
SMART TOURISM AND SUSTAINABILITY IN RURAL MOUNTAIN AREAS: EMERGING MODELS OF DEVELOPMENT

Tabita ADAMOV ¹, Anda MILIN ¹, Adelina VENIG ¹, Anka PASCARIU ¹,
Marius GORDAN ^{1#}

¹ University of Life Sciences "King Mihai I" from Timișoara, Faculty of Management and Rural Tourism, Romania

² University of Oradea, Faculty of Environmental Protection

RESEARCH ARTICLE

Abstract

Agritourism has evolved over the last two decades from a form of diversification of farm activities to a genuine strategic tool for sustainable development in rural areas. Recent studies show that agritourism contributes to diversifying agricultural incomes, creating jobs, reducing rural migration and strengthening social capital in rural communities. At the same time, agritourism facilitates innovation by introducing new business models, digitizing services, capitalizing on local products, and developing interactive, educational, and participatory tourism experiences.

The article aims to analyze how agritourism can function as a driver of innovation and sustainability in rural communities, starting from a narrative review of recent scientific literature, public policy documents (FAO, European Commission, European Parliament) and relevant case studies. It highlights the link between agritourism, sustainable transformation of agri-food systems and rural development policies, as well as the main associated benefits, risks and challenges. The results suggest that, under the conditions of an appropriate policy framework and participatory governance, agritourism can significantly contribute to increasing the economic, social and environmental resilience of rural communities.

Keywords: agritourism, sustainable rural development, rural innovation, rural communities, sustainability.

#Corresponding author: mariusgordan@usvt.ro

INTRODUCTION

The rural environment is facing, at global and European level, structural challenges: population aging, migration of young people to cities or abroad, declining agricultural incomes, fragmentation of farms, limited access to public services and infrastructure. Rural development and sustainable agriculture policies try to respond to these challenges by promoting economic diversification, capitalizing on local resources and strengthening territorial cohesion (FAO, 2006).

In this context, agritourism – understood as the set of tourist activities carried out on functional farms or in direct connection with agricultural activities and local products – is increasingly presented as an integrated solution for the sustainable development of rural areas. By combining agricultural production with accommodation services, local gastronomy, educational and recreational activities, agritourism offers a way to:

- diversification of farmers' income;
- increasing the added value of local agri-food products;

- conservation of agricultural landscapes and traditional practices;
- education for responsible consumption and environmental protection (Yasin et al, 2025).

At the European level, recent documents from the European Parliament and the European Commission explicitly highlight the role of agritourism in supporting rural development, underlining the need for dedicated allocations within the Common Agricultural Policy (CAP) and other cohesion instruments.

International literature shows that agritourism can:

- reduces farms' dependence on direct subsidies;
- stimulate rural entrepreneurship and innovation;
- contribute to achieving sustainability objectives (environmental, social, economic) (Miluta et al, 2025).

In Romania and other countries in the Carpathian region, agritourism is closely linked to the promotion of local products, the protection of traditional landscapes and the

consolidation of the cultural identity of villages, with important potential for sustainable rural development (Stanciu et al, 2024).

The objective of the article is to highlight how agritourism can function as a driver of innovation and sustainability in rural communities, by analyzing the main mechanisms, emerging development models, benefits and risks.

MATERIAL AND METHOD

The paper is a narrative review of the specialized literature and public policy documents, with a focus on the period 2015–2025, when interest in agritourism and sustainable development increased significantly.

Scientific databases (Web of Science, Scopus, ScienceDirect, MDPI) and specialized journals in the field of agriculture and tourism, as well as research platforms (ResearchGate, Google Scholar) were consulted. The keywords used (in various combinations) were: agritourism/agrotourism, rural development, sustainability, innovation, rural communities, farm tourism.

Inclusion criteria:

- direct relevance to the theme of agritourism - rural development - sustainability;
- conceptual and empirical works (case studies, statistical analyses, bibliometric reviews);
- policy documents (FAO, EU, OECD-FAO);
- at least one component related to innovation (digitalization, new business models, participatory governance).

In total, over 40 sources were analyzed, of which 18 are explicitly used in this article (scientific articles, volumes, FAO/EU reports and policy documents).

The analysis aimed to:

- clarification of the conceptual framework (agritourism, sustainable rural development, innovation);
- identifying the mechanisms through which agritourism contributes to sustainability;
- highlighting forms of innovation associated with agritourism;
- discussing challenges and public policy directions.

The results are presented in an integrated manner, combining the theoretical level with empirical evidence and policy examples.

RESULTS AND DISCUSSIONS

Agritourism in the context of sustainable rural development

Recent bibliometric studies show that agritourism is increasingly conceptualized as a strategic tool for sustainable rural development, not just as a complementary activity to agriculture (Yasin et al, 2025).

The main contributions identified in the literature are:

1. Economic contributions

- ❖ diversifying farmers' incomes and reducing vulnerability to fluctuations in agricultural markets;
- ❖ creating seasonal and permanent jobs in tourist services, gastronomy, guiding, crafts;
- ❖ multiplying local economic effects through short supply chains (local agri-food products, related services (Stanciu et al, 2024).

2. Social contributions

- ❖ strengthening cultural identity and a sense of local pride;
- ❖ increasing community cohesion through collective projects (agritourism associations, thematic routes, festivals);
- ❖ opportunities for women and young people to become entrepreneurs or workers in rural tourism (Ndhlovu, 2024; Turtureanu et al, 2025).

3. Environmental contributions

- ❖ stimulating environmentally friendly agricultural practices (organic agriculture, agroecology, integrated landscape management) as an element of attractiveness for tourists;
- ❖ promoting environmental education and responsible behavior (waste management, resource saving, biodiversity protection);
- ❖ maintaining agricultural cultural landscapes through their economic use for tourism purposes (FAO, 2024).

FAO documents on sustainable agritourism in the Mediterranean region emphasize that agritourism can support the transition of agri-food systems towards more resilient and inclusive models, when integrated into broader rural development and sustainable agriculture strategies (FAO, 2024).

Agritourism as a driver of innovation in rural communities

Recent literature and case studies indicate that agritourism is not just about "farm accommodation", but is becoming a laboratory for innovation in rural areas, through:

1. New business models and diversification

- ❖ mixed farms (accommodation + experiential activities + direct sale of products + educational workshops);

- ❖ integrated agrotourism-ecotourism-cultural tourism packages (gastronomic routes, thematic routes, tasting tours);

- ❖ integration of circular economy concepts (resource reuse, waste reduction, renewable energy on farms).

2. Digitalization and technological innovation

- ❖ using online booking platforms, social networks and digital marketing to promote guesthouses and agrotourism experiences;

- ❖ mobile applications and virtual tours presenting the farm's history, agricultural practices, local products;

- ❖ simple intelligent management systems (reservations, feedback, visitor flow management (Turtureanu et al, 2025)).

3. Social innovation and participatory governance

- ❖ establishment of associations and networks of agro-pensions, cooperation between farmers, artisans and local authorities;

- ❖ participatory processes for planning agrotourism development (public consultations, World Café methods, etc.) (Kubal-Czerwińska et al, 2022). A growing number of studies demonstrate that agritourism can trigger innovation spirals in communities: farmers adopt new technologies (e.g. photovoltaic systems, efficient irrigation solutions), improve their management and quality standards, and young people are motivated to stay or return to the village to develop tourism and agri-food businesses (Stanciu et al, 2024).

Models of sustainable agrotourism development

Based on the literature analyzed, several types of emerging models of sustainable agrotourism development can be identified:

1. Integrated farm-agritourism

- ❖ the farm remains the central production unit, and tourism is integrated into daily activities (participation in agricultural work, product tastings, culinary workshops);

- ❖ strong emphasis on local products, traditional gastronomy and educational experiences for children and young people (Kedla, et al, 2025)

2. Agrotourism routes and clusters

- ❖ networks of farms and households that offer complementary services (accommodation, gastronomy, recreational activities, thematic visits);

- ❖ territorial branding based on products of origin, landscapes and cultural heritage (e.g. agrotourism routes in the Carpathians, in Mediterranean regions or in Central Europe) (Kubal-Czerwińska et al, 2022).

3. Agrotourism oriented towards education and social inclusion

- ❖ agri-pension farms that organize educational programs for schools, people with special needs, urban visitors without contact with agriculture;

- ❖ projects that support the professional integration of vulnerable groups through involvement in tourism and agricultural activities (FAO, 2024).

4. Agritourism in transition or post-crisis regions

Studies from Ukraine, Albania, India or Kenya show that agritourism can play an important role in economic and social reconstruction, offering alternatives to migration and supporting community cohesion (Sobchenko et al, 2022)

FAO emphasizes that the success of these models depends on an alignment between the micro level (farms and communities), the meso level (networks, associations, clusters) and the macro level (public policies, financing instruments and regulations) (FAO, 2024).

Risks and challenges

Although the potential of agritourism is considerable, the literature also highlights a series of risks and challenges:

1. Risk of over-commercialization and loss of authenticity

The rapid growth in the number of agrotourism structures, without clear standards and without established maximum loads, can lead to crowding, increased prices for locals, and the trivialization of the experiences offered (Sachaleli, 2022; Thakur, 2025).

2. Pressure on the environment and local resources

Without rules and monitoring, agritourism can contribute to water and soil pollution, increased waste, and landscape degradation, contradicting sustainability goals (European Commission, 2025; FAO, 2024).

3. Limited institutional and governance capacity

Many rural communities lack the resources necessary for integrated planning, territorial marketing, or the implementation of complex projects, which can lead to fragmented, uncoordinated developments (European Commission, 2024).

4. Inequalities and exclusion

There is a risk that only farmers with financial resources and digital skills will benefit from agritourism, exacerbating disparities within communities. EU programmes highlight the need to support rural SMEs and provide skills training to bridge these gaps.

5. Vulnerability to external crises

The COVID-19 pandemic has shown that tourism, including agritourism, is sensitive to mobility restrictions and changes in consumer behavior. However, the literature suggests that, in the medium term, agritourism has benefited from the orientation towards nearby, rural and "green" destinations (Ana, 2017; Turtureanu et al, 2025).

In this context, agritourism can truly be a driver of innovation and sustainability only if it is part of coherent rural development strategies, correlated with other policies (agricultural, environmental, cohesion, digitalization).

CONCLUSIONS

The analysis of scientific literature and public policy documents allows the following conclusions to be drawn:

- ❖ Agritourism is increasingly recognized as a strategic tool for sustainable rural development. It contributes to income diversification, job creation, the preservation of natural and cultural heritage and the strengthening of social capital, in line with sustainable development objectives and European policies for the rural environment.

- ❖ Agritourism acts as a driver of innovation in rural communities, generating new business models, stimulating digitalization and encouraging forms of participatory governance and association between farmers, entrepreneurs and authorities.

- ❖ Sustainable agritourism models–integrated farms, agrotourism routes, educational and social projects – show that it is possible to combine economic objectives with those of environmental and heritage conservation, especially when there is support from public policies (CAP, rural development programs, FAO and OECD-FAO initiatives).

- ❖ Risks and challenges– excessive commercialization, environmental pressure, inequalities, vulnerability to crises – require a cautious and integrated approach. Agritourism is not a miracle solution, but one element in a wider set of rural development measures; success depends on planning, regulation, monitoring and the real involvement of local communities.

- ❖ For the next period, the priority directions aim to: develop indicators to evaluate the impact of agritourism on the sustainability of rural communities, stimulate comparative research between regions (Carpathians, Mediterranean, Central Europe, Global South), as well as explicitly integrate agritourism into national rural development strategies and the transformation of agri-food systems.

REFERENCES

- Ana, M.I., 2017. Ecotourism, agro-tourism and rural tourism in Romania: A comparative analysis. *Cactus Tourism Journal*, 16(2), 6–14.
- Thakur, S., Arora, S., 2025. Agritourism as a Catalyst for Sustainable Rural Development: A Comparative Analysis of India and Kenya. *International Journal of Social Science Research and Review*, 8(7), 409–422.
- FAO, 2006. *The Role of Agriculture and Rural Development in Revitalizing Abandoned/Depopulated*
- FAO, 2024. *Sustainable agritourism: an opportunity for agrifood systems transformation in the Mediterranean*.
- European Commission, 2025. *Rural development – Agriculture and Rural Development*.
- European Commission, 2024. *Tourism and rural development*. Luxembourg: Publications Office of the European Union.
- Kedla, S., Prasanna, S.B., Veena, N.M., 2025. Agritourism as a Sustainable Rural Development Approach. *European Journal of Economics of Ecology, Biology and Agriculture*, 2(2): 63-67.
- Mulita, R., Sefa, B., 2025. Agritourism Management in Sustainable Rural Development and Cultural Heritage Preservation. *Economics Ecology Socium*, 9(1): 65-76.
- Sachaleli, N., 2022. Sustainability of agritourism as a rural development factor. *Agricultural Economics and Rural Development*, 19(1), 77–87.
- Sobchenko, T., Myktysei T., Zatsepina N., Krushynska A., Samaricheva T., 2022. Analysis of agritourism and tourism potential of rural areas in the system of their sustainable development: a case study of Ukraine. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, 22(1), 603-614.
- Stanciu, M., Marcuta, L., Marcuta, A., Tindeche, C., Preda (Alexa), M., 2024. Analysis of the sustainable development of agro-tourism in Romania. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*, 24(4): 767-702.

Turtureanu, A.G., Crețu, C.M., Pripoiaie, R., Marinescu, E. Ș., Sîrbu, C.G., Talaghir, L.G., 2025. Sustainable Development Through Agritourism and Rural Tourism: Research Trends and Future Perspectives in the Pandemic and Post-Pandemic Period. *Sustainability*, 17(9), 3998.

Yasin, A.S., Bacsi, Z., 2025. Agritourism and Rural Development: A Global Bibliometric Analysis of the State of Research, Limitations, and Future Directions. *Agriculture*, 15(8), 866.

Ndhlovu, E., Dube, K., 2024. Agritourism and sustainability: A global bibliometric analysis of the state of research and dominant issues. *Journal of Outdoor Recreation and Tourism*, 46: 100746.

Kubal-Czerwińska, M., Mitrofanenko, T., Szabó-Diószeghy, A., Szabó, M., Szpara, K., Zawilińska, B., 2022. Agritourism and local products in terms of protection and sustainable development of the Carpathians: a participatory discussion on key issues and challenges. *Journal of Studies and Research in Human Geography*, 16(1), 33-52.