

Feasibility Analysis of Public Private Partnership in Housing Sector



Engineering

KEYWORDS : affordable housing, slum dwellers, public-private partnership model, cost model

Onkar S Desai

P.G.Scholar, Department of Civil Engineering, Rajarambapu Institute of Technology, Islampur, Maharashtra, India

Prof.Dhananjay S Patil

Assistant Professor, Rajarambapu Institute of Technology, Islampur, Maharashtra, India

ABSTRACT

Now a days affordable housing is the main issue in India. Every poor people will have their own house for survival of a decent life. Increasing population growth and urbanisation is also main problem facing a government. The main problem is slum dwellers in many metropolitan city. The case study which is selected from Maharashtra state Kolhapur city slum area. The slum problem can be solved by the use of public-private partnership models i.e. means the local body government and private sector. The solution which has obtained are based on the physical and economical survey of slum people and the cost model and the public private partnership model to solve the issue of slum redevelopment.

1. Introduction

It is estimated that more than half of the world's six billion people now live in cities, towns and other urban spaces. Current trends predict that this number will continue to rise with urban population growth being significantly more pervasive and rapid in the developing world than that of the developed. The population of India, at the turn of the twentieth century was around 238.4 million. The population of India has increased by about 181 million during the decade 2001 to 2011. It is significant that the decade growth rate population in 1981-1991 is 23.87 percent and in 1991-2001 is 21.54 percent, a decrease of 2.33 percent point. The increasing population towards the urban areas or towns for the job purpose is faced lot of problems by government. As government and some private entity has situated the industrial area in many states all over India, due to this the problems which are create in front of government is the land acquisition and people coming through small villages to work in industries area and these are lived in slum area in the towns and cities. Housing is fundamental human need; it is a basic requirement for human survival as well as decent life. As decent government has declared that every poor can have an own affordable house till 2022.

As per the census 2001 data India population was 1027

Million 72% of population lived in rural areas while

Remaining 28% lived in urban areas and in 2011, 31% lived

in urban areas. To solve these problems of slum dwellers and project affected people and below poverty line people. In Maharashtra state the most controversial slum area is DHARAVI. The state government has trying to develop the slum areas in many cities but the problems which are facing are the land for rehabilitation and the funds.

2. Gap analysis:

Today the main issues before the Indian government are slum up gradation or rehabilitation of the slum areas in many cities. These issues are delayed due to the land acquisition and funds problems. If the public-private partnership model can be used for the housing sector for the slum rehabilitation or up gradation then the problem can be solved.

3. CASE STUDY:

Kolhapur city is known as Karveer Nagari. Kolhapur is located on the Sahayadri mountain range and south western part of the Maharashtra state. In Kolhapur city slum area are formed from since 40 to 50 years. All the people live in slum area are live in kuccha houses and do the job on daily wages. Today the city has more than 5 lakh population. Total population living in slum

area is 87,577 which constitutes above 17.76% of total population of 4, 93,167 of Kolhapur city, as per the census of year 2011.

Slums are the informal settlements in the city. In Kolhapur city there are 54 slums. Amongst which 44 are notified and 10 are unnotified. These slums are located in municipal corporation land, private land as well as government land. About 56,235 populations live in 10,447 huts. People in the slums have lack of basic amenities, toilets, schools etc.

4. Study Area

For study purpose the area is considered is INDIRANAGAR, Tarabai Park Kolhapur.

The area INDIRANAGAR is situated in a Tarabai park which is centrally placed of the Kolhapur. The methodology which has used are detailed household survey of the slum dwellers and from that economical and physical survey also carried out on the based of questionnaire format also asked that they are ready for development.

After taking an personal interviews or detailed household survey it has seemed that the total area is around 3 Acre and no of slum dwellers are 300 and population is around 1500. The survey is based on the economical condition and physical condition the 80% are ready for the development when if that get the own unit in that place only. Around 50 to 60% woman are working on the daily wages and housework and mainly working men are also work on daily wages and some of have their shops. For on family the monthly average income is from Rs 1000 to Rs 5000.

After studying all these parameters I have prepared the cost model for the total 3 Acre with the help of Public Private Partnership.

5. COST MODEL:

The Cost Model is based on the Public-private partnership in which the total area is divided in the two parts 50% for the slum dwellers and remaining 50% for the private builder who will be appointed by the local bodies by the tender.

Total plot area is 3 acre i.e. 130680 sq ft

The 50% of plot area are considered for slum dwellers and remaining 50 % area is for private builder to develop the other area.

Cost model for this area are given below:

Total area is 130680 sq ft and 50% for slum dwellers is 65340 sq ft. out of that area the 10% for open space i.e. 6534 sq ft. so therefore remain space for construction will be 58806 sq ft. Af-

ter considering F.S.I 2.5 for the slum dwellers the area will become more.

Area available for construction of slum dwellers is =58806*2.5
= 147015 sq ft

Total slum dwelling units are 300

Considering each unit of 350 sq ft. the one building should be (G+3) each tenement consist of 350 sq ft and on each floor the 4 flats are placed and 200 sq ft for open on floor. Therefore total floor area will be 1600 sq ft.

One building or block consist total 16 flats with parking and staircase.

Cost of one unit of 350 sq ft = 350×1200

= 4,20,000/-

Cost of 300 units = $4,20,000 \times 300$

= 12,60,00,000 /-

20 % cost is for infrastructure and remaining charges are considering sanitation and electrification its include in the cost of construction per sq ft.

Cost of infrastructure = 2,52,00,000/-

Total Cost = 15,12,00,000/-

Remaining 50% Land Area is 65340 sq ft and from market survey analysis the land rate is Rs10 lakh per 1089 sq ft therefore the total land cost is 60,00,000/-

Total area remains for developer is 58806 sq ft. Considering F.S.I- 1.5 for commercial construction so the total built up area is 88209 sq ft.

Cost of built up is $=1800 \times 88209$

= 15,87,76,200/-

Cost of Sales = $5000/\text{sq ft} \times 88209$

= 44,10,45,000/-

Total amount invested by the builder = $15,87,76,200 + 15,12,00,000$

= 30,99,76,200/-

Therefore amount gained by the builder = 50% land cost + selling cost of commercial

= $6,00,00,000 + 44,10,45,500 = 50,10,45,500$ /-

From the cost analysis it has seemed that the private builder should get the profit 25% extra from the investment for the beneficiaries and the help of the Government.

6. Public-Private Partnership Model

The PPP model is developed for the slum up gradation in Kolhapur city is between the Kolhapur Municipal Corporation and Contractor where as well as in between the beneficiaries. The land is given by Kolhapur Municipal Corporation to Developer for design, build, operation and maintenance and finance the overall project with an agreement.

Illustration of PPP Model-

New Housing Policy of the Local Bodies promotes PPP

Location- Tarabai Park, Kolhapur

1) Private Developer on Govt Land/ Private Land

- 50 % of the land is for construction of slum up gradation.
- One tenement of slum is around 350 sq ft.
- Developer provides free homes to 'eligible' slum dwellers.
- Incentive and FSI is given to the developer.
- The developer should build the tenements up to G+4

2) Private Developer on Private Land

- 50% of the land is given for the developer to develop.
- Developer should build commercial or residential structure.
- Developer should sell the units at the market rate.

3) Slum Redevelopment with Participation of Private Developer.

7. CONCLUSION:

After studying the case study and the various public-private partnership laws and papers related to housing and infrastructure the public private partnership model has been developed for the slum redevelopment projects with the help of private builders and form of the build and operate basis. The feasibility analysis is checked by the cost model of the particular case study area and from that it has seen the builder has gained the profit up to 20 to 25% than the cost of investment for construction.

REFERENCE

- [1]UrmiSengupta (2004) "Public-Private Partnership for Housing Delivery in Kolkata, published in International Conference in Toronto. | [2] Slum Rehabilitation Authority | [3] EziyiO.Ibem, Albert B.Adeboye and Oluwole A. Alagbe 10-11 February 2014, "Assessing the Implementation Structure For Public-Private Partnerships in Urban Housing in NIGERIA", published in University of the Witwatersrand, Johannesburg, South Africa, 143-178 |