CHAPTER - III

SRINAGAR CITY AND ITS ENVIRONMENT:
A GEOGRAPHICAL BACKGROUND

3.1 Introduction

The growth of large cities in India has drawn the considerable attention of Geographers, Planners, Economists, Sociologists, Demographers and other related discipliners to study the problem arising out of the rapid urbanization from their prospective angles. Since geographer is a spatial man, tries to analyze the city growth in terms of ‘Process’, ‘Structure’ and ‘Stage’. However the present study tries to analyze the various dimensions of growth and problems which are associated with the growth of one of the fast growing and largest urban centers of Jammu and Kashmir State. Rapid urbanization causes disorganized and unplanned growth of towns and cities. The pressure of ever growing population becomes burden and leads to the expansion of the city in its countryside. Urbanization is one of the dynamic and serious issues at present. Rapid urbanization causes unsystematic and unplanned growth of towns and cities. The pressure of an ever growing population becomes a burden on the limited civic amenities which are nearly failing (Emtehani, M R. et al., 2012). Cities can be studied and analyzed from a number of standard points. The present study is primarily concerned with a particular city, Srinagar, from its expansion point of view. Rapid urbanization in the world is quite alarming especially, in developing countries like India. Urbanization is a process through which the productive agricultural land, forests, surface water bodies and ground water prospects are being irrevocably lost. All cities have an image. Infect, it would be truer to say that all cities have, and always have had, a number of images. The only consistent
thing about cities is that they are always changing. Everywhere cities have grown both in size and considerable population (Hall, T., 1998). Cities are a complex agglomeration of multi-activities: economic, social, cultural etc., (Verma, L., 2008).

Rapid urbanization has resulted due to the several factors. However, the natural growth of the population, the rural to urban migration is important in it (Bhatacharya, 2002). Rapid urbanization causes disorganized and unplanned growth of the towns and cities. The pressure of an ever growing population becomes the burden on the limited civic amenities which are virtually collapsing; there is the need to balance present requirements of land against future needs. Prevention of agriculture land in the fringe area of expanding cities is a vital for preserving and maintaining open space and therefore environmental qualities (Farooq and Ahmad, 2008). Urban growth has resulted in the conversion of land for urban uses without any systematic development plan and without a corresponding investment in infrastructure. Poor land management has resulted in urban areas with inadequate services, infrastructure and corresponding lack of accessibility, that may prove very costly to resolve in future (Gupta and Sen, 2008). To prevent urban sprawl and leads to an improper development in any city on future, it is necessary to monitor the growth of city for sustainable urban development (Kumar et. al., 2007). It is important to study the and understand these trend of urban sprawl as it is one of the potential threats to sustainable development where urban planning with effective resource utilization and allocation of infrastructure initiatives are the key concerns and would help in effective land use planning in urban areas (Sarvanan and Ilangoavan, 2010).

Agricultural land is being gradually converted into built-up land like industrial, residential, commercial and other urban uses without any systematic development plan.
These problems require immediate attention of the planners and administrators. Growth of infrastructure has not kept pace with the growth of the population, resulting in disequilibrium in the level of development (Tali, J.A. and Murthy, K. 2012). Rapid growth of cities has posed a threat to their Central Business District (CBD). This is evident from the growing eagerness of the people to seek accommodation in sub-urban areas (Tali, J.A et al., 2012).

### 3.2 Geographical Setting of the City

The city of Srinagar which is located at an elevation of 1800 meters above the sea level, spread over in the midst of an oval shaped valley of Kashmir. It extends from 34°5′23″ to 34.08972° North latitude and 74°47′24″ to 74.79° East Longitude. The city as well as its hinterland is encircled by natural walls of mountains (the sub mountain branch of Pir Panjal range) whose height varies from 1800 to 4300 meters above the sea level. In the east the city is bounded by Zanaskar Mountains with lush green vegetation, locating the famous Dachigam Sanctuary and Mughal gardens on its slope and is environed by the shallow swampy lakes of the Dal and Nagin in the north east, the eminence hillock of Takth-i-Suluiman (Shankaracharya) in the south east, the Kohi-Mareen hillock (Hariparbat) in the centre, Rakh-i-Gandakshah in the west, the Anchar lake and the Palapora boggy in the north west, Namble-i-Narkura and Karewa Damodar (uplands) in the south east. The city has cradled itself between the hills of Hariparbat and Shankaracharya along the banks of River Jhelum, flows through the heart of the city.

Though the city has served as the capital of Kashmir throughout the ages and has successfully survival against all the odds. A product of rich and variegated history, the city owes its survival much to the characteristics of centrality so far as site and situation
are concerned. Secondly, it possesses the distinction of being the leading political, social, cultural, and trade and commercial center throughout the ages which enable the rulers to rule over the entire Kashmir valley. The present city has grown as blend of a number of ancient cities which had served as capital cities from time to time for various rulers indicating that the growth of the city in general had poly-nucleus expansion and the later growth took place under the process of accretion resulting from the double action of centripetal and centrifugal forces. Srinagar city due to its centrality has recorded widespread growth in spatial spread and population over last three decades which has generated a number of problems including stress and strain on infrastructure, traffic and transportation, environmental, housing, and mushrooming of urban poor colonies, widespread inorganic and haphazard growth. Srinagar is not only the largest urban center both in terms of population and areal extent, but also the rapidly growing city among all the Himalayan urban centers. The city has functioned and prospered throughout its long history as the regional focal center due to its strategic and advantageous location. The enormous growth in respect of area, demographic, economic and social attributes is due to its functional centrality. The city of Srinagar has thus attained the key position in socio-economic life, the nerve center of political activities, the seat of religion, cultural performance and the epicenter in the spatial framework.
3.3 Historical Background of the City

The city has chronologically passed through the following periods:

1. The Ancient Hindu Period;
2. The Muslim Period (1320-1819);
3. The Sikh Period (1819-1846);
4. The Dogra Period (1846-1947) and
5. The Modern Period (1947 onwards).

Srinagar city has a chequered historical background behind it. The name of the city was ‘Srinagari’ which means “Appellation of the Gods Lakeshmi” according to ‘Kalhana’, is one of the most important cities of the Kashmir. It was founded by Asoka,
The Great during 250 B.C commemorate the Buddhist Monastery and the city occupied the site of Pandrethan. It remained the capital of the Kashmir till about the middle of the 6th Century A.D when a new city known as Parvarapura was founded by the King Parvarasen, near the Hariparbat Hill extended along the right bank of Vitasta (Jhelum). The earliest settlers’ appeared at Panderathan (Srinagar) the racial stock might have entered the Kashmir as a result of immigration from the Central Asia and its surrounding areas. King Ashoka (from 273-232 B.C.) build the capital namely Srinagar which occupied the site of present locality of Panderathan.

The advent of Muslim rule opened a new epoch in the history of the Srinagar city (1320-1819). During Mughal period (1566 – 1752 A.D) Srinagar became a fortified city the constructions of Hariparbat Fort. The Afghans also made some contribution in the development of Srinagar. Srinagar city experienced considerable expansion during the Afghan rule. After that the Kashmir valley came under the rule of Sikh Dynasty from 1819 to 1846. The main developments during this period was the construction of Gurdwara in Srinagar near Hariparbat and the construction of a channel known as Tsunthi Kul (Chunti Kul) with the view to connect the Jhelum River and the Dal Lake for the navigation purpose from Munshi Bagh to Basant Bagh. Dogra rule started from 1846 to 1947, during the first half of the Dogra period, the condition of the city got deteriorated. However in the later period of the Dogra period (1900 A.D. onwards), the city witnessed some construction and development activities. In the later part of the Dogra rule (1900 A.D) Srinagar recorded some developmental and construction activities. The residency with its grotesque gardens, a number of educational institutions, first intermediate College (S.P. College, 1938) and Library were established. Potable
water supply and modern means of transportation were also made available for the first time in the city which necessitated the construction of metaled road and accelerated the process of development in the city. Silk Factory and Woolen Mills also were established (1921-31), besides this, medical facilities and other public utilities and services were also provided. All these efforts geared up the development activities during Dogra rule which were made possible through the courtesy of Britishers proved of significant value because they not only helped in eradicating the epidemic diseases but also solved to a larger extent the socio-economic problems of the city. During the modern period (1947 onwards) the city recorded more or less an uninterrupted growth through successive and concerted efforts after launching Five Year Plans which marked a beginning of the Planning era in the State. The process further got strengthened as it became the seat of power and summer Capital of the State. The development of most of the administrative, education and medical institutions and residential colonies in and around the commercial hub (Lal Chowk) changed the form and morphological structure of the city. The establishment of a number of education and medical institutions namely, University of Kashmir, Medical College, Regional Engineering College, Agricultural University, Post Graduate Institute of Medical Sciences. Construction of Bye Pass road, establishment of Fruit Mandi at Parimpora, Hindustan Machine Tools (HMT) factory at Zainakote, State Industrial Complex at Zewan and Khanmoh in South East. Besides this, the impact of increased trade activities and tourism has brought significant transformation in the physical and socio-economic structure of city. Srinagar which initially was an administrative-cum-religious center has now been transformed into multi-functional city.
3.4 Population and Areal Growth of Srinagar City

It is observed that the rate, at which a particular area grows, is not uniform both in time and space. There are several factors which govern the growth rate and also responsible for the growth to continue in a particular direction e.g. transportation, industry, commercialization and natural barriers like mountains, river etc. These factors help in determining the type of sprawl of any city and also help in determining the dominance of these factors in the expansion of a city. Srinagar city has shown a significant growth both in area and population. The population has increased from 122,618 persons to 1,192,792 from 1901 to 2011 while as the areal growth has taken place from 12.80 Square kilometers to 416.1 Square kilometers in the same period. The rapid population growth due to both the migration and counter urbanization and the spread of economic activities caused trickling over the outskirts of Srinagar city. In the process of spatial expansion of the city a number of village settlements have been incorporated into city limits. The city has witnessed the substantial areal growth of 41.44 Square kilometers from 41.42 Square kilometers in 1961 to 81.88 Square kilometers in 1971. The main reason for such a substantial growth of the city was merge of 62 villages in the city limits. While as the population of the city has registered the decadal growth rate of 41.42 per cent from 285,257 persons to 403,413 persons in the same period, and in 1981 definitional change from Standard Urban Area to Urban Agglomeration which resulted in to the merger of 42 villages with the city limits which has added another 125.39 Square kilometers of area to the city with the population of 202,589 persons indicating the population decadal growth rate of 50.23 per cent. In addition to this industrial establishments namely Hindustan Machine Tools (HMT) and State Industrial
Development Corporation (SIDCO) in the outskirts of the city have also helped in widespread areal growth of the city. The areal figure of the city have remained unchanged since 1981 to 1991 because of no new delimitation of the city limits has taken place during this period and therefore no data regarding the spatial expansion of the city during 1981 – 1991 is available. However, according to the new delimitation in 2001, Srinagar city has witnessed the areal growth 208.01 Square kilometers from 1981 to 2011. The population of the city has increased from 606002 persons in 1981 to 1192792 in 2011 reflecting the decadal growth rate of 22.8 percent. A number of newly emerged residential colonies have been included in the city limits in all the directions. The present spatial limit of the city is in contiguous with the urban center of Pampore and Ganderbal in the South - East and North - East, where as it is up to Budgam urban center in the South - West and almost to the urban centre of Pattan in the West comprising in its limits a number of residential colonies of Hyderpora, Peerbagh, Humhama, Sanat Nagar, Rawalpora, Nowgam, Zainkoot, Shaltang, Zakura and Gulab Bag.

As study of the changing density of population reveals that there have been large scale fluctuations during the inter-casual period from 1901 to 2011. The city has shown a close relationship between the physical growth and density of population. The table No 3.1 reveals that the population density of Srinagar city has increased from 9579 persons per square kilometers in 1901 to 11806 persons per square kilometers in 1941. But after 1941 the city has shown a declined fashion of population density, which has decreased from 11806 persons per square kilometers in 1941 to 2912 persons per square kilometers in 1981. However the density has increased in 2001 to 3492.82 persons per square kilometers but again in 2011 it has decreased to 2866.60 persons per square kilometers.
The main reason behind the fluctuating population density of Srinagar city is that though the increase in the size of the city was accompanied by the growth in its population but not with the same proportion which decreased considerably the density of population of the city.

### Table No. 3.1, Population and Areal Growth of Srinagar city (1901 – 2001)

<table>
<thead>
<tr>
<th>Year</th>
<th>Area Km²</th>
<th>Decadal variation of area</th>
<th>Population</th>
<th>Population Density</th>
<th>Decadal Growth Rate of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1901</td>
<td>12.8</td>
<td>--</td>
<td>122618</td>
<td>9579.53</td>
<td>---</td>
</tr>
<tr>
<td>1911</td>
<td>12.85</td>
<td>0.05</td>
<td>126344</td>
<td>9832.22</td>
<td>+3.04</td>
</tr>
<tr>
<td>1921</td>
<td>14.48</td>
<td>1.63</td>
<td>141735</td>
<td>9788.33</td>
<td>+12.18</td>
</tr>
<tr>
<td>1931</td>
<td>17.6</td>
<td>3.12</td>
<td>173573</td>
<td>9862.10</td>
<td>+22.46</td>
</tr>
<tr>
<td>1941</td>
<td>17.6</td>
<td>0</td>
<td>207787</td>
<td>11806.08</td>
<td>+19.71</td>
</tr>
<tr>
<td>1951</td>
<td>29.52</td>
<td>11.92</td>
<td>246522</td>
<td>8351.02</td>
<td>+18.64</td>
</tr>
<tr>
<td>1961</td>
<td>41.42</td>
<td>11.9</td>
<td>285257</td>
<td>6886.94</td>
<td>+15.71</td>
</tr>
<tr>
<td>1971</td>
<td>81.88</td>
<td>40.46</td>
<td>403413</td>
<td>4926.88</td>
<td>+41.42</td>
</tr>
<tr>
<td>1981</td>
<td>208.09</td>
<td>126.21</td>
<td>606002</td>
<td>2912.21</td>
<td>+50.23</td>
</tr>
<tr>
<td>1991</td>
<td>N.A</td>
<td>N.A</td>
<td>N.A</td>
<td>N.A</td>
<td>N.A</td>
</tr>
<tr>
<td>2001</td>
<td>278.1</td>
<td>70.01</td>
<td>971357</td>
<td>3492.83</td>
<td>+30.14</td>
</tr>
<tr>
<td>2011</td>
<td>416.1</td>
<td>138</td>
<td>1192792</td>
<td>2866.60</td>
<td>22.8</td>
</tr>
</tbody>
</table>

Source: Census of India and Municipal Corporation Srinagar.
NA (Not Available)

### 3.5 Expansion Possibilities of Srinagar City – Lateral and Vertical

#### 3.5.1 Lateral Expansion Possibilities.

Though the Srinagar city has shown a significant growth both in its area as well as in population, but the constraints lie in the lateral expansion of the city on its setting as it exists. The areal growth of Srinagar city is found to be 403.3 Km² from 1901 to 2011. If this trend continues, sooner or later, the city would encroach up to the neighboring tehsils of Budgam, Chadora, Pampore and Ganderbal so as to form a State Capital Region. The
city is located at the center of Kashmir valley and is bounded by Zabarwan Mountains (sub-mountain range of Pir Panchal Range) on the east and the northern side. On South-East there are uplands of Pampore karewah and Damodar karewah under saffron cultivation. On the West side there lies flood absorption basin named Hokarsar. On the North-West there lies a vast water body of Anchar Lake. During the past few decades urbanization has taken place on agricultural lands up to Ganderbal on the North, Pampore on the South and Narbal on the West and up to Budgam in South - West. This expansion has taken place along the arterial routes towards Budgam, Baramulla, Pampore, and Ganderbal. The development of Bemina colony on the low lying land and the accelerated building activities in the low lying area of Hyderpora and Nowgam in the south have also opened the a new area of expansion of city limits. Despite the constraints posed by the urban water bodies and the wet land of Dal Lake and the mountains in the East, Nambal (Marshy) land and the Anchar Lake in the North - West, low lying and flood prone area in the South, the city is experiencing urban sprawl in these areas because of rapid urbanization which is evident from the fact that building activities are heavily taking place in and around the Dal Lake and Wet lands of the city.

1.5.2 Vertical expansion possibilities.

Since constraints that lie on the expansion of the city in the lateral directions and other hand the agricultural lands are squeezing, government has called a ban on the change of land use from agricultural to residential and saturation point is approaching when there will be left no land for lateral expansion. The only alternative left shall be the vertical expansion. The present restriction of 50 ft. height for hotels etc. shall have to be relaxed. Construction of high-rise buildings shall have to be made possible by
providing the strong designed foundations for the soils generally having low bearing capacity of half a ton per sq. ft. Besides, the physical impediments on lateral and vertical development of Greater Srinagar are reported to be overcome to a great extent by adopting the zonal regulations prescribed in the current Master Plan. It has been emphasized that in the new areas the preparation of zonal /area development plans shall precede building operation of any kind and no permission shall be accorded unless the zonal/area development plan is approved by the competent authority within the policy framework described in the Master Plan.

3.6 Land Use/Land Cover Change in Srinagar City (1979 & 2010)

Urban expansion of Srinagar city and land transformation has severely affected the aerial extent of agricultural land, water bodies, marshy area etc. Srinagar city is ten times larger in Population than the second urban center of Anantnag (Primacy index= 9.95 in two city index) depicting its command over the region (Wani and Khairkar 2011). Srinagar city is not only the largest urban center both in terms of population and areal extent but also the rapidly growing city among all the Himalayan urban centers (Bhat 2008). Land use and land cover change (LUCC) has been recognized as an important driver of environmental change on all spatial and temporal scales (Turner et al., 1994). Remote sensing techniques have already shown their importance in mapping urban land use/land cover, urban growth trends and to monitor the changes in land use /land cover (Pathan et al., 1993). However it is felt that the interfacing of GIS technology with remote sensing satellite will provide the maximum information and content and analysis capabilities and thus, be of benefit to land use planners (Nellis et al., 1990). Monitoring land-use changes is essential for local and regional level planning studies in order to
assess urban development trends. The planning studies should be based on accurate and up to-date land use information. Therefore, the urban planners need a mechanism to detect, monitor, and analyze changes in the urban land use pattern efficiently and effectively. Change detection is a process of identifying differences in the state of a geographic feature by observing it at different times (Singh, 1989). Remote sensing is a very suitable technique for this. With the availability of multispectral images in digital form and the advances in digital processing and analysis, remote sensing has become a new tool for land-use change detection. A number of automated change detection techniques have been developed, including image differencing (Jensen and Toll, 1982), image rationing (Howarth and Boasson, 1983), post-classification comparison (Howarth and Wickware, 1981), principal components analysis (Byrne et al., 1980), change vector analysis (Malila, 1980), GIS assisted change detection (Peled, 1993; Turker and Derenyi, 2000), and direct multi-date classification (Estes et al., 1982).

3.7 Land Use Change Detection (1979 - 2010)

The sprawl of the city leaves marked impact on the land use pattern. Srinagar City covers an area of 29616.03 hectares with a population of 1192792 persons in 2011. It covers a vast area of Jhelum valley floor characterized by gentle undulating topography. River Jhelum Flows through the heart of the city. During the period of 3 decades city has shown the tilt towards built area.
Table No. 3.2: Land Use/Land Cover Distribution of Srinagar city: 1979 & 2010.

<table>
<thead>
<tr>
<th>Land Use Type</th>
<th>Area Hectares (1979)</th>
<th>Percentage</th>
<th>Area Hectares (2010)</th>
<th>Percentage</th>
<th>Change</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-up</td>
<td>3430.62</td>
<td>11.58</td>
<td>7723.62</td>
<td>26.08</td>
<td>4293</td>
<td>14.50</td>
</tr>
<tr>
<td>Agriculture</td>
<td>20390.89</td>
<td>68.85</td>
<td>14147.72</td>
<td>47.77</td>
<td>-6243.17</td>
<td>-21.08</td>
</tr>
<tr>
<td>Plantation/Orchard</td>
<td>1398.44</td>
<td>4.72</td>
<td>5316.48</td>
<td>17.95</td>
<td>3918.04</td>
<td>13.23</td>
</tr>
<tr>
<td>Forest</td>
<td>387.93</td>
<td>1.31</td>
<td>194.94</td>
<td>0.66</td>
<td>-192.99</td>
<td>-0.65</td>
</tr>
<tr>
<td>Barren</td>
<td>485.26</td>
<td>1.64</td>
<td>349.75</td>
<td>1.18</td>
<td>-135.51</td>
<td>-0.46</td>
</tr>
<tr>
<td>Marshy</td>
<td>1635.22</td>
<td>5.52</td>
<td>400.14</td>
<td>1.35</td>
<td>-1235.08</td>
<td>-4.17</td>
</tr>
<tr>
<td>Water Body</td>
<td>1887.67</td>
<td>6.37</td>
<td>1483.38</td>
<td>5.01</td>
<td>-404.29</td>
<td>-1.37</td>
</tr>
<tr>
<td>Total</td>
<td>29616.03</td>
<td>100</td>
<td>29616.03</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 3.1
Map 3.2

SRINAGAR CITY
Land Use Land Cover - 1979

INDEX
- Built up (11.58%)
- Agriculture (68.85%)
- Plantation/Orchard (4.72%)
- Forest (1.31%)
- Barren (1.64%)
- Marshy (5.52%)
- Water Body (6.37%)

0 2 4 8 Kilometers

Map 3.2
3.7.1 Built Up

It includes the land under residential, scattered settlement, commercial, industrial, restricted Educational, governmental, hospital and religious land use categories. The Table No 3.2 and Fig. No 3.2 shows that the built up land has increased from 3430.62 hectares (11.58%) in 1979 to 7723.62 hectares (26.08%) in 2010 with the increase of 4293 hectares indicating the increasing percentage change of 14.50 percent the reasons behind this increase in built up area is due to the increasing population which in turn results the increasing demand of land. The general trend of expansion has taken place along the roads which are in the radial pattern.

![Built-up](image)

3.7.2 Agriculture

Apart from buildup area, agricultural land is most dominant one in the city. Agricultural land is being gradually converted into built-up land for industrial, commercial, residential and other uses. The area under this category (Table 3.2 and Fig. 3.3) has decreased from 20390.89 hectares (68.85 %) in 1979 to 14147.72 hectares (47.77 %) in 2010, indicating the decrease of -6243.17 hectares. There are mainly three reasons
for such decrease in this land use category, firstly due to the expansion of the built up area on fertile agricultural land secondly due to the occupational shift of the people from primary to secondary and tertiary activities and thirdly due to the shift from crop growing activities to the horticulture activities by many agricultural land owners led to the decrease in the total area under agricultural land use.

![Agriculture](image.jpg)

**Fig. 3.3**

### 3.7.3 Plantation/Orchard

While the physical expansion of the city reduces the proportion of land under agriculture and the grain crops, population growth enlarges the urban market, which gave a boost to the production of horticultural and other perishable food products as an economic activity in the urban and peri-urban areas, to benefit from the proximity to the city’s market. The area under this class (Table 3.2 and Fig. 3.4) has increased from 1398.44 hectares (4.72 % of the total study area) which has increased to 5316.48 hectares (17.95 % of the total study area) in 2010, indicating the increase of 3918.04 hectares during this period.
3.7.4 Forest

Due to the anthropogenic pressure the area under Forest cover has also decreased from 387.93 hectares (1.31 % of the total study area) which has decreased to 194.94 hectares (0.66%) in 2010 (Table 3.2 and Fig. 3.5), indicating the decrease of -192.99 hectares during this period. Forest area is observed in the hilly areas of the city.
3.7.5 Barren

The area under this category has also shown a decreasing trend. In the year 1979 the total area under this class was 485.26 hectares (1.64 %) which decreased to 349.75 hectares (1.18 %) in 2010, thereby losing -135.51 hectares as shown in Table 3.2 and Fig. 3.6. The decrease in area is attributed to the capturing of barren land by other built-up classes because of increasing demand for land from the growing population.

3.7.6 Marshy

Due to rapid expansion of the city in terms of its population the marshy land were brought under residential use and is observed around the water bodies of the city. In the year 1979 the total area under this category was 1635.22 hectares (5.52 % of the total study area) which decreased to 400.14 hectares (1.35 of the total study area) in 2010 (Table 3.2 and Fig. 3.7), indicating the loss of -1235.08 hectares during this period.
3.7.7 Water body

Due to the increase in population the area under water bodies of the city including (the Dal Lake, Nigeen Lake, River Jhelum, Brarinambal, TailbalNallah and Harwan water reservoir) have decreased from 1887.67 hectares (6.37%) in 1979 to 1483.38 hectares (5.01%) in 2010, showing the decrease of -1.37 percent (Table 3.2 and Fig. 3.8). On the one hand the lakes are the centers of tourist attraction adding to the total revenue in tourism industry. But at the same time, these water bodies are getting deteriorated both in area as well as in their quality of water.
3.8 Conclusion:

As the Srinagar city is a tourist center, it should be developed in such a manner that it should not detract the ecological system. The quality of urban life is reducing and urban chaos’s are growing so much so that these problems have drawn the attention of various displacers to come forward with a view to solve the existing problems and suggest some development measures. The sprawl of the city leaves marked impact on the land use pattern, which has shown tilt towards built-up areas, which is growing in an unplanned way along the main roads. The rate, at which agricultural land is being destroyed, needs serious thinking on part of planners and policy makers. The population growth of the city has changed internal morphology of the city. City has a sizeable portion of flood prone and low-lying mostly around the Dal Lake. These areas are not suited for city expansion and development but have experienced widespread residential expansion. Thus, there is an urgent need to look into the unplanned urban expansion not only within the city but also in the surrounding areas.