EXPLORING THE POTENTIALITY OF THE VILLAGES OF PUNE AS POSSIBLE TOURIST LOCALES THROUGH RS AND GIS

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Abstract:
Tourism is the most important tertiary economic activity. Recently, the new concept of Rural tourism can be considered as an unconventional one. Tourism has great potentialities in all round socio-economic development of a region. Physical, locational and cultural factors determine the development of tourist places. For the present paper a detailed tourism-geographical information database of certain tourist places of ShirurTahsilof Pune district has been created in detail. The aim of this paper is to spread geographical knowledge obtained through surveys and application of geographical software among the common people, researchers and non-geographers who are not well expert to geographical techniques and software. Questionnaire method, survey, GIS methodswere applied to collect and analyze the required details. Various thematic maps such as geological maps, base tourist maps, etc. were created in ArcGIS software and these were simultaneously processed to obtain the road network, shortest route map and other relevant maps.
The tourists' places have been subclassified into historical, religious, geographical and agro-tourism. The database contains tourism importance of the respective sites, geographical database- having climatological, geomorphological and geological information and how to reach a respective site based on shortest path analysis. The options of one day and weekend tours have also been chalked out along with shortest route maps. It is observed that such database helps to geographers, geologists, researchers and students to observe such wonderful places, landforms, their structural formation and processes. Thus this workwill support the overall development of the tourist places of rural Pune.
Keywords: Shirur, buffer zone, rural tourism

Introduction:

Tourism is the fastest growing tertiary economic activity in overall India. Physical and cultural set-up control the development of tourists places. In case of natural tourism wherein the landscape assumes greater importance the scope of tourism in a region mainly depend on the landscape diversity **(Suryawanshi, 2014)**. Tourism has significant contribution in sustainable development, economic upliftment and social benefits, if planned methodically (**Mamun, A. A,2012**). India is a country of contrast where 50 -60% of the population still live in rural India amidst green, clean, pollution free environment. As against conventional tourism, rural tourism gels with the concept of eco-tourism and is marked with culture, tradition and homely warmth of the Indian villages. Rural areas havemore potential of tourism andconsiderably helps to generate employment, social, cultural and educational development of the rural area. With modern technology internet is more and more emerging as a necessary tool for the tourist industry. It directly connects the tourist with the products (here sites of interest). Geographic Information Systems are used tocollect, analyze and present information describing the physical and logicalproperties of the geographic world (**Goyal et al., 1997**). In other words,it deals with the collection, storage, manipulation, analysis and presentationof spatial or geographic data. Simply put, GIS is an information systemthat

allows the use of spatial information effectively (**Dockkey et al, 2004**). In the present research work a detailed study of the various places of tourism interest in the study area has been done. With the help of GIS techniques, the data have been assimilated, processed and analyzed.

Study Area:

ShirurTahsilof Pune district isselected for the present study. ShirurTahsillies entirely in Ghodnadi and Bhima basin and extends between 18 ^{0}50" N to19 ^{0} 02" N latitude and 74^0 01" E to 74 ^{0} 57" E longitudes, comprising an area of 1651.30 sq. km (Figure 1).

The region generally experiences three seasons- summer, monsoon and winter. The climate is generally warm semi-arid and tropical (Am). Summer months range from March to May, with maximum temperatures ranging between 30 to 36 °C. The warmest month is April with temperature of around 34^{0}C. The monsoon lasts from June to October with moderate rainfall. Most of the annual rainfall fall between June and September, with July being the wettest month of the year. Winter begins in November. The daytime temperature revolves around 12-15 °C while night temperature is below 11 °C for most of December and January.

Objectives:

To create a tourism databaseof ShirurTahsilof Pune District.

Methodology:

Information regarding the suitable potential sites were gathered concerning the study area through extensive field surveys to form a database and this database was used to create tourist place maps. Socio- cultural utilities information, geographical information and transport network analysis through GIS technique using ArcGIS software was done. Rainfall distribution map, geological map, tourist place location buffer map, road network map, shortest route maps etc. were prepared. The study was an attempt to bring into focus rural tourism into the ambit of tourism industry through the use of GIS and modern technology.

Discussion:

Tourism is now well recognized as an engine of growth in various economies in the world. Tourism is the source of income, employment and amenities for the population of many areas (**Shinde, 2011**).Pune district of Maharashtrahas some of the choicest tourist destinations. However it is seen that tourists flock only to certain areas of interest in this geographical area. Apart from the well-known sites there are a lot of sites which remain obscured from the general tourists for want of proper information. Particularly it is almost impossible for people outside of Maharashtra to know about these lesser known, yet equally worth viewing sites. Herein comes the utility of web based tourism geographical information system.

A geographic search is a mixed query which combines tourism attributes and geographic criteria to search for "What is where?" Here "What": represents attributes of touristic objects "Where": represents the geographic space that the touristic place covered (**Duran et al, 2004**). Spatial questions like – "where am I", "what is nearby", "how can I go" etc. have been answered through this research work and consequent user friendly help portal. Through this research work we have compiled some basic geographic information about the study area and research topic –**region, distance, nearness, areas of interest and general geography**.

Types of Tourists Place –Rural tourism sites in the study region has been further categorized into:

a) Historical – Koregaon Bhima (*site of Battle of Koregaon*), Wadhu Bk (*burial place of Sambhaji Maharaj*), Inamgaon (*archaeological site*).

b) Religious – Religious tourism also referred as faith tourism, is a form of tourism whereby people of faith travel individually or in groups for pilgrimage and missionary purposes. (**Potdar, 2011**)., Ramling(*Hindu temple*) and KawatheYemai(*Goddess Yemai*).

c) Geographical – Takali Haji (*fluvial erosion, pot holes, temples etc*).

d) Agro-tourism – MorachiChincholi and Bhambarde.Agro-tourism is the process of attracting visitors and travellers to agricultural areas, generally for educational and recreational purposes (**Lamb, 2008**). In case of natural tourism wherein the landscape assumes greater importance the scope of tourism in a region mainly depend on the landscape diversity (**Suryawanshi, 2014**).

Climate:ShirurTahsilfalls under the lowest rainfall zone having a dry and semi- arid climate. During the summer season the climate remain hot and dry. December and January are the coolest months with temperatures as low as 11^0 C.

However spatial variation exits owing to altitude and other local geographical conditions. Thus climatic information for each of the sites have been provided along with temperature and rainfall distribution map both on spatial and temporal scale. This database also includes suitable time of the year to visit (both climate wise and based on the local attraction).

i) *Region* – A tourist base map for theShirurtahsil has been created and the tourist places are shown for ease of understanding and locating tourist places. A detailed database of each of these points have been done to provide information of the major attractions and places of interest along with photographs of the area.

ii) *Distance* – Network analysis of the study area has been done and the road network map along with google maps have been provided for each of the places. Through shortest distance path analysis the distance of each of these places from Pune has been calculated and the route map provided. The calculated distance has been provided in the site under the sub heading of "how to reach".

Shortest distance path and route map has been made according to the itinery provided for the ease of tourists. Nearest places of interest around the queried site within a specified distance (through buffers of 2 and 5 km) is also shown in each of the tourist location. Detailed tour plan and tour itinery having complete route information and overnight haultage areas for one day and week-end tour has been chalked out through shortage distance path analysis.
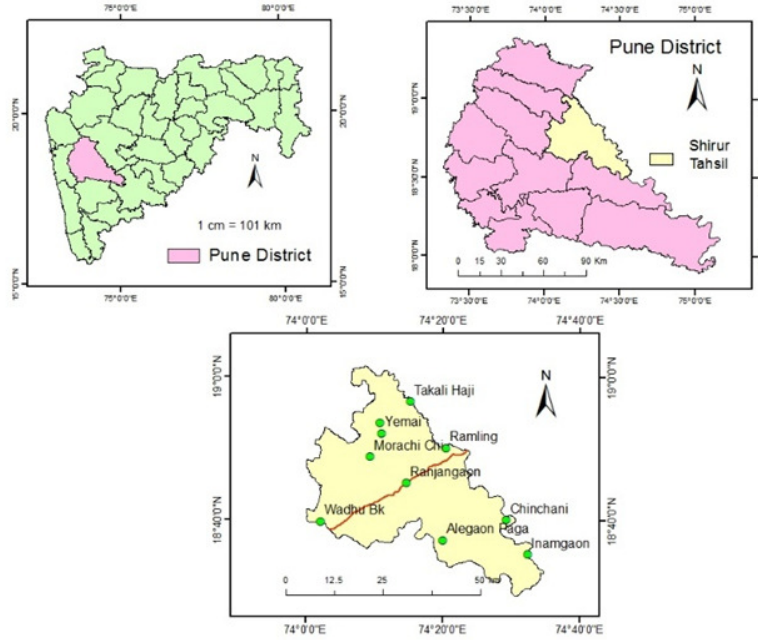
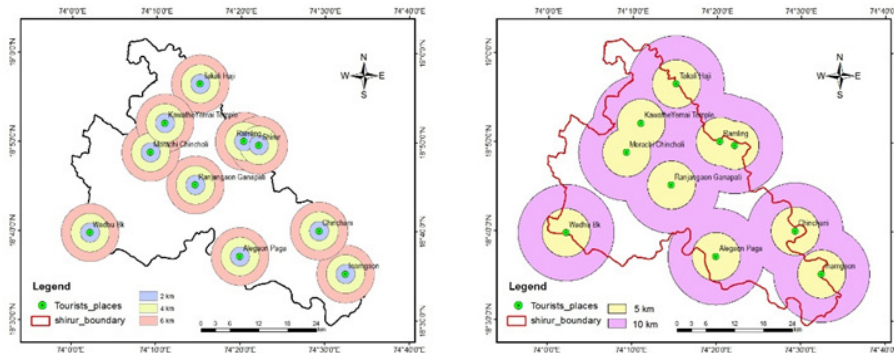**Figure 1:** Location Map of the Study Area.

F**igure 2 and 3:** Buffer Analysis

(i) ***Nearness*** – Tourists going to the respective sites will want to explore out *other attractions* nearby the main places. Since spatial information is limited to them, thus the researchers have made a data base of the places of interest near to the main locales. The distance from the nearest locale to each of these additional points of interest is calculated and the information systematically incorporated in the site.

(ii) Other information: a public utility map having information like – medical help locations, bank, bus stand etc. have also been created and integrated into the data base of the site.

a) In the first type the sites are categorized by their type. Further details are available after clicking the name of any site belonging to any of the types.

b) **Distance/Day wise:** According to distance and number of days (one day/weekend) a tourist is interested to invest, detailed tour plans has been chalked out. The tour itinery contains various route information along with overnight haultage areas. The route map obtained through shortest distance path analysis has been incorporated.

Conclusion:

The study region comprising of Shirur of Pune district has a wide array of potential rural tourism sites. The research work has been complied based on some of the potential and lesser known sites of the study area. At the onset the various sites were categorized into a) historical, b) religious, c) geographical, d) ago-tourism. A database of these sites based on the local attractions and photo gallery, distance of

the sites from Pune city, how to reach, distance etc. Geographical information of the selected sites including climatological, geographical, geomorphological details based on tourist etc. has been provided.

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