# Affordability and Level of Assistance for Economical Weaker Section Group - A Case Study of Surat city (India)

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#### ABSTRACT

Housing shortage in India is increasing rapidly, mainly because supply is much less than the housing demands. In urban area, the problem is more complex and complicated as the pressure for houses, and services due to both natural increase and migration. The most important resources required to purchase House is finance. Housing plays an important role in a country's economy, typically accounting for 10 to 20 per cent of total economic activity. In this present paper investigations have been made on affordable housing in India. Present paper is a classical example for affordable shelter economical weaker section for metropolitan city like Surat.

**Keywords:** Dwelling Unit, Housing, Finance, Affordability, Economical Weaker Section.

#### **1. INTRODUCTION**

Housing is often an individual's biggest asset. In the housing sector, the problem further compounded by the mobility of the families, both the poor and the rich, to spend enough for the basic services, which also requires finance. The availability of housing finance is, therefore, crucial for overall economic development as well as for a household's welfare and its quality of life. [1]

On the housing front, despite the substantial increase in the housing stocks in the urban areas, the housing situations continues to be daunting and even more complex by the diverse nature of its population and its geographical space. The mind-boggling forecast is that nearly 36% of India's population will be leaving in urban centre by the year 2025. [3] This forecast falls into perspective when we realize that even at present moment, urban India is 24.71 million dwelling units sort as relieve in the draft 11<sup>th</sup> plan [8] working group report on urban housing which states that the housing requirement over the 11<sup>th</sup> plan period (2007-2012) is estimated to be at 26.53 million units including the housing shortage as on 2007. Over 97% of the total housing shortages are for EWS and LIG categories.

Any attempt to solve the magnitude of housing shortage has to deal with issue of the urban households belongs to EWS & LIG. As much as 70% of urban population belongs to this two income groups (as per NCEAR study). And as mentioned above, out of total housing needs of 26.53million units in urban areas by 2012, as many as 97% will be required by the EWS & LIG people. [2].In the first National five year plan period (1951-56), housing was introduced in policy framework at the national level. Affordability was emphasized as the key issue and government support through subsidies and loans was deemed necessary and still it is continuing in 11<sup>th</sup> plan period (2007-2012).

# 2. STUDY AREA

Surat is one of the fastest growing cities between Mumbai and Ahmedabad corridor. The city of Surat is situated on the bank of river Tapi having coastline of Arabian Sea on its west. Surat is the main center of business and commerce in South, Surat Municipal Corporation (SMC) as shown in Fig.2.1. The area is about 334 sq. km.

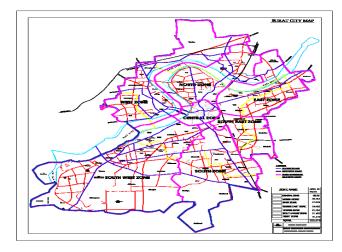


Fig. 2.1 : Surat Municipal Corporation Area

#### **3. OBJECTIVES OF THE STUDY**

- To study the affordability
- To investigate level of assistance for EWS in Surat Municipal Corporation Area.

#### **3.1 Structure of Housing Finance Institutes**

Housing is a state subject. More states have set up Housing Boards and Slum Clearance/Development Boards at the state level, Prior to the First Five Year Plan[4], housing was mainly dealt by the private sector and some budgetary allocations were made for the housing of government employees. Fig.3.1 shows a schematic representation of the formal housing finance system. [9]

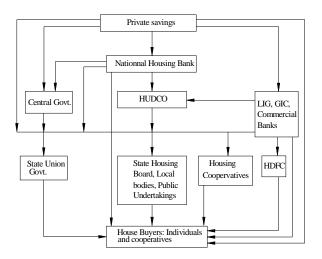


Fig- 3.1 A network of Formal housing Finance System

#### 4. ASPECTS OF AFFORDABLE HOUSING

The government in taking new initiatives to tackle the problem of housing finance. The creation of several Housing Finance Corporation is one such step. The Finance Institution has a mandate to allocate a substantial part of their resources to meet the needs of the poor people. Affordable housing has three major aspects. a)Financial, (Government and public sector, public private partnership, financing through composite credit mechanism, self-help groups and tapping international capital): b)Technical, (cost of material, cost of construction technology and land and infrastructure development cost); c)Policy, (reorientation of central, state and local bodies, strengthening of building center, new approach to construction management). [12] households interviewed had moved into their housing area in the 90's. Keeping that in mind the corresponding norms laid down by 11th plan (2007-12) and HDFC in 2006 Table.5.1 were adopted for the affordability study. [8]

# 5. THE AFFORDABILITY STUDY

To understand the affordability it was analyzed using Wakely diagrams to indicate the levels of affordability at EWS.

#### **5.1 Income Parameter**

The selection criteria for housing areas, those, in which the residents had been staying for at least eight to ten years were selected, so that the residents could develop familiarity with the housing areas. The analysis of the questionnaire showed that a majority of the households interviewed had moved into their housing area in the 90's. Keeping that in mind the corresponding norms laid down by 11<sup>th</sup> plan (2007-12) and HDFC in 2006 Table.5.1 were adopted for the affordability study. [8]

In the monogram shown in Fig.6.1 housing standards in terms of area are plotted in the Y-axis of the corresponding chart, while the related capital cost is plotted in the X-axis. In the case of EWS category the capital cost as multiple of annual household income is 1.41. as shown in Fig.6.1. This means that the maximum capital cost of a house in this category could be only Rs. 55,836/- (39,600 x 1.41). At Rs.4841 per square meter cost of construction; this income category could afford a maximum of 11.53 square meters, represented in the corresponding scale by point P. The point P is then projected on the chart of capital cost as a multiple of annual household income to meet the line corresponding to 1.41 at Q point. The Q point is then projected horizontally on the curve depicting percentage distribution of household incomes to meet point R. Next, R is projected on the chart below which is showing affordability of percentage of household in the income category. [6]

Table: 5.1 Interest Rates and duration of Loan Repayment for Different Income Categories.

Category	Max. Annual Income (Rs.)	Interest Rate	Loan Duration	Percenta ge of Income of rent
EWS	39,600/-	5.68 %	15 yrs.	20

Source: 11th plan 2007-12, HDFC

#### 5.2 Capital Cost, Households and Dwelling Size

The minimum cost of construction according to the 2007 prices was considered to be as follows:

- EWS housing: Rs. 4841/square meter
- The household size was taken as 4.4 (NSS report No. 505, January- Jun, 2004) [7]

In the following section, the effectiveness of the level of assistance for EWS is analyzed using Wakely charts.

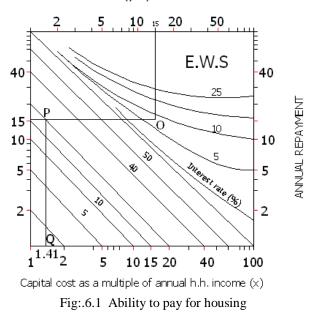
#### 6. LEVEL OF ASSISTANCE FOR EWS.

Wakely charts are primarily of two types. In the first type of Wakely charts, one can determine the capital cost for housing as a multiple of annual household income, given (i) The borrowing rate of interest, (ii) The duration of loan, and (iii) The household income devoted to rent. The second type of Wakely charts is a combination of four types of charts expressed in the form of a monogram. By using these charts in tandem one can determine the percentage of households who can afford housing of a given standard. The given parameters are: (i) The housing standard in terms area, (ii) The capital cost involved. (iii) The capital cost as a multiple of annual household income and (iv) The percentage distribution of annual household income.

For the analysis of the affordability of the EWS category, first the capital cost of housing as a multiple of annual household income was determined.

The duration of loan is assumed to be for 15 years at 5.68% effective rate of interest according to the prevailing benefit. The household income devoted to rent in assumed to be 20%. As shown in figure: no. 4 the point of intersection of an interest rate of 5.68% and duration of loan of 20 years in the point O. this point is then projected horizontally to the left to meet the corresponding to 20% of the household income devoted to rent to get the point P, and the line is projected further to the left to meet the scale of annual repayments R. The point P is then dropped perpendicular to get the point O on the scale of capital cost as a multiple of annual household income. In this case C has a value 1. 71 Using the equation p = c x r. One can get a value of p = 1. 71 x 20. This means that the maximum cost of a house a person in this income category can afford is 1.71 times his annual household income. [5]

duration of loan (yrs)



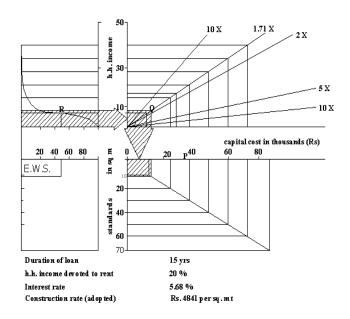


Fig:6.2 Housing finanace for EWS

The affordability bar shows that about 80% of the EWS category could afford the bare minimum of 11.53 square meters, as shown in the monogram Fig: 5. which one is better than prescribed by the National Building Code. The maximum affordable size of 22.45 square meters, by the EWS, was, considered by SMC authority. [10] A household size of 4.4 numbers. This means that there would be a very medium occupancy ratio in the rooms, which would affect the satisfaction level.

#### 7. EWS HOUSING PROJECTS

The Surat Municipal Corporation has constructed 7616 dwelling units on 24 different sites during the year 2005-06[11]. The construction work of 7424 dwelling units (DUs) has been completed and possession to the beneficiaries has been handed over. 3533 units are handed over to the beneficiaries by draw The housing design for E.W.S. Category is Ground plus Three Storied RCC framed structure. On each floor, there are four dwelling units. The total Built-up area of single D.U. is 22.45 sq.m. (i.e. 241.00 sq. ft.) The unit has single living room, kitchen, water closet, washing place and balcony. The land cost is not considered as part of total project cost. 1,49,596 sq.mt. of land has been covered for 23 sites. The average housing density is 453 D.U.s./Hector (i.e.2265 PPH).Basic infrastructure like water supply, drainage, pucca roads and street lights are also provided by Surat Municipal Corporation. The construction cost of the single dwelling unit w as Rs.58, 000/- for the project prior to 26 Jan, 2001. While for the post earthquake projects, the building design w as revised and the construction of single dwelling unit rise to Rs.68, 000/-. Rs. 5,000 per D.U subsidy is provided by the Government. the project site photograph is shown in Fig.7.1.



Fig. 7.1 Project Photograph

Table-8.1. The salient points at this level of assistance were as follows:

Scheme	Income	Built up Area per Unit (sq.mt.)		Contributions			Ι
	Ceiling In Rs per month		Unit cost	Beneficiary	Govt. Subsidy	Loan component	Installment
	Up to 2500 In case allotment done through draw						
From 2006-0 Up to 3300	From 2006-07 Up to 3300		58,000 Before E.Q.	18,000	5,000	35,000	332 up to15years
			68,000 After E.Q.	28,000			
			In case hutments are shifted				
			58,000 Before E.Q.	1,000	5,000	35,000	332 up to 15 years
						17,000 SMC's without interest loan	94 up to 15 years
			68,000 After E.Q.	1,000	5,000	35,000	332 up to 15 years
						27,000 SMC's without interest loan	150 up to 15 years

The affordability bar shows that 14 % of the EWS as shown in Fig. 6 could not afford a core house with the SMC assistance. 22.45 square meters. The total built-up area of single Dwelling Unit (D U) is 22.45 Sq. m. (i.e. 241. 00 Sq ft.) The unit has single living room kitchen, W.C., washing place and balcony. This shows that SMC levels of assistance was adequate and for the majority of the EWS people a minimum housing was affordable. The actual unit cost after earth quake is 63,000/- due to Government subsidy benefit and the total monthly installment is Rs 482/as shown in Table 8.1 which one can save easily for monthly income.

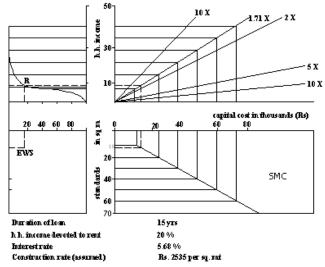


Fig: 8.1. Housing Finance for SMC ceiling costs

# 8. LEVEL OF ASSISTANCE BY SMC CEILING COST

The salient points like income ceiling, built up area, unit cost, govt. subsidy and other details are shown in table 8.1

#### 9. CONCLUSION AND DISCUSSION

Majority low affordability often results in a "filtration" process in which the housing does not reach the actual target groups and is often occupied by people from a higher income level. It is emphasized that given a better affordability the satisfaction level also raises, a fact hitherto over looked.

# The major findings from the study revealed the following

- A minimum standard house is affordable by the majority of the EWS of Surat urban area.
- Looking to the prevailing construction rate and all infrastructural facility provision in EWS project SMC authority have been providing best level of assistance.
- More number of units are required to construct as per demand supply ratio in Surat which one observed during invitation of application form for EWS dwelling unit housing scheme by SMC authority.
- As per study, it seems that EWS are in a better position compared to the LIG. The persons at the highest level of the EWS are in a more favorable position than their immediate higher incomes categories, as they enjoy loans at lower interest rates and have the benefit of higher repayment periods.
- It found that at all levels of EWS assistance, the affordability in significant which satisfaction level of needs to consider the fact that under the present set of condition. The need for an extensive and wide spread institutional networking with accent on the housing finance system.
- Institutional building in the housing finance sector has now assumed critical importance not only in the context of 'affordability', but also for better integration of the housing finance system with the macro finance system.
- The emerging policy intervention of government of India and the changing role of Government from 'Provider' to 'Facilitator' has generated a host of Opportunities and challenges for the key stakeholders.

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