

Determining Regional Tourism Development Strategies of East Black Sea Region of Turkey by GIS



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1. INTRODUCTION

- According to United Nations World Tourism Organization (UNWTO), tourism is the biggest industry of the world.
- Tourism is an industry based on acquiring data and using the data effectively.
- Information and Communication Technologies (ICT), aims at getting, sharing, and distributing the data in tourism industry.
- Tourism economy has about 5% of General Domestic National Product. It brings 10 billion USA Dollars to the economy and provide nearly 1.500.000 employee of which is about the one to four of the recorded employment.

2. TOURISM AND ICT USAGE IN TOURISM SERVICES MANAGEMENT

Using GIS technology for TMIS (Tourism Management Information Systems) has advantages:

- Thematic cartography can be generated in a fast and inexpensive way.
- Maps are produced in variable scales according to different kinds of users.
- To make applications with basic information and to produce new information through variable combination is faster and cheaper than crossing data in manual way.
- They can show results in cartographic, statistical, or table form.
- Errors can be corrected dynamically, saving the time and material that they would cost if corrections need to be done on printed maps or tables.
- Information can be integrated easily, through automated relation between different databases that describes the same geographic space according to different themes.

In this study,

- Tourism concept as developing industry and GIS possibilities for Tourism Services Management (TSM) is examined.
- To build Tourism Management Information System (TMIS), database is designed for East Black Sea Region of Turkey and the data was acquired and converted to digital format.
- TMIS convenient with the model was built with the using of GIS techniques.
- After determining relationship between existent base layers and tourism layers, decision maker and user oriented products were produced depending on user needs.

3. BUILDING TMIS FOR EAST BLACK SEA OF TURKEY

Study Area – East Black Sea Region of Turkey

The area covers 6 provinces, totally to 32269 sq km.



- Artvin
- Bayburt
- Giresun
- Rize
- Gumushane
- Trabzon

3.1 Designing TMIS model for East Black Sea Region of Turkey

TMIS model was designed to produce documents aimed at TSM and to produce tourist maps and guides, and form a decision support mechanism supporting TSM.

The data are divided into two parts ;

- Base data
- Tourism data.

- Base data especially includes the layers reflecting real world objects such as surface, hydrograph, transportation, administrative units, and demography.

- Tourism data includes Historic, Natural, and Recreational layers identifying tourism entities.

Tourism Data

Tourism Facilities

- »Hotels 4S, 5S »Tourism Centers

Recreational

- »Balloon Touring »Mountain biking »Mountaineering
- »Diving »Canoeing »Rock Climbing »Skiing »Rowing
- »Rafting »Windsurfing »Trekking and Hiking
- »Brow Parachute

Historic

- »Mosque »Fountain »Turkish Bath »Fortress »Thermal Spring
- »Church »Bridge »Pavilion »Monastery »Museum
- »Clock Tower »Chapel »Tomb »Underground City

Natural

- »Cave »Park »Picnic Area »Waterfall »Plateau
- »Other: River, Lake, Island details.

Base Data

Demography

- »Population »Income

Administrative Unit

- »Province, County Area
- »Province, County, Village Center

Transportation

- » Road » Railways

Hydrograph

- »Sea »Lake »River

Surface

- » Elevation » Orto-Imagery

3.2 Data Collection and TMIS database building

- Information about Historic and Nature entities was collected from web sites of the Ministry of Culture and Tourism of Turkey, provinces' governorships and from some catalogues.
- Information about recreation entity group was collected from recreational and tourism web sites and sport maps.

Historic layer - 69 records
 Nature layer - 50 records
 Recreation layer - 184 records

3.3 User Oriented Tourism Products

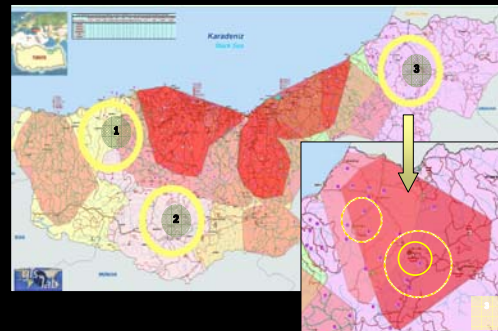
- Following database design, cartographic model which makes the maps and spatial data understandable and increase maps' perception level was executed.
- Tourism products oriented to users are produced for TSM.
- Tourism maps like wall paper, folded maps, and tourism guide can be produced at regional and provincial level to support various tourism services.

Tourism maps produced depending on user needs in various formats...

3.4 Decision Maker Oriented Products

- TMIS provides decision makers and users to reach information easily and the most effective way.
- Decision making in geographic scope can also be supported by geographic queries and spatial analysis.
- Spatial analysis operations are **nearness search**, **distance search** and **region search**.

Site selection for a tourism center...



As a result of spatial analysis process, 3 areas circled yellow are chosen the most suitable areas for tourism investment.

4. CONCLUSION

- It enables both decision makers and users to reach knowledge, maps and documentations from the database for their needs.
- TMIS provides to reach knowledge easily and rapidly for decision makers and users. It is gained time and finance.
- From updating database, maps and documents were produced with improved capabilities of access to knowledge, queries and spatial analysis.
- Designing a TMIS for East Black Sea Region of Turkey is essential component for decision makers to determine regional tourism development strategies and relevant decisions.
- Users can generate various characteristic and scale maps as a rock climbing map, trekking and hiking area map, mountain bike map etc. for their needs and can print it.

THANKS...

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