



POPULATION GROWTH AND HOUSING AFFORDABILITY IN PHAPHAMAU REGION, ALLAHABAD

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ABSTRACT

Urban populations are forecast to increase in coming decades. Population growth is a major underlying factor for the demand of housing and without a new supply of dwellings; it pushes up the prices for both renting and purchasing dwellings. The resultant fall in affordability is a problem that is further compounded in many large cities by the change in living preferences that has resulted in a fall in household occupancy rates, particularly in the in Phaphamau region.

Affordability is further eroded in many of the urban cities from the supply side of the equation, as new supply is needed to house the growth of population, which results in urban sprawl, which in turn is putting pressure to upgrade and extend existing infrastructure or provide new infrastructure. As the new supply is often in outlying areas of the city, the requirement for new infrastructure is more the norm and together with new environmental compliance costs and elevated quality expectations, it impacts on the cost of new supply.

In order to analyse the likely trends in housing affordability, Phaphamau suburban area is explored as a case study. It is expected to grow significantly and housing this growth is putting pressure on both urban redevelopment and fringe settlement. Both of these bring specific challenges that shed light on the question of long term trends in affordability. This paper will analyse several policy directions that could be considered in order to address these adverse trends in housing affordability.

INTRODUCTION

World population has risen to over 6.3 billion people and by 2030 over 60 percent of the world's population is expected to be living in cities. There are now over 400 cities with a population of over a million people.

As population growth is an underlying factor for the demand of housing, without new supply of dwellings, it pushes up the prices for both renting and purchasing dwellings. The problem is further compounded in many of the large cities with a change in living preferences that has resulted in a fall in household rates, particularly in the Phaphamau suburban area.

Hence, population movement to the city and fewer people per household means the supply of more housing is needed. This can only be brought about through urban consolidation and Greenfield development, that is, the sub-division of outlying broad hectares. One major effect of this is the cost of infrastructure required, as either new infrastructure has to be put in place or upgrading and extending the existing infrastructure. Either way, in Shantipuram, there has been a rapid increase in the cost of infrastructure. In fact, due to the increases in infrastructure costs that are required to service new sub-divisions over the past two decades, the cost of supplying new land for residential development in Phaphamau suburban area has risen at a far greater rate than the cost of construction of new dwellings.

Using Phaphamau suburban area as a case study, this paper will show how population growth is producing a housing affordability problem in a major city and will discuss options that could be considered by policy makers. The paper will concentrate on purchase affordability only and will not be addressing rental affordability

OBJECTIVE

The following objective of this study is given below;

- To describe the condition of housing affordability in Phaphamau suburban area.
- To describe the population and population growth in the suburban area.
- To find out the relation of population with affordability of houses.
- To suggest that how to solve the lack of housing affordability in comparison to the population of the area.

DATA SOURCES AND METHODOLOGY

The present study includes two data sources primary and secondary. The primary data is based on observation, questionnaire, schedule method and interview method. The secondary data have two methods of data sources published and unpublished data. On the basis of primary and secondary data the following methods have been used in the present study:

Firstly, the location map of the study area is based on toposheet no. 63G/14.

Secondly, the primary data is field-survey conducted and questionnaire based data collected.

Last, one is reference book and related study-area research consulted.

The methods of tabulation, data interpretation, data analysis have been used in this study.

In this research work the graphing of the concerned data have also done. The method of data expression through graph is done by Microsoft Office Excel 2007.

RESULT AND DISCUSSION

The condition of affordability of houses in the Phaphamau suburban area is tabulated in table no-2. In this table there is a description of number of houses in year 1991, 2001 and 2011 and also the growth rate in number of houses.

After that there is a description of past current and projected population of the area in the table no-2. Table no-2 shows the decennial growth rate in population of the Phaphamau suburban area in the decade of 2011 and 2021.

Thus there is a comparison between the population and number of houses of the Phaphamau area. The result of this comparison is a lack of housing affordability in respect to population of Phaphamau suburban area.

After all there is conclusion and suggestion is given for the result of lack of housing affordability.

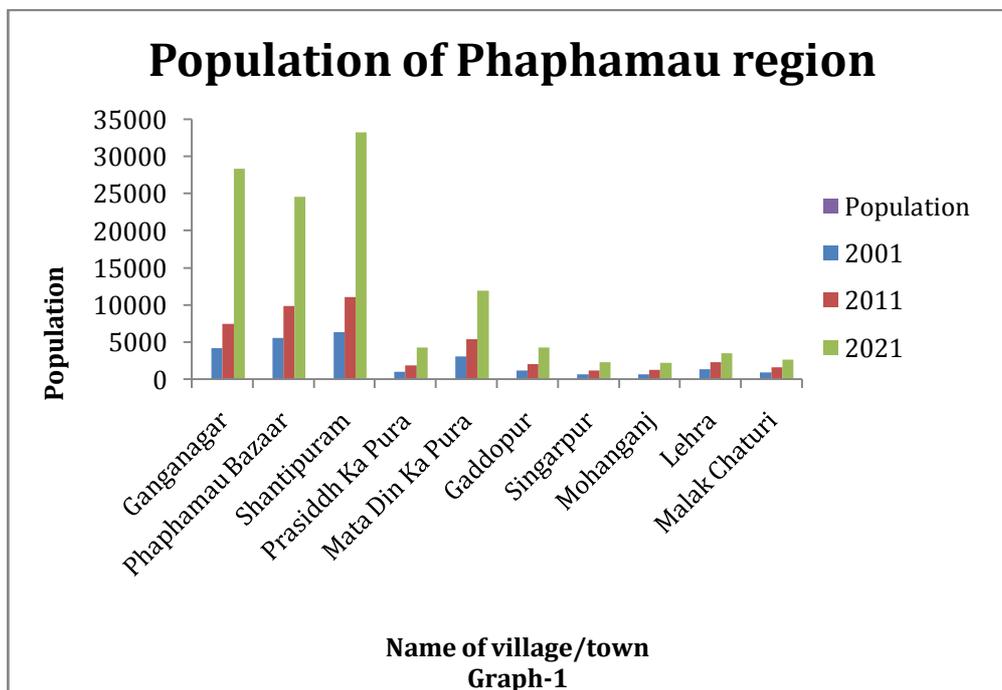
On observation of table given below, the total population of the region is 25200 in year 2001 and 44123 in year 2011. The growth of 10 year population is 18323. Above rapid growth of population needs large number of houses. The total number of houses is 4955 in year 2001 and 8960 in year 2011. The difference between the numbers of houses in two times is 4005, shows a high growth according to the growth of above population in Phaphamau Suburban Area. The area of the region is limited, it cannot spread.

Table-1

Population of Some Selected Villages/Towns in Phaphamau Region

S.N.	Name of Village/ Town	Population		Growth rate (From 2001 to 2011)	Population 2021	Growth rate (From 2011 to 2021)
		2001	2011			
1.	Ganganagar	4246	7460	75.69	28348	28
2.	Phaphamau Bazaar	5618	9831	74.99	24577	25
3.	Shantipuram	6322	11063	74.99	33189	30
4.	Prasiddh Ka Pura	1065	1863	74.92	4285	23
5.	Mata Din Ka Pura	3095	5416	74.99	11915	22
6.	Gaddopur	1164	2048	75.94	4301	21
7.	Singarpur	691	1216	75.97	2310	19
8.	Mohanganj	714	1249	74.92	2248	18
9.	Lehra	1341	2346	74.94	3519	15
10.	Malak Chaturi	944	1661	75.95	2658	16
	Total	25200	44123	75.33 (Average)	117350	21.70 (Average)

Sources- Population data based on urban primary census abstract.



According to the above table the total population in Phaphamau region is 25200 in year 2001. It is the total population of ten selected village/town in the region. Shantipuram having highest population (6322) and Phaphamau bazaar second highest population town in the region in year 2001. Singarpur village having lowest population in the region.

According to the above table in year 2011 the total population in the region is 44123. The population of Shantipuram is the highest population in the region. The lowest population of

Phaphamau region is 1216 of Singarpur village. The decennial growth rate in year 2011 is very high. The average growth rate in the region is 75.33. Hence, the population density of the region is very high.

Year 2021 is the projected year of the study. The projected population of the region in 2021 is 117350. This population is very high. Hence, the population density of the region is very high. The population density of the region is 21.70. This projection is based on past population growth in the region and surveyed by urban primary census abstract. Like past and present decade Shantipuram will have highest population in the region in year 2021. And Singarpur will have lowest population in the region.

The past population of the region in year 2001 is 25200. The present population of the region is 44123 in year 2011. The difference of population from 2011 to 2001 is 18923. Thus there is an addition of 18923 people in the past population of Phaphamau region in year 2011. This population is approx double of the population of 2001. The exact average decennial growth rate of population in year 2011 is 75.33. The average decennial population growth rate from 2011 to 2021 will be 21.70. This growth rate is not high as like to the decennial growth rate of 2011. But it is higher than the growth rate of the country i.e.17.64.

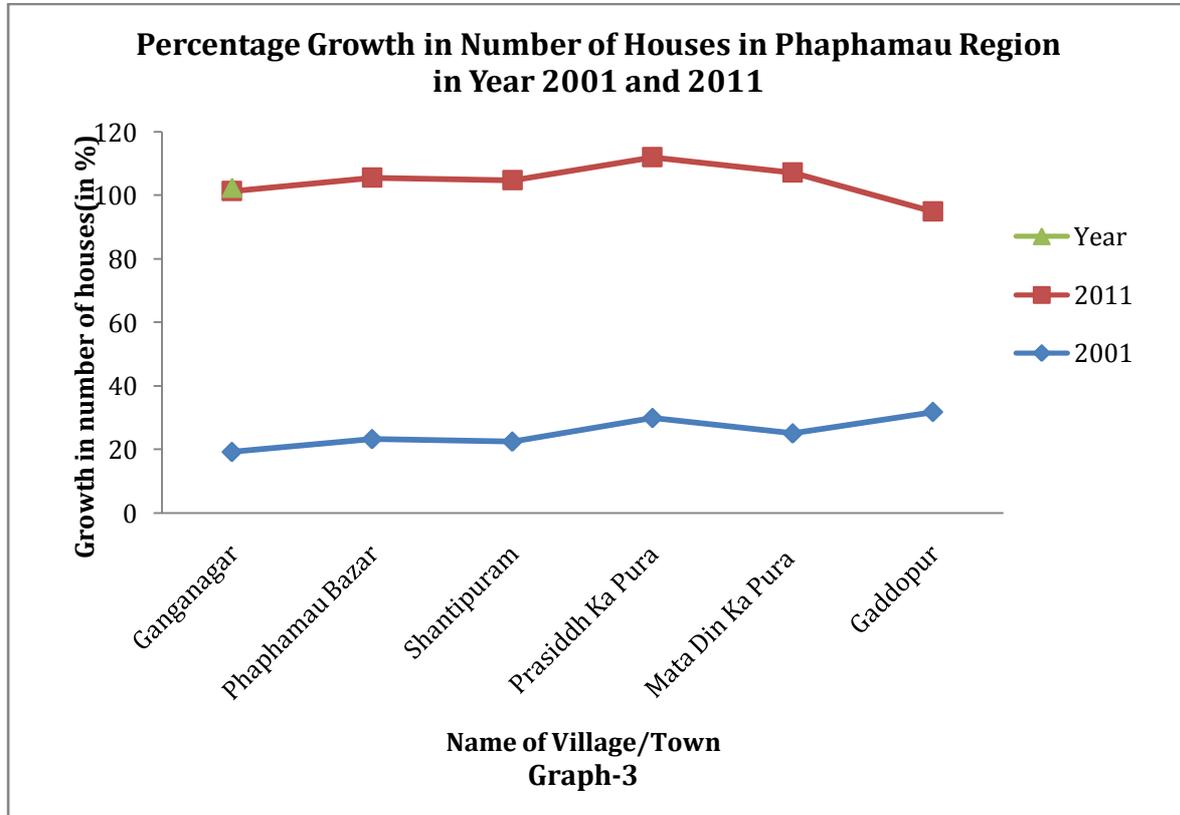
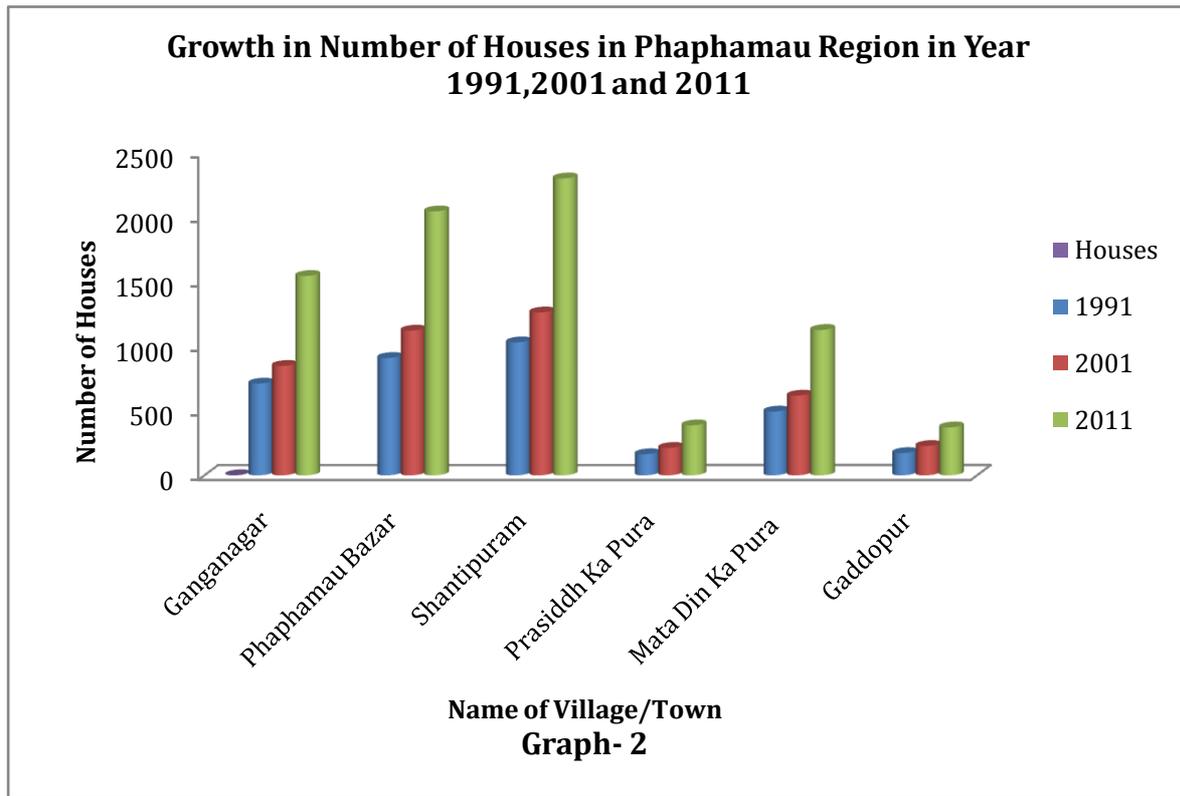
The current population in the region is 44123 and the projected population is 117350. The difference between the projected and current population is 32388. This difference is approximately as equal to the current population in the region.

Finally, the population density in the region is very high. In future the density will be higher than the present population in the region.

Table-2
Number of Houses and Growth Rate of Houses in Phaphamau Environs

S.N.	Name Of Town/Village	Number of Houses			Decadal Growth of Houses (%)	
		1991	2001	2011	2001	2011
1.	Ganganagar	712	849	1547	19.24	82.21
2.	Phaphamau Bazaar	911	1123	2048	23.27	82.36
3.	Shantipuram	1032	1264	2304	22.48	82.27
4.	Prasiddh Ka Pura	164	213	388	29.88	82.15
5.	Mata Din Ka Pura	495	619	1128	25.05	82.23
6.	Gaddopur	173	228	372	31.79	63.16
Total		3487	4296	7787	25.29(Average)	79.06(Average)

Sources- Population data based on urban primary census abstract.



On the basis of observation of table no.2, it can be concluded that the number of houses and growth rate of houses in Phaphamau suburban region has variations in different year and decade. The number of houses in year 1991 and 2001 and 2011 are 3487, 4296 and 7787 respectively. The average growth rate of houses in year 2001 and 2011 are 25.29% and 79.06% respectively. Thus there are 809 more houses built in decade 2001 and 3491 houses built in decade 2011. The number of houses of decade 2011 is more than three times of houses of decade 2001. Decade 2011 has a large growth rate in number of houses than decade 2001.

Fast growing population of the region has important needs for infrastructural development like roads and bridges. This covers the large part of the region. So there is no open space for growing green grass and plants. The total transport and travelling area in Phaphamau suburban region including bus terminus, truck terminus, railways and airways is 480.38 hectare.

SOLUTION TO HOUSING AFFORDABILITY

The above analysis has highlighted the problem of housing affordability in a modern city that is also experiencing a continued population growth. The main problem stems from the inadequate supply, that the future underlying demand for new dwellings in the Phaphamau region is far greater than the expected annual release of land by the government.

However, there is probably no 'one fix' to the problem and further in depth research needs to be undertaken. However, it can be acknowledged that the following are positive factors that need to be considered in addressing the affordability problem:

- Government release of land for development,
- Lower infrastructure levies,
- A more efficient transportation system
- A proactive move to encourage industry to be located in the fringe region.

Other options There have been many other options presented by various researchers on the demand side, two that are worthy of further consideration and research. The first by is to make use of the trillion dollar superannuation vehicle in Phaphamau Bazaar, whereby the government could include home ownership within self funded policies. The second, who proposed a government housing bond, which can be traded like other bonds. In the past, it was suggested to allow retirees to invest in such bonds and derive an income without jeopardising their pensions because of the means test. Although both of these options are on the demand side, they have merit and need further research for their development.

One final point, whilst this paper only analysed the affordability of purchasing housing, the end result of people not being able to buy is that they will demand rental accommodation and accordingly drive up rents as has been the case in recent times. Dainik Jagran (2017) latest media release said, that "for the 12th month in a row, the residential property vacancy rate in Phaphamau region has remained at below 2 percent - the benchmark figure that indicates whether or not there is a rental crisis." The figure currently for Phaphamau is 1.5 percent. So whilst some commentators may say that people are better off renting, rental prices are also creating (rental) affordability stress.

CONCLUSION

This paper has discussed the growing affordability problem in Phaphamau region, whereby households are spending more and more on housing as a ratio of their income. The paper also discussed Phaphamau region's expected population growth, which will result in further increases in demand for housing. However, as shown, the problem is not one of helping those that are in

affordability stress by introducing policies that will alleviate the current problem, as this would only drive demand and prices even higher in the long run.

The options need to address the supply side and in particularly in the fringe areas where new releases could be at more affordable prices for the purchaser of house and land packages. However, what has been clearly identified is that the problem is not one of simply increasing availability of land through government land release for subdivision in the city fringe area. This is because the cost of new supply is being driven upwards, due mainly to increases of government charges, it is find that the cost were so great that it is not feasible for the developer to undertake development in those areas.

There is the risk that the affordability problem is becoming a self perpetuating problem, because whilst developers cannot get a reasonable return on development, they will not provide the new supply needed to keep pace with the expected growth in population and thereby have existing dwelling prices driven higher.

There is no 'one fix solution' to the problem and it needs a combination of policies to assist, after all, all the factors that lead to the problem are interrelated in one way or another. The several policy options that were analysed in this paper were common among the various industry bodies and all were dependant upon government action in one way or another. All three tiers of government need to be pro-active in addressing the problem.

Without, government action, the current problem may well in fact become a permanent one, whereby households will not be able to bridge the affordability gap.

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