Research Paper: The Impact of Agritourism on Sustainable Rural Development: Perspectives of Tourists and Farmers in Mazandaran Province

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ABSTRACT

Purpose: This study investigates the impact of agritourism on sustainable rural development from the perspectives of both host communities and tourists.

Methods: This study is quantitative and applied in purpose, using a descriptive–analytical method with a survey strategy. Data were collected through a researcher-designed questionnaire. The statistical population included two groups: farmers in counties with agritourism potential in Mazandaran Province and agritourists visiting these counties. Based on Cochran's formula, the sample size was 385 respondents. The questionnaire's validity was confirmed by subject-matter experts (university professors and specialists from the Agricultural Jihad Organization and the Cultural Heritage, Tourism, and Handicrafts Organization). Reliability was assessed using Cronbach's alpha, yielding 0.89, which indicates high internal consistency.

Results: The regression analysis showed that five dimensions—economic and infrastructural, policy and managerial, natural and climatic, socio-cultural and human, and extension and educational—significantly influence sustainable rural development. Among them, the economic and infrastructural factor had the strongest effect ($\beta = 0.228$), followed by policy and managerial ($\beta = 0.212$), natural and climatic ($\beta = 0.178$), socio-cultural and human ($\beta = 0.136$), and extension and educational ($\beta = 0.109$).

Conclusion: Agritourism exerts a substantial positive influence on sustainable rural development. Key findings highlight: Economic benefits: Opportunities to market local products (traditional clothing, foods, sweets, handicrafts), improving household income and local economic conditions. Socio-cultural benefits: Organization of festivals (harvest and planting celebrations) as the most important factor, generating economic gains while preserving and promoting authentic rural culture.

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1. Introduction

Contemporary tourism has become a complex socio-economic phenomenon, defined as the set of activities carried out by individuals who travel and temporarily stay outside their usual environment for purposes such as leisure, culture, business, or other objectives, having a significant impact on the economy, society, and environment (Kronenberg & Fuchs, 2021). Tourism, one of the most dynamic global industries (Bilan et al., 2023), has evolved from traditional forms of travel focused on cultural exploration and urban recreation to more specialized types of tourism tailored to societal demands. Sustainable development has become a central objective of global economic and social strategies, aiming to balance economic growth, environmental protection, and community well-being (Hariram et al., 2023). In this context, tourism plays a key role, offering both economic opportunities and challenges related to its impact on natural and cultural resources (Mai et al., 2023).

In response to these challenges, sustainable tourism models, such as rural tourism and agritourism, are increasingly promoted as alternatives to mass tourism. They have the potential to support regional development (Zamarreno-Aramendia et al., 2021) by preserving natural and cultural heritage, stimulating the local economy, and reducing pressure on fragile ecosystems (Liu et al., 2022). As the impact of mass tourism on the environment and local communities (Hussain et al., 2023) becomes more apparent, attention has shifted to sustainable alternatives like rural tourism and agritourism (Tien et al., 2021), which promote authentic experiences in harmony with nature and local traditions (Turtureanu et al., 2025).

Agritourism is a specific form of rural tourism that enables visitors to experience agricultural life directly by staying on farms and participating in everyday farming activities (Philip et al., 2010). It's usually set in rural areas, offering people the chance to enjoy the peaceful countryside while learning more about farming and where their food comes from. Tourists may engage in activities such as harvesting crops, feeding livestock, planting, or learning traditional production techniques, including cheese-making or winemaking. Some farms also offer workshops on beekeeping or organic gardening, which adds to the fun and learning experience (Barbieri, 2013).

Beyond its experiential value, Agritourism supports local communities by bringing more visitors and business to rural areas. For small or family-run farms, this can provide an extra source of income, helping them stay afloat in tough times (Lopez-Sanz et al., 2021). Moreover, agritourism contributes to raising awareness about eco-friendly farming methods. Many agrotourism farms adopt sustainable practices, such as reducing chemical use, conserving water, and protecting the environment (UNEP, 2022). Through direct engagement with these practices, visitors gain a deeper understanding of environmental stewardship and sustainable agriculture.

In recent years, agritourism has experienced notable growth, driven by travelers seeking authentic and environmentally friendly experiences (UNWTO, 2021). It offers a meaningful alternative to urban-centered tourism by enabling individuals to reconnect with nature and rural culture. Families, educational groups, and individuals interested in rural lifestyles and sustainability increasingly view agritourism as a distinctive and enriching tourism experience (Thakur & Arora, 2025).

The diversity and richness of cultural and natural resources of agritourism are important for the development of the tourism sector. Factors such as the reduction of economic efficiency in agriculture, the restructuring of the agricultural sector, and rural to urban migration have heightened the importance of agritourism as a rural development strategy. Consequently, in many Western countries, the economic and social development of rural areas is an alternative to the development strategy (Saghlamtash, 2019). In the studies conducted by Kandari and Chandra, agritourism is divided into two main directions:

- Measurable population density,
- Accommodation potential of rural tourism.

Despite its potential, agritourism development faces several constraints, including economic recession, poor development in agriculture and lack of alternative employment opportunities, lack of facilities and market security, difficult communication with rural areas and lack of waste treatment facilities (Gasimova et al., 2025). Therefore, given the importance of the subject, this study aims to investigate the impact of agritourism on sustainable rural development from the perspectives of tourists and farmers in Mazandaran Province.

2. Literature Review

The scientific literature frequently addresses the impact of agritourism on rural areas and local communities, as well as the potential of tourism activities to contribute to the sustainable development of rural environments. Despite varying perspectives and conclusions, researchers generally agree that agritourism has the potential to create new opportunities for diversifying the rural economy and promoting sustainability in rural areas (Barbieri, 2013). This potential is particularly relevant for impoverished or less attractive regions for investment (Loredana Serban et al., 2025) or isolated areas where cultural and environmental heritage strongly attracts visitors (Ciolac et al., 2019).

The concept of rural development is defined as "an overall improvement in the economic and social well-being of rural residents and the institutional and physical environment in which they live" (Hodge, 1986). For development to be sustainable, it must rely on local resources, particularly natural ones. These resources are managed by farmers and the local population, who play a crucial role in shaping the future of rural areas through their development choices (Loredana Serban et al., 2025).

Rural areas also possess distinctive characteristics such as scenic landscapes, opportunities for nature-based sports, tranquility, peace, or cultural heritage that act as strong tourist assets that lead to an increase in rural tourism. Lane and Kastenholz (2015) states that ideally, rural tourism should develop organically and slowly in rural areas, functionally rural, on a rural scale, traditional in nature, and controlled by local communities. By defining rural tourism, Lin also expresses his opinion on how to develop rural tourism (Lane & Kastenholz, 2015). This type of tourism development has the potential to create a revitalization process in rural areas through the multiple effects it creates, economic development, job creation and additional income, and stopping or even reversing the problem of population decline. Moreover, rural tourism contributes to the conservation of natural and cultural heritage and enhances residents' quality of life, thereby encouraging long-term settlement in rural regions (Milano et al., 2019).

Social capital education also refers to the value of bonding and trust within social group and is considered one of the five main forms of capital: human, social, physical, financial, and natural. Social capital encourages life sustainability (Kishi, 2019). Institution, in this context, is defined as the relationships, attitudes, and values that govern interactions between individuals and contribute to economic and social development. In developed countries, social capital has become a fundamental resource for producing sustainable development. Dale and Newman (2010), in their research in Canada and Australia, showed that social capital is a prerequisite for community sustainability, which connects and facilitates access to external resources (Scuttari et al., 2021).

Turtureanu et al. (2025) presented research titled Sustainable Development Through Agritourism and Rural Tourism: Research Trends and Future Perspectives in the Pandemic and Post-Pandemic Period. The results highlight an increasing scientific interest in sustainable tourism models that integrate digitization, circular economy principles, and authentic rural experiences. The most frequently identified terms include rural tourism, 'agritourism, sustainability, and 'COVID-19, reflecting the field's adaptation to recent global challenges. This study identifies major contributors (China, Italy, Spain, USA, Romania), key institutions, and gaps in the literature. Additionally, future research directions and practical implications are proposed for policymakers, rural entrepreneurs, and tourism promotion organizations.

Thakur and Arora (2025) in their research titled Agritourism as a Catalyst for Sustainable Rural Development: A Comparative Analysis of India and Kenya. Regression and correlation analysis indicate that economic benefits have the greatest influence on the development of agritourism, followed by environmental sustainability and cultural immersion. This research indicates that agritourism not only enhances local employment opportunities, increases farmers' incomes, supports ecological conservation, and respects traditional lifestyles. It concludes that holistic policy, participative community involvement, and digital innovation are the secret to unlocking the long-term potential of agritourism.

Gasimova et al. (2025), in their study, The role of agrotourism in the development of regions, emphasize that one of the main advantages of agritourism lies in its employment potential. It helps increase employment in rural areas by providing employment opportunities in various fields such as farm workers, tour guides, chefs, artisans, and historians. To increase employment in the agritourism sector, local people must be supported in training and skills development. Training programs on topics such as agricultural techniques, hotel management, entrepreneurship, sales, and tour guiding enable more effective involvement of local people in the sector. Agritourism creates new markets and business opportunities for local farmers, artisans, and small businesses. This stimulates the local economy and helps increase employment. It is important to offer tourists local prod-

ucts, create regional experiences, and support local businesses. This sector, with its rich employment potential, offers important opportunities to strengthen the local economy and improve the living standards of people in rural areas. Through local collaboration and sustainable employment models, agritourism is positioned as a key component of future tourism development.

Mashayekh et al. (2024) in their study titled Identifying Factors Affecting Sustainable Rural Tourism with the Approach of Social Capital Education identified key criteria, including rural tourism capabilities, rural tourism strategies based on education, government macro-plans and policies, social capital education solutions, and improving the performance of rural tourism. Based on the obtained results, the new circle of global development in the current era is witnessing a wide competition based on innovation to obtain scarce and limited resources, which guarantees the path of long-term and sustainable development of the society. There are different types of innovations, including technological, economic, commercial, etc., which are effective in meeting the needs and creating human welfare based on the components of social capital education.

Soleimani and Momeni (2022) presented research titled Agritourism: A Strategy in the Tourism Sustainable Development of Rural Communities (Case Study: Dulab Village, Kurdistan, Iran). According to their study, most villagers had economic incentives, including job creation, income increase, poverty reduction, creating complementary jobs, selling products without intermediaries, the welfare of the local community, and empowering rural women to accept tourism and tourism development. According to the results, since agriculture was the main source of income and occupation of rural people, agritourism was identified as a solution for sustainable development in rural communities, emphasizing the necessity of local community participation.

3. Methodology

This study is quantitative in nature and applied in purpose. It was conducted using a descriptive–analytical method based on a survey strategy. Data were collected through a researcher-designed questionnaire. The statistical population consisted of two groups: farmers (in counties with Agritourism potential in Mazandaran Province) and agritourists visiting the selected counties.

To identify the counties with Agritourism potential across different parts of Mazandaran Province, A stratified random sampling approach was utilized to select counties with agritourism potential, followed by proportional sampling to determine the sample size from each county. Subsequently, the total number of agricultural operators in each of the selected counties was calculated separately, and based on Cochran's formula, a total sample size of 385 respondents was determined.

Ultimately, four counties were selected as the study areas, including one county from the western part of the province (Tonekabon), two counties from the central part (Amol and Babol), and one county from the eastern part (Sari). The distribution of the sample size among the counties is presented in Table 1. In addition, 385 tourists who had visited the four selected counties for Agritourism purposes during the past year were also selected through simple random sampling.

The validity of the questionnaire was confirmed through expert review by university professors and specialists from the Agricultural Jihad Organization and the Cultural Heritage, Tourism, and Handicrafts Organization. To assess the reliability of the questionnaire, Cronbach's alpha method was employed. For this purpose, data from 30 completed questionnaires were analyzed, and the Cronbach's alpha coefficient was calculated to be 0.89, indicating a high level of internal consistency and reliability of the instrument.

Table 1. Number of agricultural operators and sample size by county

County	Number of Agricultural Operators	Sample Size
Amol	34,550	85
Babol	60,273	150
Tonekabon	17,917	45
Sari	42,850	105
Total	155,590	385

Table 2. Cronbach's Alpha Coefficients for the Questionnaire Constructs

Construct	Cronbach's Alpha
Economic and Infrastructural	0.85
Socio-Cultural and Human	0.87
Policy and Managerial	0.89
Extension and Educational	0.91
Natural and Climatic	0.88
Total	0.89

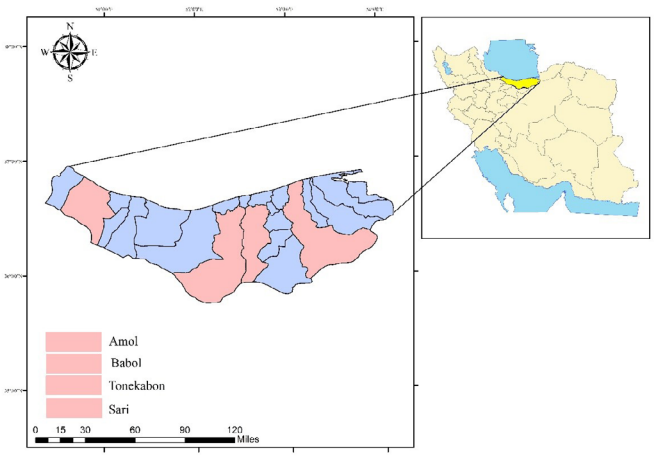

Figure 1. Map of the Study Area

4. Findings

Among the 385 farmers surveyed, 348 were married and 37 were single. In terms of age distribution, 32% of the respondents were under 40 years old, 56% were between 40 and 60 years old, and 12% were over 60 years old. Regarding educational level, 29% were illiterate or had only primary education, 67% held a high school diploma, and 4% had higher (university) education.

Respondents' Attitudes Regarding the Economic and Infrastructural Impacts of Agritourism on Rural Sustainable Development

Regarding the most significant economic and infrastructural impacts of Agritourism development on rural sustainable development in the study areas, farmers (as members of the host community) identified the ability to sell local clothing, traditional foods, local sweets, etc., as the highest-ranked impact with a mean score of 4.21 and a standard deviation of 0.735. This was followed by the opportunity for tourists to purchase more affordable products, with a mean of 4.12 and a standard deviation of 0.696, and the development of local markets for agricultural products, handicrafts, and souvenirs, with a mean of 4.11 and a standard deviation of 0.623.

From the tourists' perspective, the most important economic and infrastructural impacts were ranked differently: the development of local markets for agricultural products, handicrafts, and souvenirs, with a mean score of 4.15 and a standard deviation of 0.951; profitability of Agritourism businesses for the host community, with a mean of 4.12 and a standard deviation of 0.645; and the ability to purchase local clothing, traditional foods, sweets, etc., with a mean of 4.09 and a standard deviation of 0.841.

Respondents' Attitudes Regarding the Policy and Managerial Impacts of Agritourism on Rural Sustainable Development

Concerning the most significant policy and managerial impacts of Agritourism development on rural sustainable development in the study areas, from the perspective of farmers (the host community), organizing agricultural festivals and events ranked highest, with a mean score of 3.69 and a standard deviation of 0.741. This was followed by collaboration and coordination among institutions and organizations involved in agriculture, tourism, and rural development, with a mean of 3.36 and a standard deviation of 0.546, and introducing high-quality Agritourism sites with adequate facilities to

tourists, with a mean of 3.33 and a standard deviation of 0.639. From the tourists' perspective, the most important policy and managerial impacts were, in order: creating a favorable environment for private sector participation and investment, with a mean score of 4.15 and a standard deviation of 0.825; organizing agricultural festivals and events, with a mean of 4.12 and a standard deviation of 0.649; and introducing high-quality Agritourism sites with adequate facilities to tourists, with a mean of 4.03 and a standard deviation of 0.646.

Respondents' Attitudes Regarding the Socio-Cultural and Human Impacts of Agritourism on Rural Sustainable Development

Regarding the most significant socio-cultural and human impacts of Agritourism development on rural sustainable development in the study areas, from the perspective of farmers (the host community), organizing various festivals (such as harvest festivals, planting festivals, etc.) ranked highest, with a mean score of 4.35 and a standard deviation of 0.836. This was followed by opportunities for tourists to participate in farm activities and become familiar with agricultural practices, with a mean of 4.16 and a standard deviation of 0.751, and an increase in local residents' hospitality, with a mean of 4.15 and a standard deviation of 0.554.

From the tourists' perspective, the most important socio-cultural and human impacts were ranked somewhat differently. The regular and purposeful organization of local festivals and cultural events by responsible organizations, with a mean score of 4.15 and a standard deviation of 0.963; organizing various festivals (such as harvest festivals, planting festivals, etc.), with a mean of 4.12 and a standard deviation of 0.648; and establishing permanent exhibitions of traditional agricultural and livestock equipment, with a mean of 4.08 and a standard deviation of 0.915.

Table 3. Prioritization of Respondents' Attitudes Regarding the Economic and Infrastructural Effects of Agritourism on Sustainable Rural Development

Tourists' Perspectives (the Guest Community)			Item	Farmers' Perspectives (the Host Community)		
Rank	Standard Deviation	Mean Rank		Mean Rank	Standard Deviation	Rank
2	0.645	4.12	Profitability of the agritourism business for the host community	4.05	0.785	4
5	0.664	3.98	Opportunity for tourists to purchase products at lower prices	4.12	0.696	2
9	0.598	3.75	Establishment and development of tourist accommodations	3.85	0.598	7
16	1.02	3.45	Development of shopping and recreational centers	3.36	0.714	11
11	0.693	3.69	Increased investment in potential areas	3.52	0.666	10
10	0.915	3.72	Improved financial capacity of farmers for investment in tourism	3.22	0.958	13
15	0.715	3.62	Increase in the number of agritourism tours in the region	3.02	0.759	16
17	0.695	3.25	Enhanced provision of facilities for cultivating new agricultural, horticultural, and medicinal plants	3.12	0.951	15
12	0.852	3.69	Improved access via paved or gravel roads	3.87	0.656	6
6	0.736	3.96	Expansion and improvement of health and treatment services	3.56	0.839	9
4	0.645	4.05	Establishment of traditional restaurants offering local cuisine	3.96	0.703	5
7	0.703	3.95	Increase and establishment of roadside restaurants in pristine areas at appropriate intervals	3.69	0.756	8
1	0.951	4.15	Development of local markets for purchasing agricultural products, handicrafts, and souvenirs	4.11	0.623	3
3	0.841	4.09	Opportunity to sell local clothing, local foods, local sweets, etc.	4.21	0.735	1
8	0.643	3.85	Diversification of farm activities (beekeeping, sheep farming, ostrich farming, fish farming, etc.)	3.25	0.746	12
13	0.504	3.65	Production and supply of organic products on the farm	2.98	0.998	17
14	0.603	3.63	Improved financial solvency of farmers and enhanced economic conditions for the local indigenous population	3.15	0.743	14

Table 4. Prioritization of Respondents' Attitudes Regarding the Policy and Managerial Effects of Agritourism on Sustainable Rural Development

Tourists' Perspectives (the Guest Community)			Item	Farmers' Perspectives (the Host Community)		
Rank	Standard Deviation	Mean Rank		Mean Rank	Standard Deviation	Rank
10	0.639	3.05	Increased attention from the (local) government to planning and investment in the tourism sector	2.95	0.666	8
7	0.679	3.25	Enhancement and expansion of information dissemination and extension regarding the region's numerous tourism capabilities and attractions	3.26	0.712	4
6	0.585	3.69	Creating a suitable foundation for private sector participation and investment in agritourism activities	3.23	0.696	5
2	0.649	4.12	Organization of agricultural festivals and events	3.69	0.741	1
5	0.978	3.85	Collaboration and coordination among institutions and organizations involved in agriculture, tourism, and rural development	3.36	0.546	2
8	0.698	3.15	Resolving land tenure issues for farmers in state-owned lands and lands included in "Hadi" rural development plans	2.65	0.645	10
9	0.963	3.08	Allocation and permitting of uncultivated lands with agricultural potential and capability	2.72	0.649	9
3	0.646	4.03	Extension of quality agritourism sites with adequate facilities to tourists	3.33	0.639	3
1	0.825	4.15	Laying the groundwork for private sector participation and investment	3.12	0.743	7
4	0.951	3.95	Facilitating connections between entrepreneurs, producers, intermediaries, and retailers	3.16	0.836	6

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Table 5. Prioritization of Respondents' Attitudes Regarding the Socio-Cultural and Human Effects of Agritourism on Sustainable Rural Development

Tourists' Perspectives (the Guest Community)			Item	Farmers' Perspectives (the Host Community)		
Rank	Standard Deviation	Mean Rank		Mean Rank	Standard Deviation	Rank
5	0.736	4.05	Opportunity for tourist participation in farm activities and familiarization with agricultural practices	4.16	0.751	2
2	0.648	4.12	Organization of diverse festivals (e.g., harvest festivals, planting festivals)	4.35	0.836	1
7	0.602	3.95	Presence of transformed and progressive farmers in rural areas	3.15	1.05	9
1	0.963	4.15	Regular and purposeful organization of local indigenous festivals and ceremonies by relevant authorities	3.95	0.736	7
3	0.915	4.08	Establishment of permanent exhibitions of traditional agricultural and livestock farming tools and equipment	3.55	0.645	8
6	0.645	4.02	Increased hospitality among the local population	4.15	0.554	3
9	0.602	3.85	Educating tourists about farm activities	3.95	0.606	6
4	0.796	4.05	Performance of local indigenous games and entertainment on the farm	4.05	0.716	4
8	0.915	3.95	Heightened awareness among local residents regarding sustainable development and the conservation of the environment and natural resources	4.02	0.703	5

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Respondents' Attitudes Regarding the Extension and Educational Impacts of Agritourism on Rural Sustainable Development

Regarding the most significant extensional and educational impacts of Agritourism development on sustainable rural development in the study areas, from the perspective of farmers (the host community), informing and extending the region's tourist attractions and potentials ranked highest, with a mean score of 4.25 and a standard deviation of 0.564. This was followed by raising farmers' awareness regarding Agritourism, with a mean of 4.21 and a standard deviation of 0.645, and educating farmers on the conservation and restoration of pastures and natural resources through various methods, with a mean of 4.12 and a standard deviation of 0.739.

From the tourists' perspective, the most important extensional and educational impacts were ranked differently. creating a tourism website for the region and linking it to related sites, with a mean score of 4.15 and a standard deviation of 0.984; providing consultation for economic justification and evaluation of Agritourism-related activities, with a mean of 4.05 and a standard deviation of 0.789; and academic attention to Agritourism, including the presence of a university in the region, with a mean of 4.02 and a standard deviation of 0.625.

Respondents' Attitudes Regarding the Natural and Climatic Impacts of Agritourism on Rural Sustainable Development

Regarding the most significant natural and climatic impacts of Agritourism development on rural sustainable development in the study areas, from the perspective of farmers (the host community), the development of livestock farming and keeping animals alongside farms ranked highest, with a mean score of 4.25 and a standard deviation of 0.753. This was followed by increased attention to the environment and its conservation and restoration by residents, with a mean of 3.98 and a standard deviation of 0.806, and the creation of pristine and natural environments in villages to support Agritourism development, with a mean of 3.93 and a standard deviation of 0.646.

From the tourists' perspective, the most important natural and climatic impacts were respectively: improving the village landscape and housing structures in terms of materials and construction methods, with a mean score of 4.22 and a standard deviation of 0.928; development of livestock farming and keeping animals alongside farms, with a mean of 4.15 and a standard deviation of 0.850; and increased attention to the environment and its conservation and restoration by residents, with a mean of 4.10 and a standard deviation of 0.699.

Table 6. Prioritization of Respondents' Attitudes Regarding the Extension and Educational Effects of Agritourism on Sustainable Rural Development

Tourists' Perspectives (the Guest Community)			Item	Farmers' Perspectives (the Host Community)		
Rank	Standard Deviation	Mean Rank		Mean Rank	Standard Deviation	Rank
4	0.725	3.95	Conducting specialized workshops, seminars, and conferences	2.95	0.963	9
3	0.625	4.02	Academic attention to agritourism and the presence of a university in the region	3.12	0.852	8
8	0.648	3.85	Raising awareness among farmers regarding agritourism	4.21	0.645	2
5	0.702	3.92	Information dissemination and extension of the region's tourist attractions and capabilities	4.25	0.564	1
9	0.926	3.85	Utilization of local expertise for the development of agritourism	3.95	0.743	5
6	0.798	3.90	Extension and awareness-raising concerning agritourism businesses	3.85	0.923	6
2	0.789	4.05	Providing consultation for the justification and economic assessment of agritourism-related activities	4.02	0.739	4
1	0.984	4.15	Development of a tourism website for the aforementioned areas and linking it to relevant websites	3.55	1.02	7
7	0.703	3.87	Educating farmers on the preservation and restoration of pastures and natural resources through various methods	4.12	0.739	3

Table 7. Prioritization of Respondents' Attitudes Regarding the Natural and Climatic Effects of Agritourism on Sustainable Rural Development

Tourists' Perspectives (the Guest Community)			Item	Farmers' Perspectives (the Host Community)		
Rank	Standard Deviation	Mean Rank		Mean Rank	Standard Deviation	Rank
5	0.649	4.02	Establishment of pristine natural environments in the village for agri-tourism development	3.93	0.463	3
6	0.699	3.96	Adherence to standard environmental indicators such as healthy climate, absence of pollution and noise, etc.	3.82	0.737	5
4	0.637	4.05	Conservation and restoration of mineral hot springs with therapeutic properties in the region	3.70	0.644	7
10	0.569	3.55	Development of gardens, farms, and rice paddies with diverse crops	4.25	0.749	10
9	0.942	3.58	Preservation and rehabilitation of grasslands, shrublands, and vegetation cover	3.12	0.903	9
2	0.850	4.15	Development of livestock breeding and animal husbandry alongside farms	3.63	0.585	1
1	0.549	4.22	Improvement of architectural landscape in village structure through appropriate building materials and construction methods	3.63	0.806	8
3	0.690	4.10	Enhanced attention to environmental conservation and restoration by indigenous communities	3.98	0.658	2
7	1.03	3.95	Increased focus on preservation and rehabilitation of village rangelands by local residents	3.76	1.02	6
8	0.645	3.72	Greater attention to forest conservation and restoration by native populations	3.84	0.715	4

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Assessment of the Impact of Agritourism on Rural Sustainable Development

To analyze the effects of Agritourism on rural sustainable development, a multiple regression analysis using the simultaneous entry method was employed. In this method, all independent variables that have a significant relationship with the dependent variable are entered into the equation simultaneously. Regarding the impact of Agritourism on rural sustainable development, the multiple correlation coefficient (R) was 0.826, and the coefficient of determination (R^2) was 0.712 (Table 8). In other words, 71% of the variance in the dependent variable is explained by the independent variables included in the study, while the remaining 29% is attributable to factors not examined in this research.

In Table 9, the factors affecting rural sustainable development identified in this study include economic and infrastructural, policy and managerial, natural and climatic, socio-cultural and human, and extensional and educational factors. All of these factors have a significant relationship with the dependent variable of the study, namely, rural sustainable development. The standardized beta coefficient for the economic and infrastructural factor is 0.228, indicating that a one-unit change in its standard deviation leads to a 0.228-unit change in the standard deviation of the dependent variable. The coefficients for the other factors are as follows: policy and managerial, 0.212; natural and climatic, 0.178; socio-cultural and human, 0.136; and extensional and educational, 0.109.

Based on the results, the linear regression equation is as follows:

$$Y=11.214+0.228X1+0.212X2+0.178X3+0.136X4+0.109X5Y$$

Table 8. ANOVA and Model Summary

Correlation Coefficient (R)	Coefficient of Determination (R^2)	F-value	Significance (p-value)
0.826	0.712	72.96	0.000

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Table 9. Regression Coefficients for Variables Affecting Sustainable Rural Development

Variable	Unstandardized Coefficient (B)	Standardized Coefficient (Beta)	t-value	Significance (p-value)
Constant	11.214	-	14.36	0.000
Economic and Infrastructural	0.228	0.246	3.61	0.002
Policy and Managerial	0.212	0.231	3.32	0.001
Natural and Climatic	0.178	0.198	2.96	0.002
Socio-Cultural and Human	0.136	0.156	3.01	0.004
Extension and Educational	0.109	0.122	2.82	0.030

Note: All factors show a significant positive relationship with sustainable rural development ($p < 0.05$). The economic and infrastructural factor exhibits the strongest standardized effect (Beta = 0.246).

where Y represents rural sustainable development, X1 = economic and infrastructural factors, X2 = policy and managerial factors, X3 = natural and climatic factors, X4 = socio-cultural and human factors, and X5 = extensional and educational factors.

Based on this model, it can be concluded that, assuming other external factors remain constant, the economic and infrastructural, policy and managerial, natural and climatic, socio-cultural and human, and extensional and educational variables collectively contribute to predict the level of rural sustainable development. Furthermore, according to the beta coefficients, the economic and infrastructural variable has the greatest impact on rural sustainable development, followed by the policy and managerial factors.

5. Discussion

The results of the study indicated that the impacts of Agritourism on rural sustainable development are significant. Consequently, the development of Agritourism can contribute to rural sustainable development. One of the key findings of this research was the positive economic effects of Agritourism on rural sustainable development. From the host community's perspective, the opportunity to sell local clothing, traditional foods, local sweets, and similar products was identified as the most important economic impact. This factor, alongside other economic elements, can enhance the economic conditions of the host community.

In the socio-cultural and human dimension, organizing various festivals (such as harvest festivals and planting festivals) was identified as the most significant factor. In addition to its economic benefits for the host community, this practice can facilitate the transmission of authentic rural culture and contribute to the cultural sustainability in rural settlements.

Furthermore, the results of the regression analysis showed that the factors influencing rural sustainable development identified in this study include economic and infrastructural, policy and managerial, natural and climatic, socio-cultural and human, and extensional and educational factors. All of these factors have a significant relationship with the dependent variable, rural sustainable development. The standardized beta coefficient for the economic and infrastructural factor was 0.228, indicating that a one-unit change in its standard deviation results in a 0.228-unit change in the standard deviation of the dependent variable. The coefficients for the other factors were as follows: policy and managerial, 0.212; natural and climatic, 0.178; socio-cultural and human, 0.136; and extensional and educational, 0.109. The findings underscore that agritourism can serve as a robust strategy for enhancing sustainable rural development, with economic-infrastructural factors playing the most pivotal role.

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Conflict of Interest

The authors declared no conflicts of interest.

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