

# Research Paper: Tourism Impact on Livelihood Assets of Tourism Villages (Case Study: Rural Areas of Rudsar, North of Iran)

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## ABSTRACT

**Purpose:** The purpose of this study was to identify the trend of villagers' livelihood asset changes arising from tourism development on livelihood assets of tourism villages of Rudsar county in the north of Iran.

**Methods:** The current research is conducted in 10 selected sample villages by cluster and random sampling. The research method is qualitative with a fundamental theory process based on inductive reasoning. In a snowball and targeted method, interviews were conducted with villagers to collect data. The conceptual framework of the present study is sustainable livelihood, resting on five rural livelihood assets for identifying the tourism development changes.

**Results:** In several village, changes in the five rural livelihood assets and 11 macro-categories have occurred with different intensities. On the other hand, the changes in the plain and hill villages included all five assets, and coastal villages cover only the natural and physical ones. Also, no changes were observed in mountain villages.

**Conclusion:** The results suggest that livelihood asset changes have occurred in the studied villages. Nonetheless, the changes had different functions in villages, and in some, they led to the formation of new performances.

## 1. Introduction

**T**ourism expansion causes changes in villagers' livelihood assets that lead to a transformation in the biological pattern and living conditions of rural areas. The

intensity and direction of these changes and the scope of influence on residents rely on several factors and components. What is essential is to pay attention to the principles of sustainability and improve all residents' lives affected by tourism growth. This process should provide the ground for improving different rural liveli-

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hood dimensions, including economic, social, natural, and physical, and the rural tourism development programs should set out favorable conditions for villagers. Tourism must contribute to the improvement of villagers' livelihood assets and provide resources to benefit the village's residents.

In the past years, Gilan province in the north of Iran has been one of the first destinations to capture tourists' attention. The presence of tourists in villages has led to an allocation of spaces to infrastructure and places for leisure, affecting both villagers' livelihood and livelihood assets. Such changes can occur in various fields, such as employment in service sectors, real estate value, new sources of income, villages' economic pattern changes and changes in land use pattern, construction, building reuse in rural areas, transformation in social communications, and cultural and traditional issues of villages. Such changes in tourism villages of the study area, Rudsar County, where in the last two decades the tourism performance and structure have shed light on it, have extensively transformed the geographical areas. Now this city is regarded as one of the main tourist destinations that may even be considered the most influential city of Gilan province in the field of tourism. Thus, regarding the expansion and growth of tourism in this region, understanding these changes in rural livelihood assets arising from tourism development will manifest the future life in villages, regions' sustainability, and eventually policy-making and decision-making. Rural economic changes will affect the sustainability of natural resources. The socio-cultural changes caused a transition from rural customs and culture to a new style of socio-cultural model. Creating new businesses will engender income, employment, and an increase in per capita income and financial resources, eventually leading to physical and spatial changes in rural areas. Therefore, this study aims to investigate the changes in villagers' livelihood assets due to tourism expansion, and besides identifying rural growth and development processes, will enhance the villages' development indicators. Thus, the research question is what changes does tourism development bring about in villagers' livelihood assets?

## 2. Literature Review

The rural economy requires a fundamental transformation; hence the capabilities and potentials of the rural areas should be identified; in this way, the rural economy will be improved, and gradually, rural families will earn more income and take various jobs so that these regions enjoy the necessary population stability (Afrakhteh et al., 2015: 95). The main reason of villages structural

weaknesses is the economic problems, to illustrate these issues can be observed in the lack of job diversity, low employment, low wages, economic instability, and unfavorable working condition (Saeidi, 1998: 92). Employment in non-agricultural activities concerning income is crucial for rural economic development. Hence, the development of non-agricultural activities significantly increased rural incomes (Papoli Yazdi, 2011: 227). As a result, due to the role of tourism as a tool for rural areas development, the government makes use of it and supports and promotes tourism attempts to improve rural lives. The prosperity of tourism as a novel activity has led to different spatial consequences in rural areas (Mirdamadi & Borzooei, 2013: 11). Some researchers believe rural tourism development is a perfect policy for rural economic reconstruction (Tavalayi et al., 2013: 105).

The literature on tourism's role in rural settlement reconstruction suggests that during the last decade, tourism has been regarded as a strategy for rural development to respond to the changes in rural agriculture policies (Roknaddin Eftekhari & Ghaderi, 2002: 23). The tourism industry has been increasingly developing due to abundant recreational resources and convenient accessibility, which boosts local economies significantly. Specifically, the development of the tourism industry has some benefits to society, such as increasing employment, creating employment, alleviating poverty, increasing investment in economic infrastructure, increasing welfare and reviving the rural, preventing rural population from migration, infrastructures, reviving indigenous cultural identity, improving local community participation (local solidarity and social cooperation), preservation of indigenous architectural pattern and production of agricultural products for offering to tourists, optimizing transportation, increasing residents income and protecting cultural heritage, improving economic development, generating immense foreign exchange earnings, provide an influx of investment, implementation of innovative and entrepreneurial, social infrastructure development, combating unemployment and poverty, as well as stimulating domestic consumption. In short, tourism has created a better life for neatly millions of people (Javan et al., 2019: 59; UNWTO, 2019: 2; Opute et al., 2020: 3; Provotorina et al., 2020: 11; Wang et al., 2020: 1).

On the other hand, villages have different capitals and assets which improve residents' life. Rural livelihood is the key factor affecting rural lives that comprise the capabilities, assets (including both material and social resources), and activities required for a means of living (Babulo et al., 2008; Ellis, 2000; Chambers & Conway,

1992) and to sustain life (Prasad Sati & Vangchhia, 2017). A livelihood framework contains five key elements: assets or capitals, transforming structures and processes, vulnerabilities, livelihood outcomes, and livelihood strategies (Ghadiri Masoum et al., 2015: 4).

The current research is emphasized identifying the changes in livelihood assets in rural areas as an element of the livelihood system, including 1- Natural capital that refers to the natural resources people can exploit to achieve their livelihood objectives. Examples are land, forests, water, and air; 2- social capital that gives a sense of community, family and social networks, and interpersonal connections; 3- Human capital that refers to education, skill, ability to work, and levels of health that

by empowering them people's livelihoods would be improved; 4- Financial capital that refers to funds, such as cash and loans which makes it possible for individuals to follow livelihood strategies; 5- Physical capital that refers to basic infrastructure such as tools and equipment required to support livelihoods. The infrastructure consists of changes in the physical environment that help people meet their basic needs and increase their productivity (Morse & McNamara, 2013: 19; Jufare, 2008: 2; Divakarannair, 2007: 20-21).

Based on the background of the study, some of the major relevant studies on this subject are presented chronologically in Table 1, starting from the oldest and domestic research and eventually to foreign research.

**Table 1.** Research Background

Findings	Method	Case study	Title	Author and year	Row
tourism in Ziarat has not been able to play a positive role in the sustainable livelihoods of the local people and the positive effects of tourism have not been effective except in some indicators. The potential threats to rural tourism development are the absence of comprehensive tourism resources for different social groups and the lack of a pre-determined plan for tourism development.	Qualitative and quantitative analysis methods based on the indicators for a sustainable tourism livelihood approach	Ziarat village in golestan province	Investigation of tourism impact on the livelihood activities and assets of rural households	Jome Pour & Kiyumars, 2012	1
The Zarivar wetland has affected all five dimensions of livelihood in studied households as they stated that the level of asset components improved considerably. In this regard, natural capital/asset was specified as the most affected one in people's livelihood.	Data collection through a questionnaire and descriptive-analytical research using factor analysis via LISREL software	Zarivar wetland in Mari-van	The impacts of Zarivar Wetland on the livelihood assets of rural households	Azami & Karevan, 2018	2
Four intended factors including sustainable economic, social, environmental, and institutional outcomes were the most important factors affecting the sustainable livelihoods of rural tourism.	The research method is descriptive-analytical using factor analysis	Molham-Darreh and Tarkhin Abad in Hamedan	The Effects of Tourism on sustainable rural livelihood	Azami & Hash-emi Amin, 2017	3
Rural tourism in Rezvanshahr County has varieties in the intensity of effects according to various spatial units. Therefore, the physical effects of rural tourism (such as second homes, service units, land use changes, and land prices) in coastal areas are more intensive than those in plains and foothills areas.	The research is applied in terms of purpose and descriptive-analytical in terms of method. GIS and Maximum Likelihood Algorithms with two applications were used for data analysis	Rural settlements of Rezvan-shahr County	Spatial Analysis of Tourism Impacts on physical transformations	Javan, Afrokhteh & Riyahi, 2019	4
The aim of the Sustainable Livelihoods Framework for Tourism (SLFT) is to provide for broader scale thinking about the complexity and dynamism of a tourism livelihood system in its wider development context.	Content analysis method	-	Connecting the Sustainable Livelihoods Approach and Tourism: A Review of the Literature	Shen et al., 2008	5
The rural assets changes from non-tourism to tourism due to the new spaces caused during post-communist tourism in two Czech rural areas	Content analysis method	Czech Rural Areas	Post-Communist Transformation of Tourism in Czech Rural Areas: New Dilemmas,	Horakova, 2010	6

Table 1. Research Background

Findings	Method	Case study	Title	Author and year	Row
Local government has a crucial role to play in supporting this diversity by connecting and networking community-based enterprise initiatives. At the provincial level support is needed to set up regional organizations of social enterprises so that localities are not in competition with each other, but are part of coordinated marketing and distribution networks	Content analysis method	Philippine municipality	Rethinking the dynamics of rural transformation: performing different development pathways in a Philippine municipality	Gibson et al., 2010	7
This study was conducted using modernization theory and revealed that the tourism program has caused a decline in traditional livelihood activities like subsistence hunting, gathering, crop, and livestock farming. As a result, a modern cash economy has emerged. New livelihood activities were done by communities based on tourism services and changed their lifestyle. CBNRM is thus a modernization tool since it is causing a transformation of traditional livelihood activities and lifestyles.	Both qualitative and quantitative data were collected using primary and secondary data sources. The main tool used to collect primary data was the face-to-face household interviews using open and closed-ended questions. Face-to-face in-depth interviews were also conducted with key informants	Okavango Delta, Botswana	Changes on traditional livelihood activities and lifestyles caused by tourism development	Mbaiwa, 2011	8
(1) livelihood assets exert a significant impact on community income in tourist areas, with a remarkable spatial difference; (2) the types of livelihoods and the effective utilization of livelihood assets have a significant impact on farmers' incomes; (3) the type and amount of livelihood assets have a certain impact on the choice of livelihood; and (4) a farmer's livelihood type determines the utilization method and the effective utilization of livelihood assets.	using the entropy method (Shanon)	Jiu-zhaigou Nature Reserve in Sichuan Province, China	Study on Livelihood Assets-Based Spatial Differentiation of the Income of Natural Tourism Communities	Ma et al., 2018	9
Differences in the path and speed of structural and rural transformations lie mainly in the growth of productivity and the extent to which employment can be generated in the farm and non-farm sectors in both rural and urban. While initial conditions matter, this study suggests that institutions (e.g., land), policies (market reform and trade policy), and investments (e.g., technology, irrigation, and road) are likely the primary factors determining the path, speed and inclusiveness of rural transformation.	Library research and content analysis	the Asian Developing Countries	Facilitating Inclusive Rural Transformation in the Asian Developing Countries	Huang, 2018	10
Improvements in livelihood diversity were identified with most residents adopting a multi-activity strategy using synergistic relationships between tourism and other sources of income, thereby enhancing overall livelihood sustainability. However, freedom to engage in new livelihoods varies as those with limited assets are difficult to participate in tourism. An income gap has emerged within the community. Such social risks have not been considered by the local government and are not reflected in local policies.	A mixed methods research design is adopted, incorporating a quantitative questionnaire survey and qualitative semi-structured interviews with a focus on those directly involved in aspects of tourism and those indirectly affected by it.	Hetutown, Anhui Province, China	Livelihood sustainability in a rural tourism destination	Su et al., 2019	11

### 3. Methodology

The research was conducted based on grounded theory. Grounded theory is an inductive research method and one of the qualitative research approaches (Bitsch, 2005: 77). Data collection, coding, and analysis occur immediately, concurrently, and throughout (Jones, Kriflik, & Zanko, 2005). There are many varied ways of conduct-

ing research using the Grounded Theory Method. Some of these ways are very prescriptive, but others leave room for the researcher in a way that suits the research environment (Mavetera & Kroeze, 2009: 5). Regarding the studies carried out on the grounded theory method, the practical framework for building theories or models is presented as follows:

The first stage is the research design. That is to develop research areas and questions. The research question defines the phenomenon under investigation. Thus, regarding the research topic and its aim to identify the transformations resulting from tourism development in tourism villages of Rudsar county, the research question can be “What changes have tourism development brought about in villagers’ livelihood assets?”

The second stage is data collection that goes into the field of research. The grounded theory does not work with predetermined questions because such can change or direct interviewers’ thoughts (Georgieva & Allan, 2008: 44). Collecting data is repeated until no new insights are gained from additional data. The answers will be repeated, called theoretical saturation (Jones, Krifik, & Zanko, 2005). Therefore, statements and developments that have occurred due to tourism were obtained by field survey and in-depth interviews with research samples and respondents.

The third stage is adjusting data, writing items and concepts. The purpose of this stage is to become familiar with data. It also provokes the researchers’ thoughts and gives them a preliminary understanding of the topic. Moreover, the defined statements in ten tourism villages of Rudsar, regarded as the research sample, items, and concepts, are presented in the respective table.

The fourth stage is data analysis. Open, axial, and selective coding are steps in analyzing qualitative data. The open coding process refers to conceptualizing data where field notes, interview transcripts, and their main sentences are extracted and put into subcategories. In axial coding, the subcategories of the previous step are classified into exclusive and inclusive classes. Selective coding is the last step, where all categories are connected

around one core category. Therefore, all the related selective coding concepts are used in this research.

Finally, the fifth stage is model validation and design. Here, respondents are shown a copy of the model derived from the research outcomes. This safeguard gives the researcher confidence in the results (Levy, 2015: 383).

In the following part, the statistical population will be examined. The study area includes 27 tourism villages of Rudsar county in eastern Gilan (North of Iran). The villages are 26 meters above sea level and are scattered to about 2000 meters in mountainous areas. The statistical population of the study consists of all households in these villages. The studied villages are identified by executives bodies, such as Rudsar county governorate, the Housing Foundation of Islamic Revolution of Rudsar County, Guilan cultural heritage, tourism, and handicraft administration, Rudsar cultural heritage, tourism, and handicraft administration, and an interview with five informants and researchers of the county.

Since the heights of rural settlements differ in the ranges of latitudes, that is, they differ in terms of topographical and climatic, and natural conditions and have various types of livelihoods, the villages are classified into four coastal, plain, hill, and mountain categories for a detailed investigation and a more appropriate sampling. According to villages’ location in terms of number per class, ten villages were selected as the sample, including at least two villages and four villages at maximum for each category, through simple random sampling. The characteristics of sample villages, including villages name, administrative geography, topography, number of households, village population, and height above mean sea level, are presented in Table 2, and a map showing their geographical distribution is shown in Figure 1.

**Table 2.** Research Sample Villages

Row	Villages Name	District	No. of Household	Population	Location	Villages Classification	Row
1	Tuska Mahalleh	Chaboksar	158	432	Coastal	-20 to -26	-22
2	Hsasan Sara	Central	226	622	Coastal		-20
3	Tamijan	Central	175	466	Plain	-19 to 300	-10
4	Qasemabad-e Sofla	Chaboksar	972	2850	Plain		2
5	Sarvelat	Chaboksar	178	509	Plain		10
6	Limeh Sara	Chaboksar	56	170	Plain		280
7	Milash	Rahimabad	44	127	Hill	301 to 1000	637
8	Sajiran	Rahimabad	134	357	Hill		750
9	Tioula	Rahimabad	53	124	Mountain	Over 1001	1100
10	Giri	Rahimabad	60	148	Mountain		1950



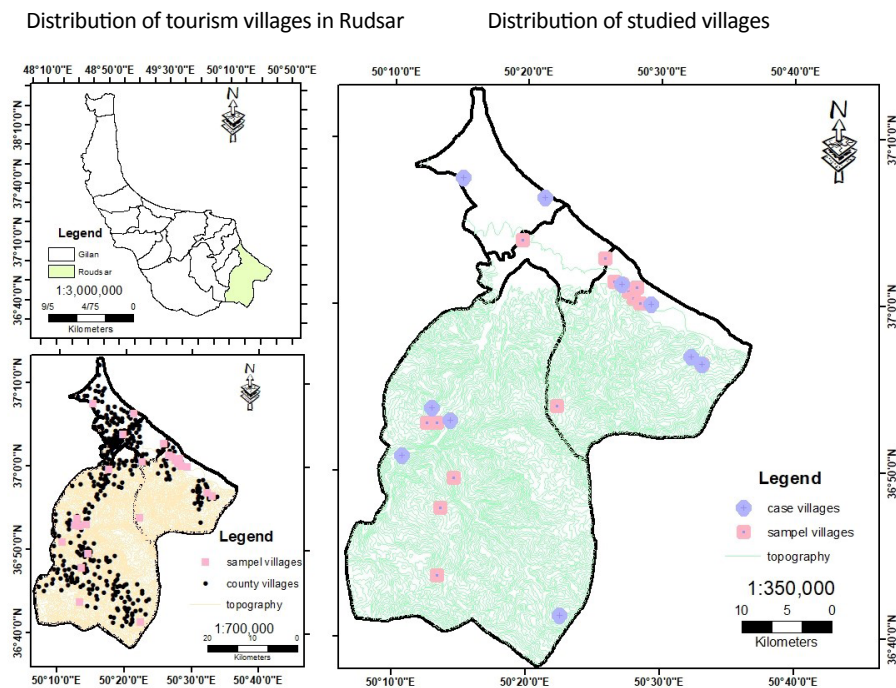


Figure 1. Map of the study area and sample villages



In this study, 76 individuals were interviewed, including 32 women and 44 men. The average age of respondents was 46.9 years old, with an average interview of 55 minutes per person. In general, 308 statements were extracted from the interviews.

#### 4. Findings

In this research, the changes in the studied villages' livelihood assets resulting from tourism development were examined in terms of physical, social, financial, natural, and human assets. Moreover, 63 out of 308 statements belonged to physical assets, 88 to social assets, 41 to natural assets, 88 to financial assets, and 22 to human assets. The interview transcripts were either written utterly or converted to comprehensible and detailed sentences. Then, information coding and review were established. At first, duplicate statements were removed, and as a result of coding the five main assets, 11 macro categories, and 28 statements, 101 statements were determined in total. The research process in analyzing grounded theory included vital phrases and sentences, and regarding their explicit or implicit content in each unit, they were referred to as expressive concepts. The subcategories were classified as a sustainable livelihood framework Using a comparative approach. After categorization and connecting categories (axial coding), selective coding was used.

The results of research coding are separately presented in the following Tables:

Physical assets, including 29 statements, were coded into eight and three macro categories (Table 3). The physical asset changes consist of non-native and heterogeneous neighborhood formation concerning rural development, public services, infrastructure development, physical texture improvement, and rural expansions. A macro category proceeds negative evolution, and two macro-categories rise positive evolution.

Social assets, including 28 statements, were coded into nine and three macro categories (Table 4). The physical assets changes, creating cultural heterogeneity in villages, forming public-private participation networks and intense tourism activities in villages, and values development and strengthening social components for sustaining village life. A macro category proceeds negative evolution, and two macro-categories rise positive evolution in villages.

Natural assets, including 15 statements, were coded into five and two macro-categories (Table 5). The natural assets change; disturbance in natural resources and village ecosystem balance, and actualization of natural resources for tourism utilization. A macro category proceeds negative evolution, and one macro-categories rise positive evolution in villages' livelihood assets.

**Table 3.** Coding results of physical assets changes

Statement	Category	Macro category
Building houses near the beach	Villa construction development	
Inhabitants of villas and building villas		
Promotion and development of villa construction		
Changes in the physical texture of coastal areas	Changes in part of villages' physical texture	
Changing the use of activities merely in coastal strips		
Different styles of villas compared to rural houses		
Sale of lands and land scarcity	Agricultural land use change and improper land use	
Land speculation		
Separating villagers' and tourists' residential area	Spatial septation	
The different architecture of villagers' and villa dwellers' settlements		
Lack of special effects on rural infrastructure improvement		
Existence of tourist reception centers	Developing tourism welfare services	
The failure to improve villa construction and increase tourism public services		
Developing tourism facilities in villages		
Developing tourism public infrastructure		
Public facilities in villages		
Developing ecolodges	Developing rural infrastructure	
Improving infrastructure		
Developing villages infrastructure		
Rural housing retrofitting	Improving rural housing	
Improving rural housing quality		
Rural housing renovation		
Changing rural housing architecture		
Building high-rise residential and commercial complex	Physical development and increasing construction	
Physical development of part of rural areas		
Building vast commercial centers		
Physical development of villages via high-rise buildings		
New constructions in villages		
Increasing rural housing		

**Table 4.** Coding results of social assets changes

Statement	Category	Macro category
The cultural gap between tourists and residents	Social gap	creating cultural heterogeneity in villages
Lack of social and economic relations between tourists and villagers		
Social and cultural differences between villa dwellers and residents		
Less social interaction between residents		
Improper distributions of tourism development benefits	Forcing social pressure on villagers' life	
Villagers' problems with owning a house		
Separating villas from rural textures		

**Table 4.** Coding results of social assets changes

Statement	Category	Macro category
The presence of tourists in villages		
Villagers' stimulation to the role of tourism	Formation of tourism activities	
Rapid social development through tourism development		
Increasing consultation		Formation of public-private participation networks and intense tourism activities in villages
Increasing village participation	Strengthening social participation and consultation	
Participation in different affairs of villages		
Contribution of government managers to tourism development		
Government managers' problem-solving actions	Government managers' responsibility in rural development	
Local officials' responsibility		
Strengthening interactions with surrounding settlements	Creating interaction networks with surrounding areas	
Interactions with neighboring villages and cities		
New roles in villages		
National and international reputation for tourism villages	Village branding with new roles through tourism development	Values development and strengthening social components for sustaining village life
Hospitality culture for tourism development		
The existence of chain services in villages		
Ensured security through tourism development		
Maintaining and increasing the rural population	Creating stable population conditions in villages	
Preventing migration through tourism development		
Sense of belonging to village and unwillingness to sell lands		
Attracting investments in the village	Promoting a sense of investment in villages and a proper distribution of tourism benefits	
Proper distribution of tourism benefits		

**Table 5.** Coding results of natural assets changes

Statement	Category	Macro category
Impacts on village resources and issues facing native residents		
Overconsumption of water resources	Increasing pressure on villages' natural resources	
Increasing damage to the environment		
Waste generation and overconsumption of natural resources		
Land use change in coastal strips		Disturbance in natural resources and village ecosystem balance
Changing village landscapes	Land use change and village natural landscapes	
Land use change		
Selling lands to tourists		
Promoting villa dwelling and seasonal tourism	Deviation in the exploitation of villages' natural resources	
Insufficient land for housing		
Using rural capabilities through tourism development	Using natural capabilities for tourism	Actualization of natural resources for tourism utilization
Activation of tourism-based rural capabilities		
Increasing tourism capabilities		
Building tourism attractions in villages	Diversification of villages' tourist attractions	
Developing attractions in rural areas		





Financial assets include 24 statements, five categories, and two macro-categories (Table 6). The financial assets changes were rural employment and income, finance and economic transformation, and increasing village capital. Both macro-categories of financial assets proceeded with positive evolution.

Human assets include five statements, two categories, and one macro-categories (Table 7). Improvement of human assets components and human assets changes arise from tourism development. This macro-category proceeds with positive evolution.

Investigating the statements derived from research data in ten sample villages and analyzing the aspects of changes in each village after the tourism development, such as dimensions of tourism infrastructure, providing tourism public services and facilities, education and skill status, and improving aspects of rural health, rural employment, and income status, using natural resources for tourism exploitation, changes in the rural economy,

participation of individuals and local officials, investigating social and cultural components of rural areas, and villages population stability status, etc. shows that in Limeh Sara, Qasemabad-e Sofla, and Sarvelat villages, the changes have occurred in every five assets. Some villages, namely Hasan Sara and Tuska Mahalleh, have changed social and physical assets; no changes are seen in human and financial assets. Moreover, in Giri and Tioula, no changes have occurred in the other assets except in the two statements of social and natural assets. Nonetheless, through investigation on locations, it can be said that changes in coastal villages, especially in coastal strips, have mainly occurred on the social and physical axil. Hill and plain villages have experienced changes in all assets. In particular, since financial assets in almost all these villages have considerably changed, other assets were undergone fundamental changes. Furthermore, it is found that mountain villages, despite their tourist attractions, have not experienced any significant changes in villages' assets.

**Table 6.** Coding results of financial assets changes

Statement	Category	Macro category
Job creation in the rural tourism sector	Changes in rural employment components	Changes in rural employment and income
Job creation in the rural handicrafts sector		
Job diversification in villages		
Creating new jobs		
Tourism as a permanent job in villages		
Change in jobs pattern	Developments of villagers' source of income	
Villagers' new income generation		
Generating income for villagers		
Villages high income from tourism		
Generating income from different rural capabilities		
Diversity of rural income sources	Creating new market sales for villages products	Finance and economic transformation and village capital increase
Equitable distribution of income among locals		
Handicrafts production and marketing in villages		
Selling local products		
Increasing sales in village shops		
Complementary tourism and rural activities	Transformations in components of the rural economy	
Rural tourism businesses' prosperity		
Making money from renting accommodations		
Changes in the rural economy		
Entrepreneurship		
Investment in different activities	Capital increase and allocation of new financial resources to villages	
Using government banking facilities		
Using government grants		
Conserving government resources in rural tourism		

**Table 7.** Coding results of human assets changes

Statement	Category	Macro category
Improving tourists' skill training	Increasing villagers' awareness, skills, and health services	Increasing the stock of knowledge and skill
Increasing awareness and knowledge		
Improving village health and hygiene		
Rural dynamics and transformation	Improving village productivity	
Formation of tourism chain activities		

**Table 8.** Evolutionary aspects of the five livelihood assets resulting from tourism of the study villages<sup>1</sup>

Sum in each village	Human	Financial	Natural	Social	Physical	Village name
25	1	10	2	7	5	Milash
26	1	7	6	5	7	Sajiran
2	0	0	1	1	0	Tioula
2	0	0	1	1	0	Giri
32	4	8	3	12	5	Tamijan
8	0	0	2	5	5	Hasan Sara
7	0	0	2	3	5	Tuska Mahalleh
38	2	13	5	12	4	Qasemabad-e Sofla
36	2	14	2	10	8	Limeh Sara
36	2	12	4	9	9	Sarvelat
	12	66	28	58	48	Sum of assets



1. Figures define the numbers of the investigated statements in each village, and the figures of the transformation column indicate the number of each assets statements in the interviewed villages.

The status of villages' livelihood assets changes in five livelihood assets, including 11 macro-categories and 28 categories derived from research statements, are presented in Figure 2.

According to the following Table, the relations of extracted statements from livelihood assets changes that include influential, two-sided (including influential and impressionable), and impressionable consequences are presented as follows:

## 5. Discussion

The prosperity of tourism as a novel activity has led to different spatial consequences in rural areas. Villages have different capitals and assets which improve residents' life. Rural livelihood is the critical factor affecting rural lives that comprise the capabilities, assets (including both material and social resources), and activities required for living. Therefore, with the emergence of tour-

ism phenomena in villages, the villages assets inevitably experienced transformations. The type, process, and intensity of these changes differed in each village based on their underlying tourism development conditions. The current research is conducted in tourism villages of Rudsar county where rural tourism has a leading role, and rural tourism is its dominant type of tourism. This study is conducted in a sustainable livelihoods framework to identify changes in rural assets following the tourism development. The investigation of the study area shows that in each village assets have changed at different steps. In some villages, such as Limeh Sara, Sarvelat, and Qasemabad-e Sofla, there has been a multidimensional transformation in assets. Significant transformations in these villages are the formation of restaurants, tourist reception centers, ecolodges, rural infrastructure improvement, changes in rural housing architecture, transformations in rural employment and income regarding tourism, and last but not least, an increase in population, social cooperation, etc., rural tourism branding at a

national and international level, such as tents weaving in Qasemabad-e Sofla, Khavar Khanoom restaurant in Limeh Sara or Tamijan bread. In some villages, such as Hasan Sara and Tuska Mahalleh, there has been a one-dimensional transformation in assets. Villa dwellers in coastal villages and their national reputation from this aspect indicate its one-dimensional change.

On the other hand, the geographical locations of these villages are associated with the dimensions of the changes. For instance, the changes in coastal villages were centered on physical categories.

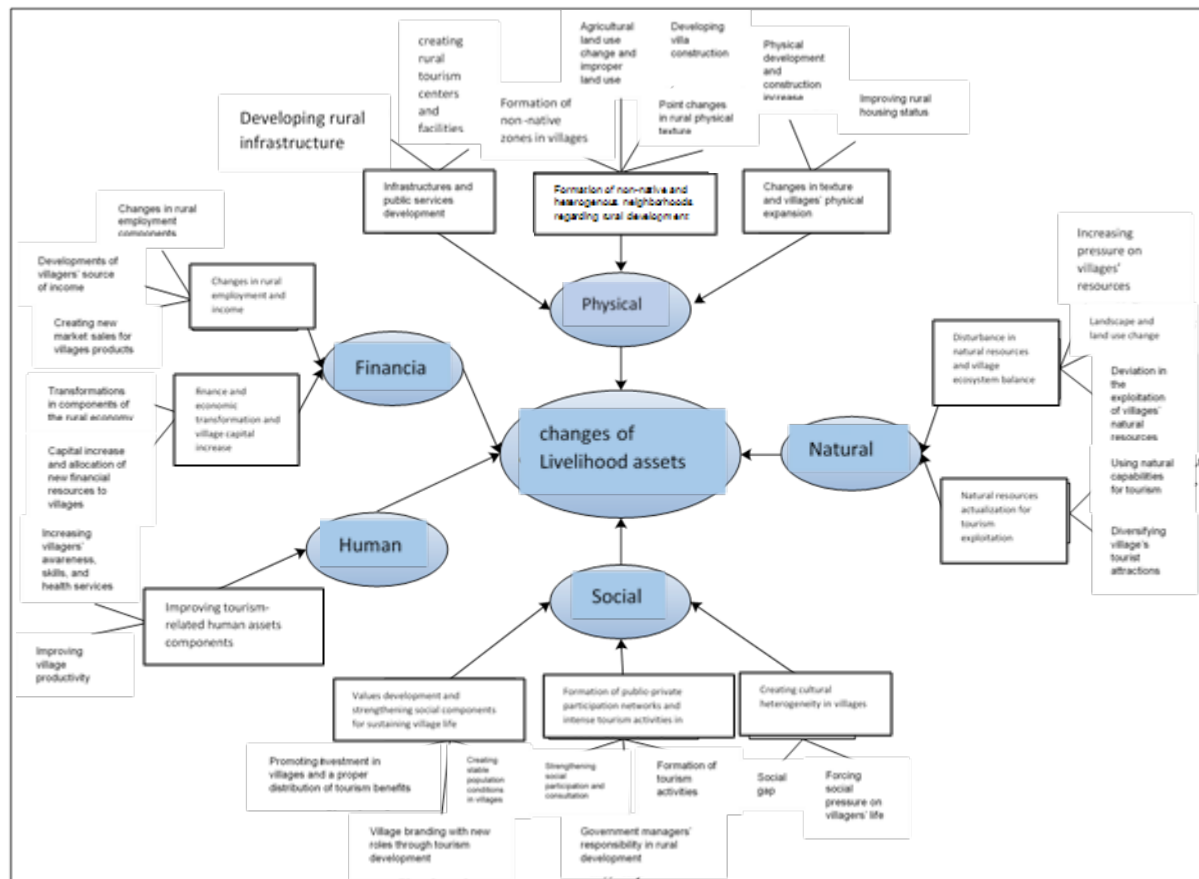


Figure 2. Changes in rural areas' livelihood assets resulting from tourism development



Table 9. Consequences classification with a problem-solving approach

Consequences	Consequences classification
Constructing rural infrastructure, developing rural tourism centers and facilities, developing villas construction, physical development, and construction increase, formation of tourism activities, government managers' responsibility in rural development, village branding with new roles through tourism development, using natural capabilities for tourism, diversifying villages' tourist's attractions, creating new market sales for villages products, capital increase and allocation of new financial resources to villages	Influential
Improving rural housing status, strengthening social participation and consultation, forcing social pressure on villagers' everyday life, creating interaction networks with surrounding areas, promoting a sense of investment in villages and a proper distribution of tourism benefits, landscape, and land use change, changes in village's employment elements, developments of villagers' source of income, increasing villagers' awareness, skills, and health services	Two-sided
Point changes in rural physical texture, formation of non-native zones in villages, agricultural land use change and improper land use, creating a social gap, creating stable population conditions in villages, deviation in the exploitation of villages' natural resources, changes in rural economic components, improving village productivity	Impressionable



However, no changes were observed in financial and natural assets, as the main expected results from tourism development affect villagers' livelihood assets. Thus, such changes have caused development deviations and negatively affected their assets. In plain villages, tourism development changes were observed coherently and integrated. In other words, changes were enforced in all aspects of assets and have caused fundamental changes in the villages. Studies suggest significant asset changes in these villages, especially in Lime Sara and Sarvelat, have occurred in the financial category. There is a link between the social and physical categories changes, so that a significant change can be seen in both categories. The 25% increase in the population of Lime Sara village within a decade from 2006 to 2016 (General Population and Housing Census, 2016) and the population stability in other villages indicates an improvement in the mentioned villages' livelihood. In hill villages although there has not been a comprehensive change as plain villages, the villages enjoyed a better status compared to mountain and coastal villages. The mountain villages demonstrated that despite being the main tourism areas in the region, they had not experienced any fundamental changes in assets. Due to the region's tourist types, distance from population centers, and lack of primary services, tourists consider this place not as a destination but more as a temporary passage.

On the other hand, the changes in villages have not acted as a positive change in all villages. Put it differently, three out of 11 macro categories of villages' livelihood assets changes proceed negative evolution. Its significant change is the formation of temporary and heterogeneous settlements in some villages. As a result, it has caused a negative impact, especially in coastal villages, on other assets, mainly social ones. It can be stated that village changes have different functions and will form new structures in rural areas. It seems that villages' location, village branding in a specific category, individual participation in rural tourism development, local managers' role, attractions location, and tourist motivation for visiting these villages, especially cultural attractions, will significantly contribute to the formation of tensity and types of changes in study tourism villages.

In comparing the present research with previous studies, several changes have occurred with the arrival of tourists to rural areas. In this respect, the current study aligns with the studies of Horakova (2010), Mbaiwa (2011) and Azami & Shanazi (2018). The changes in tourism villages were neither the same nor comprehensive, and different locations had different functions. This study's results align with those of researchers such

as IFAD (2016), Wu (2018) and Javan & et al. (2018). Furthermore, the changes in village assets were not necessarily positive and, in some cases, have experienced deviation in assets. In this sense, the study aligns with the studies of Bennett et al. (2012), Ghadiri Masoum et al. (2019) and Jome Pour & Kiyomars (2012). Nonetheless, the difference between this study and previous domestic ones lies in the comprehensive study of the five villages' livelihood assets and the investigation of villagers' livelihood assets resulting from tourism.

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## Conflict of Interest

The authors declared no conflicts of interest.

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