

Trends and Temporal VARIATIONS OF URBAN LAND VALUES (With special reference from Namakkal District, Tamilandu, India)

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ABSTRACT: *The role of land in the urban region is multifaceted. Due to the process of urbanization in recent years the land prices are very high in the Metropolitan towns compared to medium-sized towns. In this paper to analyze the trends and temporal variations of the urban land values in different zones, the co-efficient of variation and exponential growth rate model are used. The average annual growth rate of the land value in Zone III and Zone II has exceeded the Zone I growth rate. The land value in Zone I have not raised as fast as in Zone II and Zone III, the average land value per square foot is higher than that in Zone II, Zone III and also in the Namakkal town level.*

Key Words: Zone, t, F, R²

1. Introduction

Land is the most essential resource for people. Land is unique creation and a valuable gift of nature. Land is not homogeneous and every bit of land is locationally specific. Land is an important input in the construction of residence purpose, commercial purpose and Industrial purpose.

The role of land in the urban region is multifaceted. Due to the process of urbanization in recent years the land prices are very high in the Metropolitan towns compared to medium-sized towns. Also the high growth of population in an urban region, a man needs almost any type of housing plot there. As a result the demand for residential plot increases.

The growing demand for land space against its inelastic supply tends to influence the land value particularly in the urban region. The factors of location which includes nearest to Central Business District (Commercial and business centre of the city) and nearest to the market premises to influence the land value. In relation with these factors an increase in the land value in Commercial and business centre the lack of land in the centre. And the raise in land price, due to factors mentioned above forces the buyer of housing site to go in the cheaper land on the outskirts of a metropolis. There in turn, the price of a land which is located in the outskirts has increase within a short period.

Therefore, the value of land and the market value of land situation will be of considerable interest not only for the business and housing purpose but also too many others which

are directly or indirectly connected with the use of land and its problems. Obviously the knowledge will be useful to those who wish to buy or sell land and to lending agencies of all types. With the above background an attempt is made to study the value of the land at Namakkal town during 2001-2015.

1.1 Empirical Literature

The main factors which have greater influence on the urban land value is accessibility. Bish and Kirk in their article, "Economic Principles and Urban Problems" explain that the accessibility to the Commercial and Business centre has a great influence on urban land. People would like to be located nearer to the Commercial and Business centre. The farther they are located from the Commercial and Business Centre the lower would be the cost of land value.

In the article, "Urban Economic and Policy Analysis", Bish and Nourse have explained that land value gradient has become smaller over time as distance increases from the Commercial and Business Centre. Hoyt in his article, "One hundred years of land value in Chicago" explains that the price of land fluctuations in relation to distance. The price of land nearer to the Commercial and Business Centre is quoted high compared to the land located at a distance.

McDonald and Bowman have explained in their article, " Land Value function" that the relationship between the distance from the Commercial and Business Centre and logarithmic land value on the basis of fourth degree polynomial and observed that the land value

decline monotonically with distance from the Commercial and Business Centre.

In the article "Housing Economics", McClannan explains the relation between housing site and its location and argues that housing sites located in and around either in the Commercial and Business Centre or railway roads have a higher site-value than those at a distance from the Commercial and Business Centre and railway roads.

In article "Note on the Residential Zoning and Urban Renewal" Bailey shows the relation between the high income group and low income group in relation to location. People with high income reside around the Commercial and Business Centre whereas the low income group resides farther away from high income group. Wiswakarma expresses in his article, "Land and Property Values" the relationship between land price and its distance from the Commercial and Business Centre. He obtains the conclusion that as distance increases from the Commercial and Business Centre in New Delhi the land value per square metre down by 54% after every single km.

A substantial amount of empirical work has been done by them, where the distance increases from the centre of the city, the price of the house per unit falls.

1.2 Objective of the study

The objective of the present study is to analyze the trends in urban land values in terms of temporal variation of urban land values, among different zones in the Namakkal town during 2001-2015.

Hypothesis

The urban land value has increased significantly during the study period.

2. Study area and Data collection

Namakkal is a town and Headquarters of Namakkal District in the Indian State of Tamil Nadu. It is a municipality of Namakkal District. It is named as Poultry city, Transport city and Education city. Namakkal is noted for Body building for Truck, Trailer, Tanker and Rig unit. It is close to Kolli Hills which is part of the Eastern Ghats. The closest river is Kaveri. Namakkal city is one of the few Indian Municipalities which have been successful in running zero garbage, eco-friendly urban waste management project for which visitors are coming to study.

The study area is classified into three zones. Zone I is located at a distance of 3km from the Centre. Zone II is located at the next 3 km and Zone III is located at the end of the Namakkal

town. The secondary data relating to the urban residential land values for a square foot from the Sub Registrar office in Namakkal Town for a period of 15 years during 2001-2015, and the mean land values per square foot has been worked out for a period of 15 years from 2001 - 2015,

2.1 Analysis of Data

Data collected for this study are analyzed with reference to the objective and the hypothesis. The results of the analysis is presented and discussed below.

2.2 Trends in Urban Land Values; 2001-2015

The trends in the urban land values in Namakkal town for the period 2001-2015 are examined. In order to analyze the urban land value among different 3 zones in Namakkal town.

2.3 Statistical Techniques

To examine the trends in the urban land values in different zones in Namakkal town during 2001-2015, the arithmetic mean and co-efficient of variation are used.

Co-efficient of variation (CV) = (Standard Deviation/Arithmetic Mean) x 100

It is evident from Table 1 that the land value over the years in all the three zones has registered a raising trend. The land value per square foot in Zone III has recorded the highest increase of 5.2 fold increase from Rs. 313 to Rs. 1615 and by a 3.2 fold increase from Rs. 406 to Rs. 1305 in Zone II. As against this, comparatively a low level of 3.1 fold increase from Rs. 590 to Rs. 1805 is noticed in Zone I. So, the land value has augmented in Zone III and Zone II. The value of co-efficient of variation also confirms this result. That is, the co-efficient of variation is 47.5% in Zone III, 36.3 % in Zone II and 34.8% in Zone I. Here also, the values of Zone III has crossed the Namakkal town level of CV of 39% and the values of Zone II has nearest to the Namakkal town level of CV.

Table 1 : Urban land values in Namakkal town: 2001-2015

Year	Zone -I	Zone -II	Zone -III	Namakkal Town
2001	590	406	313	436
2002	680	441	383	501
2003	750	441	455	549
2004	750	520	490	587
2005	770	580	540	630
2006	800	620	606	675
2007	850	650	640	713

Namakkal Town	Zone III	0.0481	0.6525	0.0055	0.6470	0.0012	40.08*	0.9916
0.0385	0.4192	0.0032	0.4160	0.0009	42.78*	0.9924		

(* Significant at 1% level)

The exponential growth rate of land value has calculated and presented in Table – 2. The highest variation in Zone III and Zone II indicates that the land value has increased rapidly in these two zones. This is also reflected in the annual average growth rate of the land value. The highest annual growth rate is 11.71% in Zone III and 8.99% in Zone III. Both these are close to the Namakkal town level growth rate of 9.27%, while the growth rate of Zone I is 7.77% which is far below the Namakkal town level.

From the above analysis, it is found that the land value has increased rapidly in Zone III and Zone II. This may be due to the fact that Zone III and II are newly developing zones since educational institutions and industries are established and already existing service sectors are expanded. Hence, the job opportunities and chances for providing education to their children in these zones attract the people from rural areas which result in increase in the demand for housing in the urban areas. All these have led to push up the land values in these two zones.

Though the land values in Zone I have not risen as fast as in Zone III and in Zone II, the average land value is higher than that of Zone III (821) and Zone II (782). It is evident from Table 1 that the average land values per square foot are highest throughout the study period in Zone I (1042). During the beginning of the study period the land value in Zone I is 1.45 times higher as compared to Zone II and 1.88 times greater than Zone III. At the end of the study period that is in 2015 it is 1.1 times greater than that of Zone III and 1.38 times greater than that of Zone II. It is attributed that Zone I is well established Zone in Namakkal town. This proves the hypothesis that the value of land has increased significantly during the study period.

It is evident from Table 2 t value is significant at 1% level for all the three zones and Namakkal town. It concluded that there is a significant linear relationship between and dependent variable Y and a independent variable X. The R-squared values of all three zones and

Namakkal town are very close to 100%. It indicates that model is perfect fit for all the three zones that is the model explains all the variability of the response date around its mean. F value is also significant at 1% level for all the three zones. It concluded that the linear regression model provides a better fit to the data than a model that contains no independent variables of all the three zones.

4. Conclusion

The average annual growth rate of the land value in Zone III and Zone II has exceeded the Zone I growth rate. Thus, the increase in land value is rapid in Zone III and Zone II, indicating that these two zones are newly emerging zones since new industries and educational institutions are established and the already existing service sectors are expanded. Hence, the employment opportunities in these zones attract the people from rural areas resulting in increasing the demand for housing in the urban regions. Though the land value in Zone I have not increased as fast as in Zone II and Zone III, the average land value per square foot is higher than that in Zone II, Zone III and also in the Namakkal town level. It is attributed to the fact that Zone I is the head quarters of Namakkal town and Commercial and business centre and also a well-established Zone in the Namakkal town.

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