

# Tourism Potential of Forts in Pune District with the help of Geospatial Technology

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## ABSTRACT

The total information regarding natural resources viz. physiography, climate, soil, water, natural vegetation (pattern and type of flora), animals (fauna) etc. as well as human factors like population (distribution and growth), settlement pattern, transport and communication facilities, festivals and other cultural activities is difficult to get from a single body and in short time for the above task. A database for an area, if generated will be useful for the planners, government, economists, eco-tourists, researchers and common man. Pune district is highly rich by its scenery, spiritual base and its culture. In this present study try to provide an integrated plan for tourist places forts in the Pune district with some special case studies.

**Keywords:** Tourist Information System (TIS), sustainable planning

## I. INTRODUCTION

Tourism is considered as one of the world's largest industry. India is a developing nation. The Government and their agencies as well as private sector units and individuals are taking various measures to promote tourism. Promotion of tourism can contribute immensely to our economy. Many years tourism was neglected at various levels but now a day's concentrated effort are being made to improve the position and standard of tourism and for also the social benefit of the people. Pune district is highly rich by its scenery, spiritual base and its culture. Tourism industry will change the future of the district and will improve the social, cultural, economic status of the district; this was the main motive behind selection of this study area.

Maharashtra is a land of forts with its 350 odd forts. The ASI, an agency controlled by the union government, controls 29 of the important forts. The state archaeological department controls 39 other forts

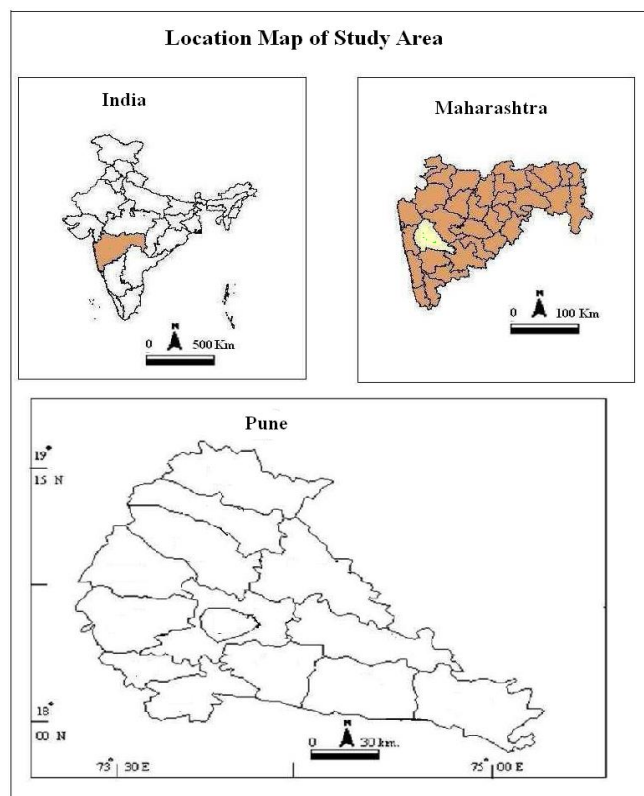
and 99 forts are unprotected forts. The remaining 183 forts are either controlled by the revenue department, which knows little about archeology or are privately owned. This means that most forts are at the mercy of those who know nothing about conservation. What's more, there is no record of the ownership of some forts. The 350 odd forts in Maharashtra were constructed since the time of some of its early ruling dynasties like the Satvahanas, the Rashtrakutas, the Chalukyas, the Siddhis, the Marathas, the Peshva, the British, etc. They were a primary defense mechanism against enemy invasions and were called 'Killa' in local language. Konkan has various forts built by many rulers like Portugese, British, French, Dutch, Siddhis and Marathas.

Pune district lies in the Western Ghats or Sahyadri mountain range and it extends on to the Deccan plateau on the east. With its physiography it has abundance of forts and fortress located in it. With the long-standing bastion of the maratha empire and home to the legendary King Shivaji, the Pune district

is marked by magnificent land forts, testimony to its glorious past. Every taluka in Pune district has significant forts located in the district. It is necessary to preserve and conserve them, as well as it can be great potential for creating job opportunities for the local people. Most of the forts in Maharashtra are in dilapidated condition. It represents history, they must be preserved. The study will help to aware people to conserve these sites. Tourism is the major subject of jobs and other means of subsistence for the local people at fort sites increasing number of tourists will surely be beneficial to the local people. They can earn some amount by providing meals and other things needed by the visitors. Business and jobs for locals will be created due to conservation of forts.

## II. STUDY AREA

The study area, Pune district, usually termed as the cultural capital of Maharashtra. It is situated at 559 m ASL and lies between 17° 54' to 19° 24' N Latitude and 73° 33' to 75° 10' E Longitude. The total geographical area of the district is 15643 sq.km. The district headquarters or the district place is Pune. The district consists of 14 tahasils. The area of district is surrounded by Thane district in the north and northwest, Raigarh district in the west, Satara district in south, Solapur district in the south and southeast and Ahmadnagar district to the east.



**Figure 1.** Location Map of Study Area

## III. OBJECTIVES

The broad objectives of the proposed study are:

1. Assessment of site and situation of forts in Pune district.
2. Assessment of present day fort tourism in Pune district.
3. To identify and examine the tourism potential of the forts in Pune district.

## IV. METHODOLOGY AND DATABASE

In order to understand for tourism potential of forts in Pune district the methodology adopted for the present study is divided into three phases are namely pre-field work phase, field work phase and post field work phase.

In the first phase i.e. pre-field work phase literature review i.e. previous work carried out by other researchers are obtained from various journals, internet, visit to the MTDC resort to know about annual tourist flow, collection of survey of India

toposheet (SOI) having scale 1:250000 (47/E,47/F,47/I,47/K,47/M,47/N,47/O), Atlas, Gazetteers, District Census Handbook, Tourist maps, etc. use for collection of information, District Resource map of Pune district published by Geological Society of India, Government published map of Pune district P.W.D. map, and other were completed with help of S.O.I. toposheets.

In the second phase i.e. fieldwork phase extensive field surveys were undertaken, to existed tourist places and newly found tourist places. The questionnaire filled in this phase. During this field surveys tourist facilities regarding destination photographs, GPS reading altitude and the related information is noted which were also useful to site suitability study.

In the third phase i.e. Laboratory worked is carried out. Government published map then digitization to generate thematic layer i.e. point layer- tourist places, tahasil headquarter, line layer- roads, railways, rivers and polygon layer- dams, reservoirs etc. and map were georeference same time. Integrating all above information and maps with help of GIS software. Finally these thematic layers are analyzed to demarcate tourism potential zones.

## V. TOURISM POTENTIAL OF FORTS IN PUNE DISTRICT

The term potential means something existing but not yet fully exploited. There are various criteria to selecting new potential suitable sites i.e. on the basis of phsiography, climate, and purpose of visit, on the basis of natural and cultural resources. We classified potential suitable sites forts on the basis of natural and cultural resources, i.e. Pune, Haveli, Junnar and Baramati. Potential tourist centers are selected in this manner they represent the entire Pune and same problem found in similar type of tourist centers in throughout the district. Potential forts are very rich in natural and cultural resources, these tourism resources

are not fully utilized because inadequate tourist facility, lack of information regarding this centers. New potential suitable sites forts can provide more scope for a generation of employment opportunities due to increases tourist facilities in terms of different socio economic and marketing indicators also bring money and reducing the regional disparities in Pune district. New potential suitable sites forts will be reducing the pressure on existed tourist centers and also reducing the migration of local peoples towards the Pune city. There are 32 forts in Pune district. Every fort has its own importance and uniqueness. The forts are selected according elevation controlled sampling (Table 1).

**Table 1.** Forts Selected For Study

Sr. No.	Tahashil	Fort and Height (m)	Major Forts Selected for study
1	Maval	Induri 595, Anghai 612, Tung 964, Tikona988, Lohgad1016, Visapur 1045, Morgiri 1052	Tung, Tikona, Lohgad
2	Bhor	Kavlya 597, Kenjalgad 1267, Rareshwar 1375, Rohida 1095	Rareshwar
3	Khed	Chakan 618, Bhorgiri 735	Chakan, Bhorgiri
4	Mulshi	Rajmachi 692, Korigad 929, Kailasgad 944, Ghangad 982	Rajmachi, Ghangad
5	Purandar	Daulatmangal 815, Sonori 953, Vajragad 1290,	Purandar



the lake are remnants of quarters and bungalows. There is much for the tourist to see. An arch shows the Mughal influence, towering over a water tank that is heavily reminiscent. In the Shivneri fort most important tourist places are the Ganga – jamuna reservoir and the Idgah at the central square of the fort and Shri Shivai Mandir. Shivneri has number of under ground caves. The fort is unique as it has 50 caves at the middle and also covered by three hills ranges having 150 caves. Shivneri is surrounded on all sides by fort and dams. Until 1925, this fort too, was left to the vagaries of nature and was in a state of utter decline. After the formation of the state of Maharashtra, a good motorable road was made that reached right up to the main door of the fort. Every year, the birth celebrations of Chhatrapati Shivaji Maharaj take on colorful hue here; this is an excellent occasion to visit.

#### **D. Drainage**

The tributary of the Kukadi River are originated at Shivaneri fort. These tributary are seasonal during rainy season they have enough water in their path otherwise through the year they are dry. Shivneri is surrounded on all sides by dams. The Ganga – jamuna reservoir and Badami Talav is another water tank provides water facilities on the fort.

#### **E. Climate**

The Shivneri fort is situated on hillock and hence the various parameters of climate become the resource of tourist activity. Shivneri offer more prospects with its combination of cool pleasant summer climate along with its enchanting natural settings. The area can be characterized by rainy, winter and summer season. The mean annual temperature of Shivneri is 32°C. Month of May is generally hottest month of the year. The average rainfall received by the fort is 721.70mm. Natural Vegetation: The factors like relief, soil and precipitation affect upon the natural vegetation. Mainly the distribution of the rainfall controls the type of natural vegetation. The nature of soil and climatic condition have a direct impact on the growth

of vegetation. This Shivneri fort is owned by the Forest Department therefore, trees and forest have been preserved. The natural vegetation is mainly of low scattered trees occurring along the border of the study area. The hot and dry climate has resulted mixed thorny trees, stunted grass and scanty vegetation.

Accommodation: There are a quite number of hotels, restaurants and lodges available for accommodation in Junnar. Other than several private hotels there is a PWD and Forest Dept. rest house available for accommodation in Junnar.

#### **F. Transportation**

State highway No. 52 and Main District highway No. 3 and 1 connect the Junnar which provides excellent road network so that tourist can reach easily to the Junnar by metal road. MSRTC buses that operate on the Pune – Junnar routes, will take Shivneri. There is no state transport for the last 3 km, but local transport will reach to the foot hill of the Shivneri also, helipad facility available on Shivneri.

Mobile network services are available at the regions of Shivneri and Junnar.

#### **G. Water supply**

Shivneri is surrounded on all sides by fort and dams. To scale the fort, you will have to negotiate a climb of 300m to the northern face a huge lake is constructed- Badami Talav. Around the lake are remnants of ancient monuments. There is much for the tourist to see. An arch shows the Mughal influence, towering over a water tank that is heavily reminiscent. The Ganga – jamuna reservoir is another water tank provides water facilities on the fort.

#### **H. Population**

In the year 2001 the total population of Junnar town was 21416. The Junnar town has population of 25315 of which 13066 are males while 12249 are females as per report released by Census 2011. There are about

5637 houses in Junnar town. The density of the population in 2011 was 4119/km<sup>2</sup>. The decadal growth rate of population is 2.32%.

Nature of occupation and economic development are associated with each other. Primary, secondary and tertiary are the three types of occupations. The population of the Junnar has been working mainly in the agricultural sector and hence there is dominance of proportion of workers in the primary sector. The proportion of workers in agriculture is 75% while the persons engaged in the secondary occupation in the tahsil 16%. The percentage of workers engaged in the tertiary occupation in the tahsil 9% is also less than that in the district (14.96%). The data has also shown graphically (Fig. 2.8). All these account shows that the Junnar tahsil is economically backward than the district.

### **I. Present Status**

The present status of Shivneri as a tourist centre come under developing category. Shivneri has a great potential for tourism development. Archeological Department of India, Government of Maharashtra and MTDC give more attention to provide funds, donation and subsidy for infrastructure development on Shivneri forts. However serious attempts are needed to develop tourism in this region.

### **J. Important Tourist Centers in and around Shivneri**

The Shivneri fort was the birth place of Maratha Empire Shri Chhatrapati Shivaji Maharaj. Shivneri has number of under ground caves. In the upper and lower scarps are two irregular lines of Buddhist caves all of them small and some more like dwellings of vultures than of monks. In the Shivneri fort most important tourist places are the birth place of Shivaji, statues of Shivaji and Matoshri Jijabai, the Ganga – Jamuna reservoir, and the Idgah at the central square of the fort and Shri Shivai temple also, newly created lawn and garden etc. A week would be ideal to cover these interesting tourist centers.

## **II. CONCLUSION**

Present study tries to provide an integrated plan for tourist places forts in the Pune district with some special case studies. If someone wants to know the forts along the Mumbai-Pune Express way map can be displayed. Also encouraged and facilitated youth geographers to travel and foster national integration. As far as potential places are concerned, after field work it is observed that few people only visited these forts who know about the places, but other have no any information about the places which should be published or advertised or marketing and the information should be reached to the tourists and they can visit the places. Also take an account of domestic needs of the Pune district by giving information such as cheap accommodation, easy way to transportation.

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