
**PIONEER IN THE FIELD OF CONSTRUCTION IS
LOW COST HOUSING**

¹Sumesh Jain, ²Prof(Dr).R.S.Sharma

¹Assistant Professor, HOD Dept. of Civil, OITM, Hisar (Haryana)

² Professor, Director-Principal, RIMT, Gohana (Haryana)

¹jain.sumesh@yahoo.co.in, ²raghubir_mitu@sify.com

ABSTRACT

Housing is one of the most fundamental requirements of man along with food and clothings. The increasing populations have made the situation miserable to face seriously the uphill task of providing workable shelters to the people. Due to limited natural resources, Ecological considerations and financial scarcity, the overall housing scenario represents a very gloomy picture and India is one of the worst sufferers in this regard. . According to National Committee of Urbanization, as many as 45% people in Urban area living somehow in just one room tenement i.e. nearly 5 persons in just one small room. The position is even worse in rural areas as so far very little care have been taken in this respect. This paper discusses the Growth of population from 1901 onwards .It also discusses the comparison of State wise Housing distribution shortage between 2007 and 2012.In end it also discusses how can this housing problem can be solved.

Keywords : Low cost housing technology, cost, effectiveness, construction, India.

1. INTRODUCTION

Housing is one of the most fundamental requirements of man along with food and clothings. The population explosion to which these developing nations are exposed, have made them miserable to face seriously mammoth up hill task of providing workable shelters to their people. But due to limited natural resources, Ecological consideration and financial scarcity, they are finding them-selves on the losing side of battle. The overall housing scenario represents a very gloomy sad picture and India is one of the worst sufferers in this regard.

The housing problem has become problematic in most regions of the world since the last world war. Actually, over a number of years, shortages on a large scale have developed and conditions worsened a great deal. Efforts made to solve the problem were handicapped by the difficult economic situation prevailing during these years. Private enterprise has proved incapable of meeting the needs to an increasing extent. In some highly industrialized

countries, housing accommodation has been provided to a large extent by heavy subsidies from the State in respect of houses of standard design for low-income groups which are not an economic proposition in most countries at present on account of the high cost of construction, building materials and development.

2. CONDITIONS IN INDIA

In India the situation has become particularly serious due to large increase of population since 1921. The percentage increase of population in the last three censuses has been 11%, 14.3% and 13.4% respectively. During the same period the growth of population in urban areas is estimated at 21%, 32% and 54% respectively. The heavy shifts of population from the rural areas to urban area have occurred on account of the lack of adequate opportunities and facilities for employment in the villages and the growth of industry and business in towns with the attraction of relatively high salaries and various kinds of amenities. The increasing unemployment and underemployment in agriculture have helped this tendency. Since 1947 when the country was partitioned there has been a very heavy influx of refugees who have, tried to settle in the urban areas. The supply of houses on the other hand did not keep pace with the increasing demand. Private enterprises, which have been the primary source of building activity so far, tended to shrink on account of scarcity and high price of building materials during and immediately after the war. Pressure on the existing accommodation, therefore, progressively increased leading to evils of over-crowding, deterioration of housing estates and a variety of malpractices in relations between landlords and tenants.

The advance census figures of 1951 show that. in the decade 1941-51, while the rural population increased by 7-4% the urban population increased by 53.77%. The corresponding figures of the previous decade were 12% and 32-1% respectively. The Planning Commission made an attempt to obtain a rough estimate of housing shortage in the principal industrial towns. Information received in respect of 37 such towns with a total population of 17,14,560 engaged in large-scale industries shows that the approximate number of industrial workers, who are in immediate need of accommodation, is 4,54,900. The Environmental Hygiene Committee estimated the shortage as 18-4 lakh houses in urban areas in addition to 10 lakh houses for displaced persons from Pakistan. According to the advance census figures of 1951, the population of 74 cities with one lakh or more inhabitants increased in the decade ending in 1951 by about 74 lakhs. Population of towns with 5,000 to one lakh inhabitants increased by 140 lakhs. It will thus be seen that to house this increased population considerable building activity will have to be undertaken.

According to National Committee of Urbanization, as many as 45% people in Urban area living somehow in just one room tenement i.e. nearly 5 persons in just one small room. The position is even worse in rural areas as so far very little care have been taken in this respect.

There is a large gap between the demand and availability of houses in India and the backlog is steadily increasing. This is in spite of the fact that half of the total investments in the country go into the construction. Housing is perhaps the most serious manifestation of mass poverty and reflects the quality of a life of the inhabitants of the country most of the experts visualize the problem of slums, squatters and homeless as byproducts of population growth

3. GROWTH OF POPULATION (Since 1901 onwards) (In Millions)

Year	Total	Rural	%age share	Urban	%age Share
1901	238.4	212.6	89.2	25.8	10.8
1911	252.1	226.2	89.7	25.9	10.3
1921	251.3	223.2	88.8	28.1	11.2
1931	278.9	245.5	88	33.4	12
1941	318.6	274.5	86.2	44.1	13.9
1951	361.1	298.7	82.7	62.4	17.3
1961	439.2	360.3	82	78.9	18
1971	548.2	439.1	80.1	109.1	19.9
1981@	683.3	523.8	76.7	159.5	23.3
1991*	846.3	628.7	74.3	217.6	25.7
2001	1028.6	742.5	72.2	286.1	27.8
2011	1210.7	833.1	68.84	377.1	31.16

*Includes projected population of Assam where 1981 census was not conducted.

@ Includes projected population of J & K where 1991 census was not conducted

4. COMPARITIVE STUDY OF STATE WISE DISTRIBUTION OF HOUSES (In Millions)

State/UTs	State Wise Distribution of Housing Shortage 2007 (In millions)	State Wise Distribution of Housing Shortage 2012 (In millions)
Andhra Pradesh	1.95	1.27
Arunachal Pradesh	0.02	0.03
Assam	0.31	0.28
Bihar	0.59	1.19
Chhattisgarh	0.36	0.35
Goa	0.07	0.06
Gujarat	1.66	0.99
Haryana	0.52	0.42
Himachal Pradesh	0.06	0.04
Jammu & Kashmir	0.18	0.13

Jharkhand	0.47	0.63
Karnataka	1.63	1.02
Kerala	0.75	0.54
Madhya Pradesh	1.29	1.10
Maharashtra	3.72	1.94
Manipur	0.05	0.08
Meghalaya	0.04	0.03
Mizoram	0.04	0.02
Nagaland	0.03	0.21
Orissa	0.50	0.41
Punjab	0.69	0.39
Rajasthan	1.00	1.15
Sikkim	0.01	0.01
Tamil Nadu	2.82	1.25
Tripura	0.06	0.03
Uttarakhand	0.18	0.16
Uttar Pradesh	2.38	3.07
West Bengal	2.04	1.33
A & N Islands	0.01	0.00
Chandigarh	0.08	0.02
D & N Haveli	0.01	0.05
Daman & Diu	0.01	0.01
Delhi	1.13	0.49
Lakshadweep	0.00	0.01
Pondicherry	0.06	0.07
All India	24.71	18.78

4.1 Distribution of Housing Shortage among Economic Category-2012

Category	Distribution of Housing Shortage among Different Economic Categories as on 2012	
	No.(In millions)	In Percentage
EWS	10.55	56.18
LIG	7.41	39.44
MIG and above	0.82	4.38
Total	18.78	100.00

5.CONCLUSION

This is high time for Engineers and scientist to accept the challenge of situation and make extensive researches in the field of building materials especially utilization of waste products like Recycled aggregates available from demolition of old buildings and Pulverized fuel ash obtained from coal-fed thermal power stations. Some indications are available that these two materials may suitably be used to produce low cost concrete and may be regarded as a step forward in development of cost-effective and eco-friendly technology.

The housing problem can be solved to a great extent by reducing construction cost. This can be achieved by using low cost Materials with the help of locally available materials. The concept of cost reduction is not only for poor but everyone would like to build the house economically. This prejudice had to be removed and make people aware that reduction of construction cost does not mean compromising on strength parameters. This approach of cost reduction housing will help to provide home for the homeless and better living for others within limited resources a lot of energy used for manufacturing building materials can be saved and used for other purposes locally available building materials for construction of houses. The study would hence contribute to enhance the social acceptability of low cost houses. It should also help various organizations like, CBRI (Central building RESEARCH institute) and Housing and urban development corporation (HUDCO) which are involved in low cost construction to get a feed back on the work done by them in the field. This kind of feedback will help these organizations to, rectify to build better and troubles free houses in future and further increase social acceptability of low cost construction. In the end I can say that the use of ferrocement in pre-fabricated buildings provides many advantages in terms of lightness of weight (since its thickness is usually between 10 and 50mm), ease of handling, low labour cost in its production and a durable material requiring little maintenance. This would further lead to an “eco-friendly” low cost housing without any loss of structural integrity.

Reference

- [1] Management in construction industry by P.P. Dharwadker, Oxford & IBG Publication Pvt. Ltd.
- [2] Construction Engineering & Management' by S. Seetharaman, Umesh Publication, New Delhi.
- [3] Industrial Engineering and Management Sciences by Banga, Agarwal, Sharma Khanna, Publications, Delhi.
- [4] Industrial Engineering & Management by O.P. Khanna Dhanpat Rai & Sons, New Delhi.
- [5] Project Planning and Control by Dr. B.C. Punmia & Mr. K.K.Khndelwal, Laxmi Publications, New Delhi.