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LOW COST HOUSING IN THE PERSPECTIVE OF
METROPOLITAN CALCUTTA'S URBAN RENEWAL

By

S. Ghosh Dastidar*

INTRODUCTION

In any urban renewal or redevelopment scheme the area, where the scheme is executed, generally houses a large number of people mostly of low income group and the areas are mostly the central areas. This is mainly because the Central area is most sensitive part of an urban area and reflects its character, and any change in the economy of the Country; the urban area or such other changes. With growth of the urban areas more number of people require coming to the centre for their work, and to accommodate this the area needs constant change to enable the areas being utilised properly and gainfully with the change in overall situation. Any renewal scheme to be effective a successful rehousing of the affected people, specially of low income group, is to be handled carefully otherwise their opposition sometimes with political backing will make the schemes a failure.

In the urban renewal schemes those affected may be divided mainly into, (a) those affected by their livelihood or business and (b) those affected by their place of living. In this paper the problems and possibilities related to the later case specially of the low income groups have been examined and a suitable programming for their housing has been discussed befitting their economy and economy of the area as well.

A SHORT DESCRIPTION OF METROPOLITAN CALCUTTA:

As a reference a short description of Calcutta is given here. However, most of the conditions mentioned here will also be applicable where the economic condition of the people is of the same standard mainly in the developing countries.

The Calcutta Metropolitan District (C.M.D.), referred widely as Calcutta, is almost a linear area extending along with the river Hooghly and occupies an area of about 490 sq. miles. (1). This area may be divided into three major parts, namely, (a) the core consisting of Calcutta and Howrah Corporations with a population of about 3,603,000, (b) other urban areas (approximately 2,390,000 population in 1961) and (c) the other rural areas.

Calcutta Metropolitan Planning Organisation (C.M.P.O.) projection shows that by 1986 the C.M.D. will have a population of 11.22 to 13.41 (2) million. Another estimate by Davis for 2000 A.D., shows Calcutta (C.M.D.) to have 36.6 to 66.0 (3) million people (lower & upper estimates). At present through small scale public and private efforts new changes in the landuse occur mainly replacing residential uses but mostly without any coordinated or planned effort and without giving due attention to its consequences. A recent survey (1961-66) shows that in the office area of Calcutta, the B.B.D. Bag (Dalhousie Square) area alone 96 (4) new multistoried (4 stories and above) structures have been built in place of older structures. With time this pace of change will further increase to enable more number of people to come to the center for their work.

AREA NEEDED FOR URBAN RENEWAL (WITH REFERENCE TO HOWRAH CITY CENTRE):

In Calcutta (C.M.D.) the areas requiring immediate renewal are many but hardly anything could be done. This mainly because lack of funds and also opposition from the would be evicted people, lack of suitable relocation space within a short distance from where they would be evicted preferably within a distance of one mile (as per the rate) and similar factors. One such example could be the Howrah city centre area (fig. 1.). It is on the Western bank of river Hooghly, opposite to Calcutta (Corporation) C.B.D. This is also the largest centre on the West bank of the river and only next to Calcutta C. B. D. in the metropolitan district.

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(1) P. 26, B. D. P., C. M. D. 1966-86, C. M. P. O.

It is estimated that by 1986 the city centre core of Howrah will be spread over an area of about 90 acres (5), of which about 40 acres is at present used as residential area. A survey conducted by the author shows that 84.2% of the dwellings are poor and sub-standard 3.8% are excellent and 12% are of fair condition accounting for 87%, 1% and 12% of the families respectively. This means that with the expansion of the Centre 6,000 people will have to move away from the centre to make space for the expanding centre.

SOCIO-ECONOMIC CONDITIONS OF THE PEOPLE:

The above shows that most of dwellings are poor or slums either kutcha or pucca construction. A similar picture is found all over C. M. D. in any project area like this. The average income of those people is given by the following Table:

Table 1. Income pattern of Howrah Citizens

Monthly Income (Rs.)	Population in %
1-50	6.9
51-100	30.3
101-200	27.3
201-350	13.3
351-700	10.3
700 above Misc.	6.4
	<u>5.5</u>
	100.0

(Note \$1.00 = Rs. 7.60)

The average expenditure of these people on house rent is only Rs. 10-15⁽⁶⁾ in other wards 7% to 10% of their earning. With the change of income it varies as follows:

Income (Rs./month)	1-100	101-200	201-350	351-700	700 above
		6.94%	10.62%	7.75%	7.30%

The respective figures for the C.M.D. is however:

Income (Rs./month)	1-100	101-200	201-350	351-700
Expenditure on	0.04-10.63	10.32-11.77	52-10.20	8.25-9.30

So far any proposal to be practical a suitable balance with their paying capacity has to be maintained. It has been people living here is within a walking distance from their residents.

LOW COST HOUSING PROGRAM:

All the above conditions indicate that in the low cost housing specially related to urban renewal, the basic considerations should be, (1) The rent per unit or value of a single unit, (2) Floor space provisions (per person), (3) the distance from their work places, (4) Future environment social changes, etc.

At this stage of economy of the country, it is better if the space provided is guided by their economic demand (over space) though the ultimate objective may be to provide on the need base. At present more than 77% of the Calcutta's have less than 40 sq. ft. per capita. The respective figure for Howrah centre is less than 37 sq. ft. per person. The economic demand over space of the people could be guided by their present living standard. It has also been observed that when more floor space is provided to them they share it with other household either for

(2) P. 69, Table 18, B. D. P., C. M. D., 1966-86 - C. M. P. O.

(3) Davis K. India's Urban Future

(4) Dutta Gupta, J & Bandopadhyay. R. - A Study on the Housing Stock in the city of Calcutta 1961-86 - C. M. P. O.

(5) Ghosh Dastidar's, 'Central Area Howrah-1986' P. 102, Post Graduate thesis at I. I. T. Kharapur.

additional income or they are unable to pay for the higher rent charged for the increased floor area. The present condition is that:

- 17% have no living room⁽⁸⁾
- 49% of the people get space less than 30 sft. per capita
- 11% of the people get space 31-40 sft. per capita
- 6% of the people get space 41-50 sft. per capita

this in terms of family size,

- 60% of the big size families get space less than 30 sft. per capita
- 51% of the medium size families get space less than 30 sft.

specially in Howrah slums on average⁽⁹⁾ 6 persons live in one room the figure for the same in Calcutta is 4 persons.

These lead to increase the population density all over C.M.D. which on average is 193.6 persons per acre reaches its peak in parts of Calcutta C. B. D. to above 1,000 persons⁽¹⁰⁾ per residential acre on an average the comparative rent of Calcutta is a little higher than that of Howrah area; besides the large number of people who stay in the 2/3 storied pucca houses in the centre pay still higher rent. This gives us the idea that even within the Metropolitan area the magnitude of the problems varies and needs attention as per the specific problems. However, leaving aside these minor local variations most of the conditions are similar.

In an attempt to fit the aforesaid situations for low cost housing, the cost of its various components have to be lowered as far as possible. Those are (a) cost of land, (b) cost of structure and also (c) the cost of utility services, roads, etc.

(a) Cost of land can be lowered either by provided cheaper land or by providing smaller per capita land allocation.

In Calcutta (C. M. D.), or West Bengal in general, urban land is one of the most scarce and costliest items. So providing cheaper land is a difficult proposition and providing comparatively smaller per capita area appears to be practical whether for individual ownership of plots or for multistoried flat construction with equal density (fig. 2).

(b) Cost of structure can be lowered by lowering the cost of materials and saving labour cost. Cost of materials can be lowered by; mass construction or introducing common local cheaper materials in use in countryside like, mud, bamboo, thatch, darma, wood, "hogla" and similar materials minimising the use of costly material like steel and concrete, and also sharing some of the structures by one or more households, for example walls, beams, etc.

Labour cost can be lowered by using the occupier's free labour for constructing their own houses. This will be more practical if traditional local materials are used which do not require skilled labour or by constructing 'the minimum' of the shelter and leaving the rest to be completed by the occupier according to his ability. This would not possibly work in case of multistoried structures which need skilled labour.

(c) By making one more households use a common facility, minimising the length of service line, the cost of utility services could be lowered. A study of the existing standards will better support this idea of sharing the facilities and prove to be practical for low cost housing. The prevailing standard of facilities in Calcutta are:

Table: 2.

- (a) 30% have no water tap
8% use one tap with 100 or more
- (b) 12% have no latrine
4% use one latrine with 100 or more
11% use one latrine with 50-99
- (c) 61% have no bath at all

With more resources and increased income the provision of facilities may also be increased to fit the changed situation. At this level, the

(6) Ghosh Dastidar's-Central Area Howrah-1986'-Post Graduate Work submitted at I. I. T. Kharagpur

(7) Economic aspects of Households in India-Report No. 14, National sample issued by cabinet Secretariat, G. O. I.

(8) Problem of Calcutta-Survey conducted by Economics Dept. Cal. University 54-58

(9) Improvement programme for Metropolitan Calcutta '64-Subsidised Housing Scheme generated by the improvement programme-CHPO

(10) P. 16 B. D. P. , CMD 1966-86 - CHPO

roads hardly need be metalled except for the major ones. Unmetalled pedestrian access with provision for car entry will save a large investment on this infrastructure.

In the light of above discussion suitability of single storied and multistoried housing construction has been discussed below:

SINGLE STORIED (Refer Fig. 2)

This is best suited for a low income people where the ownership will be handed over to the occupier. In this case the ground space could gainfully be utilised for outdoor living, sleeping at night, drying of clothes, sometimes cook, children's play etc. One such scheme with 150 sq. ft. open and 150 sq. ft. covered was estimated to cost the occupier a monthly premium of Rs. 10-20 paid for 10-20 years⁽¹¹⁾ when the ownership will be handed over to them. Here the common utility facilities were placed at the side of each block. This system is better suitable when the number of people to be rehoused is large. The minimum size being limited to number of persons required to support a primary school that is say 3,000 persons or more. Considering a density of 400 person/acre a block of 8 acres will be required. Densities lower than that may prove to be unsatisfactory in view of the prevailing density standards. As most of the cases of urban renewal have a high residential density, in case of the rehousing for effected people the density will have to be at least of that order preferably higher otherwise the space required for their rehousing would become uneconomically large. This is one of the major reasons for some of the renewal schemes to be unsuccessful where the authorities decided to have a 'decent living condition' which in turn increased the rent of the houses.

MULTISTORIED STRUCTURES:

These may be divided into two groups (i) four to five stories high without any lift and (ii) more than 4/5 stories, with lifts. The height of the building in the later case would mainly be determined by the requirement, technical feasibility etc.

In the later case, as the cost per unit is comparatively higher than that of the former case it however is not suitable for housing for the people in Calcutta conditions, except for the high income group. However, it is expected that with advancement of technology and mass production of building materials the cost will gradually be lowered and could later be used for constructions at a lower cost.

The former case will better be suited for smaller areas mainly within the city for low cost work-cum-living centres for the people whose residence as well as business will be affected by the urban renewal schemes. This is again a serious problem in Calcutta where all the buildings facing major streets have shops and small business establishments, which in many cases is also the place of living.

CONCLUSION:

In Calcutta (C. M. D.) where there is a chronic shortage of housing units low cost housing is the only solution to meet the deficiency. It is estimated that Calcutta needs 67,000⁽¹²⁾ new housing units including 53,000 units to accommodate only the new growth. At present house building rate is only 6,000-9,000 pucca units per year, mainly because of high cost of construction. With this being the existing situation, it could be easily realised that the mounting opposition the urban renewal schemes received from those who will have to find a new home.

The only solution of this growing urban problem would be the implementation of a systematic low cost housing programme on the lines mentioned.

(11) Ghosh Dastidar S. - 'Shelter to house the lowest income group with reference to Calcutta-Housing in relation to Resources and to the developing economy - N.B.O., New Delhi and U.N. Regional Housing Centre ECAPE.

(12) B. D. P. , C. M. D. - 1966-86, P. 28 - C. M. P. O.

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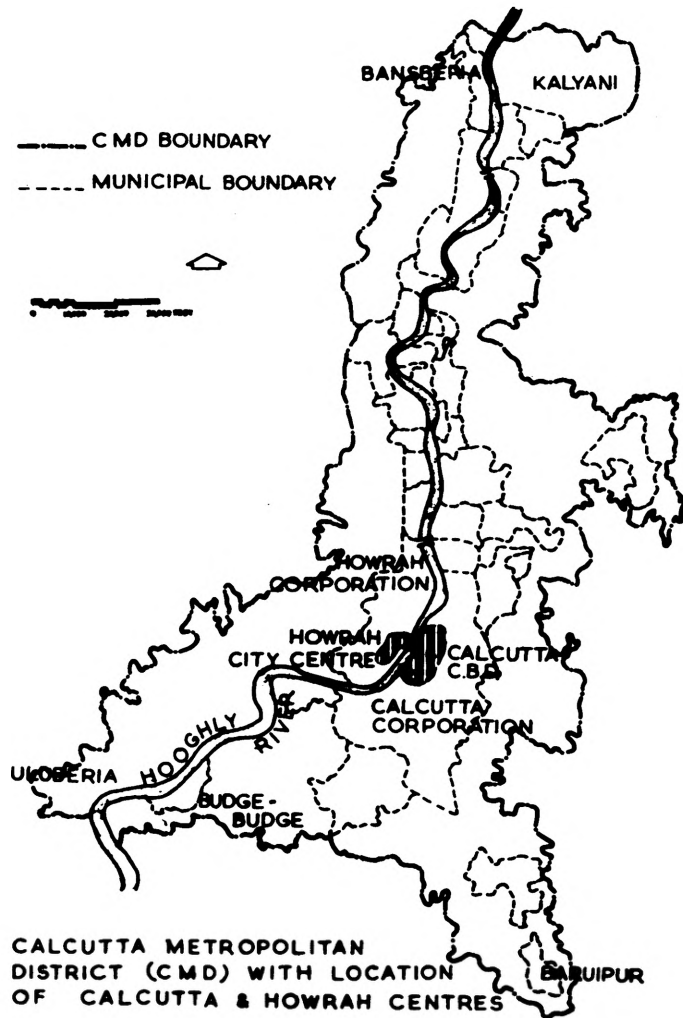


FIGURE. I

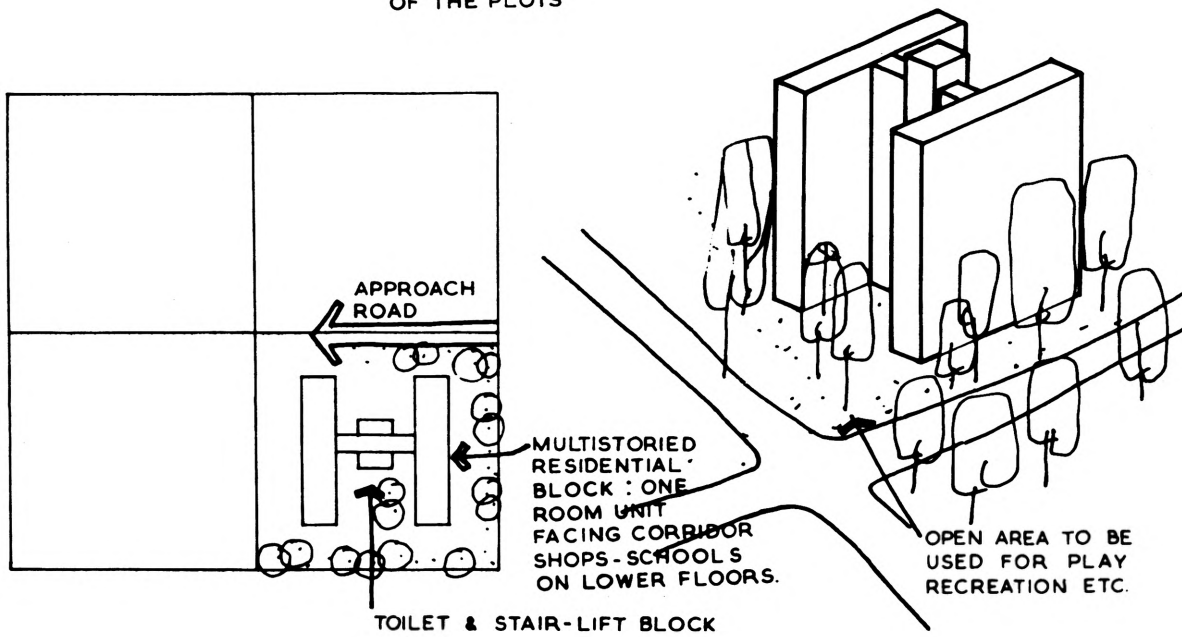
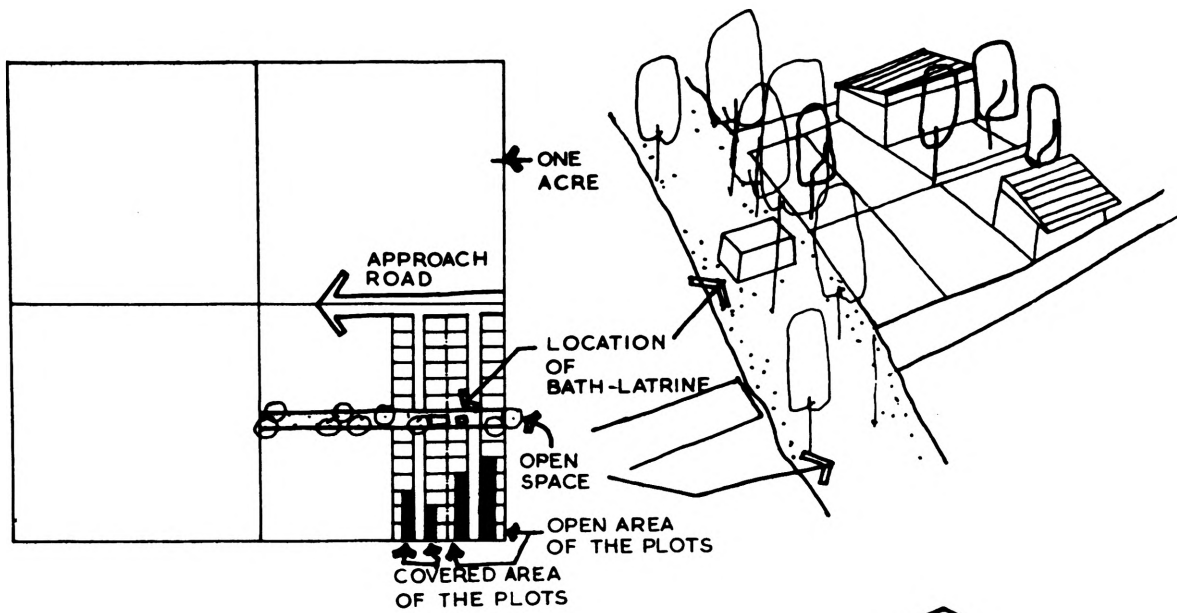


FIGURE 2