Shelter Comfort and Protection: Housing Requirement of Future Population of Sri Lanka

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Introduction

Shelter, together with food and clothing are the three most important necessities for man's living in the world. A house is a structure, construction or a building which provides shelter, comfort and protection for human beings. Thus, housing and housing condition are most critical factors of wellbeing of any given population in the modern world. During the last couple of decades population of Sri Lanka has grown significantly and it is expected to increase from 20.3 million in 2012 to 22.5 million by 2030 by adding about 2 million. Population change and socio-economic environment have impacted on housing need in Sri Lanka.

Problem

As of 2013, in Sri Lanka housing is a major capital resource that affects every aspect of national life. Housing requirement in Sri Lanka is still not met mainly as non-accessible to housing finance and other reasons. Standard housing types would not fulfill the need due to different requirements of households and family formation.

Objective

Specific objectives of this study are:

- To elucidate the composition of current housing stock and its trends in Sri Lanka.

- To identify the demographic and socio-economic factors influencing the housing demand.

- To project volume of house constructions needed for next 30 years (2012-2042).

Review of Literature

Marga Institute (1986) has done a comprehensive study on development and policy changes in housing sector during the inter-censal period 1971-81.

Mulder (2006) has explored the relationship between population and housing arguing that this relationship is always two-sided. Kulu and Vikat (2007) examined the fertility variation across housing types and childbearing patterns following housing changes in Finland. Mberu (2006) has examined the relationship between internal migration and household living conditions in Ethiopia. A study about Japanese couples on employment and household tasks had examined the relationship between employment and household activities (Noriko et al, 2012). Peteke and Marraten (2007) found that separated and divorced people have higher residential mobility and migration than others. Theoretical approach on projections of households and families has been described by Rowland (2008).

Methodology

Secondary data: used include following:

- Published data & information of 1981 & 2001 Population and Housing Censuses

- 5% sample data (inflated into island) of 2012 Population and Housing Census

- Population projections for Sri Lanka by United Nations Population Division

- Demographic Year Book, United Nations Statistics Division

Primary data: used include following:

- Qualitative data through interviews from Key informants (Researchers, Experts, House contactors, Condominium management etc.)

Trend in changes of housing composition were analyzed descriptively using data from three censuses of Population & Housing in Sri Lanka. Qualitative data has also been used to evidence of future trends of household formation and housing. Household headship rate method has been used to project volume of future households for next 30 years and to estimate need of future housing units.

Findings

It is a fact that household and housing stock are grown on population increase.

Growth of Population, Households and Housing Stock

Growth of the population, housing stock and households were compared using censuses of 1981, 2001 and 2012. Over the period of 31 years, from 1981 to 2012 population has increased by 5.4 million persons and the increment of the housing stock was about 2.4 million

units which is close to doubling the initial stock at 1981. The percentage increases of population and housing units were 37% and 84% while maintaining average annual increase of 1.18% and 2.73% respectively. There has been a significant change in number of households in one housing unit over this period. Percentage of single household in one housing unit has increased from 95.2% in 1981 to 98.9% in 2012 (Table 1).

Table 1: Population, housing units, households and household size in Sri Lanka 1981, 2001 & 2012

Indicator	Census 1981	Census 2001[1]	Census 2012
Population	14,846,750	16,929,325	20,277,597
Number of occupied housing units	2,813,900	3,969,027	5,191,445
No of HHs per unit (%)			
One	95.2	97.8	98.9
Two	4.2	1.9	1.0
Three/or more	0.5	0.2	0.1
Four or more	0.1	0.1	0
Number of households	2,966,180	4,054,385	5,251,126
Average household size	4.9	4.2	3.8

(1): 7 districts (5 from Northern Province and 2 from Eastern province) were excluded
Source: Department of Census & Statistics

There has been a narrowing gap between number of households and occupied housing units in the three censuses. And also the housing units with multiple households follow a decreasing trend (Figure 1).

Figure 1: Number of occupied housing units and households in Sri Lanka 1981, 2001 & 2012
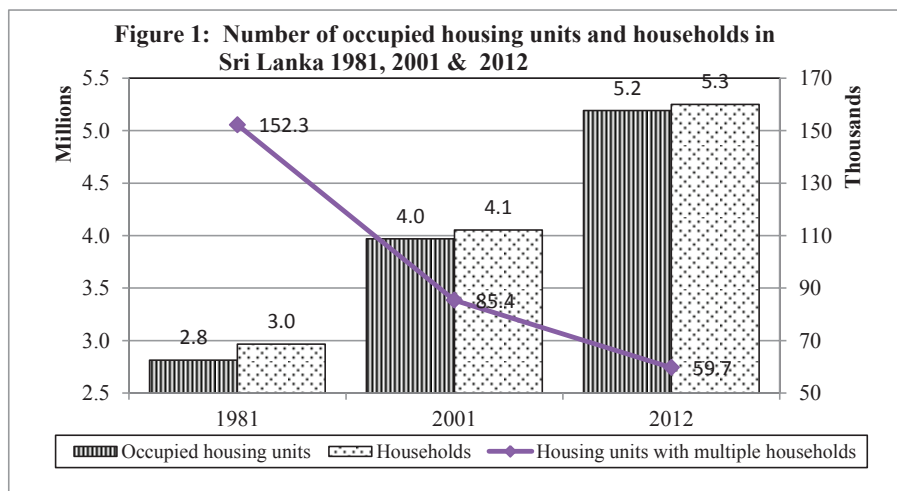
Number of rooms per unit

Changing pattern of number of rooms per unit and average occupants per room are given in Table 2. During the period 1981 to 2012, proportion of units with one or two rooms had decreased from 63% to 25% of the occupied housing stock and the proportion of the occupied housing stock with three, four, five and six & more rooms had increased largely.

The average number of rooms per unit had increased from 2.5 to 3.3during the period of 1981 and 2012 respectively. The figure for 2001 has reported a high number (4.0), due to the definition of 'number of rooms' and exclusion of 7 districts form the enumeration. Total habitable rooms have increased by around 10.1 million from 1981 to 2012. In order to evaluate this increment, 2012 housing stock can be considered based on 1981 equivalents. When applying the average number of rooms in 1981 for this increment, it has been revealed that around 4.1 million housing units of 1981 average size had been added to 1981 stock as net addition and improvements. Being the actual new addition 2.37 million units (refer Table 1), 1.7 million of housing units have been improved or re-built after demolition the building.

Table 2: Number of rooms and occupants per room in Sri Lanka 1981, 2001 & 2012

Indicator	Census 1981	Census 2001[1]	Census 2012
No of rooms per unit (%)			
One	30.6	-	6.4
Two	32.3	-	18.2
Three	17.9	-	26.7
Four	10	-	25.7
Five	4.7	-	14.7
Six or more	4.5		8.3
Number of occupied housing units[2]	2,813,411	3,969,027	4,840,679
Average number of rooms per occupied housing units	2.5	4.0	3.3
Average occupants per room	2.1	1.1	1.2

(1): 7 districts (5 from Northern Province and 2 from Eastern province) were excluded
(2): Housing units without any room and not stated were excluded
Source: Dept. of Census & Statistics

"Average occupants per room" has followed a decreasing trend with an exceptional figure for 2001. This trend implies of increasing much more space per occupant in an occupied housing unit.

Type of household

Proportion of one-person households in developed countries is significantly higher than developing countries while the proportion of non-nuclear (extended or composite) family households was in opposite direction. As shown in the Table 3, proportions of nuclear families in developed and developing countries are almost similar.

Table 8: Type of household for selected countries

	Country	Total number of households (millions)	Type of household (%)						
			One-person	Nuclear	Couple with children	Couple without children	Single parent with children	Non-nuclear	Unknown
Developed	Australia	7.76	24.3	64.1	29.9	25.1	9.1	11.6	-
	Switzerland	3.11	36.0	59.4	27.5	26.5	5.4	4.6	-
	Japan	51.84	32.5	56.3	27.8	19.8	8.7	10.2	1.0
	New Zealand	1.44	22.4	68.0	29.3	27.3	11.3	7.7	1.9
Developing	Malaysia	4.78	7.1	65.2	54.4	7.6	3.2	27.7	-
	Mexico	28.16	8.8	64.2	45.2	9.1	9.9	26.1	0.9
	Brazil	44.78	8.9	69.0	48.2	10.7	10.2	22.1	-
	Sri Lanka	5.25	7.0	60.0	40.9	8.5	10.5	33.0	-

Note: Year of data source for Australia: 2011, Switzerland, Malaysia & Brazil:2000, Japan & Mexico: 2010 and New Zealand: 2006
Source: Demographic Year Book, United Nations Statistics Division & Dept. of Census & Statistics, Sri Lanka

Sri Lanka has shown the highest proportion of non-nuclear family households (33%), which could be due to aging process and having more extended family households.

Household projection and housing need estimation

Table 4: Projected households and estimation of required housing stock, Sri Lanka, 2012-2042

Variable	2012-17	2017-22	2022-27	2027-32	2032-37	2037-42	2042-47
Projected Households in millions (at begnning of the period)	5.49	5.90	6.27	6.59	6.88	7.14	7.39
Estimated housing stock in millions (at begnning of the period)	5.44	5.84	6.21	6.53	6.81	7.07	7.32

Source: WORKERS Household projection, 2012-2042

The projected number of households and estimated housing stock form 2012 to 2042 are having upward trend. Future housing stocks have been estimated by applying the household rate per occupied housing unit for 2012 (1.01) as a constant.

Conclusions

Demand for increased housing units depend primarily on pure demographic factors that is increasing population numbers. Then it increases with changes in life style (the tendency towards nuclear

families). Then it changes with urbanization where work places are different. Reducing the number of households in one housing unit and formation of more new households will create demand for individual housing units. As of 2013, house ownership in Sri Lanka is around 90%. House ownership also influences the demand as well. Although quality of the housing is continued to improve, where people build houses with more rooms and more space but maintenance of them will be a burden for many families. In future, people may need a house where an elderly person can go around. Government housing policy and program should consider demographic changes of population to identify the housing need. Participatory housing programs will success always by designing housing units with relevance to cultural & religious requirements, geographic area and land scape. Condominium/Luxury apartments will not be a solution for general public and government and financial institutions may have to play need an important role to support people financially to build their own houses or improve them.

Keywords: Applied Demography; Housing; Households; Population Characteristics

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