

Providing a Model of Agritourism In Rural Development Case Study: Masal County, Guilan Province, Iran

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Date Received: 28th June 2020 / Date Accepted: 2nd October 2020

ABSTRACT

Purpose : The main purpose of this study is to present a model of agritourism for rural development. Based on the quantitative approach and principles of sustainable tourism theory, it tries to present the optimal model of agritourism for rural areas of Masal county. An attempt is also made to identify the elements of agritourism and discover their internal relations in order to evaluate its development.

Research Method : This is a descriptive-analytical study with a mixed research method, i.e. a combination of quantitative and qualitative methods. The research tools in this study include several types of questionnaires and interview cards. For the purpose of data analysis, a variety of statistical tests are used in quantitative and qualitative sections.

Findings : The results show that the optimal model of agritourism for rural development in Masal county will be possible in each of the three elevated areas in the presence of five factors, namely tourists, farmers, rural environments, facilitators and common agricultural activities in the region. However, in this study the role of the two factors, including facilitators and rural environments in Masal area is far more than the other three factors. It is also found that, depending on the prevailing conditions in the studied rural areas, the foothills, plain and mountain areas are suitable for agritourism activities, respectively.

Originality/ Value : For the first time in Iran, this research has addressed the issue of agritourism model. Also, all the elements of agritourism have been studied together for the first time.

Keywords: Guilan Province, Agritourism Model, rural development, Masal county. Agritourism in Iran

INTRODUCTION

The main function of rural areas in the third world is agriculture, and due to its special effect on employment, poverty and income adjustment, food security, and self-sufficiency, it is of great importance (Shayan and Bouzarjomehri, 2012: 151). The experiences of developed countries regarding the exploitation of agricultural elements to achieve rural development show that it can be achieved using agriculture and related activities in rural areas. In this regard, in order to provide the villagers with sustainable livelihoods, complementary agricultural activities can be used in the villages. Accordingly, agritourism provides the possibility of increasing the income of rural households, creating jobs, and preventing

rural migration by improving the quality of life and balanced distribution of services and welfare facilities in rural areas.

Agritourism can be defined as any work and tourist attraction activity that is based on agriculture (Athar, 2013: 36). Agritourism means tourism based on farms or vacationing on farms

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(Kuhlen *et al.*, 1998). Agritourism, which is sometimes called farm tourism, is a type of rural tourism that is directly related to agriculture in rural areas (Moradi *et al.*, 2012: 6; Javan and Saghaei, 2004: 128). This type of tourism can be considered as a combination of natural situation and the process of cultivation and harvesting of agricultural products as an opportunity of tourism experience (Torabi, 2016; Yazdi and Saghaei, 2003). Agritourism has no adverse effect on environment, is education-oriented, and well-known for recreational activities, which is a subset of rural tourism activities (Mahaliyanarachchi, 2017: 16). Agritourism can be explained as an interactive activity among agricultural producers, visitors, agricultural products, and facilities of agricultural producers that is in favor of both groups (Malkanti, 2012).

In fact, agritourism is a type of tourism in which tourists live with rural households and farmers and learn about agricultural activities, living in specific fields and agricultural areas (agriculture on terraced areas, sugarcane production farms, cocoa gardens, pineapple orchards, and etc.). In this way, tourists interact with or participate in traditional agricultural activities without having negative consequences on the ecosystem of the host areas. On the other hand, the hosts provide a series of activities and services to tourists so that while satisfying them and creating peace of mind, earn money themselves. Agritourism is not a new phenomenon and has increased significantly over the last ten years, which is expected to have a bright future (Gil Arroy *et al.*, 2013: 39). Agritourism is one of the strategies that has been proposed in recent decades to diversify the rural economy and sustainable rural development (Su, 2011: 36). Agritourism can be effective as a solution to improve livelihoods in rural areas, elevate recession, and reduce the immigration process. The nature of this tourism is such that it can lead to positive economic benefits, including diversifying the local economy, increasing public employment, developing the tax base, and increasing income (Vermeziari, 2013: 3, Jalag, 1996). Sznajder (2009) considers the performance of agritourism in rural areas to include spatial-environmental, economic, and socio-psychological effects. He also believes that monetary exchanges and increased sources

of income, followed by surplus income, will reduce the migration of villagers and rural elites to the city and will stabilize the rural population, leading to the progress of development engine in these areas (Sznajder, 2009).

Lupy *et al.* (2017) conducted a study titled “Study of Agritourism Features and Its Contribution to Rural Development in Italy” and showed that agritourism can bring new horizons in rural development with the possibility of having a positive impact on environment, landscape, and prevention of village population decrease. Ellen Burger & Bir (1997) carried out a study entitled “Agritourism and Its Formation Conditions” and proposed that the conditions for rural tourism, especially agritourism, include the existence of a small and valid natural scale rich in cultural structure, areas with suitable landscape and single-product attractions on a large scale, good transportation for accessibility, proper infrastructure, and stable political conditions.

In a study entitled “explaining the factors affecting the tendency of villagers to tourism,” Anabestani and Mozaffari (2018) considered education and skills, government support and policy, non-developmental ideas, and farmers’ viewpoints, access to city, self-confidence, and risk-taking as factors affecting the tendency of villagers to agritourism. They also showed that there is a relationship between tendency towards agritourism and the variables of age, job, level of education, amount of income, amount of work in farms and gardens, and the amount of traffic to the city during the week.

In the study of Amiri *et al.* (2017) entitled “presenting a conceptual model to investigate the impact of agritourism on rural entrepreneurship development,” agritourism is assumed to have four dimensions of village, farmer, farm and tourist that affect the development of rural entrepreneurship development through economic, socio-cultural, and environmental effects.

Karimi (2014) conducted a study entitled “agritourism entrepreneurship, a new strategy for rural development” and believed that agritourism can play an important role in sustainable agricultural and rural development as a new strategy. Economically, it can diversify

agricultural activities. Environmentally, it can help protect the environment, ecosystems and agricultural lands, and reduce environmental damage and agricultural pollution. Socio-culturally, this type of tourism can preserve rural culture and traditions, improve farmers' social status, and empower women farmers.

A coherent framework of agritourism can be considered in two levels. At the first level, it is important to consider the actors of this type of tourism and their role in tourism activities. At the second level, there are issues around which the action takes place, i.e. tourism activities are considered in the form of the main and side activities (Moradi, 2012: 30).

Studies have shown that agritourism actors include tourists, hosts (farmers-villagers), facilitators (governmental and non-governmental organizations, associations), and the farm itself and its related activities, each of which affects this type of tourism in some way.

One of the areas that can be studied in connection with the discussion of agritourism is Masal county, Gilan province. In this county, more than 60% of rural households are dependent on agricultural activities. On the other hand, it receives more than 20,000 native and non-native tourists annually. It seems that the combination and use of tourism and agricultural activities under the name of agritourism can be a very effective driving factor in achieving the development of rural areas in this county.

In this regard, the present study tries to rely on the theory of sustainable development so that while identifying and studying the elements of agritourism, study the rural typology of Masal county (plains, foothills and mountains) to investigate the possibility of developing various types of agritourism. Then, the results are presented in the form of an analytical-experimental model.

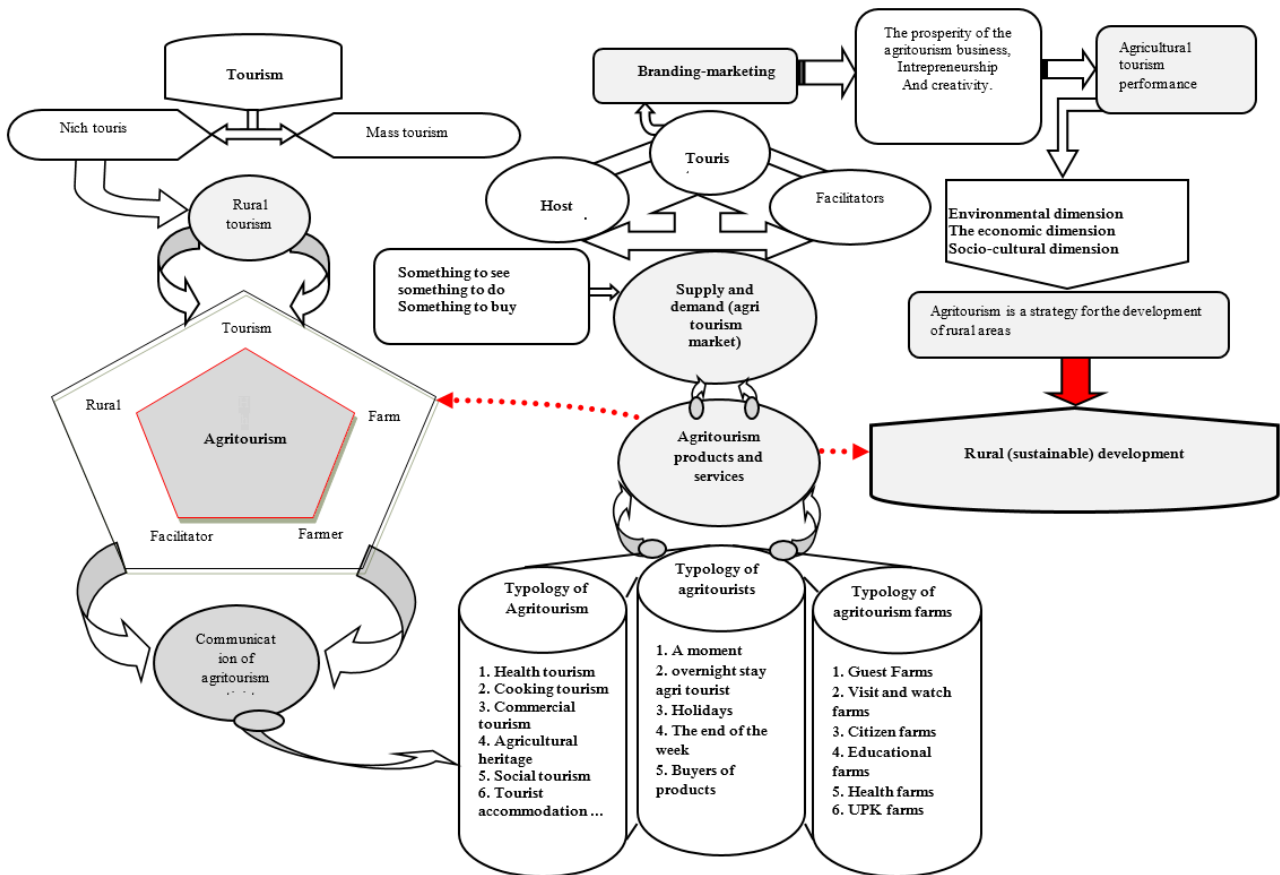


Figure 01: The conceptual model of research

RESEARCH METHODOLOGY

Based on theoretical foundations and conceptual model of the study, agritourism has been studied based on 5 factors of farm, village, tourist, farmer and facilitators. Masal county has 108 rural points. According to the height index, these points are located at three plain (up to 100 meters), foothill (100 to 500 meters), and mountainous levels (height more than 500 meters) (Guilan Land Management Plan, 2017). These areas include 57 villages in the plains, 27 villages in the foothills, and 24 villages in the mountains.

Out of a total of 108 rural points, based on the sampling method in descriptive studies (Hafeznia, 2010: 164-163), 20 villages, including 9 villages from plains, 6 villages from foothills, and 5 villages from mountainous areas were randomly selected. The Cochran's formula was used to determine the number of samples for farmers and farms. According to this formula, 338 households were selected as the sample size. Also, 338 farms were selected as the sample of the farm population. Cohen's sampling formula was also used to determine the sample size of the tourist population. As a result, the sample size for tourists, taking into account the initial standard deviation, was 140 people in one year and in four different seasons. Table 1 shows the population and sample sizes.

Data collection methods and tools

The data collection method is both library and field. If required in each of the research steps, one of these two methods and or both have been used. In relation to the data collection tool, the

most important tool is the researcher-made questionnaire and the interview card, which is designed for each component.

Features of the questionnaires used in the research

In this research, four questionnaires with combined (open- and close-ended) questions have been used. These include farmers' questionnaire, farm or agricultural activities' questionnaire, village questionnaire, and tourists' questionnaire. In the case of facilitators, the interview card was mostly used in the form of face-to-face and telephone interviews. Table 2 shows the elements, indicators and variables examined in this study.

Data analysis

Due to the nature and purpose of the research, quantitative methods were used to analyze the data. After collecting the data, MATLAB, EXCEL, SPSS software, statistical tests and appropriate descriptive analyzes were used for final analysis. In the descriptive analysis section, descriptive statistics, such as frequency and frequency percentage were used. In the statistical tests' section, tests, such as regression-interaction analysis, DEMATEL-ANP, MICMAC, and importance-performance evaluation model (IPA) were used. On the other hand, environmental-climatic, economic, social, cultural and biological factors were used to study and classify rural typology based on the components of agritourism.

Table 01: Population and sample sizes

Components	Population size	Sample size	Scale
Farmers	2588 (household of 20 sample villages)	338	Household
Farm	2588	338	Farm
tourists	Unknown	140	Person
rural(environment)	108	20	Village
The facilitators	All related organizations and institutions	40	Person (purposefully)

Table 02: Elements/factors, indicators, and variables affecting agritourism development

Element or agent	Index	Variable	Element or agent	Index	Variable	Element or agent	Index	Variable		
Farmer	Individual characteristics of farmers	Age	Farm	General characteristics of the farm	Farm name	Tourists	Socio-economic characteristics	Gender		
		Gender and marriage			Farm status (active or inactive)			Age		
		Number of children			Land area			Marital status		
		Accommodation and employment in agriculture			Type of operation			Literacy		
		Literacy			Operating system			Jobs		
		Language and dialect			Cultivation pattern			Income		
	Skills and knowledge	Personal skills		Cultivation type	Vehicle access to the destination					
		Agricultural knowledge and acquiring up-to-date knowledge		The second cultivation	living area					
		New creativity and ideas		Production Process	Companions					
		Management and business skills		Type of machines and their ownership	Number of tourists					
				Farm access	Number of children and their age					
				To be economical	Accommodation at the destination					
Capital and assets	Land area		Features of farm products	Tourists	The outcome of selling	The quality of the tourist destination environment	Socio-economic characteristics	Tourist familiarity with the destination		
								The main product of the farm	The number of times visit the destination	
								Special production	Tourist attraction factor	
								Competitors	Factors recognizing the tourist destination	
								Processing of agricultural products	Tourist Attitude Towards the destination (brand(
	Income and savings		Green production							Length of stay
			Marketing plan							Cost at the tourist destination
			Domain range or product supply							The purpose of the trip
			Product quality							Satisfaction of tourists return again
			Sales form							Payment during the trip
Land ownership		Sales security	Marketing farm products	Tourists	Market	The quality of the tourist destination environment	Socio-economic characteristics	natural environment		
		Market						Man-made environment		
		Marketing methods						Environmental Health		
		Farm importance from the farmer's point of view								

Element or agent	Index	Variable	Element or agent	Index	Variable	Element or agent	Index	Variable
Farmer	Products and Services	Crop and garden	Farmer	Farm labor	Production tools	Tourists	The quality of infrastructure services	Infrastructure equipment
					work force			Superstructure equipment
					The supply of farm labor			All components related to tourism
					Cooperation of family members			
		Livestock and poultry		Farm labor	The average cost of labor		Recreational needs	
					Labor insurance		Natural landscapes	
					Time requires labor		Man-made landscapes	
					Workforce skills		Capacity for attracting tourists	
					The amount of working hours		Accommodation and entertainment facilities	
					Age of labor		Attractions and historical-cultural monuments	
	Accommodation and catering	Farm	Farm tourism capacity	Facilitators	Genie and the workforce	Infrastructure facilities and services		
					Farm tourism capacity	Agricultural Jihad-Land Affairs Organization		
					Tourist arrival time	Environmental Organization		
					staying time	Cultural Heritage Organization		
					The origin of tourists	Ministry of Health		
					Buy agricultural products	Housing Foundation		
					Number of tourists	Ministry of Energy		
					Preparing for service	Ministry of culture		
					Characteristic of tourists	Ministry of Communications		
					Tourists and farm income	Provincial Government		
Sociocultural	Potential farm landscape	Potential farm landscape	Facilitators	Agricultural heritage	Police			
				Adapting	Red Crescent and Emergency			
				Efficiency	NGO			
				Facilities available	Farmers' Union			
hobby and entertainment	Potential farm landscape	Potential farm landscape	Facilitators	The most suitable farm operation	Tourism unions			
				Tour-oriented activities	Public and private organizations			
				Farmers' attitude	Media			

Source: Barbieri, c and Tew, c. 2009; Joanne Lack, K. 1995; Rezaei, M. 2016; Imani, SF. 2011; Motallebi Varkani, A. 2012; tork choran, T. 2015; Taheri, K. 2011; Jensen, K. 2006. Galhate. SR, 2010; E.D Tocu, 2007; Barbieri. C, 2009; Joanne Lack, K. 1995; Sangam, K. 2013; Jensen, K and et al., 2006; Malkanthi S. H. P. and Routry J. K, 2011; Parzych, K. 2013; Rohana P Mahaliyanaarachchi, 2016

Table 03: Agricultural profile of Masal county

Geographical (political) unit	cultivation	Gardening	Greenhouse cultivation	Breeding traditional poultry	Beekeeping	Heavy livestock breeding	Raising small animals (goats and sheep)	Silkworm breeding	Fish farming
Masal county	7479	5001	1	6889	109	4583	1262	19	103

Study area

Masal county, Gilan province, one of the northern provinces of Iran, is located in the southern part of the Caspian Sea, with an area of 465 square kilometers. The main activity of the rural sector in this county is agriculture. Also, this county has rich natural resources and a diverse animal life. The most important activities of Masal county are listed separately in the Performance table of 2016 in Table 3.

Also, this county is a tourist destination in Iran, and especially in Gilan province. According to the latest available statistics, it receives more than 25,000 passengers annually from all over Iran and other parts of the world.

According to Table 4, the trend of tourist arrivals in Masal county has been increasing since 2010, with a growth rate of 31.55% in 2016. This trend has been increasing rapidly in the following years, so that this amount was close to 50% in 2019 (Guilan Cultural Heritage, Handicrafts and Tourism Office: assistance of Statistics and Information, 2017).

As mentioned, agritourism is formed as a result of the relationship between five factors¹. In this regard, in order to understand the role and

position of each of these factors in affecting and being affected in line with the development of agritourism, the group decision-making method was used based on paired comparisons and expert judgment. This method, which is known as the method of discovering causal relationships and is based on diagrams, is the DEMATEL technique.

As a result, in connection with the role of five factors in the development of agritourism in Masal county, it was found that the two components of facilitators and rural environment will have the greatest impact on attracting tourists to Masal county and have a great impact on the components of tourists, farmers and farms. The components of the rural environment and facilitators in this research are the “cause” and components of tourists, farmers and farms are the “effect”. Mic-Mac’s analytical-structural method was also used to investigate the relationship between the variables of each of the five elements. In this model, it was also determined that the components of facilitators and the rural environment have the most impact and the variables of tourists, farmers and farms are greatly affected. The effect of each of the five components on the development of agritourism in the study area is investigated with the help of regression test.

Table 04: Number of passengers using Masal county accommodation during the years 2011-2016

Geographical (political) unit	Number of passengers						Growth rate
	2011	2012	2013	2014	2015	2016	
County (Masal)	6650	7259	9074	10435	11905	26197	31.55

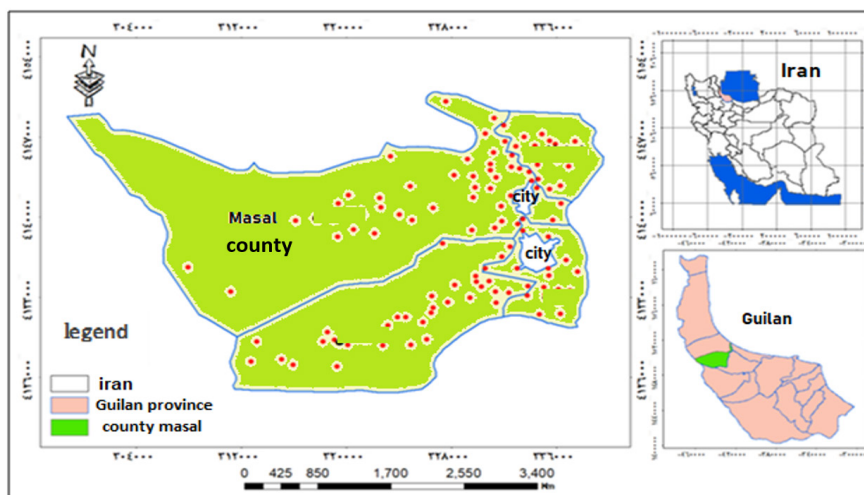


Figure 02: Geographical location of the study area

Table 05: Determining the amount of interaction, the most effective, and the most affected factors based on the opinion of experts in the DEMATEL model

The most effective	effective-affected	The most effected by	Effective+affected
Facilitators	1.14	Tourists	14.42
Rural environment	0.35	Rural environment	14.20
tourists	-0.12	Facilitators	13.99
Farmers	-0.34	Farmers	13.90
farms	-1.34	Farms	13.32

Tourists and agritourism

One of the factors affecting the formation of various tourism activities is the presence or absence of tourists in the place and their attitude to the spatial structure of the destination environment. In Masal county, tourists with different social and economic characteristics will have different effects on the formation of various types of agritourism activities. The results of the questionnaire in field studies showed that the quality of the environment of Masal county villages (3.187%), development of infrastructure facilities (3.080%), and agritourism components (2.873%) have the greatest impact on attracting tourists. Tourists have also considered the quality of the environment and the resulting landscape as an important factor in attracting them to Masal county as a tourist destination. They pointed out the importance of indicators, such as tourism infrastructure, agritourism components, welfare facilities (with an impact of 1.836), environmental security (with an impact of 1.9090), and cultural, historical and religious characteristics (with an impact of 2.280).

Rural environment and agritourism

Regarding the role of rural environment in the development of agritourism in Masal county, it was found that according to rural experts, components, such as accommodation facilities and services (3.00%), infrastructure facilities (2.940%), touristic rural environment (2.860%), natural landscape (2.780%), historical-cultural monuments (2.010%), and the human perspective (1.920%) had the greatest impact. In other words, according to rural experts, the impact of the six

indicators of rural environment on the development of agritourism includes: accommodation and catering services, infrastructure, tourist-friendly environment, natural landscape, historical and cultural monuments, and it is a human perspective. Accordingly, villages on the foothills of Masal are in the first place, villages of the plains are in the second place, and villages of the mountainous areas are in the third place.

Farmers and agritourism

Regarding the role of farmers in the development of agritourism in Masal county, in addition to individual and capital characteristics and assets of farmers, there are other components involved. Among these, the level of interest and desire of farmers to provide services in line with livestock activities (2.284%), agriculture and horticulture (2.130%), entertainment and recreational affairs (1.788%), accommodation and catering (1.668%), and cultural products (1.717%) are of great importance. On the other hand, the motivation and skill of farmers (2.003) in accepting new changes in agritourism and their attempt to diversify agricultural activities is noteworthy.

Farm and agritourism

Farm refers to components, such as general characteristics of the farm, its products and services, marketing of its products, its workforce, and its level of being tourist-friendly. These components were studied in rural farms of Masal county and the results showed that the level of being tourist-friendly (2.020%) is a

very important indicator in the development of agritourism, with marketing components of products (1.849%), farm products and services (1.837%), farm labor (1.767%), and general farm specifications (1.702%) ranked next.

Facilitators and agritourism

Regarding the role of facilitators in the development of agritourism, documentary and field studies showed that the current management of all sectors of tourism in Iran is in line with the model of governing tourism management. This means that all tourism sectors are under the full supervision of the sovereignty and the central government. In this model, the management structure at the regional and local levels has no role in decision-making and is in fact the executor of the orders and decrees of the central government. The gap between the levels of political space management is wide, and there are many similar rules that sometimes disrupt the organizational tasks of institutions. In the current situation, this factor is an interfering factor and an

obstacle to development in rural and agritourism sector, which has made it necessary to review the structure of tourism management.

In general and based on the opinion of experts, considering the environmental conditions of rural areas in masal county, and regarding the capacity of formation and development of agritourism, available statistics and information and also field studies and direct observations showed that rural areas located in the foothills and plains have been prioritized in planning. This is due to having some of the components required in various types of tourism, including accommodation and food supply centers, medical and transportation services, security and welfare, access, and etc. Also, they can recapitulate agritourism tourists. The typology of the studied villages shows that the general landscape of the villages of masal county has the capacity to develop agritourism. In this way, the foothills are in the first place, the plain areas are in the second place, and the mountainous areas are in the third place.

Table 6: Dominant characteristics of rural environments in three altitude areas of Masal county

County	Rural name	Topography	Characteristic of rural environments of each area(foothill, plain, mountain)
Masal	Seyah Dolls	plain	<ul style="list-style-type: none"> ❑ They often have a concentrated texture. The spatial pattern of their placement is linear-alley. The predominant activity of these villages is rice cultivation. ❑ The texture of these villages is gradually getting out of the traditional state and more urban symbols can be seen in the architecture of the building. Vegetation is often influenced by cultivation patterns, and forest and rangeland vegetation is negligible. ❑ Rural areas are closely related to urban areas. They have relatively good conditions in terms of construction infrastructure. ❑ Agricultural lands are cultivated in spring and summer, which are very beautiful and eye-catching. The second cultivation is common in early autumn and winter. Sometimes in the cold seasons of the year, they are rented by cattle breeders to graze livestock (cattle and sheep). ❑ The prevailing outlook is the use of agricultural land. The rural household economy in these areas relies on rice cultivation, and the second cultivation is common.
	Tabarsara		
	Olam		
	Bitam		
	Chiehrad		
	Sheikh		
	Nashin		
	Stalkhzir		
	Voshmeh sara		
	Vardom		
Masal	Maaf	foothill	<ul style="list-style-type: none"> ❑ They have rice, livestock, and poultry and bee farms. ❑ There are also fish farms in some villages. ❑ The vegetation of rural areas in these areas is a combination of forest areas, shrubs, meadows, arable lands and gardens. ❑ Combining agricultural activities with forested areas and gardens has created a beautiful landscape. ❑ Rural life, rural culture and rural work tools form a special landscape that can be attractive to the viewer. ❑ The historical background of the villages and the existence of historical symbols such as monuments and antiquities is another factor that has made the villages of these areas attractive.
	Taskoh		
	Imamzadeh shafi		
	Shalma		
	Ganzar		
	Tolabdareh		

County	Rural name	Topography	Characteristic of rural environments of each area(foothill, plain, mountain)
Masal	Asbariseh	Mountain	<input type="checkbox"/> The economy relies on livestock and the rural community is scattered.
	Chesli		<input type="checkbox"/> Access to these areas, however, is relatively difficult due to the type of road. But it is attractive due to the presence of cultural-natural attractions.
	Salimabad		<input type="checkbox"/> These areas have a cold mountain climate that is often accompanied by snow and rain in winter.
	latasht		<input type="checkbox"/> The forest cover and then the vast pastures provide the conditions for the presence of ranchers.
	Khoyadool		<input type="checkbox"/> The presence of small and large flocks of sheep and cattle, as well as wild horses, creates a special attraction.
			<input type="checkbox"/> The villages of the mountainous areas narrate an example of the ancient culture and history of the Talesh' Ethnicity. <input type="checkbox"/> The special architecture of the building, the coexistence and adaptation to the climate and the continuity of life based on the principles and beliefs of the past, has formed a special form of rural settlements.

Overall and based on the existing conditions and the potentials of each of the three regions, the conditions are suitable for the development of attached or secondary agritourism, i.e. a form of agritourism that takes place alongside agricultural activities. In this form of agritourism, farmers still rely on agricultural activities and their main source of income is through these activities. But in addition, they use the components of tourism, especially agritourism, in some seasons to finance their families. This can gradually lead to complementary and priority agritourism.

Examining the documents, field studies, interviews and consultations with experts, it was found that the optimal model of agritourism for Masal county is the design of agritourism package as a horizontal profile from plain to mountain according to the role and position of each of the five factors of rural environment, farm, farmers, tourists, and facilitators. This model should be designed in such a way that the effect of each of the five factors is considered.

Table 07: Development of various types of tourism, tourists and agritourism farms based on rural typology of Masal county

Topography	Types of agritourism ³	Types of agritourists	Types of agritourism farms
Plain area	NWF WFIC	<input type="checkbox"/> Momentary agritourists	<input type="checkbox"/> Leisure agritourists
		<input type="checkbox"/> Daily tourists	<input type="checkbox"/> Educational agritourists
		<input type="checkbox"/> Buyers of agricultural products	<input type="checkbox"/> Citizen's Farms
		<input type="checkbox"/> Overnight stay agri tourists	
Foothills	NWF WFIC WFPC WFDCS	<input type="checkbox"/> Momentary and daily agritourists	<input type="checkbox"/> Leisure agritourists
		<input type="checkbox"/> Overnight stay agritourists	<input type="checkbox"/> educational agritourists
		<input type="checkbox"/> Farm products buyers	<input type="checkbox"/> Farm guest house
		<input type="checkbox"/> Vacation tourists (on special occasions and holidays)	<input type="checkbox"/> Citizen's Farms <input type="checkbox"/> Health farms
Mountainous	WFDCS	<input type="checkbox"/> Daily tourists	<input type="checkbox"/> Farm guest house
		<input type="checkbox"/> Overnight stay agritourists (accommodation in wooden huts and tents)	<input type="checkbox"/> Citizen's Farms <input type="checkbox"/> Health farms
			<input type="checkbox"/> U-pick farm

Tourists with behavioral, social, and economic characteristics mean that their attitude towards existing facilities and services, welfare-recreational facilities, rural landscape, quality of the destination environment, environmental security, and acceptance of agritourist attractions cause prosperity and development of tourism activities.

Rural in the sense of rural environment is the totality of rural life and culture in agritourism. Agritourism tourists have been thinking about their destination ever since they set out to travel. This is because they would like to see an attractive, high-quality place with facilities that meet their daily needs. Accordingly, the rural environment should have infrastructure, accommodation-welfare, historical-cultural, natural and agritourist attractions to be able to attract tourists and keep them for a while.

But undoubtedly, the most important factor in the formation of the agritourism system in rural environment is farmers, a group that is directly related to agricultural activities and the nature in rural environment. This group is responsible for supply in the agritourism services market. They provide agritourism services based on various social and economic characteristics, inclinations and motivations. Earning profit

and diversifying income sources is a factor that encourages farmers to do so. Also, agritourism tourists like to enter rural farms and see all kinds of agricultural activities, shop, participate in agricultural activities, and learn.

Finally, agritourism facilitators should be mentioned. These are groups, organizations, institutions, laws, etc. related to agritourism that facilitate its creation and development in various ways. Therefore, with the presence of these factors, agritourism will be formed and will be a factor in rural development.

Research model

The results of previous research and the opinions of experts in this field were used to validate the proposed research model. The model was also evaluated by a group of professors and researchers from around the world. Comparison of the model presented in this study with the research results of researchers, such as Louis *et al.* (2017), Hank *et al.* (2015), Christine Theo (2010), Barbery and Meshngah (2008), Ellen Burger & Beer (1997), Anabestani and Mozaffari (2017), Amiri *et al.* (2017), and Varmziari *et al.* (2013) shows that they are all consistent.

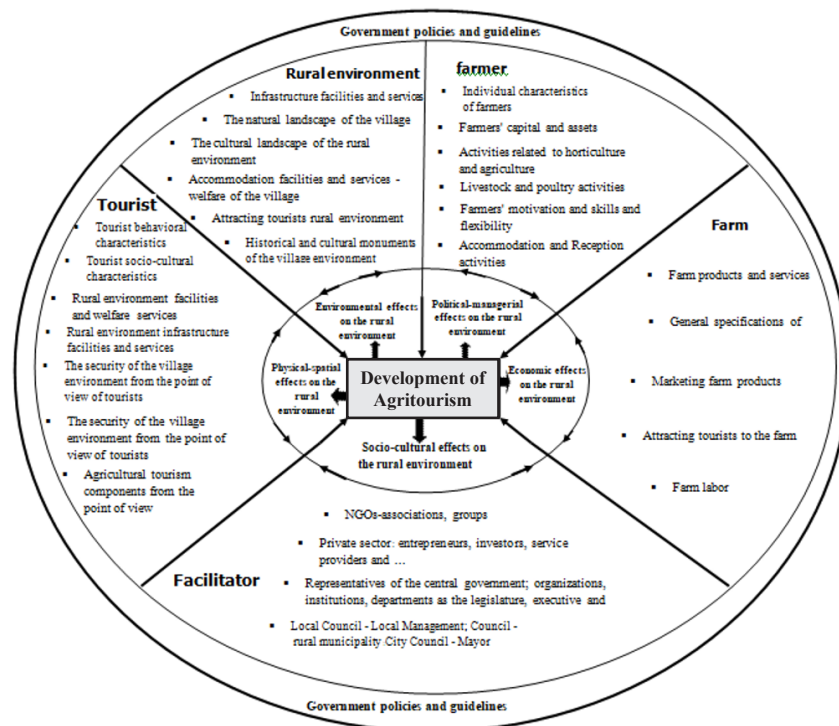


Figure 03: Agritourism model for rural development in Masal county

Verification of the optimal model of agritourism

After compiling the optimal model, 30 tourism experts were consulted to validate the model. The most important features measured in the model included transparency, regularity, flexibility, coherence, continuity, legitimacy, effectiveness and appropriateness.

Based on the opinion of experts, score of each model dimension is presented here. This model is scored 8.86 out of 10 in terms of its appropriateness. In terms of effectiveness, legitimacy, continuity, flexibility, and transparency, its score is 8.60, 8.30, 8.11, 8.85, and 8.63, respectively. Overall, the average score of the proposed model is 8.76 out of 10. This indicates that the model is acceptable by experts.

DISCUSSION AND CONCLUSION

The results showed that Masal County is one of the important target areas of tourism in Guilan, where the dominant type of tourism is mass tourism. Field surveys showed that this type of tourism could not be of much use to the county, especially to rural areas. Because it is not possible for all villagers to participate in tourism activities. Therefore, it seems necessary to provide conditions in which all villagers interested in working in the field of tourism can participate. In this regard, agritourism can be an effective and adaptable solution. Regarding the optimal model of agritourism in Masal county, the role of five factors influencing the formation of agritourism should be mentioned. Studies have shown that in this county, the villages of the plains and foothills can be considered as the main centers of agritourism and accommodation to provide agritourism services. In these areas, it is possible to make tourists stay longer by providing accommodation, gas stations, parking, medical service centers, food and handicraft stores, restaurants, local exhibitions, local markets, and etc. These areas should be planned in such a way that tourists can spend time and rest and eat after arriving in Masal. Then, tourists should be directed to different areas to visit agritourist attractions. In this regard, villages, such as Shalma, Taskooh, Gonzar, Sheikh Nishn, Bitam,

Tabarsara, Imamzadeh Shafi, and etc. are of good condition. Rural families should be encouraged to provide accommodation for tourists, taking into account a specific standard. By training farmers, who are engaged in agri-activities, they can be prepared to receive tourists on the farm.

By providing local transportation for tourists to visit agritourism attractions, personal cars can be prevented from entering rural areas and traffic can be reduced. It will also reduce casualties and financial losses and provide income for the villagers. Local transportation should be used to transport tourists to see agri-tourist attractions in the villages of Masal. Some of its benefits are reduction of the entry of personal cars and traffic load, reduction of human risk (deaths from accidents) and financial losses, and provision of conditions for the villagers to earn money. This is especially suitable for villages in mountainous and forested areas, such as Chesli, Salimabad, and Khoidel. The idea of “skill learning houses” can be used to educate the rural community. In these houses, the villagers can learn any skill. Facilitating institutions, including banks, insurance companies, agricultural departments - livestock and fisheries – can provide such houses to promote and educate farmers to create components of agritourism.

According to the results of this research, the optimal model for agritourism in the study area is to design an agritourism package from the plains to the mountains, which can create many economic, social and environmental opportunities.

From an economic perspective, benefits such as increased income, job creation and start of small businesses, increased profits from the sale of agricultural products, creation of a source of supplementary income, and eradication of economic poverty can be achieved.

From the environmental perspective, it makes effective use of natural resources, protects natural habitats and ecosystems (natural heritage), uses surplus and unused farms, and also creates space to increase knowledge and awareness about the environment and farming through education and experience.

From a social point of view, it can lead to the improvement of the quality of life of farmers (creating social welfare), improvement of social security, empowerment of women farmers, maintainance of lifestyle, preservation of local rituals and traditions (cultural heritage), and social interaction with guests.

In fact, this form of tourism, as a key strategy for the revitalization and sustainable development of rural areas with a variety of uses in farms, helps maintain employment, and strengthen agricultural resources and lifestyle in villages and low-income areas. In addition, it prevents the migration of villagers to the cities of Masal and Bazaar Jomeh and other cities of Guilan province.

As a result, agritourism is an interactive, participatory, people-centered, entrepreneurial, environmental-oriented, green, and high-yielding strategy with executive guarantees and high economic benefits that can create complementary income sources for rural farmers in Masal county, preserving and valuing lands. It can also be a good alternative to the current common tourism model of the region, namely mass tourism. Because it can reduce the intensity of demand for land sales by generating revenue and directing farms to production and profitability.

Due to the nature of agritourism, most farming villagers will be able to participate in tourism activities in the form of this type of tourism, but this requires providing the infrastructure and conditions that are offered as below:

- 1- Identifying the trustee or the main trustees of agritourism in Masal county and determining their duties.
- 2- Unification of rules and regulations in line with the defined model of agritourism for Masal county.
- 3- Coordinated tourism management of the county and preventing tourists from invading the Ulusbelangah summer area by creating tourist centers in the plains and foothills and guiding tourists in different places in order to prevent excessive pressure on the biological capacity of environmental resources.

- 4- Comprehensive rural education in Masal county in the form of skill training houses.
- 5- Setting up local agritourism tours and using rural communities to guide and teach cultural and traditional principles to tourists (training local leaders) in the villages of Masal county.
- 6- Identifying the main centers of agritourism attractions in Masal county and creating a spatial network in order to properly manage agritourists.
- 7- Preparing a cadastral map, determining the boundaries of land ownership, and separating the lands of the villagers from the national lands.
- 8- Promoting the tourism model of agriculture, creating different attractions, and managing the behavior of tourists in order to stop the mass and unplanned tourism cycle in the region.

Accordingly, the appropriate model of agritourism in Masal county - Guilan province - is formed as a result of the relationship between the five elements including: agriculture, rural environment, tourism, farm, and facilitators. The role and function of each of the elements mentioned in this model is as below:

Tourist: "His need" causes the formation of various attractions and services in agricultural tourism.

Rural environment: All agricultural tourist attractions are formed in the rural environment.

Farm: includes all agricultural, livestock and rangeland activities.

Farmer: includes individual, socio-economic and cultural characteristics of agriculture.

Facilitators: Including all institutions, organizations, groups, celebrities, tools, laws and regulations, etc. that help agricultural tourism activities to be formed faster.

In other words, agritourism activities in Iran will be successful when the above five elements play their role well.

END NOTES

- 1 These factors include; village, farm, farmer, tourist and facilitator
- 2 Talesh consists of regions in Iran (Gilan and Ardabil provinces) and the Republic of Azerbaijan (Talesh Goshtasbi).

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