



ISSN: 2785-2997

Review Article

Journal of Human, Earth, and Future

Vol. 7, No. 2, June, 2026



Agritourism and Rural Development Pathways for Sustainable Livelihoods

Ninh Van Nguyen ^{1*}, Hoan Nguyen Cong ¹

¹ Faculty of Commerce and Tourism, Industrial University of Ho Chi Minh City, Ho Chi Minh City 71408, Vietnam.

Received 17 March 2026; Revised 16 May 2026; Accepted 18 May 2026; Published 01 June 2026

Abstract

Agritourism is increasingly viewed as a pathway to support rural economic development, community livelihoods, traditional customs, and environmental protection. This study aims to map the knowledge structure of agritourism and rural development. It also provides information on the key thematic directions driving this area. A bibliometric method was applied to 730 documents from Scopus and Web of Science. The study used descriptive analysis, co-word analysis, strategic thematic mapping, and thematic evolution analysis. These techniques were applied to analyze growth in publications, the emergence of knowledge clusters, and topic evolution over time. The results identify six themes in agritourism and rural development research. These themes focus on sustainability, farm diversification, rural policy, innovation, stakeholder and community engagement, and climate adaptation. They are closely related to rural livelihoods and income generation. The literature has gone from conceptual and economic discussions to the themes of resilience, digital practices, and rural transformation. This study combines a rural development lens with bibliometric mapping. The results illuminate the intellectual landscape of the field and support issues for policy design, for research priorities, and for strategies for rural development.

Keywords: Agritourism; Rural Development; Bibliometric Analysis; Sustainability; Rural Livelihoods; Agricultural Economics.

1. Introduction

Agritourism refers to tourism experiences directly linked to agricultural activities and agricultural value chains. These experiences may include sightseeing, learning agricultural skills, and consuming farm products at their place of origin. It can generate additional income for farmers, strengthening relationships in communities, and preserving rural landscapes and local identity [1, 2]. Different from “rural tourism” in general, agritourism focuses on farm experiences and the participation of farm actors [3]. In this study, agritourism is operationally defined as farm-based tourism activities. These activities directly concern the agricultural resources, the actors on farms and visitors experiences, and rural development outcomes. This definition will be used to guide the search strategy, interpretation of keywords, and thematic analysis. Earlier studies mainly described the characteristics, forms, and transformation potential of this model [4]. These studies then broadened to entrepreneurial motivation among farmers, farm diversification, socio-economic benefits, and operational challenges [5, 6]. Recently, there has been a strong shift in interest towards sustainability measurement and the multi-layered interaction between local innovation and policy frameworks [7, 8]. Overall, agritourism shows potential as a place-based approach to promoting rural resilience when properly embedded in community networks and local governance.

* Corresponding author: nguyenvanninh@iuh.edu.vn

 <https://doi.org/10.28991/HEF-2026-07-02-018>

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On this basis, this study is guided mainly by the sustainable rural livelihoods, supported by a rural development perspective. The sustainable rural livelihoods approach explains rural development through livelihood resources, strategies, institutions, and outcomes [9]. In this study, agritourism is viewed as a livelihood diversification strategy. It connects the farm to tourism and helps to promote community benefits and local resilience. The rural development perspective further supports the understanding of the importance of policy, local income, and institutional support in the development of agritourism [10].

However, the scholarly attention to agritourism has been growing, and the findings are fragmented in contexts and disciplines. Related studies have included discussions of specific projects, practical case studies on farms, or sectoral development reports. Therefore, the capacity to generalize remains limited [11]. Meanwhile, concepts and metrics are spread out across disciplines, including economics, sociology, environmental research, and rural policy [12]. Recent reviews have examined and shed light on the function of agritourism on sustainability and rural livelihoods. Still, few studies have mapped its intellectual structure in rural development, policy, livelihood, and resilience [13, 14]. Global evidence of shifts in themes and collaborative structures is also limited. This evidence is needed to identify emerging topics and pathways for knowledge dissemination [15]. Agritourism research findings can organize fragmented findings through scientific mapping methods. They also describe the evolution of the concepts of agritourism and its connection to rural development over time [2].

For this reason, bibliometric analysis and knowledge mapping were used in this research based on data from Scopus and Web of Science. The study aims to (i) identify core topic clusters and publication patterns; (ii) analyze co-occurrence relationships and central themes; and (iii) trace thematic evolution to identify emerging and declining themes [16, 17]. This is suitable for bibliometric mapping as it can provide information about publication pattern, connected themes, and changes in themes. This study attempts to close this gap by using a combination of bibliometric evidence and a rural development perspective. This method can be used to facilitate the conceptualization of the research field. It also relates the findings to the practical contexts of farmers, communities, and policymaking. This study contributes to the understanding of where the research on agritourism has come together and what new agritourism policy-oriented themes are emerging. This is useful for understanding the importance of agritourism in rural resilience and for designing policy research priorities for the future.

2. Literature Review

2.1. Priority Research Fields in Agritourism and Rural Development

The study of agritourism and rural development looks at a broad range of topics as rural areas keep changing and developing over time [14]. Continuously developing research topics have supported the intellectual landscape of the discipline. The foundational theme in the literature is the definition, conceptualization, and typology of agritourism and rural tourism. Rural tourism is considered a distinctive activity and is defined by its close ties to local culture, agricultural practices, and broader objectives of environmentally friendly development [1, 18]. This discussion provides because it separates agritourism, rural tourism, and general tourism and explains the role of agritourism in reaching sustainability goals [19].

Farm diversification emerging from the entrepreneurial mindset brings important social and cultural changes [9]. When farmers are no longer engaged in strictly agricultural activities, they pursue tourism-related activities that may change their business model. In turn, this shift can influence their perceptions and their position in society [20]. For example, this line of research explains how engagement in agritourism contributes to redefining the concepts of the farm and farmer identity. It also traces how this shift is related to repeasantization and more intimate linkages to local culture and place [21].

Recent research is focused more and more on the analysis of agritourism in rural areas, considering its economic impact and its market-oriented function. From the point of view of the tourism providers too, agritourism is more than a way of getting extra income. It is a way to discover new opportunities to reach the tourist and to have better relationships with the community in general [22]. Activities that blend farming with tourism can help draw in new customers, improve the daily lives of rural residents, and serve as a valuable way to promote local products and experiences [23]. As a matter of fact, farm-based tourism development has been identified as a successful way for rural families to diversify their sources of income. It also helps them enhance resilience to economic shocks [24]. This perspective relates agritourism to farm resources, strategies of the rural households, income diversification, and livelihood resilience [9].

Furthermore, a growing body of research addresses the social, cultural, and environmental outcomes of agritourism. Agritourism has been studied by scholars for its capacity for supporting rural communities, facilitating the transfer of information between many decades, and protecting natural landmarks [25]. These days, many countries tend to prioritize sustainability as something that involves many different aspects; economic, social, and environmental factors all work together and strengthen one another [26].

As recent studies have shown, agritourism and rural development are influenced by policy, governance, and institutional structures. In particular, comparative assessments indicate the influence of the regulatory environment, popular support, and local capacity on agritourism development. Their effects vary across different countries and regions [18]. This perspective also emphasizes the importance of policy, institutions, public support, and local capacity in the process of rural development [10].

Together, themes provide an all-encompassing base upon which one can realize the opportunities and challenges of exploiting agritourism as a means of revitalizing the rural areas.

2.2. Emerging Issues and Research Frontiers in Agritourism and Rural Development

In recent years, literature on agritourism and rural development has addressed a growing range of emerging topics. Among them, one of the most important problems has been economic, social, and environmental sustainability [18]. Indeed, experience shows that viable agritourism business organizations must serve the interests of farm families and the immediate community. At the same time, they must safeguard the rural environment and cultural landscape [23]. Research results show empirical evidence that agritourism activities boost the economy, support livelihoods, foster community connections, and protect the rural environment.

Besides sustainability, technology and innovation in agritourism also need to be considered. In recent years, it has been established that digital marketing, social media, and online platforms have helped to build a client base, improve service, and attract visitors [27]. Furthermore, recent research shows, for example, the importance of social inclusion and community participation. Research indicates that agritourism improves local relations, empowers women and youth, and supports the maintenance of traditional knowledge in countryside areas [28]. Many researchers agree that genuine community participation is important for successful and meaningful agritourism initiatives.

At the institutional level, the study also highlights the importance of state and institutional support for the development of agricultural tourism. Research results have been captured from a policy perspective, including policy instruments, the role of the state and enterprises, and the regulatory legal regime [29]. For example, a comparative analysis reveals that supportive policy conditions are a determining factor for the extent of agritourism development between regions [8].

Finally, recent research shows that agritourism faces multiple challenges related to climate change and economic instability [30]. These pressures have led to a shift in business strategies. They also view agritourism as an opportunity to improve the resilience of livelihoods and community capacity in rural destinations [9].

In summary, the latest literature demonstrates how the field can adapt to new opportunities. Sustainability, digitalization, social inclusion, policy innovation, and resilience are the main aspects that define agritourism and rural development research.

3. Method

3.1. Search Strategy and Data Collection

This research uses bibliometric analysis and knowledge mapping to examine agritourism research and its role in rural development. Bibliometric mapping was chosen because this study is designed to map the structure and relations of an extensive research area [31]. Unlike a systematic review, it can display the interconnections between authors, keywords, and themes within the literature [32]. This approach is helpful for policy discussion as it helps identify areas of central, mature, and emerging research [33]. This study collected data from Web of Science (WoS) and Scopus to ensure the dataset was sufficiently broad and reliable. The chosen database covered a wide range of fields, and the standards of the two databases were popular in academic publications [16].

A predefined search protocol was used to find a cover of terms associated with agritourism and rural development. The search strategy was applied simultaneously to both databases with the keyword string: ("agritourism" OR "agritourism" OR "agricultural tourism" OR "farm tourism") AND ("rural" OR "rural development" OR "rural areas" OR "countryside OR village*") AND ("development" OR "sustainability" OR livelihood* OR transformation OR revitali*).

This research uses documents from peer-reviewed journals, book chapters, conference papers, and reviews from 1978 to 2025. After pulling records from the Web of Science and Scopus databases, the duplicates were detected and removed using the mergeDbSources() function in the Bibliometrix R package. After a total of 245 duplicates were removed, resulting in a merged and unique set of documents for subsequent analysis [34].

Despite these procedures, this study has several methodological limitations. Firstly, it only covered English-language publications, which may underrepresent regional studies and local evidence from developing country settings. Second, some visual outputs and indicators depend on the default settings of Bibliometrix and VOSviewer. These settings can affect the way clusters, labels, and links will appear in the exported figures. Third, although

keyword cleaning was conducted, spelling variants, British and American English forms, and synonyms may still affect the grouping of terms. For example, terms such as “farm stay” or “agro-tourism experiences” may lead to additional records. These records may relate to accommodation, experience of the visitors, and farm-based hospitality. Further research could include regional databases, non-English sources, and standardization terms to help bring more local evidence to the dataset. Figure 1, shows the flowchart of the research methodology through which the objectives of this study were achieved.

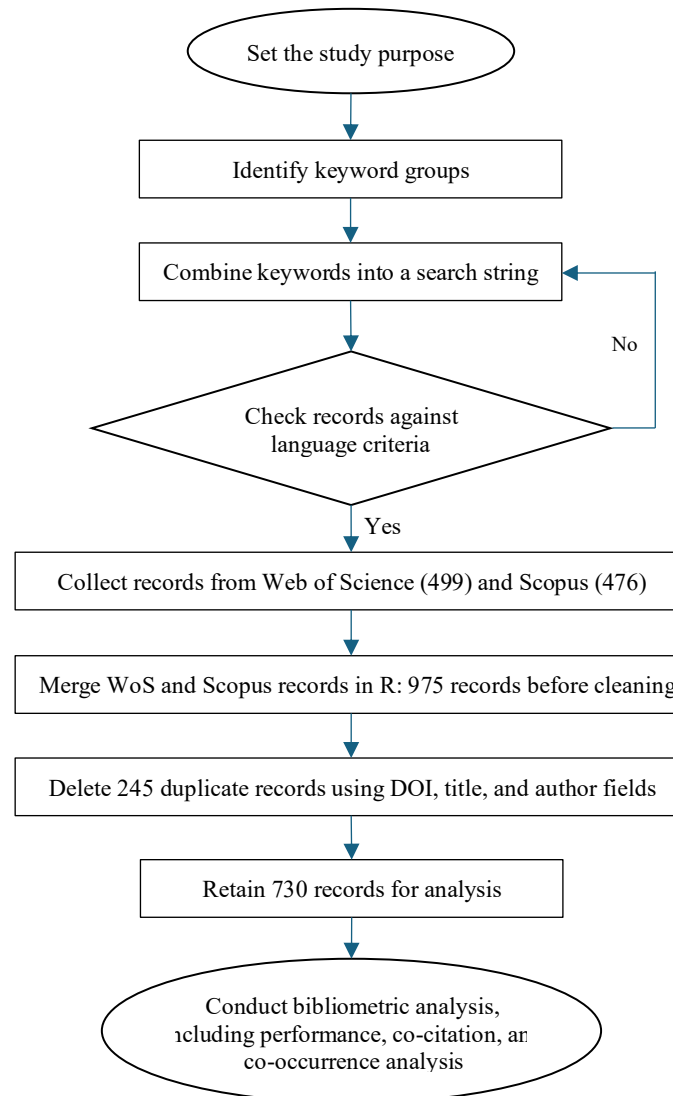


Figure 1. Flowchart of the Search Screening and Bibliometric Analysis Process

3.2. Data Analysis Techniques

The study uses chart visualization techniques to provide a focused overview and assessment of topics related to agritourism and rural development. The analysis was run using the Bibliometrix R package. To begin with, a descriptive bibliometric analysis was performed in mapping the overall research landscape. Bibliometrix guidelines identify trends in research productivity and scholarly contributions by analyzing standard metrics like annual publications [16].

In the next step, a keyword co-occurrence and thematic analysis were undertaken to determine central and emerging research themes. This research used co-word analysis to systematically identify the most commonly occurring and interrelated keywords within the set of data [35]. The co-occurrence keyword networks were further interpreted using VOSviewer. This enabled the study to identify key research topics and highlight subfields that have become significant in recent years.

For a better structure of literature understanding, the study employed thematic maps and strategy diagrams based on Callon's centrality and density framework [36]. The method allowed describing the results of the classification into four groups: motivational themes, specialized themes, emerging or declining themes, and foundational themes [37].

Finally, the study used trend and topic evolution analysis to track the change in research directions over time. The phase-by-phase visualization shows shifts in scholarly interest and highlights current topics of interest. It also helps track changes over time and identify areas that require further research. It also highlights areas of research that need further direction and gaps that remain [38].

4. Results

4.1. Descriptive Bibliometric Analysis

This study performed a bibliometric analysis, which provides an overview of the descriptive characteristics of the dataset. Table A1 in Appendix I summarizes the publication profile and author structure, indicating steady growth in the research field over time.

Figure 2 shows the overall picture of the dataset analyzed in the study. The data set comprises 730 publications published between 1978 and 2025, which were gathered in 330 journals. The annual growth rate is 8.98%, which indicates the increasing concern in the subject of agritourism and rural development. On average, each publication has 15.08 citations with a lifespan of 7.99 years. The duplication of data between WoS and Scopus is done by merging the data, thereby eliminating 245 duplications. Also, there are 1797 authors whose average number of co-authors per article is 3.31, and 14.93% of the publications include international collaboration [38].

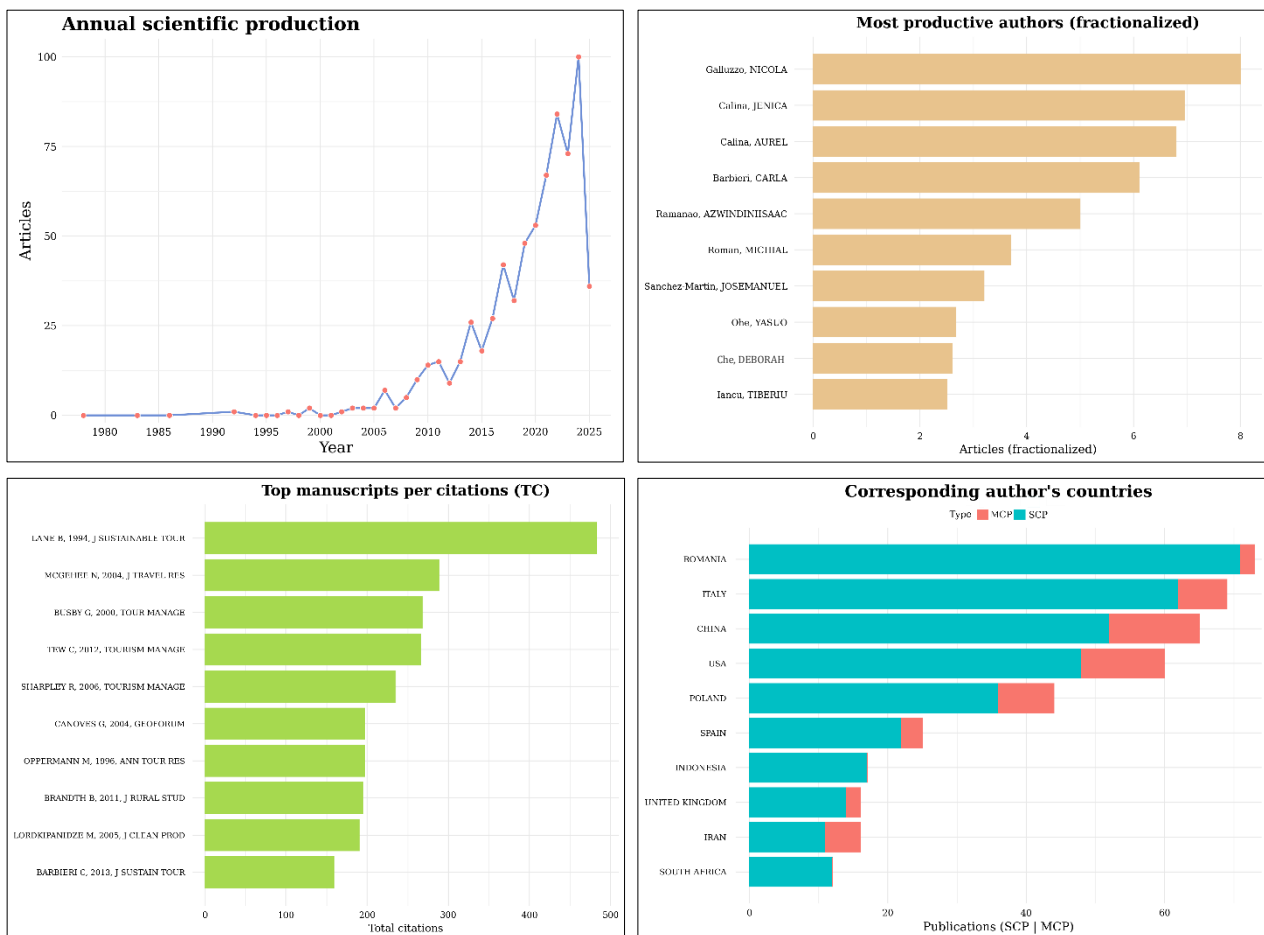


Figure 2. Overview of the bibliometric findings

Meanwhile, the authorship chart demonstrates the most productive authors are Galluzzo, Calina, and Barbieri, with a long-term investment in the field. In terms of scholarly impact, the works of [1, 39, 40] are highly cited and often used as a basis for subsequent research. Finally, the country-by-country analysis shows that Romania and Italy are leading contributors, followed by China and the USA. The combination of “SCP” and “MCP” publications shows a growing trend towards transnational collaboration, extending the scope of discussion from the local context to the global discourse.

4.2. Co-Citation Analysis

The knowledge structure analysis of the study employed co-citations among authors. Detailed results are presented in Table A2, Appendix I. Figure 3 illustrates the co-citation network, the node sizes measuring citation frequency, and the level of influence of documents in the field. The analysis results show that four knowledge clusters have formed, each led by its foundational works.

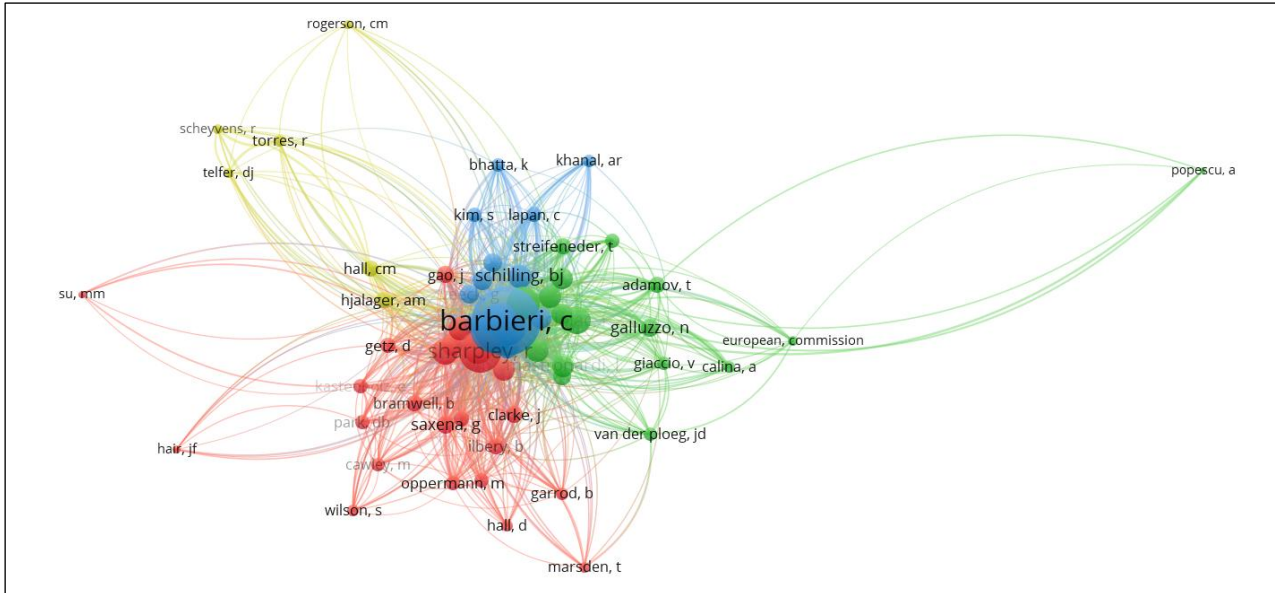


Figure 3. Co-citation networks according to the author

First, Cluster 1 is a reflection of the basic research approach in the field of rural tourism. In this cluster, agritourism is associated with activity diversification and sustainable development. For this reason, authors like Sharpley (136; 1854) and Lane (105; 1175) illustrate a contribution to the creation of a common ground for the field. This pattern is related to the diversification of livelihoods, which involves the extension of farm activities to tourism services and agritourism.

Next, Cluster 2 focuses on policy and sustainable transformation in rural development, emphasizing governance and institutional intervention. In contrast, Ammirato (106; 1357) and Ciolac (95; 1026) are quite similar, which demonstrates how residents in the area are collaborating collectively around long-term solutions.

Meanwhile, Cluster 3, the hub of agritourism knowledge, brings together the most influential and prominent individuals in the network. Therefore, Barbieri (289; 3759) is used as a basis for the concept, and McGehee (134; 2112) and Tew (108; 1501) are included as a basis for part of the analysis related to participation dynamics and operational structures. This cluster demonstrates a change towards a broader discussion on tourism in rural areas. It focuses more on farm participation and entrepreneurship and farm practice.

Finally, Cluster 4 is about socio-economic effects and the community. It explains situations where agritourism can be a source of local value. Thus, authors such as Arroyo (93; 1216) and Flanigan (76; 953) show a focus on community engagement and development outcomes in a rural context. This cluster is closely linked to Cluster 2 and Cluster 3. The distribution of agritourism benefits in rural communities can be influenced by policy support and farm-level participation [41].

Finally, Cluster 4 emphasizes socio-economic impacts and community perspectives, thereby clarifying the conditions for agritourism to create local value. Thus, authors such as Arroyo (93; 1216) and Flanigan (76; 953) show a focus on community engagement and development outcomes in a rural context.

Overall, the four clusters are constructed around key scholars representing divergent understandings of the field. Sharpley and Lane take forward Cluster 1, while Ammirato and Ciolac advance Cluster 2 along a policy trajectory. Simultaneously, Barbieri is very similar to Cluster 3 and Arroyo and Flanigan are more similar to Cluster 4 in terms of socio-economic impact. These co-citations clusters are consistent with theoretical positioning in this study. They relate agritourism to institutional support and livelihood diversification. They also associate it with issues of participation in the community and the effects of rural development.

4.3. Keyword Co-Occurrence Analysis

Research on agritourism and rural development has recorded a significant increase in the number of scientific works as well as the scope of topics. To clarify the knowledge structure in this field, the study conducted a keyword co-occurrence analysis to identify main topic clusters. The results presented in Table A3, Appendix I.

Figure 4 presents the keyword co-occurrence network generated using VOSviewer. The analysis resulted in the identification of six keyword clusters, which were identified by the co-occurrence links between the keywords. Different colors indicate different clusters in the network visualization. For interpretation, node values are reported as occurrences and Total Link Strength (TLS). Clusters are analytical boundaries, rather than fixed conceptual divisions. Thus, broad terms like "sustainability" and "rural development" might be used interchangeably in different groups. Each cluster was translated according to the dominating keywords and the strongest relations and the meaning of the theme.

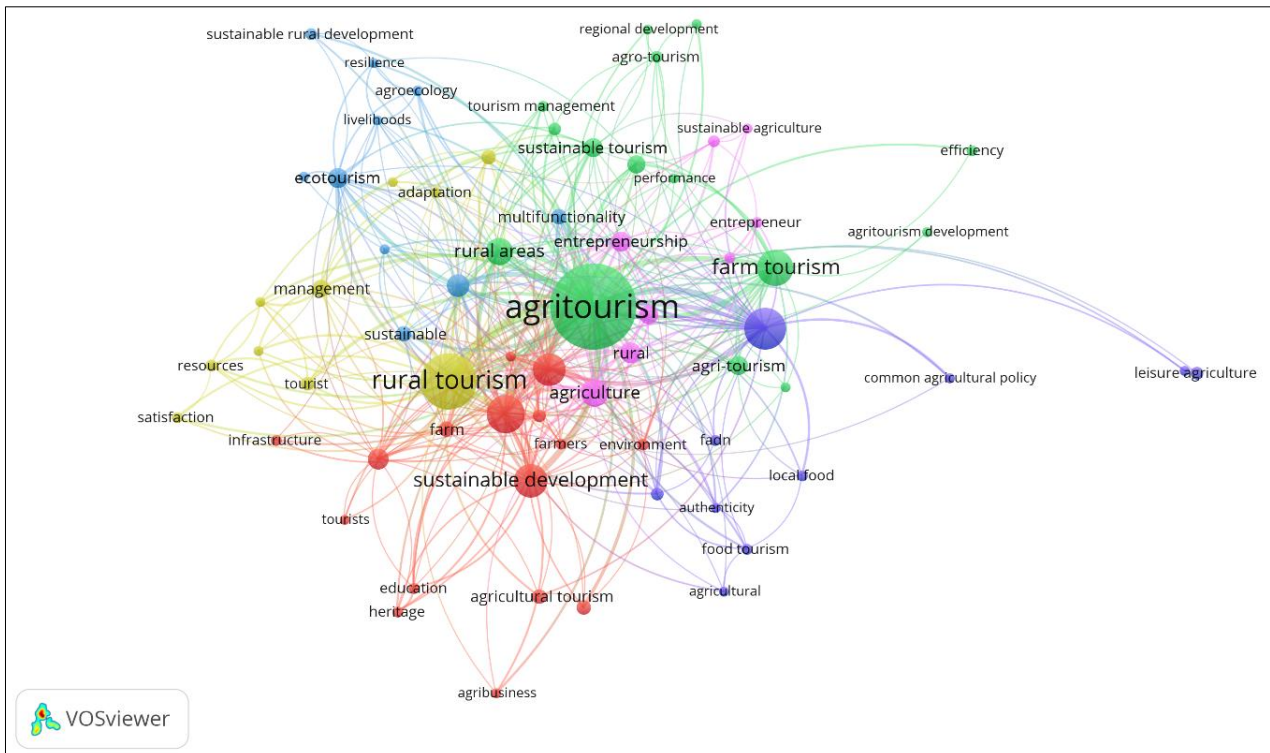


Figure 4. Keyword co-occurrence network of agritourism and rural development research

Firstly, Cluster 1 serves as the main axis of the knowledge network. It is anchored in “agritourism” (339, 500), “farm tourism” (60, 85), and “entrepreneurship” (19, 45). Meanwhile, it features innovation and analytical experimentation in the terms “diversification” (18, 31) and “farm diversification” (15, 29). These keywords are important for the assessment of income diversification models [39, 42]. This cluster is closely linked to the Sustainable Rural Livelihoods Approach. It demonstrates that agritourism can be a livelihood option that is based on farm resources and rural services [9].

Next, Cluster 2 is interested in rural policy and agri-food systems. Keywords include “rural development” (81, 122), “common agricultural policy” (5, 8), “FADN” (6, 6), “circular economy” (5, 6), “local food” (6, 9), and “food tourism” (6, 13). Other related terms are “leisure agriculture” (8, 3) and “wine tourism” (8, 20). This cluster focuses on the capacity of businesses, coordination of actors, and evidence on the ground to link the models of agriculture with the tourism ecosystem [43]. This result supports the rural development perspective. It implies that policy support, local coordination, and institutional conditions are essential for agritourism [10].

Similarly, Cluster 3 brings together the work on sustainability-oriented agrifood production, livelihoods, and resilience. It includes “ecotourism” (19, 50), “agroecology” (6, 14), “multifunctionality” (11, 21), “livelihoods” (5, 17), “resilience” (5, 12), and “sustainable” (12, 30). It is a group of clusters that highlights the theoretical and practical evolution of the field. Agritourism is considered a strategy for rural recovery and restructuring [25, 44]. The presence of “livelihoods” and “resilience” shows a clear link with sustainable livelihood thinking. It can also be used to account for the role of agritourism in rural adaptation [9].

Shifting to another perspective, Cluster 4 represents regional, environmental, and destination issues [45]. Typical keywords include “agriculture” (35, 102), “sustainability” (51, 108), “environment” (7, 20), “farmers” (6, 16),

Meanwhile, niche themes located in the upper left quadrant indicate a high level of development but less linkage with other research themes. Keywords such as “agricultural restructuring”, “agricultural productivity”, and “green transformation” reflect studies on technical and structural changes in agriculture. Based on these analytical results, policies for restructuring and productivity improvement, as well as modern farming models, can be formulated [52, 53]. While these are niche areas, they can enhance the research on agritourism if they are linked with livelihoods, rural services and local adaptation.

Lastly, themes that are emerging or falling are found in the bottom left quadrant. In the research field, topics like “rural revitalization”, “ecological agriculture”, “tourism management” and “agritourism typology” are in a liminal space. Agricultural tourism is looked upon as a part of the “sustainable development” in one direction of the research. This helps clarify the role and logic of policy intervention [25]. However, the dynamic link between tourism, agriculture, and travel economics also reflects the role of “environmental identity” in sustainable development [54]. Future research linking rural restructuring with climate adaptation and community-based development may allow these themes to become more apparent.

Overall, the thematic map shows that agritourism research is structured around both mature and emerging themes. Motor themes are based on the research and basic themes on the conceptual basis of the field. Niche and emerging themes indicate potential areas for further research. This is consistent with the Sustainable Rural Livelihoods Approach and rural development perspective, where the primary themes are linked to livelihood resources, livelihood diversification strategies, institutional support, and rural transformation.

4.5. Thematic Evolution and Trend Topics

After identifying the structure and strategic role of the topics, the study continues to analyze thematic evolution and prominent research trends over time. Detailed indicators in Table A5 (Appendix I) provide a quantitative basis, which confirms the formation of new topic clusters. Figure 6 illustrates the author's shift in keywords, representing the shift and convergence of the periods 1978-2020 and 2021-2025.

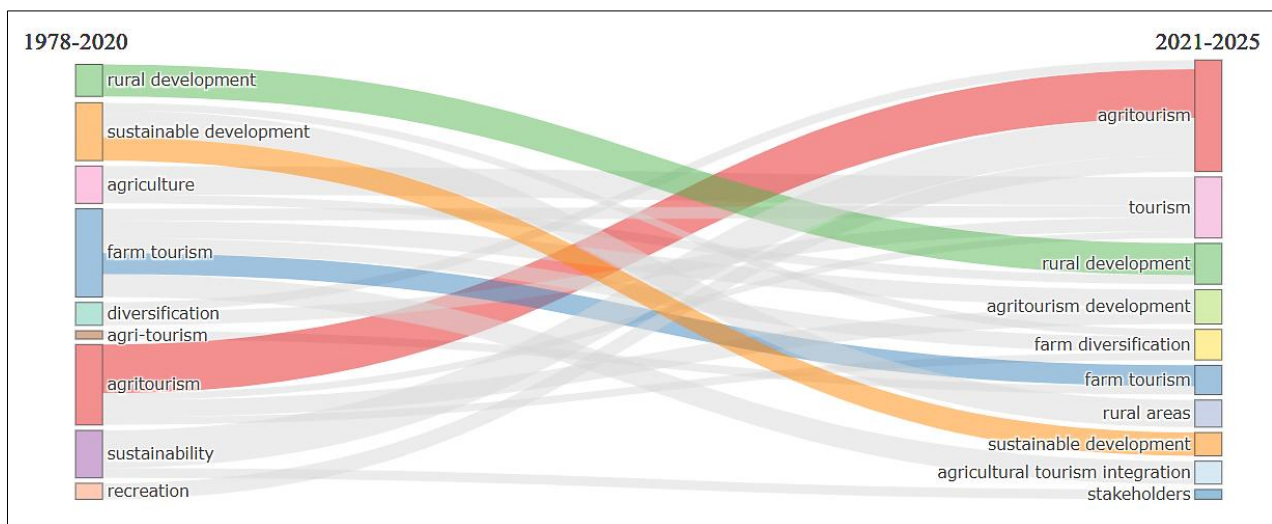


Figure 6. Thematic evolution map of core topics in agritourism and rural development

During the period 1978-2020, keywords associated with “agritourism” appeared in many variations, reflecting the fragmentation of the concept [55, 56]. Terms such as “agri-tourism” (14, 0.11), “agrotourism” (2, 0.02), and “agricultural tourism” (5, 0.50) show different expressions of the same idea [39]. At the same time, “community-based tourism” (2, 0.02) and “sustainable tourism” connect “agritourism” to broader topics, extending to “agro-tourism” (4, 0.17), “climate change” (3, 0.10), and “regional development” (2, 0.25). These data suggest that early-stage research focused on testing different models, with attention to livelihoods and cultural preservation. Later, the field gradually moved toward a more coherent structure [57].

The keyword structure, on the other hand, becomes more concentrated and stable in the 2021-2025 period. The keyword “agritourism” holds a central position with 158 occurrences, a stability index of 0.01, showing popularity but at the same time reflecting the dispersion into many new research branches. Specifically, “agritourism” is strongly linked to “farm tourism” (39, 0.01) and “rural development” (41, 0.01), and at the same time, expands to “farm diversification” (9, 0.01), “heritage tourism” (2, 0.01), and “stakeholders” (3, 0.01) [46, 58]. These links show the shift from a single economic model to a multidimensional approach, associated with “sustainability” and “social equity” [59]. Notably, various new keywords expressing the challenges of the world have surfaced [60], such as: “agricultural

green development” (3, 0.25), “pandemic” (2, 0.25), and “impact” (2, 0.08). Moreover, “climate change” emerged as a bridge between “agriculture” (2, 0.14) and “sustainable tourism” (3, 0.10). In addition, this research identifies a tendency in agritourism research to move beyond rural development. It also connects this field with global issues, including climate change, health crises, and sustainability [61].

However, new keywords that have developed during this period are “agricultural green development” (3, 0.25), “pandemic” (2, 0.25), and “developing countries” (2, 0.13). These terms emphasize this rapid change of the field in light of the global challenges such as climate change, health crisis and development inequalities [62]. These phrases add new dimensions to the study and extend its reach from the rural economy to the global sustainable development context. In addition, the emergence of “heritage tourism” (2, 0.01) and “stakeholders” (3, 0.01) reveals the increasingly clear role of interdisciplinary perspectives. Keywords indicate that agritourism is related to cultural identity, community engagement, and economics [63, 64].

In general, keywords change significantly over time, appearing in specific positions within the knowledge network. Keywords such as farm tourism, regional development and climate change have been appearing increasingly in the reports. This pattern indicates the expansion of the research to subjects like sustainable development, climate adaptation, and rural policy in the new period.

5. Discussion

The analysis shows that the scope of agricultural tourism and rural development is growing, both in size and quality. The WoS and Scopus consolidated dataset shows that there has been a steady increase in interest over the last 50 years, with a total of 730 documents. At the same time, the average annual publication increase rate of 8.98% points to the transition from single-discipline research to “tourism”, “agriculture” and “sustainable development” research. The information presented in the thematic strategy map clarifies the centrality and development level of each research direction. Furthermore, the Sankey diagram identifies the thematic shift between the periods 1978-2020 and 2021-2025. The labels “agritourism”, “rural development”, and “climate change” are converging and expanding their linkages. Therefore, the discussion below interprets the findings into four thematic groups and explains the dynamics behind the formation of each group in recent times. These findings are discussed through the sustainable rural livelihoods approach and a rural development perspective. This framing is useful to understand the linkages between agritourism and livelihood resources, local institutions, farm diversification, and rural resilience.

5.1. Agritourism and Central Thematic Axes in Sustainable Rural Development

The thematic map results show a highly interconnected and stable group leading the research program. This group revolves around “sustainable development”, “climate change”, “digital marketing”, and “farm tourism”. Simultaneously, it expands to innovative and inclusive labels such as “innovation” and “rural women” [49]. Therefore, recent studies place agritourism within the logic of sustainable development at rural destinations [46]. This result is consistent with sustainable rural livelihoods. It indicates that agritourism can be a combination of rural assets, agronomic activities, and adaptive strategies of agritourism that support the livelihood outcomes.

However, this cluster is essential for reasons other than how often it emerges. It also stems from its ability to connect various approaches within the same cluster. It is due to the climate change axis that the discussion of risks, adaptation, and coordination among the stakeholders takes place [65]. This expands the focus from “tourism” to connections with farming and local economies [66]. Conversely, “digital marketing” refers to the increasing usage of digital platforms to help businesses function and reach more customers [19].

Therefore, the time frame emphasizes that after 2020, thematic streams converge around “agritourism”. From this core, research spreads to “climate change”, along with the branches of “rural development” and “farm tourism”. This is an indication of increased discussion around rural sustainability. Issues such as “vulnerability”, “resilience”, and restructuring of development models are directly linked to tourism. Simultaneously, social group labels help to explain the issue of benefits allocation in the transformation [66]. The pattern is also different from previous agritourism studies, where a wider trend of moving from income diversification to resilience or adaptation can be observed.

Finally, this leading thematic group opens up two directions of implications for research and policy. Academically, the climate adaptation and digital practice linkages should be modeled within a sustainability lens. In practice, interventions should improve local actors' adaptive capacity and digital transformation [67, 68]. More concrete policy measures may include small grants for farm diversification and training programs for farmers. Digital marketing of local agritourism products and rural tourism infrastructure are also subjects that need to be included in policy support. Local authorities, cooperatives, farmers, and tourism companies can come together in the form of a public-private partnership. These measures can contribute to the process of developing a more structured rural development strategy. The scope of actors can range from farmers to tourism businesses in rural destinations. The goal is to increase sustainability in both environmental and social senses [69].

5.2. Rural Development Framework in Agricultural Tourism Research

The analysis shows that “agritourism” and “rural development” remain fundamental concepts with a broad scope of connection. However, the level of internal congruence among this group is low, and therefore the approach is fragmented. The themes are encountered in numerous research areas, including topics on local livelihoods and regional planning. Therefore, they create a common frame of reference for the field, but have not yet formed a unified analytical model [14, 50]. This finding supports the rural development perspective. It proves that agritourism is more than just a farm-based activity.

Furthermore, keywords such as “entrepreneurship” and “multifunctionality” have shifted towards a perspective that emphasizes the role of local actors. From this perspective, entrepreneurial ability and the capacity to combine production, services, and experiences are often regarded as prerequisites for sustainability. These capacities also have been revealed by some studies to influence the effectiveness and liveliness of agricultural tourism [70]. This meaning is similar to the logic of livelihood diversification found in Scoones' framework. Farmers employ tourism as a strategy to combine market opportunities, skills, and resources.

The result was that the background thematic group was a familiar paradox of the research field. It provides both a common language and a lack of in-depth integration between theory, context, and practice. This gap makes it difficult to see the connection between rural development, local businesses, and sustainability objectives. Therefore, agricultural tourism is sometimes seen as a short-term auxiliary measure, which is not a development strategy [53]. The gap highlights the importance of linking agritourism research with the livelihoods, institutional support, and local development planning.

5.3. Green Transformation and Technological Approaches in Rural Areas

Besides the central and foundational themes, the analysis reveals a group of in-depth but limitedly interconnected studies. This group is concentrated on productivity, agricultural policy, and technical labeling. The content is related to production restructuring and economic efficiency in rural areas [52, 71]. As a result, research is often conducted in the most focused of academic environments.

From an interdisciplinary perspective, technical approaches and green transformation are often placed within the analytical framework of agriculture. The connection with agritourism and destination experiences remains weak. This topic group has a relatively high level of internal development but weak connections to research streams on multifunctional and sustainable rural development [53]. Indeed, niche topics essentially serve as a technical basis, and the added value they offer to the integrated agritourism framework is limited. For the sustainable livelihoods perspective, this lack of linkage is a constraint. Green transformation should be linked to rural assets, services provided by the farm, and adaptation of livelihoods.

Moreover, this division provides opportunities for further research. When approaches to productivity, policy, and technology are placed within the context of livelihoods, tourism experiences, and environmental adaptation, the scope of influence of niche groups can be broadened [72]. Thus, the connection of “green transformation” to local agritourism practices is considered a solution to the reduction of fragmentation and the enhancement of interdisciplinary integration in the agritourism sector. This linkage can also be used to understand how the technical change becomes relevant to the households and communities in the rural context.

5.4. Rural Restructuring and Adaptive Capacity in Emerging and Declining Themes

On the other side of the thematic map, a group of labels is in a state of transition, showing both emerging and declining trends. The terms “rural revitalization”, “ecological agriculture”, and “tourism management” are fragmented due to the limited level of interconnectedness within the knowledge axis [73]. Thus, these conceptions are still at the stage of testing, and there is no clear research agenda in the works that has been published.

After 2020, these themes were driven by the uncertain context related to the environment, livelihoods, and local governance. Other studies have been oriented towards the restructuring of rural areas and ecological agriculture to address climate pressures and shocks [74]. However, the approaches were typically taken two-fold and intermingled, such that it was challenging to bring them together in a unified analytical framework [75]. Therefore, the interdisciplinary nature of this thematic group has not yet been fully revealed. This result is consistent with the rural development perspective. This demonstrates that it is necessary for ecological adaptation as well as institutional coordination in order for rural restructuring to develop.

Conversely, the current limited level of linkage should not be construed as a predictor of an assistant function in the future. The emerging/declining group is opening up space for further research, especially when linking rural restructuring with adaptive capacity. Directions such as environmental identity and tourism economic dynamics can help to thicken the explanatory mechanisms [54]. In this way, this thematic group can be a link between agricultural

tourism, sustainable development, and local policy if it can be more closely linked to research programs. Theoretically, this group builds on the livelihoods discussion of income generation to resilience building. It also highlights the need for future agritourism research to include local institutions, environmental threats, and community capacity.

6. Conclusion

In the context of increasing interest in agritourism and rural development, a bibliometric synthesis is needed to organize the growing body of knowledge. From 730 publications retrieved from Scopus and Web of Science, this study used keyword co-occurrence analysis, strategic mapping, and thematic evolution analysis. These methods refer to the structure, dynamics, and trends of this field. The results show six major thematic clusters for the topics of agritourism, sustainable development, and rural regeneration. These clusters are on sustainability, farm diversification, rural policy, innovation, stakeholder engagement, community participation, and climate adaptation. The results show that agritourism is no longer viewed only as a tourism product. It is now increasingly recognized as a mechanism that is connected to rural livelihoods, sustainability, resilience, and social innovation.

Moreover, the thematic map shows that “sustainable development”, “farm tourism”, “digital marketing”, “climate change”, and “innovation” have become motor themes. Meanwhile, “agritourism” and “rural development” remain basic themes. They establish the common conceptual framework of the area. Thematic evolution analysis also reveals a conceptually more focused look at agritourism beyond 2020. Research conducted in previous years was more fragmented. It was about rural tourism, farm activities, and local development. Recent research has more links with sustainability, climate change, heritage tourism, and green agriculture. This transition indicates that agritourism is a component of a larger process of rural change. It's a link between farm resources, tourism services, local actors, and policy support. Agritourism development needs to be connected with capacity and digital tools from a policy and practice point of view. It should also do so with regard to community participation, protection of heritage, and adaptation to climate change. This work could be extended with a regional comparison and mixed methods for future research. These studies may include bibliometric evidence and field data. This can be a way to comprehend local knowledge, ecological adaptation, and community-based rural development.

7. Declarations

7.1. Author Contributions

Conceptualization, N.N.; methodology, N.N. and H.N.; software, N.N.; validation, N.N.; investigation, N.N.; data curation, N.N.; writing—original draft preparation, N.N. and H.N.; writing—review and editing, N.N. and H.N.; visualization, N.N.; supervision, H.N.; project administration, N.N.; funding acquisition, N.N. All authors have read and agreed to the published version of the manuscript.

7.2. Data Availability Statement

The datasets analyzed in this study are available online: <https://data.mendeley.com/preview/6s5t6xy8vy?a=2d080d77-2c7b-438a-966d-8e56be7dd8d1> (accessed on May 2026).

7.3. Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

7.4. Acknowledgments

The authors would like to thank Industrial University of Ho Chi Minh City for its support and favorable conditions for research development.

7.5. Institutional Review Board Statement

Not applicable.

7.6. Informed Consent Statement

Not applicable.

7.7. Declaration of Competing Interest

The authors declare that there are no conflicts of interest concerning the publication of this manuscript. Furthermore, all ethical considerations, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the authors.

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Appendix I: Results of the Data Analysis

Table A1. General information of the dataset

No.	Description	Results	Document contents	Results
1	Timespan	1978–2025	Keywords Plus (ID)	1110
2	WoS	499	Average citations per year	1.904
3	Scopus	476	Author's Keywords (DE)	1876
4	Duplicated documents removed	245	Authors	1797
5	Documents	730	Author Appearances	2262
6	Sources	330	Authors of single-authored docs	96
8	Annual growth rate (%)	8.98	Single-authored docs	110
9	Document average age	7.99	Co-Authors per Doc	3.31
10	Average citations per doc	15.08	International co-authorships (%)	14.93%

Table A2. Key co-cited references by cluster

Cluster	Reference (Author, Year, Source, DOI)	Citations	Total link strength
1	Busby, G. (2000), <i>Tourism Management</i> ; 10.1016/S0261-5177(00)00011-X	55	729
	Fleischer, A. (2005), <i>Tourism Management</i> ; 10.1016/j.tourman.2003.10.003	83	961
	Lane, B. (2015), <i>Journal of Sustainable Tourism</i> ; 10.1080/09669582.2015.1083997	105	1175
	Sharpley, R. (2006), <i>Tourism Management</i> 10.1016/j.tourman.2005.10.025	136	1854
	Lane, B. (1994), <i>Journal of Sustainable Tourism</i> ; 10.1080/09669589409510680	105	1175
	Brandth, B. (2011), <i>Journal of Rural Studies</i> ; 10.1016/j.jrurstud.2010.09.002	44	718
	Nilsson, P.Å. (2002), <i>Annals of Tourism Research</i> ; 10.1016/S0160-7383(00)00081-5	29	467
2	Ammirato, S. (2020), <i>Sustainability</i> ; 10.3390/su12229575	106	1357
	Lupi, C. (2017), <i>Land Use Policy</i> ; 10.1016/j.landusepol.2017.03.002	60	690
	Sonnino, R. (2004), <i>Sociologia Ruralis</i> ; 10.1111/j.1467-9523.2004.00276.x	53	806
	Ciolac, R. (2019), <i>Sustainability</i> ; 10.3390/su11051467	95	1026
	Adamov, T. (2020), <i>Sustainability</i> ; 10.3390/su12062502	44	477
	Mastronardi, L. (2015), <i>SpringerPlus</i> ; 10.1186/s40064-015-1353-4	55	726
	Kizos, T. (2007), <i>South European Society and Politics</i> ; 10.1080/13608740601155443	39	550
3	Tew, C. (2012), <i>Tourism Management</i> ; 10.1016/j.tourman.2011.02.005	108	1501
	Phillip, S. (2010), <i>Tourism Management</i> ; 10.1016/j.tourman.2009.08.001	103	1323
	Barbieri, C. (2013), <i>Journal of Sustainable Tourism</i> ; 10.1080/09669582.2012.685174	289	3759
	Barbieri, C. (2008), <i>Sociologia Ruralis</i> ; 10.1111/j.1467-9523.2008.00450.x	289	3759
	McGehee, N.G. (2004), <i>Journal of Travel Research</i> ; 10.1177/0047287504268245	134	2112
	Nickerson, N.P. (2001), <i>Journal of Travel Research</i> ; 10.1177/004728750104000104	54	814
	Ollenburg, C. (2007), <i>Journal of Travel Research</i> ; 10.1177/0047287507299574	41	740
4	Arroyo, C.G. (2013), <i>Tourism Management</i> ; 10.1016/j.tourman.2012.12.007	93	1216
	Flanigan, S. (2014), <i>Tourism Management</i> ; 10.1016/j.tourman.2013.07.004	76	953
	Flanigan, S. (2015), <i>Journal of Rural Studies</i> ; 10.1016/j.jrurstud.2015.08.002	76	953
	Hjalager, A.M. (1996), <i>Tourism Management</i> ; 10.1016/0261-5177(95)00113-1	43	494

Table A3. Keyword clusters identified in agritourism and rural development literature

Clusters	Keywords	Occurrences	Total link strength
1	Agritourism	339	500
1	Agritourism development	5	2
1	Agro-tourism	7	9
1	Diversification	18	31
1	Efficiency	6	4
1	Entrepreneur	6	15
1	Entrepreneurship	19	45
1	Farm diversification	15	29
1	Farm tourism	60	85
1	Gender	6	13
1	Performance	5	5
1	Regional development	5	4
1	Rural	20	42
1	Rural areas	34	69
1	Rural landscape	5	6
1	Social capital	7	10
1	Stakeholders	8	13
1	Sustainable agriculture	5	7
1	Sustainable tourism	17	38
1	Tourism management	6	10
2	Agri-tourism	18	17
2	Agricultural	5	6
2	Circular economy	5	6
2	Common agricultural policy	5	8
2	FADN	6	6
2	Food tourism	6	13
2	Leisure agriculture	8	3
2	Local food	6	9
2	Rural development	81	122
2	Rural revitalization	5	4
2	Wine tourism	8	20
3	Agroecology	6	14
3	Community development	5	14
3	Development	25	60
3	Ecotourism	19	50
3	Livelihoods	5	17
3	Multifunctionality	11	21
3	Resilience	5	12
3	Sustainable	12	30

3	Sustainable agritourism	5	4
3	Sustainable rural development	7	9
4	Agricultural tourism	10	8
4	Agriculture	35	102
4	Authenticity	5	13
4	Destination	5	15
4	Environment	7	20
4	Farmers	6	16
4	Innovation	8	24
4	Rural area	10	14
4	Sustainability	51	108
4	Typology	5	13
5	Accommodation	6	8
5	Agribusiness	5	9
5	Agrotourism	21	39
5	Education	6	15
5	Farm	12	30
5	Heritage	6	14
5	Infrastructure	6	9
5	Sustainable development	52	94
5	Tourism	69	139
5	Tourists	5	6
6	Adaptation	6	15
6	Boarding house	5	17
6	Climate change	10	25
6	Ecosystem services	5	8
6	Management	14	40
6	Rural tourism	145	246
6	Satisfaction	6	9
6	Tourist	9	21
6	Tourist resources	5	12

Note: Keyword co-occurrence analysis and thematic clustering were performed using VOSviewer to visualize the structure of the research field.

Table A4. Centrality metrics of selected keywords (betweenness, closeness, PageRank)

Keywords	Btw_centrality	Clos_centrality	Pagerank_centrality
Farm tourism	2591.65	0.002	0.026
Farm diversification	821.711	0.002	0.009
Entrepreneurship	585.474	0.002	0.009
Innovation	308.428	0.002	0.005
Agricultural economics	237.097	0.002	0.002
Farm-tourism	214.767	0.002	0.007
Factor analysis	214.051	0.002	0.003
Developing countries	162.224	0.002	0.003
Embeddedness	159.111	0.002	0.002
Common agricultural	254.909	0.002	0.003
Agricultural policy	186.152	0.002	0.003
Common agricultural policy	166.700	0.002	0.004
Rural development	2585.769	0.002	0.036
Rural	252.945	0.002	0.003
Agritourism	10671.5	0.002	0.14
Rural tourism	4837.602	0.002	0.061
Sustainable development	2351.009	0.002	0.027
Rural areas	1843.247	0.002	0.019
Sustainability	1675.388	0.002	0.024
Tourism	1297.027	0.002	0.027
Agriculture	986.509	0.002	0.025
Ecotourism	561.623	0.002	0.011
Sustainable tourism	528.764	0.002	0.008
Agrotourism	451.335	0.002	0.007
Development	431.964	0.002	0.009
Triple bottom line	315.064	0.002	0.005
Diversification	310.623	0.002	0.007
Environment	271.354	0.002	0.007
Wine tourism	183.205	0.001	0.004
Rural area	362.858	0.002	0.005
Economy	255.535	0.002	0.003
Agricultural tourism	535.319	0.001	0.007
Rural women	166.645	0.002	0.002
Agricultural-based tourism	215.675	0.002	0.002
Agri-tourism	644.395	0.002	0.006
Multifunctionality	248.653	0.002	0.005
Eu agricultural policy	332.722	0.002	0.003
Agro-tourism	223.601	0.001	0.003
Sustainable agri-tourism	584.342	0.002	0.010
Sustainable agriculture	177.369	0.002	0.004
Accommodation	173.664	0.001	0.002
Climate change	301.726	0.002	0.008
Adaptation	251.239	0.002	0.005
Rural revitalization	377.021	0.002	0.002
Infrastructure	162.164	0.002	0.003
Multifunctional agriculture	162.812	0.002	0.003
Regional development	244	0.001	0.003
Agricultural policy	163.804	0.002	0.002
Circular economy	187.623	0.002	0.002
Rural villages	263.61	0.002	0.002

Table A5. Thematic evolution of selected keywords (1978–2025)

From 1978-2020	To 2021-2025	Weighted inclusion index	Inclusion index	Occurrences	Stability index
Accommodation	Rural development	0.17	0.10	3	0.04
Agri-tourism	Agri-tourism	0.50	0.33	14	0.11
Agri-tourism	Developing countries	0.40	0.50	2	0.13
Agri-tourism	Rural development	0.07	0.14	2	0.05
Agricultural	Climate change	1.00	1.00	2	0.14
Agricultural tourism	Agricultural tourism	1.00	1.00	5	0.50
Agritourism	Agritourism	0.60	0.02	158	0.01
Agritourism	FADN	0.12	0.14	2	0.01
Agritourism	Farm diversification	0.50	0.20	9	0.01
Agritourism	Farm tourism	0.70	0.14	39	0.01
Agritourism	Heritage	0.29	0.33	3	0.01
Agritourism	Heritage tourism	1.00	1.00	2	0.01
Agritourism	Rural	0.31	0.08	12	0.01
Agritourism	Rural development	0.50	0.07	41	0.01
Agritourism	Stakeholders	0.10	0.14	3	0.01
Agrotourism	Agritourism	1.00	1.00	2	0.02
Areas	Rural	0.33	0.50	4	0.07
Challenges	Agritourism development	0.67	1.00	2	0.14
Challenges	Stakeholders	0.20	0.14	3	0.08
Community-based tourism	Agritourism	0.33	0.33	2	0.02
Culture	Rural	0.33	0.33	2	0.07
Efficiency	Agricultural green development	0.50	0.50	3	0.25
Farms	Agritourism	1.00	1.00	2	0.02
Networks	Pandemic	0.50	0.50	2	0.25
Recreation	Agritourism	0.25	0.09	4	0.01
Recreation	Impact	0.33	0.50	2	0.08
Rural area	Agritourism	0.15	0.25	4	0.02
Rural area	Rural area	0.43	0.33	5	0.17
Sustainable tourism	Agritourism	0.40	0.25	6	0.02
Sustainable tourism	Agro-tourism	0.38	0.33	4	0.17
Sustainable tourism	Climate change	0.20	0.25	3	0.10
Sustainable tourism	Regional development	0.67	1.00	2	0.25