

Agritourism as a Tool for Regeneration of Sustainable Rural Communities: The Case of Golzar Village near Tehran

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Abstract

Regeneration of villages using tourism and rural tourism is a major issue in rural settlements. The type of appropriate tourism depends on what potential of the village should be the target of tourism. Due to the prevalence of agriculture in rural communities as a type of sustainable local economy, agritourism can act as an effective tool for attracting visitors and regenerating villages with prosperous agricultural economy which are potential tourist attractions. With the aim of promoting this type of tourism in Golzar village, which is a center of flower and plant production located to the south of Tehran, the present study first offers a conceptual model of agritourism in general and then applies this model to the case of Golzar Village. The economy of this village is based on the production and export of decorative plants and its residential district is surrounded by numerous greenhouses. The unpleasant visual features of the greenhouses, not using the decorative potential of plants in residential areas, lack of a supply market for the produced plants, and the fact that this village is not widely known in the country as a center of flower production, are among the main issues of the village. In this paper, the literature was reviewed through content analysis in order to elaborate on the components of the conceptual framework of agritourism for regeneration of rural areas. Based on the unifying idea of designing a tourist path to realize agritourism with the aim of rural regeneration, three design scenarios were devised for the village: 1) a tourist circular path, 2) a linear tourist path, and 3) a combined tourist path. Using Goal Achievement Matrix, the third scenario turned out to be the best scenario. In the end, after developing the design framework which consisted of different parts of the conceptual framework as well as the best-practice scenario, a set of actions were proposed for the village in the field of farming, agritourism, flower and plant research, rural settlement, decorative plant exhibitions, leisure and recreation, tourist water canal, protection of the high-voltage electric cable, and the transportation path to the village. The paper concludes with suggestions for applying the findings of this study to rural areas with similar potential.

Keywords: agritourism, regeneration, sustainable rural communities, design framework, Golzar village, Tehran.

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Introduction

The advance of urbanization has posed many challenges for small cities and especially for villages in recent decades. The economic boom of metropolises has encouraged many people to migrate from villages causing the agricultural economy to experience a deep recession. Moreover, villages have become uninhabited and presented many environmental hazards. This has happened despite the great potential of villages inflicting severe damages on them. Although rural development has been a priority according to the seven and five-year plans of the country since 1948, the financial and intellectual capacities allocated for assessment and evaluation of rural development are still at the very least after seven decades. Moreover, the sustainable development approach has received great attention in the field of urban development in recent years. If researchers take a comprehensive approach to the aforesaid issues, it is possible to offer agritourism as a tool for sustainable rural communities. Although agritourism has not received much attention, and only a few studies have taken a glance at the issue, this paper tried to identify and apply efficient qualitative factors on the tourism sustainability of Golzar village in the central district of Pakdasht county.

The economy of Golzar village is dependent on flower production and trading. The residential area of this village is surrounded by greenhouses of flower farming. However, the great potential of the village for tourist attraction has remained unnoticed. In fact, the inefficiency of management and planning has ruined the physical texture and the visual landscape of the village. As a result, not only the village potential has remained unnoticed, but also the residents have significantly lost motivation to be involved in agricultural activities and flower farming. Moreover, the local community of this village has gradually lost its sense of identity and suffered from the impacts of mechanical life. Thus, the village is now empty of the pleasure and calmness of rural life. Under these circumstances, a comprehensive approach to agritourism may improve the social and economic standing of the village and offer new ways for its future

development. Therefore, in addition to improving the living quality of residents and protecting the natural environment of the village, this paper aims to propose the agritourism of Golzar village as a factor to empower the academic community. To do so, this paper attempts to answer the following questions:

- What is agritourism?
- What are the principles and general purposes of agritourism in villages?
- How is it possible to regenerate Golzar village with the help of agritourism?

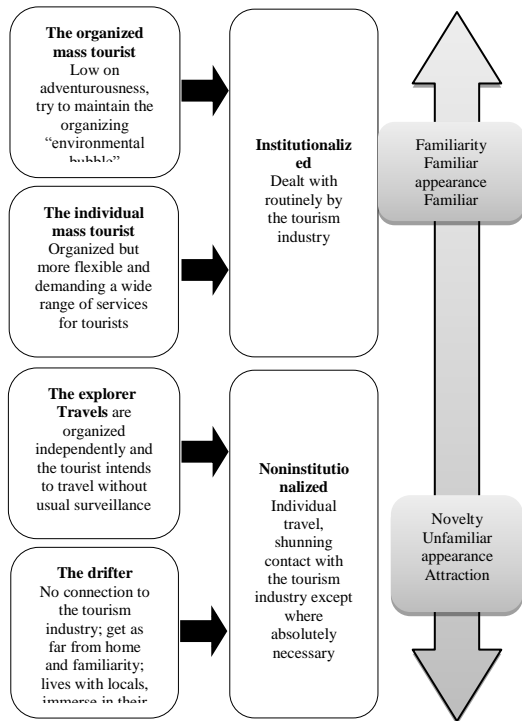
Research Methodology

The present paper consists of two general sections including theoretical and experimental studies. First, the literature was reviewed through content analysis in order to elaborate on the components of the conceptual framework of agritourism for regeneration of rural areas. Next, the general aims of the research were considered. For experimental studies, we visited the village and analyzed the status quo based on direct observation. After that, preparing a preliminary perspective and evaluating the conditions of the area with SWOT method, the macro- and micro-scale aims of agritourism-based regeneration in Golzar were suggested. At the end, providing a design framework including a conceptual model of agritourism, the paper found the best scenario and suggested a variety of actions for different fields.

Theoretical Background of the Research Tourism

According to Mathieson and Wall, tourism is a system that has a generation region (market and demand) and a destination (attraction and supply) which are connected by means of transit route (Mathieson and Wall, 1982). Other important components of this model are the characteristics of tourists (Figure 1) and tourism destinations as well as the impacts of tourism. Tourism can be considered as an international activity that creates service occupations, generates income, and has general economic impacts. In a large scale, tourism is usually called mass tourism. However, in recent years, different types of tourism have replaced mass tourism which are compatible with natural,

social and economic values. They allow both the tourist and the host to have invaluable interactions and positive shared experiences. Tourism promotes sustainability through selective marketing, which attracts tourists who are aware of the place they are visiting and respectful of its natural and cultural values. This alternative approach to tourism, which develops strategies that prevail mass tourism, has been promoted for more than two decades. The diversity of nature-based tourism options embodies the ideals of sustainable development.



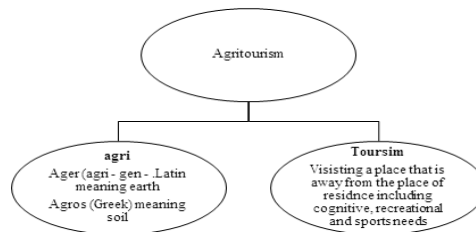
F1. Classification of Tourists (Cooper et al, 2005).

Agritourism

Agritourism refers to any agricultural operation and activity that brings visitors to a farm. Agritourism has four categories: rural accommodation, rural catering, visiting farms, (Figure 2) and side Lane distinguishes six factors that determine the value of agritourism spaces. They are:

The value of the beauty of landscape, which includes: mountains, sea coasts, lakes, islands, picturesque river valleys and areas of specific value and specific beauty, such as swamp or forest

Areas of wild nature and wilderness
Cultural values, which include historical buildings, small towns, villages and places as well as ethnic heritage
Particularly favorable conditions for hunting, fishing, skiing and hiking
Good accessibility to a broad market of consumers
Effective and professional promotional and commercial activity and proper management
The first five factors can be characterized as objective values, inherent in an area and its properties and the sixth one is a human factor (table 1).



F2. Agritourism term.

Rural/Agri-accommodation	Farm stay
	Cottage stay
	Agrihotel (motel)
	Self-service beds
	Agricamping
Rural/Agri-gastronomy	Special agrihotel services
	Home meals
	Canteen
Real agritourism	Restaurant
	Observation of manufacturing process
	Participation in manufacturing process
	Walking and riding educational tours
Direct sales	Farm zoo
	Direct sales of farm products
	'Pick-your-own' type sales
Rural/Agri-recreation	Farm and enterprise shops
	Holiday recreation
	Weekend recreation
	Holiday stay
Agri-sport	Walks and marches
	Horse riding
	Sports requiring large space
	New generation area games
	Hunting
Agri-tainment	Fishing
	Visiting parks and gardens
	Agritourist excursions and outings
	Maize and soya mazes
Agri-therapy	Hipotherapy
	Therapy applying plant and animal drugs
	Specific diets
	Minisanatoriums
Ethnography	Historic farms – old farm
	Historic villages
	Museums of folk art and agriculture
	Folk family celebrations and festivals
	Staying in a village of certain folk character

T 1. Classification of Agritourism Services (Sznajder et al, 2009, 106).

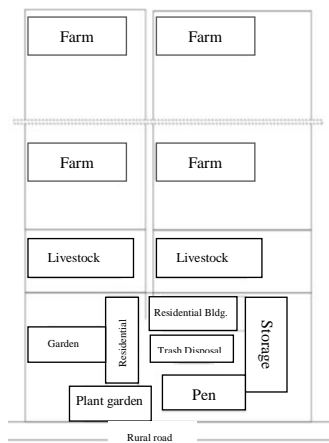
A question that arises is whether there is any difference between an ordinary farm and an agritourism farm. In an agricultural farm space, the tourist is encountered with a unique landscape for example endless cornfields. In the wide-range space of agritourism, there are different types of plants. This type of tourism, which is based on polyculture, is usually more appealing to the eye than monoculture (figure 3) (table2).

Theories of agritourism and rural tourism are

related to each other and to plants, animals and manufacturing and breeding processes. Agritourism is the result of classifying a number of subjects including ecotourism, garden tourism, catering farms, travelling, beverage tourism, dairy tourism, and rural tourism. Rural tourism refers to human activities relevant to living, culture, religion and whatever perceived in an area. It is closely relevant to ethnology, pastoral culture, forestry and rural foods processing (figure 4).

Management Principles	Agricultural farms	Agritourism farms
Using land	Maximum exploitation of farming lands	In addition to agriculture, it is used for agritourism purposes, such as: building, carpark, square etc.
Manufacturing structure	Only agriculture, breeding, professional production, increase of production scale	Agricultural and tourism activities are related to each other, following the structure of agricultural activities in agritourism, diversity, balance and development in farms
Work organization	Maximum efficiency, mechanization, automation	Organization of production processes is attractive in this way and give the tourists the opportunity to participate. This requires high investment. Therefore, efficiency is not outstanding.
Investment limit	Emphasis on production and investment on modern technology, especially fertilizers and pesticides to maximize the profit of agricultural production	Emphasis on mass production and conservation of the environment, reasonable use of fertilizers and pesticides, optimization of the space quality of agritourism
Agricultural product market	Market beyond farming land, wholesales contracts	Using the crops of a personal farm for agritourism purposes and sales surplus
Source of income and its importance	Income generated from production, livestock and maybe food processing	Income generated from two sources, production and agritourism or only from agritourism, the importance of agritourism in total income of the farm
Region	Agricultural production takes place in rural areas, but rural life has no relation with production standard	Facilities of a region is in service of running agritourism business, there is a possibility and necessity to use local traditions

T2. Comparing main principles of management in agricultural farms and agritourism farms (Sznajder et al, 2009, 106).

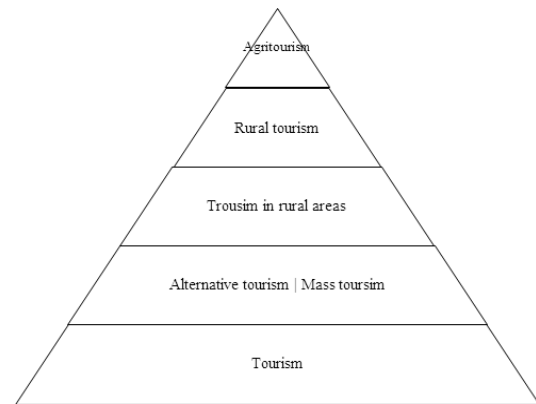


F 3. Location of agritourism farm spaces.

Agritourism operations are classified into three groups: Spatial; environmental, economic and social; and psychological (figure 5).

Different aspects of agritourism include organization, management and marketing.

- Organization: This aspect encompasses all financial and business rules as well as safety

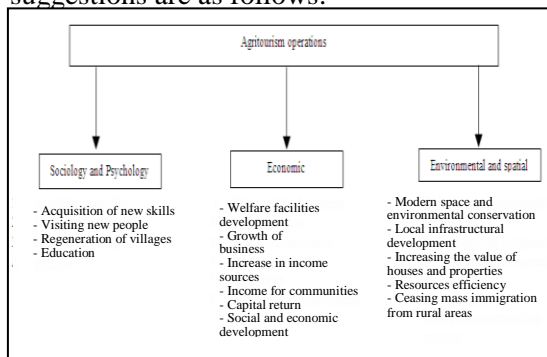


F 4. Agritourism terms pyramid (Sznajder et al, 2009, 6).

regulations. Agritourism is governed by a set of regulations, and its organization involves some interoperating structures –for example: farms, association of agritourism, relevant organizations of ownership, commitments and integration; vertical, horizontal and traditional organizations.

- Management: It includes a wide range of

managerial issues including logistic management, products and services, hospitality, quality, safety and human resources. Good logistics will increase tourist flow. Management of productions and services would be important to meet the expectations of tourists. Hospitality emphasizes on the psychological facilities which are unique for tourists and include their satisfaction. Moreover, a number of suggestions are as follows:



F5. Agritourism operations (Lakoividou et al, 2000).

- The manner of guest reception
- Verbal conversation and communication
- Preparing and serving food
- Art programs
- Interior decoration and surroundings

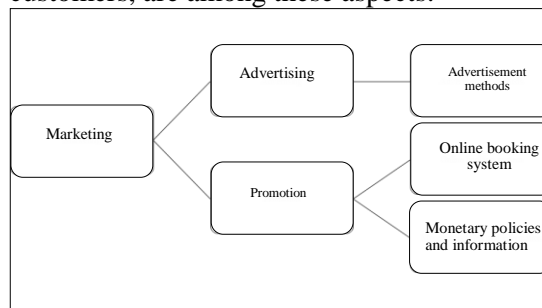
Quality control and safety management include standardized quality sign. Many countries have an organization that give farms an agritourism license. Advertisement and promotion are necessary for agritourism that can be done through different ways.

Marketing: The nature of marketing is to promote product positively. In this sense, agritourism offer an unlimited range of products (Figure 6). Marketing analyzes the potential of consumers with items such as age, place of residence, income, priorities and lifestyle.

Economic and social importance of agritourism

Areas of development in agritourism – low-income farms: The economic and social importance of agritourism lies on many different aspects. For example, macro- and micro- economic aspects of the nation, regional economy, local economy and

microeconomics, agritourism institutions supplying products and providing services for customers, are among these aspects.

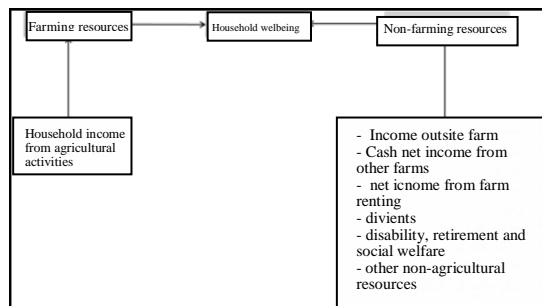


F6. Agritourism marketing.

Primary factors affecting the development of agritourism are as follows:

- Lower incomes for farmworkers
- Urbanization
- Redistribution of the income of urban residents in farms and as a result among all rural residents
- Rural infrastructures provided by the Government

Non-agricultural resources from the farmer's income: With regard to the economic conditions of farmers, family farms may have to combine a number of sources to generate income. Such income shall be generated from non-agricultural activities. For example, income is generated from small services of commercial or industrial companies and nonprofit entities such as pension. Laborers, resources and capital are allocated, especially to small farms. Income sources can be grouped into 2 main sections as shown in figure 7:



F7. Calculation of household wellbeing from farming resources and others (Rural households' livelihood and wellbeing 2004, 330).

Farm resources – Activities relevant to agriculture

- Outside resources, for example profit generated from working outside family (salary and income raised from other activities), nonprofit income resources (such as pension, welfare benefits, dividends)

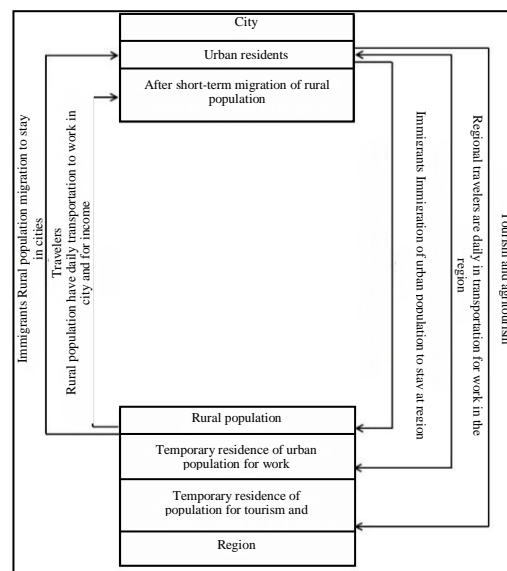
urbanization and its impacts on tourism:

Urbanization refers to the continuous and permanent population shift from rural to urban areas. This phenomenon has become a universal issue. During the present century, the urban population significantly exceeded the rural population, a gap which is growing wider and wider. Relationships between cities and villages vary. Cities and towns are a source of wealth for villages for several reasons:

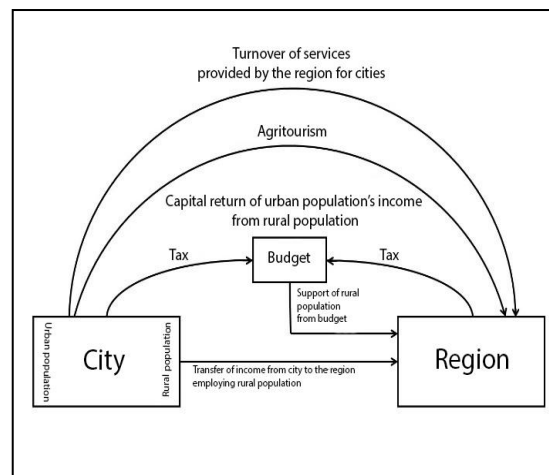
- cities absorb large amounts of food produced by the working population in the agricultural sector;
- cities provide production tools and services for agriculture and the rural population;
- cities have become a workplace for a significant portion of the rural population;
- cities offer cultural, artistic products and services to the rural population;
- city dwellers see rural areas as a place for recreation.

Urban development has always been associated with the migration of people to cities. Figure 8 shows the flow of people migrating from the region to cities. The rectangle on the left represents the urban population and the right represents the rural population. Part of the rural population has migrated from rural areas and remained permanently in the city.

Redistribution of income from the city to the region: Rural people are usually poorer than part of the urban population. Therefore, the redistribution of financial resources from cities to the region and the policy of increasing the productive capacity of rural people is one of the important goals of social policy. All types of migration to cities and regions are the result of a turnover between rural and urban populations and are aimed at increasing the flow of finances from city to region. Figure 9 shows the redistribution of revenue between the region and the city.



F8. Population shift between city and region (Sznajder et al, 2009, 34).



F9. Redistribution of income between region and city (Sznajder et al, 2009, 39).

Agritourism and Sales of Agricultural Products:

For many farmers, agritourism can be considered as a channel for selling products and services, especially products with small quantities that are not important for supermarkets. In particular, this includes demands that are not interested by large industrial companies, for example locally available products (Sznajder et al., 2009 40). The only necessary action is to consider providing a preservation method and opening a sales channel with easy access. Moreover,

making the products attractive to tourists improves the change of selling them and develops tourism companies in the region.

Conclusion of the Theoretical Background
Since villages are usually cohesive

communities that become ecologic by agricultural activities, there are two main approaches to making a village suitable for agritourism: Agritourism approach and social ecological approach (table 3-4).

Approach	Theoretician(s)	Theory	Research Dimensions
Agritourism approach	Lakovidou	Agritourism activities in non-urban areas are done by those whose main job is in the primary or secondary sector of economy. Agritourism has three categories: spatial-environmental; economic; social-psychological	Combination of social, economic, spatial, environmental sub-systems with emphasis on tourism
	Sharpley	Agritourism products have direct relationship with agricultural environment, crops or agricultural resorts	Combination of tourism with agriculture
	Wall	Providing tourism opportunities in working farms	Emphasis on tourism aims
	Sonino	Hospitality actions offered by agricultural entrepreneurs and their family members can connect agricultural activities and complete them	Combination of agriculture and tourism with social-cultural approach
	Kim and Jening	Rural investment combines the workspace of farms with agritourism components	Combination of tourism and agriculture with economic approach
	Quizos and Lucifidus	Microscale tourism activities developed in rural areas by people engaged in agriculture	Combination of tourism and agriculture with cultural-social approach
	Barbieri and Machinga	Any action that develops a working farm and attracts visitors	Combination of tourism and agriculture
Social ecological approach	City-village group	Ecological aspects based on aesthetics and culture, land use mixing, sustainable urban spaces with a sense of place and with community commitment	Sustainable and ecologic rural communities
	Lovel	Housing cooperative: residential and ecological sustainable development	Sustainable urban communities
	Bill Mollison and David Holmgren	Permaculture: an integrated, developed system of sustainable plants and animals useful for humans	Sustainable agriculture and sustainable community
	Robert Gilman	Ecovillage: A human-scale, full-featured settlement in which human activities are harmlessly integrated into the natural world in a way that is supportive of healthy human development and can be successfully continued into the indefinite future.	Local community with a sustainable environment model

T3. Conclusion of Research Theories.

Ecological society		Dynamic economy			Common aim
Principles of agritourism		Self-sufficient economy	Local jobs	Equitable distribution of capital and income	
Economic improvement	Combination of tourism industry and agriculture	*		*	Improvement of the local and regional economy through the combination of tourism and agriculture
	Sustainable job creation	*	*	*	
	Using local products	*	*		
		Social solidarity			Common aim
		Presence	Dynamic Society		
Local community	Inclusiveness	*	*		Improvement of the local community
	Relationship between local communities and tourists		*		
		Ecological sustainability			Common aim
		Reduction of ecological footprints	Improvement of the ecological structure	Sustainable energy	
Environmental conservation	Improvement of environmental structure	*	*		Environmental sustainability
	Improvement of the natural cycle	*	*		
	Natural waste management			*	
		Place identity			Common aim
		Characterization	Emotional richness	Rural architecture	
Character of agritourism space	A friendly environment	*	*		Giving character and identity to a place
	Enhancement of place identity	*	*	*	
	Arrangement and Unification of landscapes		*	*	

T4. Comparative analysis of agritourism principles and social ecological approach.

A study of the macro- and micro-scale aims of designing an agritourism model for sustainable rural communities was carried out as shown in figures 10 and 11. According to this study, the research can be

divided into four main subsystems: Environmental; social; economic; and spatial-physical.

Macro-scale Aim of the Social Subsystem: Improvement of the Local Community
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To improve the status of the local community three target groups are important: farmers, tourists and residents. Achievement to the macro-scale aim first needs fulfilling two micro-scale aims:

- Presence and continuity of presence in public
- Inclusiveness

Macro-scale Aim of the Economic Subsystem: Improvement of Regional and Local Economy

Concerning the impact of the economic recession on farmers, the local community is first in the queue; then, the regional economy can be taken into account as a long-term goal.

- Sustainable and productive employment
- Equitable distribution of capital and income in the village and the region

Macro-scale Aim of the Environmental Subsystem: Environmental Sustainability

For having environmental sustainability, the existing resources should be used, and at the same time, the possibility of their future use should be considered. To achieve this, two micro-scale aims are posited:

- Conservation and improvement of the environmental structure
- Reduction of ecological footprint

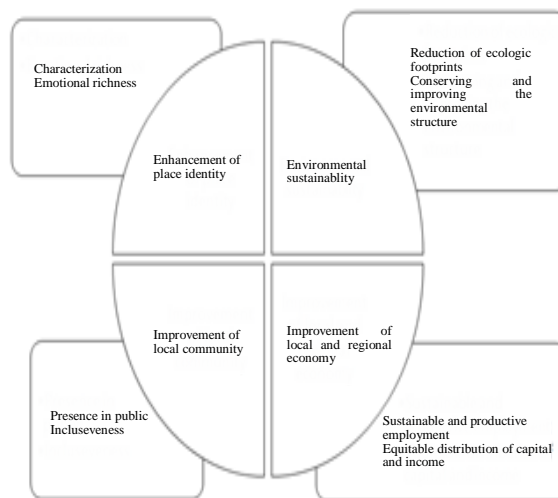
Macro-scale Aim of the Physical-Spatial Subsystem: Giving character and identity to a place

In addition to providing suitable conditions for the residents and farmers, a good spatial design should be suitable for tourists. Two micro-scale aims may be considered to enhance the identity of a place. They are Characterization Emotional richness.

Research Case: Golzar Village

Golzar is a village located at the heart of Filestan rural district in Pakdash town, Tehran province. This village is divided into northern and southern parts. The access road to the village is asphalted. According to the 2011 census, its population was 6181. The first name of the village was Hesar Kalat, built almost 200 years ago. It was then renamed Hesar Kelk (literary a short wall or

hedge). It has been about thirty years now that the name of this village has been changed to Golzar (literary a flower garden) due to the abundant cultivation of flowers in this area. Adjacent to the Jajrud River and the passage of two suitable soil and water channels, the village has become a fertile land for flower farming. This area is home to several greenhouses, and Tehran-Mashhad highway made it easily accessible for all cities. However, the presence of numerous sand mines and the location of industrial estates around it have endangered the village ecosystem. In the interior of the village, the inappropriate pattern of urban construction, excessive walls and separators and the presence of industrial installations have ruined its visual landscape. Also, the division of the village into upper and lower parts has caused social, functional and spatial incoherence. Due to the employment of residents in the flower and plant industry and the lack of complementary industries, it is possible to take steps to stabilize the income of the villagers and prevent their migration with the help of agritourism model and appropriate investment.



F10. Chart of macro-scale aims and principles for designing an agritourism model of sustainable rural communities.

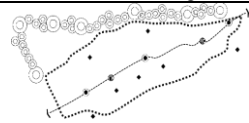
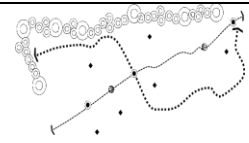
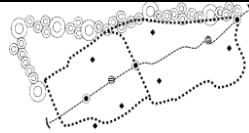
In this regard, three different scenarios are presented around a unifying idea of "designing a tourist path in order to achieve the goals of agritourism." By designing this

tourist path, in addition to using the beautiful nature of Golzar village, you can visit the centers for buying and selling flowers and plants and have recreational leisure in places such as restaurants, exhibitions and cafes. In

this way, by emphasizing the principles of rural architecture, a beautiful and spectacular view will be provided for tourists and villagers to always complete the two groups of harmonious social interactions in the rural context.

Macro aims	Micro-scale aims	Policies	
Environmental sustainability	Reduction of ecologic footprints	Using modern environmental movements Avoiding environmental degradation Attention to the environmental sustainability Small communities ecovillages and ecologic approach Combination of the natural and built environment	Diversification of agricultural products Reduction of ecologic footprints Reduction of threats and natural impediments
	Conservation and improvement of the environmental structure	Infrastructural local development Reasonable exploitation of resources Connection between city and village Conservation of the environment	Rural architecture Environmental structures for tourist attraction Using natural landscapes Education in nature
Improvement of local and regional economy	Sustainable and productive employment	Assessment of economic impacts Preparations for local employment Compatibility of economic values Sustainable employment and livelihood	Job creation through designing services for plant production Combination of retail locations with tourism, recreational and residential services etc. Job creation in educational fields
	Equitable distribution of capital and income	Cost profit analysis Increase of income resources Investment return Development of economic facilities Mixed economy for different groups of the target population	Allocation of surplus income for optimization of space and operations Attraction of investors Job creation for the vulnerable and the unemployed Income increase for rural population
Enhancement of place identity	Characterization	Capacity expansion for tourism operation Contextual and characterized designing Combination of land and space Allocation of desirable space	Appreciation of spatial local identity Appreciation of geographical location Using limited potential opportunities Emphasis on the rich history of the region Inclination of local community to the importance of tourism
	Emotional richness	Social commitment Combination of spaces with various functions Mixture of operations to optimize the space and the public Process of changing and connecting the space Increasing the vitality of urban space	Combination of five senses in the special design and designing garden spaces
Improvement of local community	Presence in public	Ecologic and sustainable societies NGOs Social participation growth Attention to social investments	Special attention to pedestrians and sidewalk construction Holding different exhibitions Possibility of tourist presence Rural architecture for spatial-physical integration
	Inclusiveness	Solutions for increasing social commitment and unity	Adjustment of the space by designing unique elements which meet the needs of different age groups Diversification of spatial operations

F11. Chart of aims and policies of agritourism for rural sustainable communities (extracted from the literature).

Scenario	Schematic Design
<p>Scenario 1: Circular Tourist Path</p> <p>In the first scenario, a tourist path goes around the village, increasing the interaction between tourists and residents. In this scenario, being in the middle of the greenhouses and the residential area, the path increases the possibility of achieving agritourism aims. Moreover, it is possible to follow the operational solutions with minimum intervention on the environment and the improvement of existing paths.</p>	
<p>Scenario 2: Linear Tourist Path</p> <p>In the second scenario, the path also connects the two ends of Golzar Village. The only difference here is that the path crosses the main road. This scenario gives the tourists the opportunity of visiting the inner part of the village.</p>	
<p>Scenario 3: Combined Tourist Path</p> <p>The third scenario is a combination of the linear path and the circular path. This scenario significantly increases the interaction between tourists and farmers, because short and varied distances from the tourist path are located in a balanced way throughout the village.</p>	

Selection of the Best Scenario Using Goal Achievement Matrix

At this stage, prioritizing and analyzing the Schlager and Holmes, goals are prioritized according to the possibility of their achievement in a technique called "evaluation based on prioritization". A matrix here is the criteria of decision making as the professional base of the project. In this method, it is assumed that there is a way of prioritizing aims according to their desirability, which is based on the possibility of calculating "the expected value" or the score of each plan in terms of inclination towards the aims. If we multiply the scores given to each plan by the weighing index, and then add the probability coefficient of the plan to the result, the "total value of the plan" will be obtained. First, it is necessary to evaluate each of the goals. Based on the research problem, the two goals of improving the local economy and improving the place

aims, we tried to evaluate the scenarios according to Goal Achievement Matrix (Table 5). In this method, which is offered by identity are respectively at the highest value in the research with the values of 4 and 3. Followed by them, the goals of improving local community and promoting the sustainability of the natural environment gained values of 2 and 1. However, this evaluation does not imply the last two as unimportant but is indicative of the high importance of the local economy and the place identity.

According to the final value for each scenario (Table 6), the third scenario has the highest value because of its higher executability and potential to improve the local economy of Golzar Village. Therefore, since the aforesaid goal is very important and the third scenario gained the highest point, it was selected as the best scenario (table 12).

Goals		Scenario 1	Scenario 2	Scenario 3
Environmental Sustainability	Reduction of the Ecological Footprints (1)	1	1	2
	Environmental Conservation and Improvement (2)	2	2	2
Enhancement of Place Identity	Characterization (4)	2	2	3
	Emotional Richness (2)	1	2	2
Improvement of the Local Community	Presence and Continuation of Presence in Public (2)	2	2	2
	Inclusiveness (2)	2	1	2
	NGOs (1)	1	1	1
	Improvement of education (2)	3	2	3
Improvement of the Local Community	Sustainable and productive employment (4)	2	2	3
	Equitable distribution of capital and income (3)	3	2	3

T5. Golzar Village's Goals Achievement Matrix.

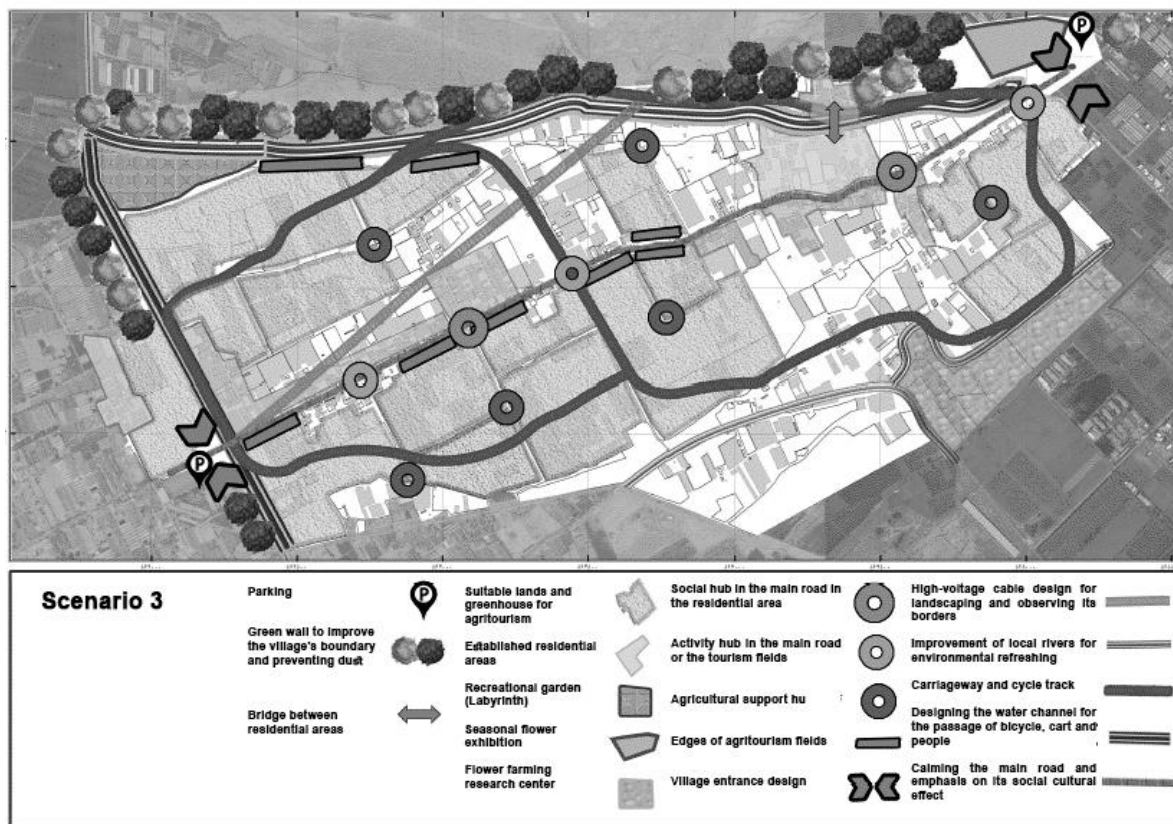
Total value	Calculations	Scenarios
47	$(2 \times 3) + (4 \times 2) + (3 \times 3) (1 \times 1) + (2 \times 2) + (4 \times 2) + (2 \times 1) + (2 \times 2) + (1 \times 1) +$	1
42	$(2 \times 2) + (4 \times 2) + (3 \times 2) (1 \times 1) + (2 \times 2) + (4 \times 2) + (2 \times 2) + (2 \times 2) + (1 \times 1) +$	2
58	$(3 \times 2) + (3 \times 4) + (3 \times 3) (2 \times 1) + (2 \times 2) + (3 \times 4) + (2 \times 2) + (2 \times 2) + (1 \times 1) +$	3

T6. Total value of each scenario.

Research Findings

According to the discussions on the agritourism and Golzar village, the principles and components of the development of the

target village in the four dimensions of agritourism are identified in the table below. The need to meet these principles should be considered by urban designers (table 7).



F12. Map of the village after implementaiton of the third scenario.

Dimensions	Micro-scale Goal	Policies for Golzar Village	Policies for Target Villages of Agritourism
Environmental Sustainability	Reduction of ecological footprints	<ul style="list-style-type: none"> - Reducing human interference and activities in the natural environment of the village - Use of clean and renewable energy and upgrade the natural cycle of ecology, use of new road construction methods to reduce the destructive effects of ecology, design of bicycle and pedestrian paths in line with the topography of the earth - Limited structures on agricultural lands to density control - Holding popular programs for sustainable development 	<ul style="list-style-type: none"> - Use of clean and renewable energy - Using waste agricultural products to produce paper products etc. - Reducing the effects of sewage and animal waste - Correct location of the cycle of agricultural activities - Consulting with research institutes
	Environmental conservation and improvement	<ul style="list-style-type: none"> - Upgrading canal infrastructure and collecting surface water, reducing agricultural waste, establishing nature protection centers - Evolution of the traffic system and access to a stable model by reducing motorists, prioritizing pedestrians and bicycles - Organizing the equipment and facilities of the village, using eco-friendly materials - Strengthen vegetation in public areas and increase environmental resilience by using multi-functional open spaces - Wastewater management for preserving and rehabilitating trees and the village landscape, design in harmony with the environment and organizing vegetation in the northern part 	<ul style="list-style-type: none"> - Maintaining and strengthening vegetation - Protection of watersheds (lake, river, waterfall etc.) - Land protection (geological phenomena and prevention of soil erosion) - Wildlife protection - Protection of forests
Enhancement of the Place	Characterization of agritourism space	<ul style="list-style-type: none"> - Creating a suitable atmosphere of attractive resorts for tourists 	Protection of natural landscapes, mountains, plains, lakes, rivers and

T7. Research findings.

Identity		<ul style="list-style-type: none"> - Elimination or relocation of agricultural facilities and activities that produce noise, bad smell, visual disturbance in tourist paths with various modes of travel derived from village identity and agriculture, such as carts, bicycles and pedestrians inside the greenhouse. - Showing the space of greenhouses and fields and cultivating flowers to attract tourists - Adaptation of the walls, in accordance with the identity of the village and agriculture - Enhancing visual cues to enhance mental and objective image - Organizing and unifying the natural and artificial landscape of the village and visually organizing the greenhouses 	<ul style="list-style-type: none"> - Strengthening the landscape of farms and gardens by cultivating several crops in different seasons - Strengthening natural and artificial signs
	Emotional richness in the interaction between tourism and agriculture	<ul style="list-style-type: none"> - Creating vitality in the environment using waterflow - Design of pedestrian and bicycle paths with a combination of greenspace and waterway - Take advantage of the appropriate density and occupancy level - Appropriate use of volume, color and materials to identify the public space - Use of rural and agricultural elements in the public arena - Design of buildings with rural architecture - Stabilization of the village area using natural landscaping 	<ul style="list-style-type: none"> - Eliminating pollutive agricultural activities such as noise and bad smells - Strengthening the natural landscape of agriculture
Improvement of the Local Community	Presence and continuation of presence in public	<ul style="list-style-type: none"> - Holding flower and plant festivals and activating large single-functional flower and plant breeding spaces - Using agricultural water canals to create a recreational space - Limiting the traffic of the motorists and providing proper access for pedestrians, considering parking lot and docking areas of farms and services, designing a hierarchical network of combining pedestrian, bicycle and cart paths - Opening greenhouses for tourists to visit, highlighting some rural and supplementary agricultural activities - Modify the existing construction pattern to prevent urban isolation - Holding traditional and ritual ceremonies for the presence of tourists and residents in the public arena - Increase attendance by strengthening public space and enhancing nightlife - Using local materials in order to strengthen the rural landscape and design a rural park 	<ul style="list-style-type: none"> - Holding various agricultural festivals throughout the year - Opening attractive agricultural spaces for visiting and educating tourists - Strengthening the natural and artificial landscape of the village and agricultural lands - Improving the access traffic network with a focus on the presence of tourists and residents
	Inclusiveness for the local community and tourists	<ul style="list-style-type: none"> - Combining flower farming spaces and playgrounds for children, establishing accommodation and providing services suitable for tourists - Designing tourism paths that meet different needs - Adaptation of service spaces and facilities supporting farms and greenhouses - Adaptation of public spaces and paths for different age and gender groups and the disabled 	<ul style="list-style-type: none"> - Combining agricultural spaces with attractive tourist uses - Adaptation of support spaces and farm services - Providing conditions for tourists to observe and participate in the production process - Establishing a zoo farm
	Improvement of education in agritourism	<ul style="list-style-type: none"> - Scientific education of private and public institutions to introduce flowers and plants and rural and agricultural space for reverse migration - Holding agricultural learning classes for tourists and earning money from it 	<ul style="list-style-type: none"> - Training local guides - Training women to produce indigenous industries - Educating residents in dealing with natural disasters - Educating residents about civil rights and laws
Improvement of the Local and Regional Economy	Sustainable and productive employment in a competitive realm	<ul style="list-style-type: none"> - Creating flower supply and sales spaces and improving the infrastructure needed for sustainable and productive employment - Creating support jobs for agricultural tourism - Local production and completion of flower and 	<ul style="list-style-type: none"> - Branding and direct sales of products - Monetize the tourism industry - Introducing the potentials of agricultural tourism in the target areas of tourism for investment

T7. Research findings.

		plant breeding chain with pottery and packaging workshops and the possibility of producing hydrosols	- Proper advertising of tourist farms
	Equitable distribution of capital and income	<ul style="list-style-type: none"> - Combining flower supply and sales spaces with coffee house, cafes and restaurants - Attracting domestic and foreign investment, including banks and non-governmental organizations to develop the tourism industry and flower growing in the region, use and sell local products to meet the needs instead of using the products of cities and imports - Specialization of part of tourism revenues to revive traditions, health education, preservation and maintenance of the region 	<ul style="list-style-type: none"> - Develop a managerial and economic model of agritourism target areas to spend the correct tourism revenue in rural and agricultural areas - Providing incentives and promotional tourism facilities in rural areas for the prosperity of these areas compared to cities - Respect for women rights and different classes

T7. Research findings.

Conclusion

Development of a model for villages with agricultural tourism characteristics. Despite the plans made for rural and agricultural settlements, such as the master plan and joint cultural heritage agreements with organizations and institutions such as the Housing Foundation of the Islamic Revolution in order to strengthen the economic foundations of rural areas and the lack of tourist spaces in the village and promote indigenous industries; so far, no suitable and universal model has been prepared, and actions are stopped at the creation of ecotourism resorts only. Also, the capacity of surrounding villages and agricultural lands and neighboring villages have not been seen as integrated.

Therefore, in this research, from the intersection of four goals in four dimensions of environmental, physical, social and economic dimensions and extracting the principles of agritourism study including natural environment protection, identification of agritourism space, promotion of economic status and local community, we try to reach to four main components and model of "Agritourism as a tool for regenerating sustainable rural communities." These four components include: environmental sustainability, enhancement of the place identity, improvement of local and regional economy and improvement of local community. In the studied village "Golzar", despite its proximity to the city of Tehran and having agricultural attractions such as greenhouses for growing decorative flowers and being adjacent to the Jajrud River, we still see the migration of the residents. Problems such as the lack of a proper rural

construction model, lack of social cohesion and the lack of complementary industries and the decline of natural resources indicate that physical policies alone cannot provide sustainable conditions for this village. Therefore, a comprehensive model, which provides sustainable conditions in all its dimensions for the villages targeted for agritourism, is intended. This model is based on the principles of urban design and bring quality and revival based on the characteristics of the villages.

Endnotes

1. Goal Achievement Matrix

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