SPATIAL DYNAMICS AND LAND USE CHANGES: A CASE STUDY OF PLANNING WARDS IN MYSORE CITY

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Abstract
Land use is the   actually made up any parcel of land, land use of any region is the result of the inhabitant s impact on the land in the light of their preparation of landscape ecological factors in the region, developed through generation along with their capacity for absorption of technological skills. Land use is the surface utilization of all developed and vacant on a specific point, at a given time and space. The main objectives of this study are To study the spatial dynamics and land use of planning words in Mysore city. To study the spatial and temporal changes in the planning Mysore city. To access and analyze the impacts on spatial dynamics and land use changes within the study area. To propose planning strategies and suitable measures for planned growth of the study area. Mysore is located at 12°18' N to 12°30' N latitude and 77°39' E t 76°65' E longitude and has an average altitude of 770 meters. It is situated in southern region of state Karnataka, at the base of chamundi hill and spared across an area 128.42 sq.kms

Keywords: Land use, Planning, Spatial Dynamics.

Introduction

Land is a basic resource of human society. Land use is the   actually made up any parcel of land, land use of any region is the result of the inhabitant s impact on the land in the light of their preparation of landscape ecological factors in the region, developed through generation along with their capacity for absorption of technological skills. Land use is the surface utilization of all developed and vacant on a specific point, at a given time and space. Proposed study is an attempt to discover a land use pattern in the light of changing dynamics in the Study area. Land use pattern of a region is an outcome of natural and socio-economic factors and their utilization by man in time and space. Land is becoming a resource due to immense agricultural and demographic pressure. Therefore, information on land use and possibilities for their optimal use is essential for the selection, planning and implementation of land use schemes to meet the increasing demands increasing demands for basic human needs and welfare. Such type of information also assists in monitoring the dynamics of land use resulting out of changing demands of increasing population.

Objectives

To study the spatial dynamics and land use of planning words in Mysore city. To study the spatial and temporal changes in the planning Mysore city. To access and analyze the impacts on spatial dynamics and land use changes within the study area. To propose planning strategies and suitable measures for planned growth of the study area.

Methodology

The theoretical analysis of the body of methods and principles associated with a branch of knowledge. It shows the sources of data, collection of data and data analyses method in paper research work.

Data collection

Before starting any project or research proper data is essential Data collection is very important for any project. In this project data collection are two types and the present study is based on primary and secondary data.

The first objective of this project is , To study the spatial dynamics and land use of planning district 2 and planning district 12 in Mysuru city , The Second Objective of this project, To study the spatial and temporal changes in the planning district 2 and planning district 12 in Mysuru city , The third objective of this project To assess and analyze the different spatial factors and decision variables impacts on spatial dynamics and land use changes within the study area and the fourth objective of this To propose

Location and area

Mysore is located at 12°18' N to 12°30' N latitude and 77°39' E t 76°65' E longitude and has an average altitude of 770 meters. It is situated in southern region of state Karnataka, at the base of chamundi hill and spared across an area 128.42 sq.kms.it is in interflave between two rivers Cauvery and Kabini through Mysore is situated in the relatively safe seismic zone 2 earthquakes, of magnitude greater than 4.5 on the richer scale have been recorded in the vicinity of the city.

Relationship between Spatial Dynamics and land use

The land use pattern of a region is an outcome of natural and socio-economic factors and their utilization by man in time space over the decades in the urban area of Mysore. The land is becoming a scarce resource due to immense agricultural demographic pressure and human activities. Hence, Information on land use and possibilities for their optimal use is essential for the selection, planning and implementation of land use schemes to meet the increasing demands for basic human needs and welfare of the urban people. This information assists in monitoring the dynamics of land use resulting out of changing demands of increasing population over the decades in Mysore city. The may be classified into natural and manmade. This natural environment is such as, forest, hills, slope, soil, and mountain, water etc., but the man made environment such as housing, roads for transportation, industrial, public and semi public, agricultural land etc. By this we can calculate the area on percentage Based on usage of earth cover on the surface of their classification and land use.

The various factors that influence the development of land for urban purposes can be identified as follows. The land value is the first major factor. The second factor is to cope up to the additional population either in the existing areas or in the new residential developments. Thirdly, the accessibility or inaccessibility of an area would either favorably or adversely affect the land use. Fourthly, the amenity factors involving which sewage facilities or potable water can be brought to an area will decide whether or not an area will become Residential area. Fifthly, the topographic characteristics of the area will determine the cost involved in making an area in habitable. Finally, the historical factor starts the nucleus of a settlement and direct growth. Thus, the elements on which greater focus will be laid on the urban spaces and the people live in it.

Population
Natural increase

No doubt population growth an area creates a huge demand for land especially for dwelling. Population growth may be because of natural growth or migrations of people from other

places.oppertunities that are available in the city are very successful in attracting the people from other places especially from nearby villages. Hence there is much demand for residential land use.

The planning district 12 covers fallowing wards ward no-1 Agrahara ward no-2, Sunnadakeri, ward no-3 Lakshmipuram, Ward no-4 Ramachanrda Agrahara ward no-6 Chamundipuram, ward no-10 Vidyaranyapuram ward no-9 Ashokapuram ,ward no-7,Krishnamurthy Pura

The planning district 2 is one of the oldest residential neighborhod developments during Maharaja's and Tippu Sultan period before the independence India.

As per the 2001 census total population of planning district 2, is 58,850 and as per the 2011 census total population of planning district 2 is 62,654.it was just in 58,850 in 2001 while in 2011 it increased to 62,654,addition adding population just 3804 in the period of 10 years.

Taking two decades growth of population is very minimal, look into the population and land use; cope up to the additional population either in the existing areas. Normally Residential area will be increase but in this case residential area has decreased. In year of 2009 total residential area was 65.3 ha and year of 2016 it was 60.2 ha. The major cause this changes this area located northern part of central business district influence of CBD area this planning district going towards upcoming CBD area due to that commercial land use has increased

S.No	Ward No	Ward Name	Population in 2001	Population in 2011
1.	1	Agrahara	8,226	9,266
2.	2	Sunnadakeri	9,278	12,765
3.	3	Lakshmipuram	4,625	12,814
4.	4	Ramachanrda Agrahara	9,179	8,753
5.	6	Chamundipuram	9,240	12,586
6.	7	Krishnamurthy Puram	7,792	11,299
7.	9	Ashokapuram	8,835	14,035
8.	10	Vidyaranyapuram	9,220	15,104
Total			66,395	96,622

Migration

Human migration is the movement by people from one place to another with the intentions of settling temporarily or permanently in the new location. The movement is often over long distances and from one country to another, but internal migration is also possible; indeed, this is the dominant form globally. Migration may be individuals, family units or in large groups.

As per the primary survey surrounding area people migrated to planning district 2 for various purposes such as employment opportunities, Enterprise.

Considering religion aspect approximately more than 40 % people belongs to Islamic Community, the main occupation of this community small scale business

Hence many commercial activities find in this areas.

Planning district 12 also immigration area of Mysore many people migrant to this area mainly Shetu community people migrant here this factor effect on land the main occupation of this people small scale ,retail and hole shale business therefore along the main roads commercial activities has developed.

Another factor influencing on land use migrant of surrounding village people to city as per the primary survey more 40 of people migrants in this area. to cope up to the additional population either in the existing areas or in the new residential developments.

Density of population

In the planning district 2, there are 6 corporation wards with wide variations of density. The densest ward is ward no. 40 where the density was 569 persons per hectare while the

lowest dense ward was ward no. 44 which was the lowest density was 80 persons per hectare. In the year of 2001 density was 284 persons per hectare it was increased to 302 persons per hectare in the year of 2011.

Because of increasing density dwelling units, commercial shops need for population due that vertical development buildings took place on this area.

Table 1. Ward wise population.

S.No	Ward No	Ward Name	2001	2011
1.	1	Agrahara	83	93
2.	2	Sunnadakeri	271	373
3.	3	Lakshmipuram	68	189
4.	4	Ramachanrda Agrahara	82	78
5.	6	Chamundipuram	154	209
6.	7	Krishnamurthy Puram	97	142
7.	9	Ashokapuram	74	118
8.	10	Vidyaranyapuram	212	347
Density			160	232

In the planning district 12, there are 8 corporation wards with wide variations of density. The densest ward is ward no. 10 where the density was 347 persons per hectare while the lowest dense ward was ward no. 4 which was the lowest density was 78 persons per hectare. In the year of 2001 density was 160 persons per hectare it was increased to232 persons per hectare in the year of 2011.

Because of increasing the population density residential and commercial uses of land require due to that many part of this area developed vertical buildings.

Land Use Analysis

Planning

The planning district is bounded by the intermediate ring road on the north and east side railway line and Sayyaji rao road on the west and Umar Quayam road and Sawday road in the south. And this planning district covers area of 207.65 ha land

Table 2. Land Use Pattern.

Land use	2009		2016	
Type	In ha	In %	In ha	In %
Residential	65.3	32.3	60.2	28.4
Commercial	12.4	6	22.3	10.1
Industrial	34.3	16.5	32.3	16.5
Park and open spaces	22.9	11	19.2	9.2
Public semi-public	29	14	29	14
Public utility	0	0	0	
Transportation	41.3	19.9	43.1	21.3
Agricultural	0	0	0	0
Water sheet	1.9	0.3	1.1	1.1
Vacant	0.6	0.9	0.6	0.3
Total	207.6	100.	207.6	100

The planning district has a large concentration of residential area which is about one third of the planning district area total 32.36 % which is 65.3 ha in year of 2009 and it was decreased to 28.4 % which is 60.2 ha the major cause for decrease many residential units convert to commercial land use because of these area adjusting Commercial activities along

the road CBD area. influencing of CBD commercial land use has increased in year of 2009 commercial land use was 12.4 ha (6%) it has increased to 22.3 ha (10.1) in year of 2016.Duration of 7 year hardly 4 % area developed as commercial activities. and another important think about land use, mixed land use such as Residential cum commercial ex, taking an ground +1 building ,ground floor allocated for commercial shops and first floor allocated for residential purposes. s mall strip of commercial areas are within the edge of the residential blocks. there are small grouph of shops along certain strtch of New Sayyaji Roo road, Anegudi Road, Rajput Road , Sawday road,Kalmma temple street and Pulikesh road as per the 2001 census total population was 58,850.it has increased to 62,654 in year of 2011. during of yeas only 4069 was additional population cope up to the additional population either in the existing areas development of new residential units general but in this case residential land use has degreased these case rise question why population has increased but residential land was decreased answer for this question, lack of availability of land there is no horizontal development because of these vertical development of buildings took place.

Conclusion

land is a basic resource of human society. Land use is the   actually made up any parcel of land,. Land use is the surface utilization of all developed and vacant on a specific point, at a given time and space.

Proposed study is an attempt to discover a land use pattern in the light of changing dynamics in the Study area. Land use pattern of a region is an outcome of natural and socio-economic factors and their utilization by man in time and space. Therefore, information on land use and possibilities for their optimal use is essential for the selection,. Such type of information also assists in monitoring the dynamics of land use resulting out of changing demands of increasing population Land use is an important component in understanding the interactions of the human activities with the environment and thus it is necessary to be able to simulate such changes.

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