

# LAND USE PATTERN AND URBAN POPULATION IN DHARWAD CITY – A CASE STUDY

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## **Abstract**

*According to Trewartha “man is the pivotal point from which all other elements are observed and derive their meaning and significance”, thus it is population that furnishes the focus. While defining popular geography Trewartha stressed that it was concerned with understanding the regional difference in the earth’s covering of people. The present study is intended to examine the spatio temporal changes and development of Dharwad city. To study spatio temporal growth of Dharwad city as on urban center. To analyse the urban Morphology of the city. To examine the relation between urban growth and population. In order to obtain a total perspective of urbanization trends & urban population appropriate quantitative & qualitative methods are employed. A random sample survey has been conducted by selecting one ward of the Dharwad city region. The present work is based on the secondary data. The data has been enclosed with the help of latest quantitative methods maps, diagrams and photos*

**Key words:** Urban Population, land use pattern.

## **Introduction**

According to Trewartha “man is the pivotal point from which all other elements are observed and derive their meaning and significance”, thus it is population that furnishes the focus. While defining popular geography Trewartha stressed that it was concerned with understanding the regional difference in the earth’s covering of people. This contention as the definition of population geography has to be formulated in the context of nature of Geography. Area differentiation in the theme of Geography in general and of population Geography in particular, since man is not only to utilize of physical earth but also the creator of cultural earth, Trewartha has justified in placing man at the center of Geographic thinking.

## **Objectives of the Study**

The present study is intended to examine the spatio temporal changes and development of Dharwad city. To study spatio temporal growth of Dharwad city as on urban center. To analyse the urban Morphology of the city. To examine the relation between urban growth and population.

## **Data Base**

The data needed for preparation of this dissertation action is collected from both primary and secondary sources. The population data is collected from District Gazetteer (2011) and district census hand books published by Director of census. The data on urban amenities is collected. From various Govt. officers, District Statistical Urban Development Authority we also visited different new extension areas and collected information.

## **Methodology**

In order to obtain a total perspective of urbanization trends & urban population appropriate quantitative & qualitative methods are employed. A random sample survey has been

conducted by selecting one ward of the Dharwad city region. The present work is based on the secondary data. The data has been enclosed with the help of latest quantitative methods maps, diagrams and photos.

### **Location and Area**

The Dharwad district lies 14° 15' to 15° 50' N and 74° 48'-76° E has an area of 5,284.5 square miles and a population according to the 1951 of 15,75,386 and 2011 census of Dharwad city 2,80.192 population. Dharwad District is situated in the western sector of the northern half of Karnataka state. In its shape the district may be regarded as roughly resembling an inverted triangle; broad at the northern end and very narrow at the southern end. Its greatest breadth from east to west is about 164 kms and its greatest breadth from east to west is about 155 kms. The eastern and the western borders gradually coverage to a narrow strip as one, moves from north to south. The total population of Dharwad city is 280192. Population of 2011 census.

The district is bounded on the north by the districts of Belgaum and Bijapur, on the east by the districts of Raichur and Bellary, on the south by the districts of Chitradurga and Shimoga and on the west by the districts of Uttar Kannada. All these districts which surrounded Dharwad belong to Karnataka state itself. In the south-eastern and the eastern sector, for a distance of about 130 kms the river Tungabhadra forms the natural boundary. In the north, for a distance of about 25 kms the river Malaprabha separates the district from Bijapur, the district headquarters is located at Dharwad.

### **Land Use Pattern and Urban Population in Dharwad City**

Geography has traditionally been concerned with man - environment relationship and therefore man and his activities on the earth surface have occupied an important place in the discipline for a very long time. Nevertheless, with a greater emphasis on physical aspects, human elements were by and large missing from the concern of geography for quite some time, at least till the later half of the nineteenth century. Towards the end of the nineteenth century, however the foundation for what came to be known as 'human geography' was already laid. It was Friedrich Ratzel (1844-1904), who established the new sub-discipline i.e. human geography for which he coined the term anthropogeography (Kosinski, 1984;15).

Though, several studies, dealing specifically with population, did appear in Europe, the United States and Russia, in the late nineteenth a neglected field in the overall scheme of human geography throughout much of the first half of last century. After the Second World War, Kobo made an attempt to population as a separate discipline in 1947. However, the emergence and recognition of human geography is largely attributed to the influential statement of Trewartha in the early 1950s.

### **Land Use Pattern**

As cities are known for multipurpose virtually in any city, regardless of its population size there exist a ray of economic activities and function in which much of the population is regularly engaged (Narotham, 1975, p. 142). The contrasting characteristics of urban and rural population have drawn the attention of Geography since long. However studies concerned with occupational structure and the functional nature of urban centers have attained a greater significance only in recent years especially in developing countries such studies reveal the relationship between various occupations and the resultant spatial interaction within a study area.

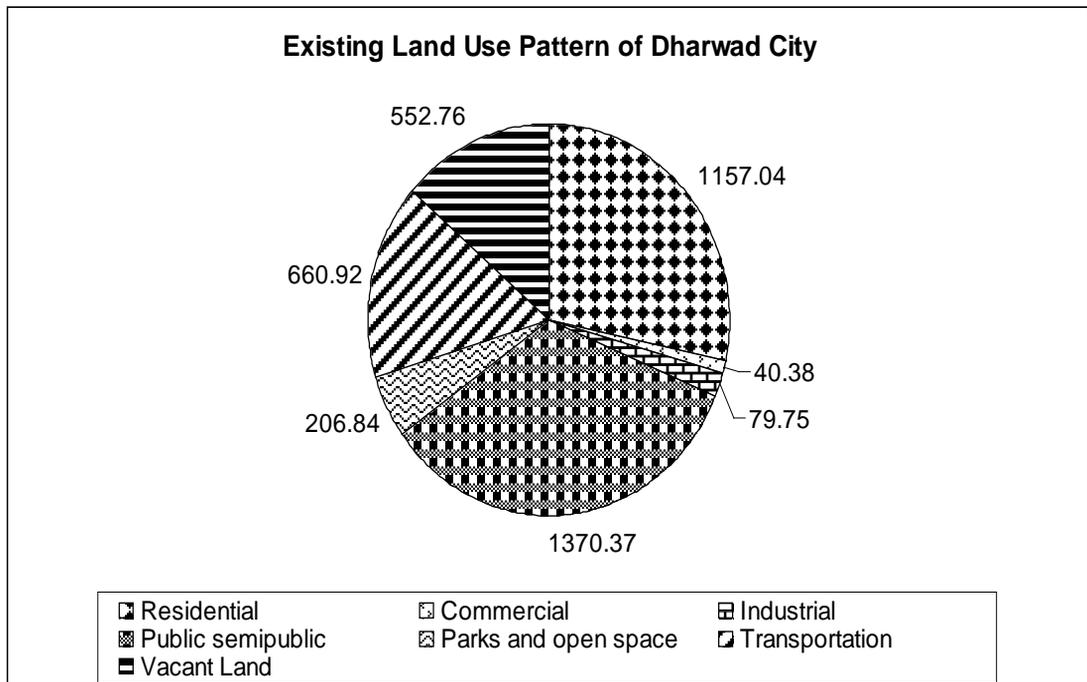
The study of urban Land use pattern helps us in formulating comprehensive development plan Dharwad town has total area 1774.98 hectares of land which is used for various purposes as follows;

**Existing Land Use of Dharwad City:** In preparing the outline development plan the city was considered at 3 levels. 1. City level. 2. District level. 3. Sub-district level. The details Survey's regarding socio-economic conditions.

Table 1. Showing Land Use Pattern – 2013

Sl.No.	Land Use	Area in Hectares	Percentage
1.	Residential	1157.04	28.44
2.	Commercial	40.38	1.00
3.	Industrial	79.75	1.96
4.	Public semipublic	1370.37	33.68
5.	Parks and open space	206.84	5.08
6.	Transportation	660.92	16.24
7.	Vacant Land	552.76	13.58
	Total	4067.76	100

Source: Computed from Data obtained from Municipal Corporation, Dharwad.



Besides these the major urban use for which land is put for, substantial amount of the city land is used for other purposes like agriculture 38.72 hectares area under orchards and gardens 314.72 hectares. The Dharwad City No. 1, which contains the Central Business, Hospital, Town Hall, etc.

### **Residential**

The existing population of 2.86 lakhs distributed 1157.04 hectares of land is remarked for residential use.

The present trends of growth of residential localities is towards the university area and long the national highway towards Hubli near J.S.S. College many layouts have already have been approved in these areas and it is hoped that the housing activity speeds up considerably in the future in a planned way.

### **Commercial**

In the out line development plan, an area of about 40.38 hectares is earmarked for commercial purpose. This area includes the existing cotton market on Hebballi Road the cotton market on Savadatti road, the whole sale market near the existing cotton market APMC Dharwad. The area provided for commercial use works out to 2% of the Total area.

### **Industrial**

In the outline development plan about 79.75 hectares of land is earmarked for Industrial purpose i.e. 1.96% of total area. The present trend is to have Industrial along the National highway towards the North West of Dharwad. An area of about 160 acres is used on either side of the NH4 towards Hubli.

### **Public and Semi-Public**

Nearly 1370.37 hectares is earmarked for public and semi public purpose in the out line development plan. This works out to 33.68 percent of total area. The major areas coming under this category are the Deputy Commissioner's, K.C.D, J.S.S. and Anjuman campus and other schools.

### **Parks and Open Spaces**

In the outline development plan nearly 206.84 hectares of land is earmarked for parks, playground, burial and creative grounds, children play grounds etc. It occupies 5.08 percent of the total area.

### **Transportation**

Total area for transportation excluding Railway is about 660.92 hectares i.e. 16.26 percent of the total area. The following are the existing major roads.

1. One 80 feet wide road connects the Poona, Bangalore Road and the University Campus.
2. Road of 60 feet and 40 feet width can be seen in the new residential extensions depending on the area they connect and the importance of the road.
3. The NH4 bypass is taken beyond the university campus and agri. university.

## **Spatial Pattern of Population Growth**

Based on mean, mode and standard deviation methods the growth of total population during 1991 and 2011 has been grouped in to following three types i.e. Area of High Growth. Area of Medium Growth. Area of Low Growth.

The Dharwad city has been spread over an area of 49.60 sq.kms. and represents 264624 persons and 51081 households. The ward wise distribution of households, population and the area shown in the table-2, the average density of population in the city is 3481 persons per sq.km. but varies greatly from ward to ward or division to division. The average

household's density for the whole city is 619 houses per sq.km. the number of households however widely varies from ward to ward within the city.

Though there is variation in the aerial extent of the wards the distribution of population in the wards varies according to the activities of the people. For example it is quite obvious from the table that the smaller ward with less than 3 sq.km. of area are having considerably higher population and also higher density. Similarly the household number is also relatively higher. For example the ward no. 22 represents only 3.92 sq.km. area but possesses 12247 people and 2343 households. The density of population is 12743 persons/sq.km., these generally represents the residential areas of Dharwad city. However the ward 12 though larger in areal extent its population size and household number is also bigger.

Table 2 . Population Distribution of Dharwad City – 2013

Sl.No.	Ward Nos.	Population	% of Population
1.	Ward No. 1	15771	5.62
2.	Ward No. 2	11202	3.99
3.	Ward No. 3	12481	4.45
4.	Ward No. 4	11759	4.19
5.	Ward No. 5	10930	3.90
6.	Ward No. 6	11218	4.02
7.	Ward No. 7	11862	4.23
8	Ward No. 8	9686	3.45
9	Ward No. 9	8692	3.10
10	Ward No. 10	10523	3.75
11	Ward No. 11	10439	3.72
12	Ward No. 12	9112	3.25
13	Ward No. 13	10446	3.72
14	Ward No. 14	12746	4.54
15	Ward No. 15	10173	3.63
16	Ward No. 16	114543	5.18
17	Ward No. 17	13825	4.93
18	Ward No. 18	12722	4.54
19	Ward No. 19	14254	5.08
20	Ward No. 20	14031	5.00
21	Ward No. 21	15963	5.69
22	Ward No. 22	12247	4.37
23	Ward No. 23	15507	5.53
		280192	100.00

Source: HDMC Zonal Office, Dharwad.

The table-2 depicts the ward wise various details such as area, population, density and households. It is noticed that the ward no. 12 is the largest ward representing 105.64

sq.kms. of area of the city, The Ward No. 18 is being found as smallest ward in terms of area in the city. There are five wards within range that of 3-5 sq.km. area distributed in various parts of the city. Remaining all wards represent or fall with the range of less than 5 sq.km. to 3.92 sq.km.

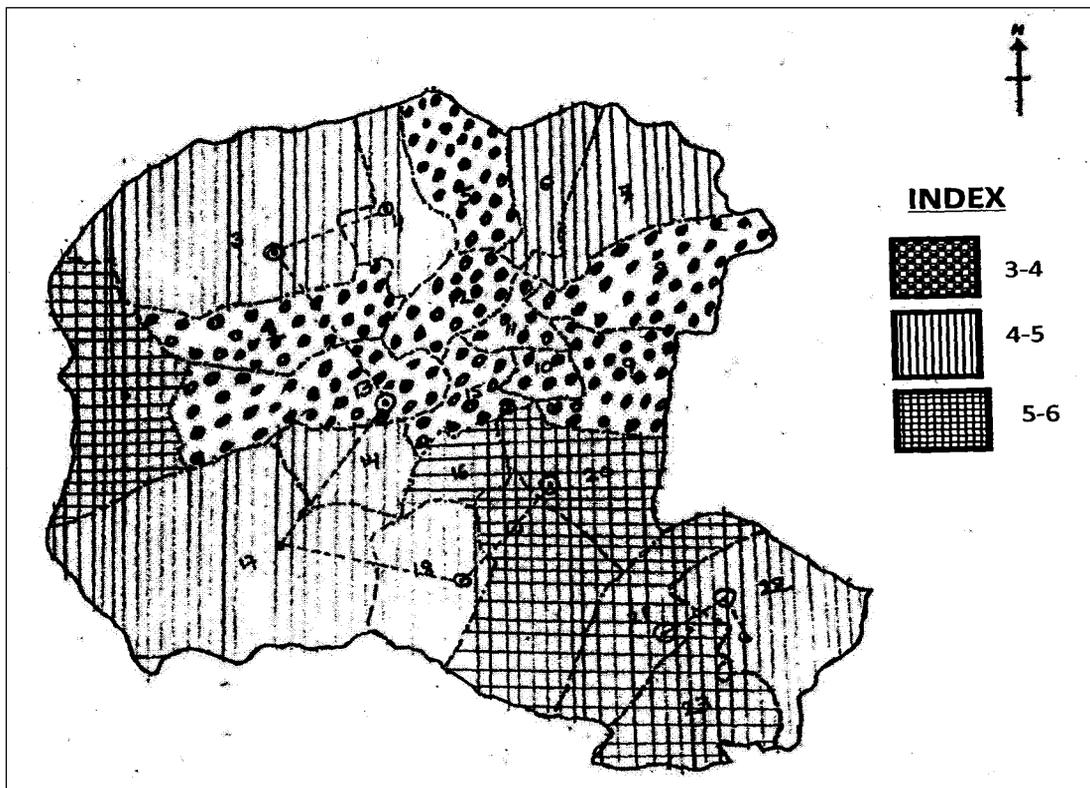


Figure 1. Population Distribution of Dharwad

It is observed from the table that the Ward No. 1 represents second highest area. i.e. 75 sq.km. in the Dharwad city. It accounts for 9.0 percent of the total area of the city. Similarly the Ward No. 2 represents 84.18 sq.km. of area or 8.36 percent of the total area. The third largest ward in the city is Ward No. 2, which accounts 7.76 percent of the total area. The next larger ward is being Ward No. 15 having 84.53 sq.km. of area or 8.4 percent of the total area. In general the total area of the city is 78.33 sq.km. and the total number of households is 56098 with 279793 people. The average size of a household is 5 persons per house.

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