increased by 70.19%, figure 2. In 2024, 93.37% of the tourists registered in tourist reception structures in the mountain area were represented by Romanian tourists, foreign tourists occupying only 6.63% of the total number of tourists.

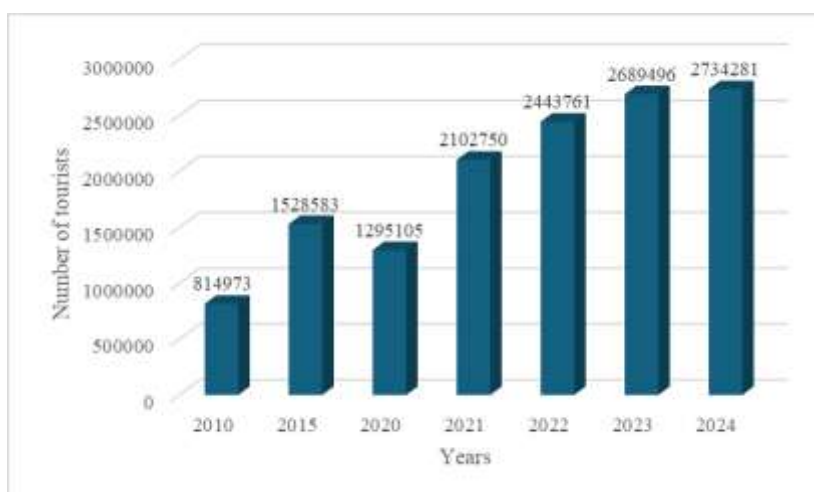


Figure 2. Evolution of the number of tourists, mountain area, 2010-2024

Source: NIS, <http://statistici.insse.ro:8077/tempo-online>

However, sustainable development in mountain areas is hampered by structural factors. Poor road infrastructure, lack of sewage networks and medical services are mentioned by 68% of respondents as the main obstacles. Depopulation is severely affecting mountain areas – between 1990 and 2020, the population of mountain villages decreased by over 25%. [15]

Access to financing and technical support is limited, especially for small farmers or local entrepreneurs. The lack of cooperation between authorities and communities is perceived as a major impediment to implementing sustainable projects.

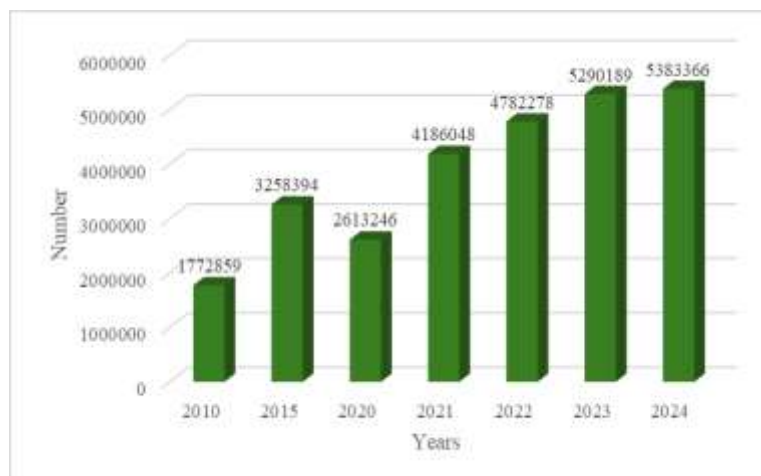


Figure 3. Evolution of the number of overnight stays, mountain area, 2010-2024

Source: NIS, <http://statistici.insse.ro:8077/tempo-online>

In the mountainous area, there is a high level of interest from the inhabitants in preserving the local specificity and in using natural resources responsibly. However, there is a lack of support from central institutions. The main requests concern: infrastructure modernization, access to non-reimbursable funds and support for traditional agricultural activities through differentiated policies.

Tourism development directly contributes to the development of upstream areas from both an economic, social and ecological point of view, ensuring their sustainable development:

- ❖ ***Agritourism contributes to the economic diversification of mountain areas***, offering a viable alternative to traditional, declining agricultural activities. By capitalizing on local cultural and natural heritage, agritourism stimulates rural entrepreneurship and reduces exclusive dependence on agriculture.
- ❖ ***Creating seasonal and permanent jobs in the rural tourism sector*** helps to mitigate the phenomenon of rural-urban migration, especially among young people. In mountainous regions, agritourism has contributed to stabilizing the active population.
- ❖ ***Agritourism stimulates the conservation of local resources***, including natural landscapes, biodiversity and traditional crafts. Thus, it becomes an important tool for maintaining the cultural and ecological identity of mountain areas, in accordance with the principles of sustainable development promoted by FAO.
- ❖ ***Increasing demand for traditional local products within rural tourism experiences*** encourages the development of microfarms, the certification of mountain products and the formation of short supply chains, in accordance with European regulations on the circular economy.
- ❖ ***Agritourism favors the development of local infrastructure***, as tourists' demands for accessibility, digital connectivity and public services drive local authorities to invest in modernizing roads, water and sewage networks and health facilities.
- ❖ ***Integrating agritourism into regional mountain development strategies*** is essential for maximizing benefits. Public policies must support the development of guesthouse networks, cooperation between producers and tourism operators, as well as access to financing through European funds.
- ❖ ***Current limitations, such as seasonality, difficult access to capital and lack of qualified personnel***, impose the need for continuous professional training, digitalization of services and support through social economy instruments.

CONCLUSIONS

The sustainable development of rural mountain areas in Romania requires an integrated, multi-sectoral and participatory approach. Public policies must be correlated with local realities and support:

- ❖ Micro-business development in tourism and organic agriculture;
- ❖ Essential infrastructure (roads, internet, basic services);
- ❖ Vocational training and support for community initiatives;
- ❖ Protecting biodiversity and cultural heritage.

Without a coherent and adapted intervention, the risk of socio-economic marginalization and environmental degradation in mountain regions will increase. The implementation of sustainable policies, supported by the active involvement of local communities, is essential for transforming these territories into spaces of opportunity and resilience.

The rural mountain areas of Romania are at an inflection point. Between structural vulnerability and sustainable potential, the future direction depends on the coherence of public policies, the involvement of communities and the support of local actors. Sustainable development strategies must include measures adapted to the mountain specifics: accessibility, resource protection, green entrepreneurship, community education and economic diversification. Only in this way can these territories become not only protected spaces, but also prosperous and resilient areas.

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