

## INVESTIGATION OF ALTERNATIVE TOURISM TYPES AND SIGHTS VIA GEOGRAPHIC INFORMATION SYSTEMS: THE EXAPLE OF SAFRANBOLU

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### ABSTRACT:

In this study, alternative tourism types and sights belonging to Safranbolu were identified through Geographic Information System (GIS) tools. In this manner, most favorable tourism activities, which are specific to field, and evaluation factors of these activities were determined. "Suitability classification values" of these factors were charted by receiving opinions from experts. Natural and cultural properties of study area were determined in the light of evaluation factors and a database was set via GIS. This database was examined according to evaluation factors of the activities and the most suitable and conditional suitable areas were determined. In this study, it is aimed to carry out the suitable place analysis for alternative tourism types of Safranbolu, which is a tourism town, such as riding, mountain biking, camping, trekking. 486 km<sup>2</sup> area for riding, 319 m<sup>2</sup> for trekking, 209 km<sup>2</sup> for mountain biking and 148 km<sup>2</sup> for camping were figured out as suitable. These results reveal that tourism activities should be more professionally organized in order to apply alternative tourism types such as riding, mountain biking, camping, trekking. In addition, organizations such as festivals and fairs should be arranged in order to introduce products special to Safranbolu.

### 1. MANUSCRIPT

Tourism is a fact that leading people move to places or countries except their present environment with personal or professional aims. Tourism consists of travels, which are experienced by people to somewhere else from they are currently live and work in and spend at least one night without any economical goal but demanding tourism products and services. Although this travels formerly used to carry commercial, religious and military goals, now goals have been turned to rest, enjoy and sightseeing. Especially environmental problems such as noise, traffic jam, air pollution, which came as the results of urbanization after Industrial Revolution have negatively affected the sychology of people. Thus, they allow time for tourism activities also in relation to increasing welfare level.

Today, the point that Turkey has come in tourism is remarkable as sectoral. According to TUIK data, Turkey, which is a rich country in the manner of tourism sources, was visited by 36 million foreign tourists in 2015 and get currency more than 30 billion dollars. Natural, historical, social and cultural values constitute the main sources of tourism sector.

Alternative tourism is a term dealing with alternative tourism types improved against classic mass tourism. It is identified by ministry of culture and tourism: "It is a kind of tourism which aims giving priority to social and ecological adaptation, collaboration between native and foreign enterprises and utilization of local materials". Environmental effects occurring due to touristic activities, increase on number of tourists and a general ascending tempt to alternative kinds of tourism are the most important factors leading occurrence of alternative tourism.

Alternative tourism aims to build a qualified environment by protecting the present natural and Safranbolu is one of the important tourism centers of Turkey and it attracts attention with its natural beauties, historical structure and cultural heritage. Safranbolu was not affected by modern urbanization and it was announced as urban archeological site. In 17 December 1994, it was counted in World Heritage List by UNESCO and received the title of "World City". Safranbolu has an important potential regarding alternative tourism types. In this study, it was aimed to carry out the suitable place analysis for alternative tourism types such as riding, mountain biking, camping, and trekking by utilization of geographical information systems. Therefore, it is aimed to emphasize the importance of alternative tourism types for development of the area.

### 2. MATERIAL AND METHOD

Safranbolu is located in Northwest Black Sea Region, between 41° 16' north latitude, 32° 41' longitude. The main material of research is the region in the official border of Safranbolu, which is suitable for some alternative tourism activities and having natural and cultural specialties. The surface of working area is 1013 square kilometers. The method utilized within the scope of research was given in Table 1. With this method improved according to ecological, economic and cultural factors, it was aimed to analyze the suitable place for alternative tourism types such as riding, mountain biking, camping, and trekking by taking into consideration only natural factors. Research was interrogated by considering the values belonging to evaluation factors in the charts prepared for each activity. Multi criteria decision method was used during interrogation progress. The most suitable areas for the activities were determined and mapped. In the study, natural and cultural structure in bordered

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areas were firstly investigated and data was transferred into numerical database through GIS tools. Maps were created in ArcGIS 10.1 software.

ACTIVITY OF TOURISM RECREATION (Riding, Mountain Biking, Camping, Trecking)						
EVALUATION FACTORS		VALUES OF SUITABILITY CLASS				
		Riding	Mountain biking	Camping	Trecking	
Natural Factors	1	Slope	0-30	0-25	0-6	0-20
	2	Landslide	Small Scale	Small Scale	Small Scale	Middle Scale
	3	Groundwater	>2 m	>2 m	>2 m	>2 m
	4	Drainage of Earth	Good	Good	Good	Good
	5	Relative Humidity	40-80	20-40	0-20	30-70
	6	Sensitive Areas Regarding the Existence of Natural Animals	Not	Not	Not	Not
	7	Distance of Transportation (m)	0-3000	Not	0-3000	Not
	8	Existence of Water Source (300-1600 m)	300-1600	Not	100-500	Not
	9	Average Temperature C°	10-20	10-20	>0 C°	>0 C°

Table 1. Evaluation Factors of the Activity of Tourism Recreation

### 3. RESEARCH FINDINGS

The working area, which is from Bolu in southwest to Kastamonu in northeast, approximately funnel shaped and filled with Eosan and after Eosen old stones and in SW-NE direction, was called as *Karabük-Safranbolu Tersiyer Basin*. The slope of research field is ever mounting. The Town of Safranbolu ranges from İncekaya in the Village of Gayza to Tokatlı Canyon in the Village of Tokatlı. The altitude of canyon is 550 meters. Its 50-100 meters and the width is changeable between 100-180 meters. Although the canyon length between İncekaya including the Stream of Hızır and the Village of Tokatlı is 2100 meters, the total canyon length is 4500 meters together. Because working area is a Plato, which is sloping to south and there is a rising topography towards north-northwest, all the areas above south occupy more place in total area. The average annual temperature of Safranbolu is 12.8°C. The amount of average annual rainfall is 597 mm. August is the most dry month of year with 33 mm and the furthest rainfall is seen in December as average 70mm. While July is the warmest month with 22.4°C, the lowest average temperature 2.5°C is in January. There is many continuous and seasonal stream in the study field. Araç

Streamlet and Ovacuma Stream show continuous stream. In addition, the other important streams in the field: Gümüş Streamlet, Eflani Streamlet, Akçasu Stream, Bulak Stream, Tabakhane Stream and Karasu Stream. Groundwater in the field is getting increase toward forestlands. Except Araç Streamlet Valley and Ovacuma Stream Valley, most of the regions are covered with brown forest soils. Limeless forest soils are found on bestride of Araç Stream and on Safranbolu Plato from place to place. Grey brown padzolic soils are encountered on north and northeast parts of the town especially on mountainsides in south and southwest parts of Ovacuma. There are valley beds and canyons connected with these beds in Safranbolu, which are important in respect to ecotourism. These are: Tokatlı (İncekaya) Canyon, Düzce (Kirpe) Canyon, Sırçalı Canyon and Yacı (Sakaralan) Canyon. In the research, in the scope of alternative tourism activities determined for Safranbolu, four activities were dealt and “most suitable” areas for each activity were figured out. The specific areas for each determined activity were shown on the map in the border of selection criteria belonging to related activities in the working area (Köseoğlu, 2015; Türker ve Çetinkaya, 2009; Özdemir, 2011).

#### 3.1. Riding

As a result of interrogations, it was determined that the areas with slope between 5-29%, having 150-1780 m water source and 0-2750 m distance of transportation are the most suitable areas for riding activities (Figure 1).

#### 3.2. Mountain Biking

As a result of interrogations, it was determined that the areas with slope between 7-23%, having 40-1700 m water source and S-SW-SE slope areas are the most suitable areas for mountain biking activities (Figure 1).

#### 3.3. Camping

Research area was interrogated in respect to evaluation factors such as slope groups necessary for camping/ camp with tent activities, existence of water sources and transportation distance. As a result of interrogations, it was determined that the areas with slope between 1-5%, having 100-500 m water source and 0-3000 m distance of transportation are the most suitable areas for camping/ camp with tent activity (Figure 1).

#### Trecking

As a result of interrogations, it was determined that the areas with slope between 0-25% and having 400-1700 m water source are the most suitable areas for camping/ camp with tent activity (Figure 1).

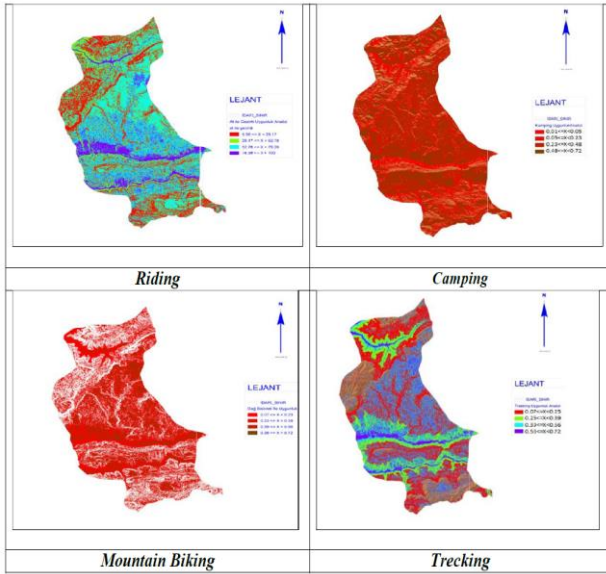


Figure 1. Alternative Tourism Places in Safranbolu

#### 4. RESULT AND DISCUSSION

It is observed that a continuously changeable tourist mass has occurred due to exhausting work life and changes in the life standards of people. It can be said that this kind of tourist mass who wander away from sea-sand-sun triple named as mass tourism, have directed their attention to alternative tourism types because of their different wishes and needs.

Recently, the importance of alternative tourism types has raised in developed and ever-developing countries. Thanks to its positively contribution to diversification of tourism activities, acceleration of economic development and socio-cultural values, its importance will keep increasing.

Safranbolu, one of the towns showing the most improvement in tourism sector in Black Sea Region, plays an important role like an open-air museum displaying traces of many civilizations along its tri-millennarian history. Safranbolu is a precious area not only with cultural sources but also with its natural sources. Its location and favorable climate conditions keep the interest of tourists alive during twelve month of a year. However only a few part of these sources have been utilized.

In order to provide sustainability of the fields having natural sources and opening these fields to tourism, different studies have been carried out. In this study, transfer of natural data into numerical database through the tools of Geographical Information Systems was provided. By analyzing this data, previously determined four tourism activities were investigated. In accordance with selected method, obtained data was interrogated in computer environment in order to determine and map the suitable areas for each activity. In the borders of working area, 486 km<sup>2</sup> area for riding, 319 m<sup>2</sup> area for trekking, 209 km<sup>2</sup> area for mountain biking and 148 km<sup>2</sup> are for camping activities were figured out.

These results reveal that riding, mountain biking, camping, trekking, which are types of alternative tourism activities in Safranbolu, should be more professionally organized and activities such as festivals and fairs should be arranged in order to introduce these tourism types and products special to Safranbolu

Regarding beneficial effects of alternative tourism, all alternative tourism types should be organized and developed in the working area Safranbolu, which is a town counted in World Heritage List by UNESCO. Thus, some precautions should be taken such as; knowledge of tourism term by local managers and local resident, providing collaboration between shareholders of tourism, harmonization between natural environment and tourism activities organized in natural areas, improvement of conscious related to tourism on local resident, increasing of environment quality in the region and the number of qualified tourism personnel.

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