Unit – II

Geographical Setting of the Study Area

2.1 Introduction

Bangalore is the well known capital of Karnataka situated on southern Deccan plateau of Karnataka. City has been providing a shelter to more than 6 million people out of the estimated population of Karnataka. The heart of Karnataka, Bangalore is acknowledged worldwide for its Information technology. Bangalore has many fresh water bodies and also water reservoirs, the largest being Madivala Tank, followed by the Sankey Tank. Some of the fresh water bodies are the Ulsoor Lake and the Hebbal Lake. The government has tried to use every natural resource the city has got so that the capital can be made prominent. Keeping in the mind the vegetation of the city, the government has also set up the PGC, the Peninsular Gneissic Complex, which is the leading rock unit. Coconut trees, large deciduous canopies are also found a lot in the city, which makes the city of Bangalore a treat to eyes. A bustling city today, Bangalore often reminisces about its days as a sleepy cantonment area of the British - tree-lined avenues with quaint sounding names like Richmond Town and Victoria Layout hint that the city does get sentimental about its past. The Bangalore Palace, the Attara Kacheri (High Court), St. Marys Basilica, Tipu’s Palace, ISKCON Temple and the Bull Temple highlight Bangalore’s many personalities, and are monuments that mark its journey. Now Bangalore is known for its thriving industry and as an IT hotbed. The Lonely Planet rating the city the No.3 destination in the Best Travel Cities, 2012’ has made Bangalore an overnight star, if it wasn’t one already. Almost at the heart of South India, this cosmopolitan city is everything a world city needs to be Pleasant weather, pleasant people, gardens & parks, natural lakes, architectural landmarks, shopping malls, the best restaurants and pubs in this part of the globe, business opportunities, Bangalore is the ideal gateway to India and beyond. And for the tourist, a lot of pleasant memories. Bangalore today is Asia's fastest growing cosmopolitan city. Bangalore is the ideal gateway to India and
beyond. Bangalore offers something for everyone—music and dance concerts (Western and Indian), dramas, exhibitions, carnivals, conferences and more.

2.2 Bangalore – Geographical Location

Bangalore lies in the southeast of the South Indian state of Karnataka. It is in the heart of the Mysore Plateau (a region of the larger Precambrian Deccan Plateau) at an average elevation of 900 m (2,953 ft). It is located at 12.97°N 77.56°E and covers an area of 741 km². The majority of the city of Bangalore lies in the Bangalore Urban district of Karnataka and the surrounding rural areas are a part of the Bangalore Rural district. The Government of Karnataka has carved out the new district of Ramanagara from the old Bangalore Rural district.

The topology of Bangalore is flat except for a central ridge running NNE-SSW. The highest point is Vidyaranyapura Doddabettahalli, which is 962 m (3,156 ft) and lies on this ridge. No major rivers run through the city, though the Arkavathi and South Pennar cross paths at the Nandi Hills, 60 km to the north. River Vrishabhavathi, a minor tributary of the Arkavathi, arises within the city at Basavanagudi and flows through the city. The rivers Arkavathi and Vrishabhavathi together carry much of Bangalore's sewage. A sewerage system, constructed in 1922, covers 215 km² of the city and connects with five sewage treatment centres located in the periphery of Bangalore.

In the 16th century, Kempe Gowda I constructed many lakes to meet the town's water requirements. The Kempambudhi Kere, since overrun by modern development, was prominent among those lakes. In the earlier half of 20th century, the Nandi Hills waterworks was commissioned by Sir Mirza Ismail (Diwan of Mysore, 1926–41 CE) to provide a water supply to the city. Currently, the river Kaveri provides around 80% of the total water supply to the city with the remaining 20% being obtained from the Thippagondanahalli and Hesaraghatta reservoirs of the Arkavathi river. Bangalore receives 800 million liters of water a day, more than any other Indian city. However, Bangalore sometimes does face water
shortages, especially during the summer season- more so in the years of low rainfall. A random sampling study of the Air Quality Index (AQI) of twenty stations within the city indicated scores that ranged from 76 to 314, suggesting heavy to severe air pollution around areas of traffic concentration.

Bangalore has a handful of freshwater lakes and water tanks, the largest of which are Madivala tank, Hebbal lake, Ulsoor lake and Sankey Tank. Groundwater occurs in silty to sandy layers of the alluvial sediments. The Peninsular Gneissic Complex (PGC) is the most dominant rock unit in the area and includes granites, gneisses and migmatites, while the soils of Bangalore consist of red laterite and red, fine loamy to clayey soils. Vegetation in the city is primarily in the form of large deciduous canopy and minority coconut trees. Though Bangalore has been classified as a part of the seismic zone II (a stable zone), it has experienced quakes of magnitude as high as 4.5.
Fig. No. 2: Contributing factors for the tourism in Bangalore
The research study considers the present situation, the various growth trends at work and future issues. It integrates key influencing factors including the City's natural environment, its heritage, and issues of economic efficiency and social equity for tourism establishment in Bangalore.

The Structure Plan is based on the governing principle of “Structured Continuity.” This principle directs that development in existing urbanized areas and new extensions must be “structured” spatially and functionally to avoid unmanaged urban sprawl. Existing urban patterns must be strengthened through urban renewal and proposed development must be “continued” by selective extension of already developed areas. This will avoid new developments in distant outskirts that are not serviced by infrastructure and transportation.

2.3 Five Concentric Belts of Bangalore city

The heart of the city consisting of the historic Petta, the Administrative Centre and the Central Business District;

Peri-core region with older planned residential areas surrounding the core area;

Inner expansion region of the City flanking both sides of the Outer Ring Road, a portion of which lacks services and infrastructure facilities and is termed as a shadow area;

Outer expansion area with some vacant lots and agricultural lands; and

Green belt and agricultural area in the City’s outskirts including small villages.

Linearly along major radial roads (national/state highways) where there is a concentration of industrial, services and logistic activities.

Centres within the City which have high density compact urban development with a concentration of mixed uses that will serve the surrounding residential areas.
The transportation strategy includes specific strategies for public and private transport infrastructure that will serve as an important tool to structure development.

2.4 Economical Importance

Bangalore’s Rs. 52346 crore (US$9.6 billion) economy (2006–07 Net District Income) makes it one of the major economic centres in India, with the value of city's exports totaling Rs. 43221 crore (US$8.0 billion) in 2004–05. With an economic growth of 10.3%, Bangalore is the second fastest growing major metropolis in India, and is also the country’s fourth largest fast moving consumer goods (FMCG) market. The Forbes magazine considers the city as one of “The Next Decade’s Fastest-Growing Cities”.

With a per capita income of Rs. 74709 (US$1,400) in 2006–07, the city is the third largest hub for high net worth individuals and is home to over 10,000 dollar millionaires and about 60,000 super-rich people who have an investable surplus of Rs. 4.5 crore (US$828,000) and Rs. 50 lakh (US$92,000) respectively. The headquarters of several public sector undertakings such as Bharat Electronics Limited (BEL), Hindustan Aeronautics Limited (HAL), National Aerospace Laboratories (NAL), Bharat Heavy Electricals Limited (BHEL), Bharat Earth Movers Limited (BEML) and HMT (formerly Hindustan Machine Tools) are located in Bangalore.

In June 1972 the Indian Space Research Organization (ISRO) was established under the Department of Space and headquartered in the city. Bangalore is called the Silicon Valley of India because of the large number of information technology companies located in the city which contributed 33% of India’s Rs. 144214 crore (US$27 billion) IT exports in 2006–07. Bangalore’s IT industry is divided into three main clusters — Software Technology Parks of India (STPI); International Tech Park, Bangalore (ITPB); and Electronics City. UB City, the headquarters of the United Breweries Group, is a high-end commercial zone.
Infosys and Wipro, India’s second and fourth largest software companies are headquartered in Bangalore, as are many of the global SEI-CMM Level 5 Companies. The growth of IT has presented the city with unique challenges. Ideological clashes sometimes occur between the city’s IT moguls, who demand an improvement in the city’s infrastructure, and the state government, whose electoral base is primarily the people in rural Karnataka.

The encouragement of high-tech industry in Bangalore, for example, has not favored local employment development, but has, instead, increased land values and forced out small enterprise.

The state has also resisted the massive investments required to reverse the rapid decline in intra-city transport which has already begun to drive new and expanding businesses to other centres across India. Bengaluru is a hub for biotechnology related industry in India and in the year 2005, around 47% of the 265 biotechnology companies in India were located here; including Biocon, India’s largest biotechnology company.
Fig. No. 2.3 Location of the study area
2.5 Environment

The development path adopted by Bangalore is neither sustainable nor equitable. And it’s leading to widespread degradation of environment. On the tip of the iceberg of environmental issues facing Bangalore today are impacts of climate change, water pollution and rapid unplanned urbanization. These are some of the pressing challenges that Bangalore is facing and that will hamper its rush for growth. The Bangalore metropolitan area, referred to as the Garden City of India has an abundance of fauna and flora. The city has two nationally renowned botanical gardens—Cubbon Park and Lal Bagh.

Once upon a time, walkers in the famous parks used to enjoy the fresh air during their walks. Today, a majority of them are forced to wear pollution masks during their morning and evening walks. Rapid industrialization and a surge in the number of vehicles have made Bangalore explode into metropolitan nightmare. Due to the unscientific disposal of waste, pollution levels have risen to unprecedented levels in Bangalore. Experts point out that apart from the industrial and vehicular pollution, the
waste disposal management by hospitals too is in a pitiable condition. The Karnataka State Pollution Control Board has found that several industries and hospitals do not have a proper solid waste management system. Statistics show that the ambient air quality in Bangalore is deteriorating rapidly. The amount of nitrogen oxides in the air is 34 micrograms per meter cubed of air, which is quite high.

The amount of suspended particulate matter is 200 microns per meter cubed of air, also high. There are also 44 microns of Sulphur Dioxide per meter cubed of air, another high statistic. Every year the numbers seem to go higher and higher and the average person inhales more and more impurities. In his study, Urban Vehicular Pollution Control-Focus Bangalore, environmental engineer Ameer Ahmed lists out some of the most polluted spots in the city where suspended particulate matter (SPM) is high. These include areas around Victoria and Bowring and Lady Curzon hospitals, Jayadeva Institute of Cardiology and roads close to Bishop Cotton Girls' School. Tumkur Road, Mysore Road and K.R. Market also recorded high SPM levels.

It is a question of reducing pollutants emitted from different types of vehicle engines and of trapping the pollutants. Using cleaner grades of conventional fuel such as petrol and diesel, burning them efficiently and neutralizing the pollutants before they are released are all part of the Bharat II emission norms already followed by automobile manufacturers. Bangalore could soon become concrete city. Bangalore has lost around 50,000 trees in recent years to infrastructure development and nearly 300 more will soon go for the Metro rail project. Environmentalists and citizens fear that rampant felling could cost the city its 'green heritage' tag. Their fear is supported by heaps of logs of axed trees and tree stumps dotting roads across Bangalore.
A majority of the trees in the city are big to medium canopy trees with girths above 40 cm. Coconut trees form a large minority of the tree population in the city. As many as 279 more trees will soon be axed down for ‘Namma Metro’ - the upcoming metro rail in central Bangalore, especially near the legislative assembly building Vidhana Soudha and Central College roads. In the past two to three years alone, Bangalore has lost around 50,000 trees, felled for developmental activities, states a report of the Environment Support Group (ESG). Also, not only has the city's green beauty been destroyed due to developmental works, but the loss of green cover is also harming the Karnataka capital's climate. Bangalore's weather is changing fast and is no more pleasant as it was earlier. If trees continue to be chopped off rapidly, the city's average temperature will rise by two-three degrees Celsius in the coming years.

Many of the lakes in the city have 'disappeared' along with their water-spreads due to the rapid and unbridled urbanization here, a study said. The study, published by city-based Institute for Social and Economic Change (ISEC), paints a grim scenario with further worsening of the water-bodies if the State government fails to get its act together.
The report also points out that there has been an increase in flooding. Reclamation of lakes for various developmental activities has resulted in the loss of inter-connectivity in Bangalore district, leading to higher instances of floods even during normal rainfall. Many lakes were encroached for illegal buildings (54%). Field surveys (during July-August 2007) show that nearly 66% of lakes are sewage fed, 14% surrounded by slums and 72% showed loss of catchment area. Lake catchments were used as dumping yards for either municipal solid waste or building debris.

2.6 Social Condition

Bangalore's worldwide rank is very low at 141st position in a list of 221 cities globally in terms of standard of living, compiled by the 'Quality of Living Survey - Worldwide Rankings, 2011' by the global HR (human resources) consultancy major Mercer. Bangalore is a verb that denotes job loss through off-shoring around the world. The glitz of the city's towering tech campuses and the hype over its global IT city status hides the shameful fact that in the Bangalore of today, one in three people lives in a slum.

The number of slum dwellers in a decade has risen from 23% in 2001 to nearly 30-40% of the city's current population. According to BBMP, city hosts 569 slums — of these, 228 are notified and 341 unauthorized. Nearly 1.7 lakh households live in these slums. Bangalore East, at 127, has the largest number. BBMP commissioner Siddaiah said that a minimum of 30% to 40% of Bangalore's population is living in subhuman conditions in slums. Siddaiah has arrived at this figure after pounding the city streets day and night. "Traditionally, Bangalore has had a slum population. More than 1,000 slums can be found in the city if we do a detailed analysis. But not all of them have been notified as slums. Some have been facilitated with good drinking water, drainage and other civic amenities. But most of the slum dwellers are living in appalling, subhuman conditions. We need to take up development works here," Siddaiah said. As per Census 2001, 23% of Bangaloreans lived in slums. Bangalore's slums vary in size and population. Ambedkar Circle slum has just 60 persons, whereas Pillaganahalli slum, near Gottigere (in south Bangalore), has over 2,258 households. Though Ullal is the second largest in terms of households (2076),
it's largest in terms of population with 10,380. The third largest is Ashraya Nagar slum located in Rajarajeshwari Nagar with 1,379 households. High migration lead to higher slum population. The rising number of slum dwellers in Bangalore and overall in the state is mainly on account of rising migration. "Migration and urban poverty are directly proportional to each other," says S Madheswaran, professor at Centre for Economic studies, Institute for Social and Economic Change (ISEC). "As per the National Sample Survey conducted in 2007-08, the net migration in Karnataka is +10, when it’s -7 in other states, and in Kerala it is -44." This means that in Karnataka for every 10 who move out, 20 move into the state. "Migration is more among labourers in Bangalore and this directly leads to urban poverty and, in turn, increases the slum population," said Madheswaran.

Bangalore has an active night culture and is home to over 200 clubs and bars. The city is also referred to by many as the "Pub Capital of India". Since the recent explosion of software companies in Bangalore, it has seen a rise in the number of western-style Malls, such as The Forum, Bangalore Central and The Garuda. Eating out is another passion for Bangaloreans. The income gap between the privileged and the deprived is tending to widen further. While wage levels in the modern services rise every year, those in the informal sector tend to stagnate. A junior software specialist can currently earn about Rs. 10,000 per month, while the salary of a senior manager exceeds Rs. 500,000 exclusive of all perks and other incentives (Rs. 10,000 are equivalent to about 230 US-Dollar). In comparison, many workers lack a steady and sufficient income. Salaries in the informal sector are mostly paid on a daily or weekly basis. A daily-waged electrician or mason will earn about Rs. 4,000 per month at the most, an unskilled laborer about Rs. 1,500 to 2,000 and a female domestic helper only Rs. 300 to 1,000. This is completely insufficient for satisfying the basic needs of a family.

The increasing income disparities are accompanied by diminishing legal rights and rampant corruption. Little can be done in day-to-day life without bribery of some form or another. Members of the underprivileged urban population, consisting of the downtrodden Dalit and Advice, of lower Vaishya (Hindu caste of artisans) and Shudra (Hindu caste of agriculturalists) and of many people of Muslim faith are
increasingly unable to enforce their legal rights because they are not in the position to play the game according to the rules set up by the urban elites. Rising costs of living for basic foods, fuel, housing and public transport produce further losses of purchasing power which mean additional risks for their fragile livelihoods. In the meantime a promising new urban middle-class has emerged. These socioeconomic 'climbers' consisting of, for example, the new computer elite or the self-employed and freelance workers of the modern service sector profit from the new. Bangalore because they are now in the position to influence the city's political agenda. This section of 10 to 15% of the urban population is increasingly adopting westernized lifestyles and consumption habits and is always inclined to be motivated by self-interest. This urban stratum is not homogenous, however. It is split into many reference groups with varying socio-economic backgrounds and interests. The resulting conflicts are reflected in vigorous rivalries for access to prime land, to the best private colleges and to the highly desirable employment opportunities in the modern service sector. Because of this merciless competition, many of the lower middle-class families are doomed to economic failure, which leads to tendencies of political radicalisation. This trend of social fragmentation catalyses urban conflicts that find expression in an increasing number of crimes and communal clashes and in violent conflicts between the supporters and opponents of the globalisation project.

2.7 Identification of the Problem

Bangalore Metropolitan Region located in top and amidst deccan plateau of Karnataka. The distribution of seasonal rainfall in both surface water and groundwater storage in the region made very rich in vegetation and has become place of attraction for the tourists. Bangalore Metropolitan Region has got hundreds of lakes in and around making the place spectacular. Physical features in and around Bangalore Metropolitan Region have enhanced the beauty of the region by attracting information technology and bio-technology into Bangalore which in turn created huge employment opportunities. Bangalore Metropolitan Region has also received huge population from its surrounding to increase urbanization in the process vehicular population has also been increased. Thought the city has developed in many aspects but it has failed to attract tourists and generate more income from it. At the same time the employment created by tourism industry is also negligible as
compared to other global cities. This has resulted in scarcity of knowledge, awareness and tourism infrastructure in the city.

Hence systematic study of sustainable tourism in Bangalore Metropolitan Region is a main goal of the present research. GIS techniques have been used in an integrated manner to achieve the goals set.

2.8 Societal Benefits

It is assumed that the results acquired from the study will surely smooth the progress of answering the multi-faceted crisis associated with tourism in Bangalore Metropolitan Region as described here under:

- Infrastructure related to tourism development problems will be addressed.
- Optimum traveling will be proposed for the management of the tourism in the study area.
- The final results give an input for Bangalore Metropolitan Region planning.
- Findings help in building local assessment capacities to enable to design and plan of involvement to mitigate sustainable tourism management practices in the region.
- Tourism industry is one of the important economic activities for planning, monitoring, and evaluation for regional development. The assessment of changes in tourism development and pattern will be helpful for researchers, authorities, and tourism departments for further developmental plans.

2.9 Significance of the research

The receipts from international tourism can provide a valuable source of earnings for many countries both developed as well as developing. Although tourism is sensitive to the level of economic activity in the tourist generating countries, it provides more stable earnings than primary products. The income from tourism has tended to increase at a higher rate than merchandise export in many countries. The balance of payments shows the relationship between a country’s total payments to all other countries and its total receipts from them. Tourism as a source of income is not easy
to measure, at least with any degree of accuracy. Development and improvement of infrastructure is another important benefit. The benefits from infrastructure investments, justified primarily for tourism – airports, roads, water supply and other public utilities may be widely shared by the other sectors of the economy. Another important domestic effect relates to the regional aspects of tourist expenditure. Such expenditure is of special significance in marginal areas, which are relatively isolated, economically underdeveloped, and have unemployment problems.

The innovations of this proposed research is that it will deal with these matters in a substantial and considered manner, thus providing a stage for action plans. In addition, this may also provide a ‘demonstration effect’ for other cities to boost tourism activities, and thus promote the use of GIS as a tool for tourism assessment to update. It would be an appreciable contribution from the results and findings of this research that would intend to solve practical issues faced for tourism in Bangalore Metropolitan Region.

2.10 Aims and Objectives

The main objectives of the study follow as under:

1. To demarcate potential areas of tourism in and around Bangalore Metropolitan.
2. To develop accessibility for the tourists.
3. To create database and information.
4. To develop tourism eco-friendly through GIS.
5. To develop nearest neighbour charts for tourists flow.
6. To study the determinants of tourism development in Bangalore Metropolitan Region;
7. To suggest community based tourism planning and development.

2.11 Data Source Collected

For any research, discussion and usage of data is crucial prerequisite. The research is based on both the primary as well as secondary data sources. The primary data has been gathered through personal field investigation in Bangalore Metropolitan
Region. For this, an extensive fieldwork has been conducted by the researcher. The secondary data has been extracted from various public and non-public departments, such as Karnataka State Tourism Department, Various organization of tourism spread across India.

2.12 Methodology Applied

To accomplish set goals GIS techniques have been used. Remote sensing and Survey of India Toposhets have been merged to get Bangalore Metropolitan Region map. The database has been created using ArcGIS software and linked with spatial data so as to arrive at meaningful findings. Potential tourism development in Bangalore Metropolitan Region has been fulfilled through ArcGIS, which is designed to restore, manipulate, retrieve and display spatial and non spatial data with its efficiency.

2.13 Geographical setting of Bangalore City

Bangalore, the Capital of Karnataka, is the fifth largest metropolitan city in the country in terms of population. BBMP was formed in 2007, by amalgamating the erstwhile Bangalore Mahanagara Palike (BMP), surrounding eight smaller urban local bodies and 110 villages. BBMP now spans over an area of 800 sq km. Bangalore is well known – nationally and internationally – as a destination of choice for high technology industries, particularly in the IT/ITES and Biotechnology sectors. It is a city that has transformed itself from a “pensioners’ paradise” to a modern thriving cosmopolitan metropolis. The pleasant climatic conditions, and the “garden city” image, as well as the availability of academic institutions and skilled workforce have led to this rapid development. It is divided into 198 wards owing to the delimitation regulations. Table 13 shows some salient details of Bangalore.

2.14 Topography

Bangalore is situated in the southeast of Karnataka, at an average elevation of 920m above mean sea level, and is positioned at 12.97°N, 77.56°E. Bangalore Urban District borders with Kolar District in the northeast, Tumkur District in the northwest, Mandya District in the southwest, Chamarajanagar District in the south and the neighboring state of Tamil Nadu in the southeast. The Bangalore Urban District is
divided into three taluks: Bangalore North, Bangalore South, and Anekal. The Bangalore North taluk is a relatively level plateau, while the Bangalore South taluk has an uneven landscape with intermingling hills and valleys. The topography of Bangalore is flat except for a ridge in the middle running NNE-SSW. The highest point in Bangalore is Doddabetta Halli, which is 962 m and lies on this ridge. There are no major rivers running through the city. The river Arkavathi (a tributary of the Kaveri) passes near Nandi Hills, 60 km north of Bangalore, while the river Kaveri has its nearest approach near Srirangapatnam, southwest of Bangalore. Bangalore has a number of freshwater lakes and water tanks, the largest among them are Madivala Tank, Hebbal Lake, Ulsoor Lake, and Sankey Tank.

2.15 Climate
Due to its elevation, Bangalore enjoys a pleasant climate throughout the year, with temperatures ranging between 16°C and 33°C and an average of 24°C. The summer heat is moderated by occasional thunderstorms and squalls. Bangalore receives adequate rainfall of about 860 mm from the Northeast Monsoon as well as the Southwest Monsoon. The wettest months are August, September and October.

2.16 Population Trends
The city experienced rapid growth in the decades 1941-51, and by 1961 Bangalore became the fifth largest city in India. Employment opportunities - initially in the public sector, and then in textile and high technology industries - resulted in migration of people to Bangalore. The 2001 census population of erstwhile BMP was 56.86 lakhs, but the population of BBMP presently is estimated at 68 lakhs. The growth of Bangalore from a town to a metropolis has been a result of five growth events:

• Shifting of the State Capital from Mysore
• Establishment of the Cantonment
• Setting up Public Sector Undertakings/Academic Institutions
• Development of Textile Industry
• Development of Information Technology/ITES/Biotech based industries.
2.17 Decadal Growth

In the decade of 1991-2001, the growth rate of urban population in Karnataka was 28.85%, as against the aggregate population growth rate of 17.25%. Bangalore grew at a much faster rate, and the population of Bangalore increased from 41.30 lakh to 56.86 lakh during the decade 1991-2001, representing a decadal increase of 37.7%, which made Bangalore one of the fastest-growing Indian metropolises, after New Delhi (51.93%). Figure 2 displays the population growth and illustrates sharp spurts in population growth in the decades 1941-51 and 1971-1981. About one third of the population increase in the Bangalore region is attributed to the fact that new areas were added to the Bangalore’s urban agglomeration. Adjusting this factor, the net increase in population during 1991-2001 was approximately 22%. The table given below shows the growth composition of population.

2.18 Land Use in Bangalore City

As can be seen from Figure 8, Bangalore city has developed spatially in a concentric manner. However, the economic development has occurred in a different manner in different sectors of the city. The current urban structure is a factor of these aspects. Five major zones can be distinguished in the existing land occupation, indicated in Figure 4. The details of each of the zones are listed below:

First Zone: The core area consists of the traditional business areas, the administrative centre, and the central business district. Basic infrastructure (acceptable road system and water conveyance), in the core areas is reasonably good – particularly in the south and west part of the city, from the industrial zone of Peenya to Koramangala. This space also has a large distribution of mixed housing/commercial activities.

Second Zone: The peri-central area has older, planned residential areas, surrounding the core area. This area also has reasonably good infrastructure, though its development is more uneven than the core area.
**Third Zone:** The recent extensions of the city (past 5-7 years) flanking both sides of the Outer Ring Road, portions of which are lacking infrastructure facilities, and is termed as a shadow area.

**Fourth Zone:** The new layouts that have developed in the peripheries of the city, with some vacant lots and agricultural lands. During the past few years of rapid growth, legal and illegal layouts have come up in the periphery of the city, particularly developed in the south and west. These areas are not systematically developed, though there are some opulent and up-market enclaves that have come up along Hosur Road, Whitefield, and Yelahanka. The rural world that surrounds these agglomerations is in a state of transition and speculation. This is also revealed by the "extensive building of houses/layouts" in the green belt. Both BDA and BMRDA are planning to release large lots of systematically developed land, with appropriate infrastructure, to address the need for developed urban spaces.

**Fifth Zone:** The green belt and agricultural area in the city’s outskirts including small villages. This area is also seeing creeping urbanization.

While the core area has been the seat of traditional business and economy (markets and trading), the peri-central area has been the area of the PSU. The new technology industry is concentrated in the east & southeast. These patterns are obviously not rigid –especially with reference to the new technology industry and services that are light and mobile, and interspersed through the city, including the residential areas. Figure 5 shows a map of the urban area, indicating the patterns of these five zones. Bangalore Development Authority (BDA) Area is indicated in Figure 5 and covers BBMP. The table given below shows the land use pattern in the BDA area, while Figure 11 shows the existing land-use situation.

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<td>Commercial</td>
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### 2.19 Social Sectors

The areas of Health and education come under the social sector. Therefore providing the health and education benefits to its people is the duty of a nation or government. With this concept in mind, BBMP has always proven to be successful. Bangalore is one among the fastest growing city in the world & therefore we share the city with a lot of migrants & job seekers. Consequently, the regional government must provide all infrastructure facilities to its citizens at a larger scale. BBMP strives to administrate health, hygiene and education to its citizens. Social sector is a clear indicator of the development status of a county, state or a city.

Health is defined by World Health Organisation (WHO) as "being "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity". Providing and maintaining of better health facilities to the city dwellers is a core responsibility of the BBMP. But considering the existing population, the infrastructure available is quite insufficient to render services to the masses. Presently the area being covered by BBMP in providing social sector services is around 100 wards consisting of 30 lakh population in Bangalore of an area of 150 sqkm. With the formation of BBMP, the facilities which exist currently needs to be escalated in terms of increase in the number of hospitals, doctors and other infrastructure facilities.
2. 20 Literature Survey

- **Domestic and International Tourism in a Globalised World; Eke Eijgelaar, Paul Peeters and Pieter Piket;** A research work where main focus was upon comparing the domestic and international tourism in terms of its economic importance and Environmental Impact (Green House Gas emissions). The findings of the research depicted that pivotal role was played by distance in terms of emissions. Interestingly it was found that the emissions were comparably low in interregional tourism than in domestic tourism.

- **Comparative Analysis Between Centralized and State Wise Tourism Campaigns in India; Dr. Nipendra Singh, Ms. Sunaina Ahuja;** As the name itself indicates the main objective of the research was to bring out the comparison between central and state governments in terms of their initiatives to promote tourism. Further, it also tries to list out the weak spot of “Incredible India” a Central Government campaign. Conclusively, it suggests the incorporation of factors such as promotion strategy, relevant information and key events and places in “Incredible India” campaign, and also combined efforts from state, central and private organizations as an important factor in order to make India as world class destination for travel and tourism.

- **Oman Tourism: An International Perspective On International Tourist Arrivals; Prof. Lindsay W. Turner;** A work primarily focused on Oman’s Tourism Potential in the perspective of other developments worldwide. The findings of the research suggest placing Oman at the International market as solution to know its place with regard to Market size, sustainability for the development of international tourism.

- **Community – Based Tourism in Developing Countries: A Case Study; Tomas Lopez, Sandra Sanchez, Victor Pavon;** A research which was carried out in El Salvador with an objective to know the perception of local community regarding tourism development. Interestingly, the findings
revealed that the community was aware of the significance of tourism development for economic progression and also they lacked in training, education and qualification to develop tourism.

- **International Tourism and its role in Economies; Abbasali Abounoori, Zohra Akbari, Mohsen Ghavamipour;** To know the importance of international tourism income on economy of few selected countries was the focal theme of the research paper. The findings proved that the high foreign exchange leakage was the main factor in the low economic progression in developing countries though they were ahead in development of international tourism and suggests that tourism policies need to be revised and altered by the policy makers.