Review of the Literature

1) Smt. Sumedha Dhuri et.al. (2012). Population growth is the most fundamental demographic process with which all other demographic attributes growth determines the density distribution pattern and composition of population. Geographical study of urban growth and demographic characteristics is of vital importance for understanding it’s dynamism as well as for planning at the local and regional levels.

2) Arjun Nanaware, Shri. Magar T.R.(2012). According to census of India (2001) a person aged 7 years and above who can both read and write with understanding in any language has taken as literate. The literacy rates in any arses in any area were determined largely by a variety of Historical social and Economic Factors. Literacy bring about fundamental changes socio economic development. “Application of GIS Techniques to Evaluate Human Resources at gMicro Level” In the recent past Geographical information system (GIS) has become a popular tool in Geographical resources in Baramati tahsil of Pune District.

3) Kumkum Roy and Shivanand Yadav( 2008). Demography a scientific study of human population is related to various subjects in its border sense it is sense it is known as population studies that is multidisciplinary in its nature. Demoagraphic processes are determinants of population change in a Geographical region. Birth rate death rate and migration are major demographic processes.

4) Vinod Kumar – (2011). In 1849 British crown take over the Punjab under its rule. At that time there were nine division in the Punjab namely Ambala, Multan Lahore, Jalandhar and Ranwalpindi. Presently there Amabla division is known as Haryana and during the colonial Period. This area was known as south east Punjab.

5) S.R Nidagundi (2007). Urbanization has to be accepted as a way of life a condition of man characterized by certain attitude. A mode of behaviour, which is an essential part of regional development as well as an important index of national progress and prosperity of human society. The Urbanization can be well studied through the regionalization of an area.

6) S.P. Cholke and C.B. Chaudhari (2011). The concept of population growth or change refers to the growth of the human population in a particular area during a specific period or time.
The growth may be positive or negative. It mainly depends upon three factors. Migration birth and deaths such a growth or change can be measured both in terms of absolute numbers and in terms of percentage.

7) Lakshmana C.M. (2009). During the last two decades these have been a drastic change in the growth rate of child population under age 6 in Karnataka the growth rate of female child population was absolutely negative in most the districts of southern region.

8) Nidagundi S.R. (2007). North eastern and south eastern part of the study area are highly urbanized eastern of south central part are medium urbanized & the southern & central parts are less Urbanized regions.

9) M. Koleswara Rao and K. Sreelakshmmamma (1993). The growth of urban population was not so much due to the addition of new tours as it is due to the enlargement of existing tours at every level.

10) K.M. Kulkarni and Vishakha Bayanwala (1999). The growth & development of public transport infrastructure in Ahmadabad city in terms of number of buses, routes trips, nodes, destinations along with the average distance of a route passenger per bus per day.

11) H.M. Penekar, etc (2011). The Raigad has variety of tourism attraction like nature's beauty, historical, cultural & religious tourists places large because all infrastructure facilities are easily available.

12) Patil R.A.& Kumbhar A.P. (1995). “Demographic change in satara Town” A study of demographic characteristics of satara during 1990-91 reveals that the population has grown consistently except the first and 1971 decades. The density is more in the core areas and western parts. The density of households is higher in the eight words in the old core.


14) Viadhya B.C. (1997). It is necessary to involve and get active participation of all social groups for speedy development of media. The scheduled caste population is one such social group involved in various productive activities. And therefore it is imperative to make in-depth study of these people, their growth and distribution, Here Maharashatra has been selected as case study.
15) Chaudhari S.R and pawar V.B. (1997). The Govt. of India has declared the historical goal Health for all by 2000 AD “To fulfill this goal. The Government of Maharashtra is also trying its best. Especially in the tribal region like Dhule district.”

16) Kadam Avinash (1999). The distribution of Population can be affecting the distribution show variation with respect to space and time. It is also influenced by number of local factors. To understand such factors is the main objective of the present study.

17) Mail K.A., Human resource plays a very important role in the regional development. Balanced human resource development is essential for the balanced development of a region. Present study of Amravati district indicates that spatial differences in human resource development can be classified in to three levels of human resource regions such as a) Dynamic region b) Prospective region c) Problem Region.

18) Aundhkar Advait (1999). Due to urban pressure on the country side is one such phenomenon which is one of the causes of metamorphosis of villages surrounding a city.

19) Jadadish Singh (2008). Our Environment provides as a variety of resources both biotic and a biotic to sustain life support system but their huge consumption across the nation and society following a rapist and centrist tendency to attain Economic growth somehow any how or at whatever cost in a short period has created severe stress and strain on resource.

20) Zodase S.B. (2008). Sex ratio is an index of socio – economic conation of an area and important degree for regional analysis. Sex ratio contribute one of the most radialy observable element of population. It is gaining and increasing objective significance with growing emphasis on the regional planning and regional approach to the population policy.

21) Khan Z.T (2001). This locality needs particular attention of the Government so that hearth care and more hegienic atmosphere may provided.

22) Dutt. Kuntala Lahari & Ghost Ira. (2001). On an over view one can see that the presence of coal mining industry has distorted the sender distribution within local communities in the Raniganj coal belt this is evident from the poor FMRS in all the police station comprising the region.

23) Sinha B.R. K. (2001). After having gone through the analysis of spatial pattern of HRD it has been found that the development of urban male human resources is far better than the development of rural male human resources as almost all district are in high and very high level
of HRD. in case of Urban males as all districts are in the very low and low level of HRD in descending order in case of rural male human resource.

24) Wankhede Deepak and Gajbhiye Jaipraksh (2008). A study of urban water supply in Nagpur city this study are related the water scarcity in Nagpur city problem encountered for water is acute Hence it is necessary to make water storage in tanks & planning be worked out advanced to mitigate water problem.

25) Chadhari S.R.(1996). In the present paper an attempt is made is made to establish the relationship between agro market centers and agricultural land use in Raver tahasil the study area is located in the Tapi valley in North Maharashtra. It is in the north eastern part of Jalgaon district. Raver Taluka ranks first in Production of Banana in the state Along with banana cotton is also production on large scale.

26) Singh Nidhi (2009). The Deccan Geographer In the recent decades the importance of education and elementary education has not only been accepted as a means to non-negotiable and necessary the relevance of education at least up to elementary stage is no more in question.

27) Tah Sandi (2009). The Deccan Geographer Urbanization is a process indication growth of urban centers in number as well as population inhabiting in these center .In India the rate of Urbanization is not even throughout the national periphery. Among many other states West Bengal shares a significant portion in the scenario of urbanization in India both in the proportion of urban population to the total population.

1.2 Study Region Location of the Sangli District
Sangli district is located in the western part of Maharashtra. It is bounded by Satara district and Solapur district to the north, Vijapur district to the east, Kolhapur and Belgaum district to the south and Ratnagiri district to the west. Sangli district is situated in the river basins of the Warna river and the Krishna river. It lies between the North latitudes of 16°0.4' to17°0.1' and the east longitudes of 73°43' and 75°00'.

Sangli district located in the state of Maharashtra along its western part. The district is mainly agricultural in nature, and a total of 1,20,302 hectares are under cultivation in the 2011. Among the major crops grown in the district are bajra, jowar, wheat, rice, gram, sugarcane, groundnut, turmeric, soybean, pomegranate and grapes. At last count, Sangli district had 3 Sub-Divisions namely Miraj, Walwa (Islampur) and Khanapur (Vita), 10 Talukas and 731 villages and towns.

Population
The population of the district as per 2011 was 2820575 of which 47.49% in rural and 25.51% in urban population out of this total population 1435972 was male and 1384603 were female. In the decade 2010-11 the population of Sangli district is declined by 9.18%. The
growth rate is lower than the Indian average. Urban population is increased by 25.51% which is below than the national average. The growth rate of rural population is lower than the urban population. The slow rural growth and decline of rural population is a result of migration. The highest decadal population growth of total and rural population recorded in 2000-11 in the district. The density of population in any region indicates the pressure on land. The density of population in Sangli district was 329 per sq.km in 2011.

**Historical Background of the Sangli District**

There are no direct references to Sangli before 1801. Historical references since 1024 show areas called Mirinch i.e presently Miraj and Karhatak i.e. Karad under the areas ruled by Gonk, a king of the Sillahara dynasty of Konkan, and Sangli was included in these areas. The first clear and direct reference to Sangli can be found in the Sanskrit poem ‘Shiv-Bharat’. Historical references since 1024 show areas called Mirinch for example presently Miraj and Karhatak for example Karad under the areas rules by Gonk, a Shilahar king and Sangli was included in these areas. During the time of Chatrapati Shivaji Maharaj, his Sarnoubat Netaji Palkar captured Sangli, Miraj and Brahmnal from Adil shah in 1659. In the times of the Peshwas, Indroji Kadam and later Sardar Patwardhan became the ‘Jagirdar’ of this region.

There are several interesting stories as to how the name Sangli originated. One of them is that, there were six Gallies i.e. lanes on the bank of the Krishna River hence the name "Sangli". The second one is that, the name of the village was Sangalki in the Kannada language so in the Marathi language it became Sangli. Till 1801, Sangli was included in the Miraj Jahagir. Another belief is that the confluence of Warna and Krishna rivers is near Sangli village. The word for confluence in Marathi is ‘Sangam’ and the Sangli is the distorted version of the word Sangam. An interesting fact was that in 1768, Haripur a nearby village was bigger than Sangli having population of 2000, whereas Sangli had population of 1000 only. The First Chintamanrao Appasaheb Patwardhan established a different principality with Sangli as the capital city. Kundal, the region around Sangli, was the capital of the Chalukyas. Kundal was an ancient village, around 1,600 years old. Kaundanyapur (its old name) was a part of Karnataka. Pulakesi chose Vatapi (Badami in Karnataka) as his capital. Kundal was home to freedom fighters like Krantisigha Nana Patil, Shamrao Lad, Captain Ramchandra Lad, G.D. Lad, Shankar Jangam, and
Housabai Jangam. **Marathi** is main language spoken. **Kannada** is also widely spoken here. We do not find any direct references of Sangli before 1801.

**Physiography of Sangli District**

The physical settings of Sangli district shows a contrast of immense dimensions and reveals a variety of landscapes influenced by relief, climate and vegetation. The climate ranges from the rainiest in the Chandoli (Shirala) region, which has an average annual rainfall of over 4000 mm to the driest in Atpadi and Jath tehsils where the average annual rainfall is about 500 mm. Maximum temperatures in the district reach 42 degree Celsius, whereas the minimum temperature is usually around 14 degree Celsius. The vegetal cover too varies from the typical monsoon forest in the western parts to scrub and poor grass in the eastern parts. The main rivers of Sangli district are Warna and Krishna.

The Krishna is one of the three largest sacred rivers of southern India. Approximately 105 kms of the river course falls inside the district. Morna, Yerla, Manganga, Agrani, Nanni and Bor River are small feeder rivers of Krishna. Warna is the largest tributary of the Krishna in the district. Sangli District is located in the western part of Maharashtra. It is bounded by Satara and Solapur districts to the north, Bijapur District, Karnataka to the east, Kolhapur and Belgaum, Karnataka districts to the south, and Ratnagiri district to the west.

Sangli district is situated in the river basins of the Warna and Krishna rivers. Other small rivers, such as the Warana and the Panchganga, flow into the River Krishna. Land in the region is suitable for agriculture. Location

**Size** – The area of Sangli district is 8572 sq/km with 22,09,488 population as per the 1991 census. The density of population is 258 per sq/km for which is slightly higher to compared 257 per sq/km for the state as a whole. It ranks 21st & 15th in the terms of area & population respectively. The headquarters of the district is at Sangli, a city with a population of 226510 lakhs. It is well connected by road as well as rail.
Relief-

**Hills** – The Sahyadri & the Spur of Mahadev ranges which are located in the extreme western part of the district. These ranges have a height of between 700 to 1100 meters and are worked by deep forest.

**The plateau** – The plateau are situated in the eastern part of the district and plays the role of divider of water between Krishna and Bhima basins. The height of plateau are generally in between 600 to 800 meters, where found the spatches of vegetation.

**The basins** – there are found two main basins of Krishna and Bhima river. Basins have a height of between 500 to 600 meters, out of this two basins Krishna are well developed, unwanted and industrialized.

**Drainage** – The drainage pattern of the district is concerned with Krishna, Varana, Yeralu, Agrarie and Bor river. Total length of the Krishna river in district is 108 km. Krishna is one of the greatest river of the southern India. It rises to the eastern part sahyadri and falls into Bay of Bengal.

**Climate** – generally climate of the district is dry throughout the year except south-west monsoon season. Cold season are found November to middle February. Eastern part of the district is holter than west. June to September is the south-west monsoon season and October and November are the post monsoon season. The annual average of the rainfall of district is 692.4mm. The western part gets over 2000mm rainfall while the eastern part of the district rainfall recorded 500mm. In the western part of the district climate is cool and healthy in hot season but found chilly during the rainy season.

**Soil** – Geography Sangli district is the part of Deccan Trap. This trap is uninformed with besalt and are dark gray or greenish gray in colour. The soils of the district are derived from underlying besalt and under different climate conditions shows variation in texture and structure. Black soils are found in the river basin and shadow red or gray in the hilly areas. Laterite soil- western part of the district is occupied by laterite soil, where found the heavy rainfall. This soil is poor in fertility and mainly suitable for rice hill millets. Brown soil found on hill slopes, areas in heavy rainfall region of the district. Krishna valley is full of black soil. It is very fertile soil, highly moisturize and yield number crops.
Shadow soils occur in the extreme part of the Kawathemahankal and Jath taluka. It is light brown in colour and loamy sounds. These soils are poor in plant nutrients unless reclamation measures are adopted. Normal yields of crops are not-obtained.

**Natural Resources**

**Minerals** – Economically Deccan trap is poor due to lack of minerals. Minerals are important for chemical and industries, transport facilities for example, road, rail, sugar factories, food industries. Clay is useful for bricks and tiles occupation.

**Fisheries** – Total 914 small lakes are in the Sangli district. These lakes provides good scope for fishing activities. Shirala, Atpadi and Jath tahsils created employment to the people. In 1988-89 there are 43 fisheries societies.

**Vegetation** – The vegetation area in the district has distributed among villages accounting for 34.72% of the villages, in the district. The total area under forests in this district is about 3,034.95 hectares as per the position in 1988. Khanapur, Jath and Shirala together account for ¾ of the total forest area of the district. The major forest products timber and firewood. Other products include Hirda, Snekekai, Tadimodi, grazing grass etc.

**Land use pattern** – The ministry of food and agriculture governments has recommended the standard pattern of land use classification for the maintenance of records. The data furnished here are based on village record; as per 1989. The total geographical area of the villages as noted in column 3 of the villages directory. Sometimes the exact area of the villages and land use pattern have not been made available by the district authorities and the some have not been shown for Sangli district there are 5 such villages.

**Irrigated land & ill irrigated** – The concept of irrigation means source of water supply within a reasonable distance and an arrangement to regulate the supply of water according to the day to day needs of crops. Naturally, all areas are cultivated under purely rainfed, conditions are treated as unirrigated lands, sources of irrigation in the district are as follows: Out 731 inhabited villages 55 villages irrigation is done by well. Irrigated by river and well 38.08% and 50.16% respectively. Private canal 0.24%, tabs well 0.02%, tank 0.04% and government canal 3.98%.

Total cultivated in the district is 72.10%, Miraj(87.68%), Tasgaon(84.46%), Khanapur(73.86%), Atpadi(74.01%), Walwa(84.00%) have the % of the cultivated area.
Kavathemahankal, Shirala and Jath tahsils are below the district average percentage of cultivated area.

**Brief note on town directory:**
There are 8 towns in the district, out of these 2 towns are treated as census towns. Mandur, Madhavnagar 1991 and 1971 respectively. The remaining towns given urban status since 1901 except Vita towns, which was treated as town in 1911. 7 towns having drainage facilities. The road length in towns vary from town to town. Astha, Madhavnagar, urban Islampur, Miraj, Tasgaon and Vita is the nearest cities with one lakh or less population. madhavnagar , Miraj and Sangli towns have railway stations.

In the state slums in class-I(1 lakh & above) and class-II(50000 to 99999) are notified by competent authorities.

Sangli and urban Islampur has polytechnique institutions and engineering colleges while medical colleges are available in Miraj and Sangli towns only. In all towns there are banking facilities. Facilities of stadium is available in Miraj and Sangli towns. Cinema theatre are available in all towns except Mandur. Detailed information regarding commodities imported , exported and manufactured is given in the statement VI of town directory

**Industries** – Sangli is one of the developing districts in the state, the increase in factories numbers are growing 377 in 1982 to 547 in 1989. Industries leather industries, engineering workshops, sugar factories are registered and give jobs to employees working in central, state, and local bodies, provide employment to about 41,000 persons for 1.88% of the state employees. There are 7 co-operative sugar factories and about 4208 workers on temporary and 2465 permanent workers.

**Trade & commerce:** The Sangli is well known for sugar, milk, food and grains etc. sugarcane is mainly grown in Astha and Miraj in the district, production, exported to the Bombay, Pune, Thane etc. The chief important articles are cloth, edible oil, tissue paper, petroleum products, medicals etc, apart from the weekly markets all the eight towns have important trade centers also.
Workers in trade and commerce – As per the census 1991 total workers 56517 are engaged in trade and commerce. There are 17 banking institutions per 100,000 population in the district. About 385 banking institution working in urban areas and 61% were working rural areas.

Fairs and Tourist centers – Most of the fairs held in the district are associated with deities and religious festivals. February to May are months of fairs, but in Shirala tahsil ‘Nag-Punchami’ celebrated in August (Shrawan), Ganpati fairs Dargah Urus at Chintamani Wangi, viroba fair at Zare, both in Khanapur tahsil. Shri Yellamadevi fair at Jath etc