

# “REHABILITATION OF SLUM AREA IN CENTRAL ZONE OF SURAT”

**Bhadkan Kirtan<sup>1</sup>, Dhaduk Meet<sup>2</sup>, Dharaiya Jatin<sup>3</sup>, Hirpara Bhautik<sup>4</sup>, Mangukiya Manthan<sup>5</sup>**

*<sup>1-5</sup>Guided by:- Mr. Jigesh Gajera Professor of civil engineering department, M.S.C.E.T, Surat, India*

**Abstract** - One of the greatest problem that india faces according to census 2011 is increasing population and urbanization. Population as per census 2011 is 1200 million making india the second most populate country of global, after china. According to Census 2011 1.37 crore households or 17.4% of urban indian household lived in slum. Gujarat ranked 3rd in having largest slum in the country. The state has 2058 non-notified slum which have more than 3.84 lakh slum household. The dream of owning a house particularly for low-income families is becoming a difficult reality. Hence, it has become a necessity to adopt cost effective, innovative and environment-friendly housing technologies for the construction of houses and buildings for enabling the common people to construct houses at affordable cost.

**Key Words:** Slum, slum rehabilitation, slum redevelopment

## 1. INTRODUCTION

Surat city is a large metropolitan city of India with a population of about 7.5 million. It has a population density of 13680 persons/ sq km, which is relatively very high. The slum population in surat city is as high as 55% due to the housing problem, especially for the urban poor who are forced to live in slum settlements. so we decided to give a planning proposal in terms of affordable house. It should be noted that low cost housings are not houses which constructed by cheap building materials of substandard quality. Low cost housing technologies aim to cut down construction cost by using alternatives to the conventional methods and inputs.

### 1.1 Aim

A Planning proposal in term of Rehabilitation by identifying slum pocket in central zone of surat city.

### 1.2 Objective

To study the existing scenario of slums of central zone of city Surat.

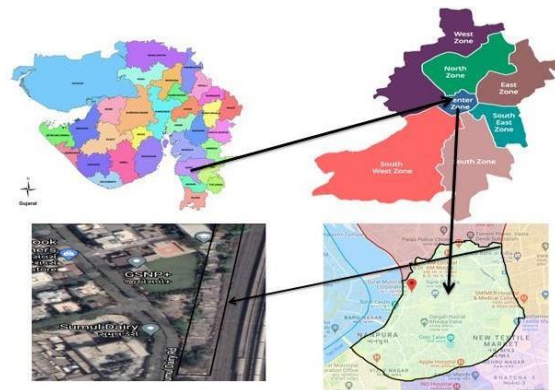
To recognize issues facing rehabilitation of slum in the study area.

To Give a planning proposal of residential building.

To identify total cost required for completing a project using conventional and cost- effective technology.

To compare cost and time reduction by adopting different materials and techniques for large scale project.

## 2. Study area



**Fig-1:** Study area

Zone	Central zone
TP NO.	35
NO. of slum	350
Slum population	2300

**Table -1:** study area statistic

Slum scenario of central zone:

Total area of central zone is 8.18 sq. km and population of central zone is 408760. Density per sq.km is 49971.

In central zone total number of slum household is 9889 and slum population is 49323 and its high density of slum than other zone area.

Sr.NO	Zone	Area Sq. Km.	Population	Density Per Sq.Km.	Slum House Hold	Slum Population
1	Central	8.18	408760	49971	9889	49323
2	South West	111.912	347447	3105	7502	33982
3	South	61.764	695028	11253	17887	76025
4	South East	19.492	748304	38390	30051	147050
5	East	37.525	1137138	30303	21334	90992
6	North	36.363	705163	19392	13541	58293
7	West	51.279	424986	8288	5665	25993
<b>TOTAL</b>		<b>326.515</b>	<b>4466826</b>	<b>13680</b>	<b>105869</b>	<b>481658</b>

Tabel-2: Zone wise slum pocket

Technical parameters	
Total Plot Area	3576 Sq mt
Total plinth area	404 Sq mt
Total carpet area of the dwelling Unit	28.3 Sq mt
FSI	1.48
Seismic zone consideration	As per seismic zone III

Table 3 Technical parameters

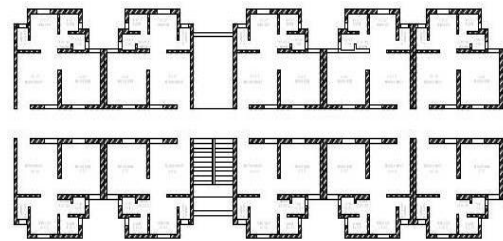


Fig-4: Floor plan

### 3 Planning and design

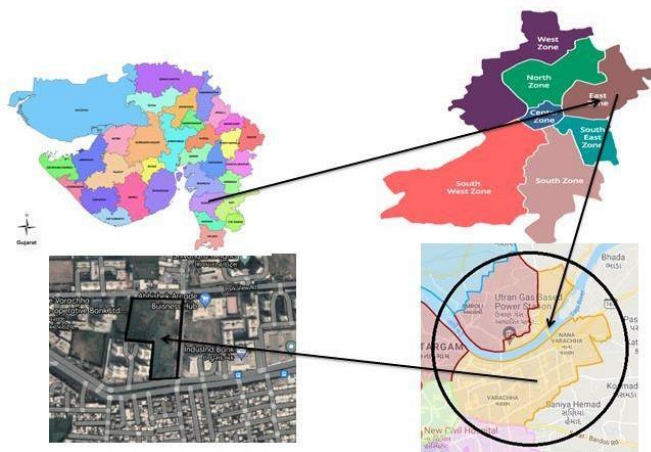


Fig -2: Name of the figure

We found the area in east zone because In central zone there is no enough space for construction of the 3 buildings. In east zone near yogi chowk we found TP no. 11 Plot No 59 and Total plot area is 3576 Sq mt.

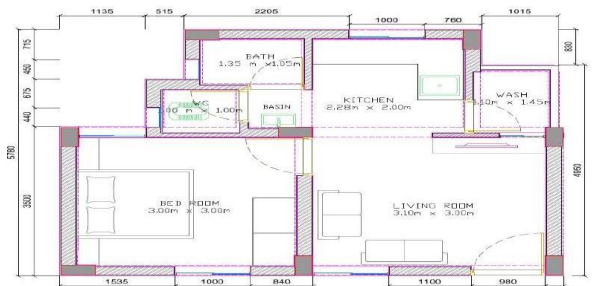


Fig-5 1BHK Plan

Material used in low cost building:

1. Pre-cast beam
2. Pre-cast slab
3. Hollow block
4. Gypsum Plaster

Cost comparison:

NO	Req. Number Of Brick	Req. Number Of Brick	Price	Total (RS)
1	Brick	7370	5	36850
2	Fly Ash	7370	3.5	25795
3	<b>Hollow Block</b>	<b>615</b>	<b>20</b>	<b>12300</b>

Table 4 Cost Comparison of brick work in wall

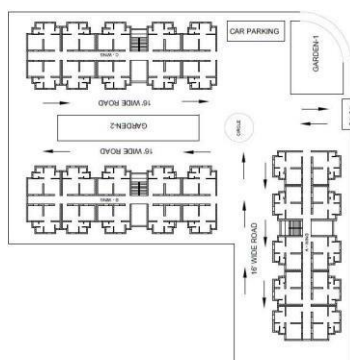


Fig-3: Layout Plan

Parameters	Cement plaster	Gypsum Plaster
Basic Raw Material	Cement + Sand	Gypsum Power
Standard Packaging Size	40 KG	25 KG
Cost per 100 SQ.	2600/-	1900/-

Table 5 Comparison of Plastering Work

Beam	Precast T beam	Normal beam
Cost (Rs/m)	450	750

Table 6 Comparison of beam

Financial Projection	
Total Project Cost	14,11,20,000/-
Total Central Govt. share	2,00,000/-
Total beneficiary own contribution share	1,92,000/-
Total Dwelling Unit	360
Total Cost Per Dwelling Unit	3,92,000/-

Table 7 Overall cost of project

#### 4. CONCLUSIONS

Central zone is having 350 slum pockets because it is a developed area of the city. Approximately 70 % of people are migrated from other states. This project examined the cost effectiveness of using low cost housing methods in comparison with the traditional construction methods. The studies in project were conducted. It was found that about 26.11% and 22.68% of the construction cost, including material and labour cost, can be saved by using the low cost housing Methods in comparison with the traditional construction. Total Project Cost =14,11,20,000 and Total Cost Per Dwelling Unit =3,92,000.

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