1.1 Introduction:-

Geography is the study of interaction between men with nature. The interaction to man with nature is shaped and molded through the changes in space and time. This interaction creates and transforms place, space, and time utilities. Ultimately it turns the idea of a cultural landscape as structured, expressive, aesthetic leading to value preservation and give sacramental feeling. In a space time continuum man has organized and developed symbolic structure to make his feeling and values acceptable as cultural and heritage. There exist distinct places as well as natural scenes, which are searched and identified by man as sacred places and cultural heritage sites.

Heritage is a broad concept and include the natural as well as the cultural environment. It encompasses landscapes, historic places, sites and built environment, as well as Bio-diversity; collections, past and continuing cultural practices, knowledge, and living experience. Heritage is a cultural identity to be reflected in the preview of individual, unique and multiple layers of pluralison especially with respect to religion, at least old cultural that maintained their traditions and identity.

Cultural heritage refers both the tangible and intangible components. Built heritage and all man made cultural landscapes are includes in tangible heritage and different traditions, skills, knowledge includes in intangible heritage.

Harvey defines cultural heritage as entire set of goods, real property, tangible and intangible assets, private and public property, semi public institution, national assets which have greate historic, artistic, scientific and cultural value and which therefore are worth of preservation by nations and peoples, serving as permanent features of peoples. Cultural and heritage play a significant role in the development of the individual and the collective development of a people. Tourism is an ideological farming of history, nature and tradition. A framing that has the power to reshape culture and nature to its own needs. Tourism can be considered to be a movement of people away from their residential place. Tourism is the totality of the relationship and phenomena.
arising from the travel and stay of strangers, provided the stay does not imply the
establishment of a permanent resident and is not connected with a remunerated
activity. Ashworth and Jimbridge (1990) that the link between the preservation of
the past for its intrinsic value and as a resource for a modern community or
commercial activity is heritage.

Heritage tourism is related to visited natural and cultural sites to
understand our past. In heritage tourism tourists visited to old buildings,
museaums, monuments, landscapes and interpreted these heritage centres. As
Yale (1991) notes, heritage tourism is ‘centred on what we have inherited, which
can mean anything from historical buildings to art works, to beautiful scenery’.
Cultural heritage tourism is the fastest growing segments, it is important for
various reasons it has a positive economic and social impact. Cultural heritage
tourism has established and reinforces the cultural identity; it helps to preserve
the cultural heritage sites. This combination of cultural and natural heritage is
also reflected in many national inventories.

Today cultural and Heritage tourism is one of the largest and fastest
growing industries in the world. The term cultural and Heritage tourism refers to
that segment of the tourism industry that places special emphasis on heritage and
cultural attraction. The national trust for historic preservation in the united states
defines heritage tourism as traveling to visiting historical and industrial sites
authentically represent the stories and people of the past.

Culture Heritage constitute vital resource for tourism development. The
word culture is usually used to ‘a way of life’ or to the product of a particular
culture or individual (Richards 1996). Culture is very broad concept which
generally includes both heritage and art. Cultural tourism is thus considered to
cover all forms of culturally motivated tourism. Cultural tourism cover visits to
all type of cultural attractions. Cultural tourism is a subset of tourism concerned
with a country or region, especially its arts.

According to Wailer and Hall; Cultural, Heritage and Art have long
contributed to appeal of tourist destination. Cultural tourism is important activity
because it has a economic and social importance it helps to establish and preserve
cultural identity.Cultural heritage tourism is not only concerned with
identification, management and protection of the heritage values but is must also
be involved in understanding the impact of tourism on communities and region, achieving economic communities and region, achieving economic and social benefits, providing financial resources for protection as well as marketing and promotion (J.M. Fladmark, 1994). Heritage tourism is an idea compounded of many different emotions, including nostalgia, romanticism, aesthetic pleasure and a sense of belonging in time and space (Asworth and Goodwill 1990). Heritage tourism as travel to experience the places and activities, includes historic cultural and natural resources. Heritage resources reflects or conveys tangible and intangible elements.

Prentice suggested that essentiality in to union the tourism. The term heritage means not only natural landscapes but also cultural landscapes like historical buildings, artifacts and cultural traditions. These things which can be helping attract visitors boost local pride and faster economic deployment in rural area. Heritage tourism of course, poses questions about authenticity and about the representation of geographical and historical knowledge. Ashworth and Timbridge (1990); opine that the link between the preservation of the past for its intrinsic value and as a resource for a modern community or commercial activity is heritage. Heritage tourism is mainly concerned with past cultural phenomena and legacy, as well as it is related to cultural resources like old buildings, museums, monuments, industrial sites, battle ground, railways etc. This broad view of heritage is reflected in the definition adopted by UNESCO (1972) in the World Heritage Convention. Cultural heritage tourism is not only concerned with identification, management and protection of the heritage sites but also to understand the impact of tourism on community. It is the subset of tourism concerned with country or region, culture, specialy the life style of the people. This combination of cultural and natural heritage is also reflected in many national inventories.

The National Trust defines cultural heritage tourism as travelling to experience the places, artifacts and activities that authentically represent the stories and people of the past and present. It includes cultural, historic and natural resources. Cultural and Heritage tourism is a tool of economic development that achieves economic growth through attracting visitors from outside a host community, who are motivated wholly or in part by interest in the historical,
artistic, scientific or lifestyle/heritage offering of a community, region group institution (Silberberg 1995). Cultural and heritage tourists stay longer and spend more money than other kinds of travelers thus making such tourism an important economic development tool (Advisory Council on Historic Preservation, 2002). Xavier Grefe (1990) has refers the role of heritage sites in the economic development according to him heritage plays a intermediate role in consumption and production.

1.1.1 The dynamic Interaction between Tourism and cultural Heritage.

Tourism is an important economic activity and fast growing smokless industry. Tourism is a complex phenomena, it is related to political, economic, social, cultura, educational, biological, ecological and aesthetic views. Tourism is concern with different business like transportation, accommodation and other tourist services. Natural and cultural heritage sites, cultural diversity these are the major tourism attractions. Tourism is a multidimensional activity, which is consists different organizations and facilities.

Physiography, history and culture of a region provide opportunities for tourism development. Heritage tourism has a positive economic and social impact, it should positive economic and social impact, it should provide benefits to host population and it helps to preserve the heritage sites. Tourism supports culture and overall economic development. Heritage tourism attributed to historical events and facts. Myths and fables are an integral part of our culture and traditions. These mytho and tanles are also significant in the development of tourism, music, dance, drama, food art these are intangible heritage plays important role in the development of heritage tourism. Cultural and heritage tourism is one of the types of tourism which is helps to tourists to learn about the past and present culture.

Tourism Day 2011 message: “tourism ability too generate socio – economic opportunities and help reducing the gap between rich and poor is more important than ever”. This statement acquires significance in the face of the economic crisis in resent times. Hence, any formulation on tourism and its role in the society and economy must be rooted in due cognizance to the contribution of
tourism in the development process and according its rightful place and position in the economic planning and programming Eco tourism is a major driver of economic growth globally. India’s Eco – Tourism industry is experiencing a strong period of growth, driven by the burgeoning Indian middle class, growth in high spending foreign tourist and coordinated government campaign ‘incredible India’. For a developing country like India which is on the path of modern economic growth through structural transformation of the economy, Eco-Tourism is the right vehicle. Eco – Tourism is defined as; “Responsible travel to natural areas that conserves the environment and improves the well being of local people.

The concept of environmentally responsible tourism floated by Pasific Asia Travel Association (PATA) rests on the basic premise that organised tourism can contribute to the development of areas worthy of conservation as well as determine the level of development and environmental impact assessment becomes an integral step in the consideration of any site for a tourism project. In the current crisis scenario of global warming and climate change, it is necessary for the tourism industry to work towards the preservation of natural treasures.

Elements of Tourism

Tourism does not exist by itself alone. There are certain components, three of which may be considered as basic: transport, Locale and Accommodation. The term ‘Locale’ reveals the holiday destination and what it offers to the tourist, natural attraction like bright sun-shine, scenic beauty or sporting facilities. In order to get his destination, the tourist has to travel and therefore he needs some mode of transportation. Finally having reached his destination he must have some kind of accommodation which provides him food and sleep.
Peters Inventory of Tourist Attractions

Cultural : Sites and areas of archaeological interest Historical buildings and monuments, Places of historical significance Museums Modern Culture Political and Educational institutions Religion

Traditions : National Festivals Arts and Handcrafts Music, Folklore Native Life and customs


Entertainments : Participation and viewing sports Amusement and recreation parks, Zoos and Oceanariums, Cinemas and Theatres, Night life, Cuisine.

Other attractions: Climate, Health resorts or spas, Unique attraction not available elsewhere.

Among these basic components, locale with attraction and amenities is the most important. However, since interest and taste of tourist varies widely, the attraction of one place to some people may be anathema to others.

According to Peters and Robinson

Geographical Components of Tourism

1. Accessibility and Location
2. Space
3. Scenery a) Land forms e.g mountains, canyons, cliffs, volcanic phenomena, coral reefs
   b) Water e.g rivers, lakes, Waterfalls, geysers, glaciers, the sea.
   c) Vegetation e.g forests, grassland, moors, healths, deserts.
4. Climate
   Sunshine and clod, temperture conditions, rains and Snow.

5. Animal life
   a) Wildlife, e.g birds, game reservation, Zoos.
   b) Hunting and fishing.

6. Settlement features
   a) Towns, Cities, Villages.
   b) Historical remain and monuments.
   c) Archaeological remains.

7. Culture
   Ways of life, traditions, folklore, arts and crafts, etc.

1.1.2 Principles of the Cultural Heritage Tourism Character.

1. Domestic and international tourism has supported to cultural exchange, to provide the an opportunities to host community, conservation responsibility and visitors to experience and understand that communities heritage and culture.

2. Dynamic relationship between heritage places and tourism is involves conflicting values. It should be create in a sustainable view for present and future generations.

3. Planning to tourism for the conservation of heritage places should ensure that the visitors experience and satisfaction.

4. Local communities and indigeneus people should be involved in planning for conservation of heritage sites and tourism development.

5. Tourism should be creating employment opportunities for host community.

6. Tourism promotion programmes should helps to protect and enhance natural and cultural heritage characteristics.

1.1.3 Socio–Economic Importance of Tourism

When we think of effects of tourism on human life we have to take several other factors into consideration. Tourism, in the modern age, has brought about many
changes, particularly in the economic, demographic, socio cultural and technological aspects of human environment.

Certain places are found concentrated by tourism. Even the time tourists prefer is also certain. This makes a heavy load on that certain places and its environment. This, automatically, damages. The places environment in the long run or creates some problems. This requires to be avoided by way of establishing some policies for example, the administrations of such concentrated places must try to reduce this burden by way of legal force. For minimizing this burden and adverse effects on human environment, the government, travel agencies, trade, resident population and holiday visitors can play an important role.

For the last twenty years or so, social and cultural Impact of tourism has been a hot topic of debate. In some way, we can measure and evaluate the economic effects of tourism. But it is not yet possible to measure how far tourism affects the entire culture of certain countries. It is true, particularly to the developing countries. It is not known whether the load of tourism vanishes the local cultural values and replaces it with a new culture. But it is certain that tourism has its positive and negative effects. Therefore, when some country decides at developing tourism, it must consider of maximizing the positive effects and not the negative ones.

Another vital factor requires to be taken into consideration – the nature, composition and value system of various groups responsible for tourism. Tourists belong to different countries, so they have different natures, they come from different demographic, ethnic, social and linguistic kinds. These, too have their effects on tourist places.

The following are the main social and cultural effects on the places concentrated by tourism.

- Demographic Structure, Occupational changes, Transformation of values and demonstrative effects, Changes in traditional life-styles.

Tourism affects the demographic structure of the host places. The population belonging to such places taken to new jobs and so, can make their living completely changed. But at the same time, the local values and traditions give way to some new values and traditions are broken, which for some population, may be hurting.

The new jobs created by tourism, sometimes may be positive, in the sense that people who do not want to stick to their traditional jobs, may take to new and some
might have the desire to attain education. Agro-workers, for instance, may be attracted to new tourism jobs. But, in the process, they might take to new class and social structure. However, there is a danger of taking the better jobs by the outsiders, because, the locals sometimes may be ignorant in certain aspects of tourism. This danger occurs when the requirement of qualified staff exceeds the available numbers. The local population, in such circumstances will have to satisfy on menial work, which, in turn may cause making them frustrated, resentful and even hostile towards tourism.

**Socio Economic and Cultural Impacts of Tourism**

In considering the impacts of tourism on the human environment, several different aspects need to be considered in an integrated approach. For this it is necessary to place tourism in the framework of the great changes in the world in the twentieth century. These are changes in the economic, demographic, socio-cultural and technological spheres.

The impact of tourism primarily depends on the tourist load on any particular environment and its vulnerability. The tourist load is due to the concentration in time and space. “In order to avoid long-term environmental damage or excessive human problems, any policy for tourism therefore, needs to be guided by the concern to reduce the tourist load by an organization of available space which maximizes environmental resistance. By placing tourism in this general context, it will be possible to evaluate the advantages and disadvantage and the risks and pressures it represents for human environment (economic, Social and cultural) and for the different agencies (governments, travel, trade, resident population and holiday visitors) it brings in to play.

During the last two decades, there has been considerable debate on the social and cultural impact of tourism, while there are methods for the measurement and evaluation of economic effects. It is not established whether tourism is a vehicle with a useful demonstrative effect and a source of cultural renewal for a large number of countries, particularly the developing ones, or weather, on the other hand, it is a factor in the erosion of local values and a means of spreading an artificial culture. It seems, however, responsible to suppose that there are both positive and negative effects. Any policy for the development of tourism must, therefore, aim at maximizing the positive effects and minimizing the negative effects.
In assessing the social and cultural impacts of tourism development in an area one of the main considerations is the nature, composition and value system of various groups involved in the contact and the relationship between them. Like different types of tourist, there may be differences of many kinds – demographic, ethnic, social and linguistic within the population.

The main social and cultural impacts of tourism on host societies relate to:

   i) Demographic structure,
   ii) Occupational changes,
   iii) Transformation of values and demonstration effect and
   iv) Change of traditional life styles.

Tourism may affect the demographic structure of the host population. The creation of new jobs affects the size of the resident population. There is a change in the composition of the population which may lead to alteration in the extent of regional urbanization.

Prospects of good jobs in the tourist industry may lead to occupational changes and also increase the desire for educational attainment. Workers from other sectors of the economy, such as agriculture, may be attracted to the industry which has effects on class and social structure. Where the initial requirements of qualified staff exceed the available numbers locally, or when the management of the tourism enterprise is controlled by external agencies, better positions are likely to be taken up by outsiders. The residents may then have to undertake the menial jobs. Such a situation leads to frustration, resentment and even hostility towards tourism on the part of local workers.

**TOURISM IN MAHARASHTRA**

Tourism in India was developed properly only after establishment of central tourist organization which was set up as a result of the recommendations of the Sergeant Committee. It was only after the creation of a separate tourist traffic Branch in the year 1949 that made whole time attention was paid to the development of tourist traffic in India. In Maharashtra the first effects made by state Government towards the development of tourism in the state, was
establishment of Maharashtra tourism Sanchanalaya in 1969. On the basis of ITDC the State Government has established Maharashtra Tourism Development of the Tourism Sector; regional offices are established in different cities such as Mumbai, Pune, Nagpur, Nashik, Kolhapur and Amravati and Aurangabad. To find out new tourist places and their development, guidance, promotions of tourists to visit Maharashtra. There is a Great Scope for tourism development in Maharashtra, Government of Maharashtra declared its first tourism policy in Oct.1993, for the first time tourism sector was given the status of an Industry by giving various Incentive to this sector which is applicable to the industrial sector.

**Tourism Policy of Maharashtra**

1) to plan growth of tourism with the help of experts and local people.
2) To collect information regarding tourist attracts.
3) To achieve the quality of tourist facilities
4) To provide low budget accommodation and transport facilities.
5) To promote local arts and crafts.

**NEW TOURISM POLICY OF MAHARASHTRA**

In 1999 Govt. of Maharashtra has declared the new tourism policy the major features of the policy are-

1) Status of an “Industry” is given to the tourism sector and state is divided into four specific zones A,B,C,D for the development of tourism projects.
2) Concession in land revenue rules and regulations.
3) Various Concessions were given for those are interested to establish heritage hotels and Motels.

With these measures State Government has planned to develop tourism with the help of Maharashtra State Tourism Development Corporation.
1.2 Study Area:

The region under study forms the southern part of Maharashtra. It stretches from 15°43’ to 18° 03’ N. latitude and 73° 33’ to 75° 10’ E. longitude and covers an area of about 24683 Sq. Kms. Administratively it is divided into 26 talukas of three districts of Maharashtra.

The Krishna Basin of South Maharashtra is rich in cultural and heritage sites. Holy centres, sacred sites, centres of pilgrimage, shrines, ashrams are strewn all along the course of main river creating place, space and time utility to people. Dynamic cultural processes of convergence are at work in these different centres creating certain characteristics, institutions and patterns which stimulates large number of people to converge at a particular time. Each centre created its own core and periphery forming a region. People coming into the influence of each centre reflect interconnectedness where a deep sense of conservation, preservation and maintenance is involved through the feeling of attachment.

The physical features of the region are of two types, consisting of river valleys and hill ranges. On the north east it is bounded by Mahadeo ranges for a considerable length with several spurs to the south. On the West lies the great Sahyadri range and thrown out several ranges in the east. In these ranges some points are as high as 900 metres above mean sea level. The Mahabaleshwar is the highest point in the region about 1436 metres above mean sea level. The other portion of the region is by and large between 600 to 900 metres but the central portion of the region, the valley area has an average elevation 300 to 600 metres. The general slope of the region is from North West to South east.

Just as hill ranges from prominent features of the region, streams and rivers are their low level counterparts. The main rivers are Koyana, Warna, Kudali, Vena, Panchaganga, Vedganga, Hiranyakeshi etc. These rivers are flooded in monsoon period annually and create alluvial terraces on both sides of the valley. And these river valley plains have a great significance from the agricultural point of view. Thus, the broad river valley separated by flat topped hill ranges is the characteristic feature of the region under study.
Fig. No. 1.1
1.3 Heritage Tourism in Maharashtra

Modern Maharashtra is not the bustle of industrial and agricultural activity or the frantic pursuit of wealth and progress alone. It is very much a part of the everyday scene, anywhere in the state; there are signs of its great religious, cultural, historical and natural heritage. In Maharashtra, hundreds of shrines of all faiths are found everywhere in the state. The evidences of artistic skills of peoples, who’s cultural go back to thousands of years in a Ajanta and dances in paintings and sculptures, in architecture and handicrafts. Maharashtra displays a fascinating variety of brilliant achievements that is however more evident than in its cave temples and Hindu shrines. All over Maharashtra is the relic of the glorious history of the chh. Shivaji Maharaj the great massive forts on hill tops and historic battleships tell the story of a great nation rise from division of unity.

1.4 Significance of the Study

Tourism is today the world’s largest and fastest expanding industry tourism today presents on unparallel challenges to the economic of development world. The rewards to be gained both financial and sociological are immense cultural and heritage sites have a natural and historical significance of the community. Cultural heritage tourism is important for various reasons; it establishes and reinforces identity, it helps preserve the cultural heritage with cultural heritage with culture as an instrument it facilities harmony and understanding among people, it supports cultural and helps renew tourism.(Richards 1996).

According to Mac Cannell (1992) “Tourism is not just and aggregate of merely commercial activities it is also ideological farming of history nature and tradition; a farming that has the power to reshape culture and nature to its own needs”. In a real sense tourism is creative of culture tourism is generative in that it stimulates the creation and recreation of new meaning for traditional practices. Tourism framing of history and its relationship with narrative of national identity have assumed increased significance with emergence of heritage tourism. (Urry, 1990) cultural and heritage have also become an important means of creating local identities in a globalization world.
Tourism helps to understand the geographical and cultural diversity of regions as well as the viewpoints of others so as bring about a greater national integration. Tourism creates employment in the region, tourism brings socio-economic benefits to the community in terms of faster economic growth and balanced development of backward areas.

Present study is also significant for identification; protection, conservation, preservation and presentation of natural or cultural heritage sites in the Upper Krishna basin of Maharashtra.

1.5 Utility of Present Research Work:

The 21st century will definitely be an era of spiritual and religious zest. Two centuries back religion was the motive force for the development of civilization. Then science and rationalism superseded religion. 21st century will be blended into spiritualism which can be termed as "holiscience". This century will be more religious, humanistic and altruistic. The traditional centres of heritage (Worship centres, Shrines) and new centres of Heritage (Old building Palaces) have a different orientation of locations in Krishna basin of Maharashtra. Thus it is very relevant and interested to find out the Pattern and form of heritage sites on the basis of space-time continuum. Cultural and natural heritage sites are the true representative of the divine order and human deep faith involvement, that is how it may be accepted as spiritual resource, since it has scientific, recreational, aesthetic, economic and sacramental value, imparting peace of mind. Traditionally ‘heritage’ was defined as architecture or archeological or movable object. Now; heritage includes buildings monuments and Natural and Cultural landscapes urban areas, country side and object. Historic environment or place are now commonly terms heritage tourism can also be attributed to historical events that have been dramatized to make them more entertaining. Heritage tourism follows an certain historical events, rather than presenting a balanced view of that historical period. Its aim may not always be the presentation of accurate historical facts; as opposed to economically developing site and surrounding area. In the Upper Krishna basin includes area of the three district of South Maharashtra Namely Kolhapur, Satara and Sangli. These three districts have rich historical background and geographical variety. Different types of natural sites and cultural
historical sites have lot of tourism potential. To find out the significance of the heritage sites for the development of tourism activities as well as to study the tourism infrastructure and tourist profile is main objective of the present study. The study is most useful for the development of tourism and sustainable tourism in the study region.

Present study is very useful for understanding heritage tourism of the Krishna basin of Maharashtra. The study this type still remains unexplored by geographers and social scientists, in this era of strain and stress. The statics and dynamics of religious and spiritual zest is most relevant and essential part of the 21st century. The spatial analysis of the interaction and linkages within and between centres of heritage with act as a benchmark of this study.

1.6 Data Base and Methodology:

Present study is mainly related to heritage sites there spatial distribution and heritage tourism in the Upper Krishna basin of Maharashtra. Heritage centers are divided in natural and cultural as well as tangible and intangible sites. Keeping in view the objective of the study related data and information have been collected from various sources, The present work is based on primary data as well as secondary data. Primary data is collected through intensive fieldwork and questionnaires. Interview technique has also been employed to collected primary data and intimation of heritage site. The empirical data is supplemented by data collected through secondary sources such as census handbook, socio-economic abstract of Maharashtra district. District Abstract Government Publication etc. Theoretical information have been collected through reference books, research papers Journals, publication etc.

In the present work various statistical and quantitative techniques have been adopted for analyzing data related to heritage sites. Cartographic technique Choropleth and Isopleth method have been used for representation of spatial data. Data related to tourism have been shown with bar graphs, divided circle etc. Accessibility and connectivity of heritage sites has been measure by route Matrix Method. Landscape appraisal of heritage centers are supplemental with photographs.
1.7 Objectives of the study:

1) To study the spatial distribution pattern of natural and cultural heritage sites in the Upper Krishna basin.
2) To study heritage sites and tourism development in study region.
3) To analyze the role of infrastructural facilities for the development of heritage tourism.
4) To find out impact of heritage tourism on socio-economic development.
5) To highlight the issues related to heritage tourism and sustainable development.
6) To identify the problems prospects and potential of heritage tourism in the Upper Krishna basin.

1.8 Research Design:

The present study is based on library, laboratory and field work. The study is tentatively consists of eight chapters.

1) Introduction.
2) Review of Literature.
3) Spatial distribution of heritage sites in the Upper Krishna basin
4) Heritage Tourism Infrastructure.
5) Tourist Profile.
6) Heritage tourism and sustainable development
7) Conclusion and Suggestions.

1.9 Limitations:

The present research work has certain limitation, there are as under:

1. Present research work is limited to the Upper Krishna river basin of South Maharashtra (Satara, Sangli and Kolhapur districts).
2. There are many natural and cultural heritage sites. For the present study selected heritage sites will be taken which are well-known or famous in surrounding area (Panch Krishi)
3. For the present research work have been selected both natural and cultural heritage sites.
4. Some heritage tourist centres have been taken for the case studies; they are selected by their importance.

1.10 GEOGRAPHICAL SETTING OF THE UPPER KRISHNA BASIN

1.10.1 Introduction:

The Krishna is a Sacred river flows in South part of Maharashtra plateau. It takes source in the Mahabaleshwar on Sahyadries. Its length in Maharashtra is 282 km and the drained area is 24683 sq. km. The land of the Krishna reveals a treasure for tourism. It has lot of tourism potential. There are many natural and cultural resources create tourist centers. The Krishna basin of Maharashtra is rich in natural scenic beauty as well as cultural and historical glories. The Krishna and their tributaries creating place, space and time utility. Western part of the Krishna basin bounded by Sahyadri mountain ranges, which has many natural heritage sites. Kolhapur, Satara, Karad, and Sangali this town are located in the Krishna basin many cultural heritage sits are found in these cities. The region of the Krishna basin has lot of tourism Potential.

1.10.2 Geographical Location of Study region:

The Krishna basin is a part of south Maharashtra plateau. It stretch from 15° 43' to 18° 03' N Latitude and 73° 33' to 75° 10' E Longitude. It covers 24683 sq. km. The area includes whole of Kolhapur district, Satara, Wai, Koregaon, Khatav, Karad, Patan, Jawoli and Mahabaleshwar tahsil of Satara district and Miraj, Tasgaon, Khanapur, Kavtemahankal, Walwa and Shirala tahsil of Sangali district. Administratively it is divided into 26 talukas of three district of Maharashtra like Satara, Sangli, and Kolhapur.
1.10.3 Physiographical Setting of the Study region:

1. Topography:

Relief and Drainage are the most important geographical elements in the development of tourist centers. Most of the tourist centers are contained in variegated topography. Mountain, Rivers, springs, Waterfall, Seashore, Forest, Grasslands, Caves that are major elements of nature gives the rich Potential for tourism development. Topographically the Upper Krishna basin can be broadly divided into three divisions west to east direction.

1. Hilly region
2. Foot hill region
3. Plain or low land region (see fig 1.2)

The hilly region to the west of the basin includes the main ranges of Sahyandri Mountain. On the north east it is bounded by Mahadeo ranges for a considerable length with several spurs to the south. In these ranges same points are as high as 900 m above mean sea level. The Mahabaleshwar is the highest point in the region about 1436 m height. The average height of other part is 600 to 900 m. The eastern part of region is plain region or low land area which has a average elevation is 300 to 600 meters. The general slope of the region is from North West to South East. The extreme western part of the region rugged topography. The western hilly zone has the Sahyandri scarp; with its major Peaks usually flat topped and intervening saddles. The Upper Krishna basin is a part of the basaltic plateau of Maharashtra, with an average height of 600 meters above mean sea level. The Sahyadrian scarp forming the most prominent feature lies along its western boundary. The extreme western parts are rugged, with flat topped means abutted by escarpments rising several hundred metres above the valley bottoms. Several small streams rise in the Western Ghats and join the Krishna River. The river Krishna controls the drainage regime of the entire area. The Krishna valley is the fertile part of the southern Maharashtra. The physical setting of the region divides the area into three district zones. The western portion is the main Sahyadrian rampart rising over 900 maters forms the western hilly part of the area. The second zones, a central tract is the traditional zone lies in the mid-western part of the area and can be divided into two parts. The third zone includes the eastern part of the area consists of undulating plains.
Fig. No. 1.2

The Upper Krishna Basin
Physiography

INDEX
- Above 1200
- 900-1200
- 600-900
- Below 600

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A) The Western hilly zone:

The western hilly zone has the Sahyadrian scarp, with its major peaks usually flat topped and intervening saddles. In the northern part, the range of Sahyadry is crowned by several peaks. Many cols and saddles occur in the area. Out of these, more accessible ones have become major Ghat routes connecting plateau to konkan region. In the southern part several hill ranges emerge from the main range and move eastward or north-eastwards. Differential erosion has carved out river valleys leaving the harder material as residual hill ranges. From fairly broad base, these hills rise in a series of terraces. The northern part receives 3000mm. to 5000mm. of rainfall, whereas the southern part receives 1200mm. to 3000 mm. of rainfall. The soil is hard and infertile.

B) Central plain of Fort Hill Region:

The central zone or the transitional belt covers the middle part of the region. It includes Koregaon, Karad and eastern part of Satara and Wai tehsils from Satara district, Karveer, Gadchinglaj and part of Panhala and kagal tehsils from Kolhapur district and nearly 41 percent area Sangali district, including Tasgaon, Walwa and part of Kolhapur. The mahadev range emanates from the Sahyandrian complex and stretches east and south east across the northern part of the central zone. The highest point in the area is about 1230 meters. The area receives rainfall between 600 to 1200mm. The soil is medium of deep alluvial or blank soil.

C) The Eastern undulating zone:

The eastern zone lies to the east of central transitional belt is an undulating plain and receives less than 500mm. of rainfall. It includes Hatkanangale, Shirol and part of Kagal tehsil from Kolhapur district and Miraj, kavthemahankal tehsils and Khanapur plateau of Sangli district. The Khanapur plateau receives less than 400 mm. of rainfall.

1.10.4 Drainage System

The Upper Krishna basin is drained by large river is the Krishna. The Krishna is a sacred river followed by Godavari in Maharashtra. It takes its source in the Mahabaleshwar on the Sahyadries and flows through Maharashtra for a
length 282 km. Koyana, Panchganga, Dhudganga, Tarali, Urmodi, Yerla, Warna, Morna, Vedhanga, Hirnyakashi these are the tributaries of the Krishna River. The drained area of Krishna river in Maharashtra is about 24683 sq. km. the Krishna river which controls in large manner the flow and erosion capacity. (fig – 1.3) The main river and there tributaries flow through and drained the Satara, Sangali and Kolhapur District. Facilitating extensive irrigation of land famous for sugar cane cultivation. Most of the tourist centers located on the bank of Krishna and there Tributaries. Manly Wai, Satara, Sangali, Khidraour, and Audumber this tourist places are located on the bank of Krishna River. Kolhapur is famous tourist centers located on the bank of Panchganga River. Mahabalshwar is a famous hill station is the Origin place of Krishna and Koyana River. Narshighwadi is main religious tourist center located on the confluence of Krishna and Panchganga River. Karad is all so located confluence of Krishna and Koyana river.

**Koyana Basin:**

Koyan is a right bank tributary of the Krishna. It drains a part of Jawali, Patan and Karad talukas. The river is harnessed by the construction of a dam from which water is regulated I lower course for irrigation purpose. The water is mainly used for generation of electricity, agricultural and other purpose.

**Warana Basin:**

Warana with its source in the Western ghats, drains the talukas of Shirala, Shahuwadi, Panahala, part of Walwa and Hatkanagle. It stretches South – eastwards and joins Krishna near Sangli. The alluvial tract of the river is widened and deepended in its lower course where the river over flows during heavy percipitation by south – west monsoon.

**Panchganga Basin:**

The rivers Bhogavati, Tulsi, Kumbhi and Kasari constitute the major course of Panchgaga basin which is agriculturally prosperous area of the region. The alluvial soil in river plains have been deposited by the flood water during season. Panchganga falls in the Krishna near Shirol.
Yerala Basin:

The river Yeral with its source in the north flows southwards through the talukas of Khatav, Khanapur and Tasgaon. The river course becomes dry during the summer season has abundant water supply through its subterranean surface in this part. On the south the basin of Dhudhganga, Vedganga, Hirenekashi and Ghatprabha drain the southernmost part of the region. Kolhapur type of weirs has been constructed on these rivers, where water is stored during dry season for perennial crops.

1.10.5 Climate:

The Climatic elements which are intimately related to human life are also important from the agricultural standpoint. Climate is a dominant factor in agriculture in determining what crops to rise and season should be followed. The major climatic determinants of plant growth are light heat, wind and moisture. The rainfall on which the moisture depends is the temperature. The Western part of the region along the Sayhadries is always cooler than the centers and the eastern part which are liable to hot winds during April and May.

The climate of the region is typically monsoonal in character with three well marked seasons. Summer, which from March to May is excessively hot and dry, with an average temperature of about 29°C. The rainy season starts from June and last at the end of October with a wide variation in rainfall amounts from month to month. The winter months are pleasant and healthy. The nights are often chilly with occasional fogs. And the temperature usually ranges between 18°C to 20°C (table 1.1).

Thus, there are great variations in the temperature during the different seasons of the year but these variations in temperature are not that of rainfall. The temperature condition in the region express the amount of energy in the environment available for the conservation of minerals and moisture in the plant issue. a) A Period between December to January records minimum temperature 10.2°C. Hence this period is regarded as cold season. b) Temperature are high during April and May, usually 38.8°C at Kolhapur and Miraj. C) Kolhapur has 24.6°C range of temperature during January whereas Mahableshwar has 25°C
during July. The annual is however, 29.6\(^{0}\)c and 16.2\(^{0}\)c respectively. On the basis of temperature variations, the year can be divided into three seasons: 1) Hot weather season March to May 2) Wet Weather period – June to October 3) Winter weather period – November to February.

Rainfall is a prime important factor, considerable influence the agricultural economy of the region. The rainfall in the Upper Krishna basin is erratic in time and space. Unevenness in its seasonal and areal distribution pases the problem dividing the region suitable zone. The rainfall in the region is mainly confined to the four months (June to October). The main range of Sahyadri receives heaviest rainfall and it decreases towards east. With this variation from west to east the region can be divided into two broad rainfall zones viz. (I) the heavy and sufficient rainfall track and (II) the insufficient and poor rainfall track. (Fig. 3.3)

i) **Heavy and Sufficient rainfall tract:**

Consists of Mahabaleshwar, Jaoli, Patan, Shahuwadi, Panhala, Bavada, Radhanagari, Ajara and Chandagad talukas, forming the western part of the region. The rainfall in this tract exceeds more than 2000 mm. but at Gagan Bavada and Mahabaleshwar it is more than 6000 mm.

ii) **Insufficient and poor rainfall tract:**

Consists of eastern talukas of Koregaon, Karad, Hatkanangale, Tasgaon etc. The rainfall is generally below 1000 mm. The kavthemahankal taluka have very poor rainfall in the region.

Thus, this varied regional distribution and typical concentration has a great influence on the agriculture of the region.
Table No 1.1
Normal Rainfall in Upper Krishna Basin

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Region/ Taluka</th>
<th>Rainfall (In mm.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mahabaleshwar</td>
<td>6226</td>
</tr>
<tr>
<td>2</td>
<td>Wai</td>
<td>710</td>
</tr>
<tr>
<td>3</td>
<td>Jaowali</td>
<td>1723</td>
</tr>
<tr>
<td>4</td>
<td>Satara</td>
<td>1025</td>
</tr>
<tr>
<td>5</td>
<td>Koregaon</td>
<td>706</td>
</tr>
<tr>
<td>6</td>
<td>Khatav</td>
<td>670</td>
</tr>
<tr>
<td>7</td>
<td>Patan</td>
<td>1832</td>
</tr>
<tr>
<td>8</td>
<td>Karad</td>
<td>713</td>
</tr>
<tr>
<td>9</td>
<td>Khanapur</td>
<td>542</td>
</tr>
<tr>
<td>10</td>
<td>Tasgaon</td>
<td>599</td>
</tr>
<tr>
<td>11</td>
<td>Walwa</td>
<td>639</td>
</tr>
<tr>
<td>12</td>
<td>Shirala</td>
<td>862</td>
</tr>
<tr>
<td>13</td>
<td>Miraj</td>
<td>635</td>
</tr>
<tr>
<td>14</td>
<td>Kavthemahankal</td>
<td>635</td>
</tr>
<tr>
<td>15</td>
<td>Shahuwadi</td>
<td>3463</td>
</tr>
<tr>
<td>16</td>
<td>Panhala</td>
<td>2081</td>
</tr>
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<td>Karveer</td>
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<td>18</td>
<td>Hatkanangale</td>
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<td>19</td>
<td>Shirol</td>
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<tr>
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<td>Bavada</td>
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<td>23</td>
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<td>1542</td>
</tr>
<tr>
<td>24</td>
<td>Ajara</td>
<td>3139</td>
</tr>
<tr>
<td>25</td>
<td>Gadhinglaj</td>
<td>965</td>
</tr>
<tr>
<td>26</td>
<td>Chandagad</td>
<td>2696</td>
</tr>
</tbody>
</table>
Fig. No. 1.4

The Upper Krishna Basin
Rainfall Pattern

INDEX
RAINFALL IN mm
ABOVE 6000
4000 TO 6000
2000 TO 4000
1000 TO 2000
800 TO 1000
600 TO 800
BELOW 600

KM12 0 0 12 24KM
1.10.6 SOILS:

The main range of Sahyadri and its spurs are capped by a different kind of rocks, and these rocks have influenced the nature and quality of the soils in the region. With the colour and content of the soil the region is divided into three broad soil zones.

1) The western part covered with laterite soils (Tambadi mati):

This red laterite is mixed with hard murun due hilly nature of the zone. This soil is formed form the Red laterites of the Ghats. It is thin and poor on the hill slopes but gets richer where natural of artificial terracing has accumulated the soils. Laterite soils occur mainly in Bavada, Panhala, Radhanagari, Shahuwadi, Shirala, Mahabaleshwar, wai, Jaoli, Patan, talukas and in the western parts of Ajar, Bhudargad, Karveer and satara. Brown soils are found in Karveer, Radhanagari, and in some parts of Bhudargad and Ajar talukas. These soils are not retentive of moisture and are fit for raising hill millets alone. Paddy is however, grown on them in the valley area. The coarse shallow laterite soil lie in transitional part between laterite and balck soils. The colour ranges from brown to black. There are different in calcium carbonet, phoasphate and potash (Sahastrabudhe 1969). The PH value ranges from 6.5 to 7.1 and the percentage of silt and clay range. From 2.5 to 5.2 and 2.3 to 4.5 respectively. The patches of these soils occure in the river of valley of Panchganga and Vedganga in the South which is dark brown in colour with reddish tint.

2) The central portion with medium to deep black soils:

This is an extensive group of soils that occur roughly 60 % part of the region. The river tracts are largely occupied by this groups which fall under following two groups as suggested by ray choudhary (1955) these are 1) Black Soils.

This soil covers areas of Walwa, Hatkanangale, Shirol, kagal and part of Tasgaon, Miraj, Karveer & Gadhinlagul talukas. It is very fertile in Satara and Kurad talukas. The soil in this part of the region is fairly rich in phosphorus contents.
Fig. No. 1.5
The heavy rains, streams and rivers eroded the uplands and deposited along the bank of rivers when they are in floods. So the Krishna and its tributaries have become the rich valleys with alluvial soils. These soils are deep and highly retentative of moisture. Thus, the soils in the central part of the region are fertile and yield good crops. So it is the rich agricultural tract of the region.

3) Eastern zone of poor soils:

Towards the east the soil is poor with the exception of wide stretches of black soils along the numerous streams and rivers in Koregaon taluka. In the farther east that is in Khatav taluka the soil is extremely poor and shallow. Parts of Khanapur, Tasgaon, and Miraj and kavthemahankal talukas have a poor gray soil.

In these soils mainly bajra, jowar, pulses are grown.

**1.10.7 Natural Vegetation:**

Physically the forest of the Upper Krishna basin are confined to the western part, the western rim and its deciding slopes claim a stunted type of evergreen vegetation. On the eastern fringes the over world consist of deciduous spacies the dry eastern plain claim scanty patch of word growth of land packets. There are three main forest can be distinctly located.

1. The sub Tropical evergreen.
2. The moist deciduous or semi evergreen.
3. The dry deciduous.

Western part of Upper Krishna basin is covered by western hilly region which have hevy rainfall were species are found. Like Jambul, HIrda, Anjan, Kari, Panshi etc. Radhnagri Wildlife sanctuary, chandoli National Park, Koyana wildlife sanctuary, mahabaleshwar the main heritage tourist centers in the western ghat region. All these tourist centers are covered by dence evergreen forestry. This forest is beautiful for wandering and observing Natural beauty. Dajipur Abhyarnya forest it is covered 351 sq. km area in Radhanagari Thasil. The forest of Radhanagari wildlife is rich to no of wild animal like bison, Chital, Bears, Wild dear, etc.
Chandoli National Park is located at the junction of Ratanagiri, Sangali, Satara and Kolhapur District it covers 317.67 sq. km area. Chandoli National Park is an evergreen forest region which is famous for Bio-diversity.

Koyana wildlife sanctuary and Mahabaleshwar are lies in western part of Satara District. Koyana wildlife sanctuary has a dense forest which three major section. This forest has enabled the emergence of diverse variety flora and fauna.

The tropical moist deciduous formation the combination of the made of Jambul, Mango, Nana, Sissum, Kinjal, Umbhar, Biba etc. the dry deciduous species mainly sandal wood bamboo, Hirda, Darda, Babhul etc.

Tourist can see the various types of trees and various wildlife and birds. Dajipur wildlife Sanctuary is famous for Gava (Bison). Natural Vegetation and climate of western part of Upper Krishna basin is favorable for tourism development.
The Upper Krishna Basin
Reserve Forest

Fig. No. 1.6
1.10.8 Population:-

According to 2011 census the area has the total population of 84,23,104 persons and average density of 427 persons per sq. kilometers. The distribution of population is uneven and mostly influenced by the physiographic of the area, the urban population which constitutes 29 percent of the total population is concentrated mainly in the central and eastern parts of the area. The higher concentrated of urban population is in between Sangli, Satara and Kolhapur cities. Most of the southern and western parts of the area have very little urban population. Density of Population shows a great contrast in the western, central and eastern parts of the area. (Table . 1.2). Tahsil wise density pattern indicates that all hilly tehsils including and some drought prone tahsil including Mahabaleshwar, Jaoli, Patan, Shahuwadi, Bavada, Radhanagari, Ajara, Bhudargad and chandged and Khatav, Khanapur Kavte Mahankal have density of population is low and below 250 persons per sq. kilometers. Moderate density of population ranging from 250 to 500 persons is found in Tasgaon, Satara, Wai, Koregaon, Shirala, Panhala and Gadhinglaj tehsils of the area. Six tehsils including Miraj, Walwa, Hatkanangale, Shirol, Karveer and Kagal show higher density of population.
Table No 1.2
Taluka wise Population Density, 2011

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Name of Tahsil</th>
<th>Density of Population/sq²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mahabaleshwar</td>
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</tr>
<tr>
<td>2</td>
<td>Wai</td>
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<tr>
<td>3</td>
<td>Jaowali</td>
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<td>Walwa</td>
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<td>12</td>
<td>Shirala</td>
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<td>26</td>
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<td>197</td>
</tr>
</tbody>
</table>

Source: Based on Census of India, 2011
THE UPPER KRISHNA BASIN
POPULATION DENSITY (2011)

Legend
Population Density (Per Km²)
- Low Density (Below 300)
- Medium Density (300-800)
- High Density (Above 800)

Source: Based on Census of India, 2011

Fig. No. 1.7
1.10.9 Economic Organization:-

The economic organization of the region has shown significant effect on the tourism industry. Fertile soil and the development of irrigation has supported to agricultural development. The Upper Krishna basin of Maharashtra is a bowl of sugar cane. The region forms the core of the sugar belt of India. Since independence development of sugar and other agro based industries brought on overall prosperity to the region. Satara, Karad, Sangali and Kolhapur these are the main industrial centers. All major industrial development is concentrated in the area between Sangali and Kolhapur cities. Economically the Krishna is rich and its impact is shown on tourism industry also. Kolhapur is a famous for production of Gur (Jaggari) in India. Kolhapuri Chhpal is a heritage of Kolhapur export out of country. Sangali the largest trading center for turmeric in India. Sangali is also known for high quality grapes and a grape wine park. Satara is Historical city which was capital city of Maratha empire and Karad is politically significant city in Maharashtra is birth place and work place (Karma Bhumi) of Late Yashwantrao Chavan. Economic Organization of study area has supported to development of tourism activity. Co – Operative movement is also most significant in the Study region. And plays important role in the economy of the study region.