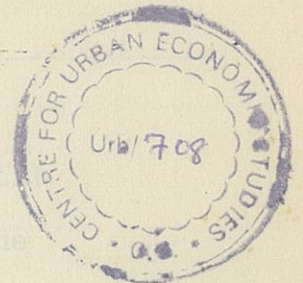Discussion Paper No. 8

December 1992

HOUSING IN CALCUTTA : PROBLEMS AND POLICY ISSUES

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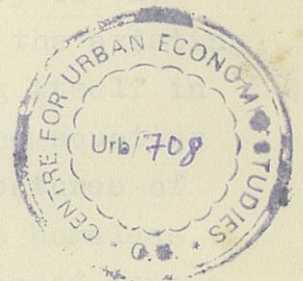
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ABSTRACT

This paper analyses the housing situation
presently prevailing in Calcutta Metropolitan District.
Various dimensions of housing shortage in Calcutta
including overcrowding, proliferation of slums and
squatter settlements, have been analysed. Moreover, the
stock of houses, the tenancy system and rent control
have been considered. The study also discusses the role
of the government agencies in the housing investment in
Calcutta.

HOUSING IN CALCUTTA : PROBLEMS AND POLICY ISSUES

Nipa Ghosh

I. Introduction

This is an attempt to describe the housing situation, that is presently prevailing in Calcutta Metropolitan District (CMD). In the face of growing population and rapid migration, the efforts to provide appropriate residential accommodation through private sector and government housing programmes have been grossly inadequate. This inadequacy is manifast all round in the increasing number of slums, squatter settlements and dilapidated houses, and overcrowding etc. These manifestations are the symptoms of a failure to respond adequately to a basic human need.

In Section II of this chapter we consider the basic approach towards the issue of housing shortage and how the Basic Development Plan[1] dealt with it. An attempt is made in Section III to measure the housing shortage in terms of need-supply gaps. Here different methods have been used to estimate the housing need. These methods are borrowed from Dholakia[2] with slight modifications. Section IV deals with the qualitative dimension of the problem. It takes into account the low quality of the construction materials used, overcrowding in the existing housing stock, lack of maintenance reflecting itself in dilapidated houses, proliferation of slums and squatter settlements. In Section V, certain special features of CMD are highlighted. This part deals with the homeless population, pavement dwellers, different uses of census houses, and the issue of tenancy. Section VI, evaluates the role of the government agencies in Calcutta and attempts to stress the need for higher government investment in this sector. The income and employment generating potential of housing investment is also highlighted. Section VII outlines a few recommendations.

data sources, we have used 1981 and 1971 census reports, Calcutta Corporation Yearbooks, different CMDA reports and Municipal Handbooks.

II. Estimation of Housing Shortage : A Quantitative Approach

There are certain difficulties in measuring the extent of housing shortage in the Calcutta Metropolitan District (CMD) by the usual demand-supply gap. Demand for housing can be measured in terms of either the demand for rental housing or that for ownership schemes. Moreover, demand for any commodity is a function of its price and consumers income. With the present price-income situation within CMD, both ownership schemes and rental housing seem to be out of reach of a large section of the middle income, not to speak of the low income groups. Thus distribution of income and employment is an important determinant of housing demand. In an underdeveloped city, like Calcutta, there exists a dichotomy in the employment pattern in which a small minority of highly skilled and well paid group coexists with a large semi-skilled or unskilled low paid group.

A report by the Calcutta Metropolitan Development Authority (CMDA) shows the 1981 break-up of CMD population in various income groups (Table 1). It shows that the majority of the families earn a low level of income.

As Payne[3] says, 'There are also great inequalities in the distribution of resources, services and opportunities generally and these are possibly increasing still further, thus perpetuating themselves over generations and making it increasingly difficult for those in the low income category

to improve or even maintain their position'. In an estimate, Rosser[4] suggests that three quarters of Calcutta families have income lower than the stipulated limit for participation in the government subsidized slum clearance programme.'

Given this low income of the CMD population, a true measure of housing shortage should, therefore, take into account the 'need' and not the demand figures as such. Housing shortage should be measured as a need-supply gap.

A summary of the findings of the Basic Development Plan

The Basic Development Plan of 1966 held the view that the task of providing adequate housing for the present and future inhabitants of the Calcutta Metropolitan District was not within the bounds of feasibility within twentyfive years period. It said that the existing shortage was immense. The quality of housing that existed was poor on average and in its worst indescribably squalid. It said that if average standards of 2.5 persons per room and two rooms per housing unit were used, 430,000 new rooms or 215,000 new units would have been needed to eliminate the existing overcrowding and to provide for the needs of the homeless population of 1951. Adding the amount required to accommodate the expected CMD population growth and maintain the 1961 vacancy rates, the total 196 1961-86 requirements would have been 2.5 million new rooms or 1.3 million new units - an average yearly requirement of 65,000 units if phased over a twenty-five year period.

The Basic Development Plan did not recommend a massive investment in housing on the ground that it would take away resources from other more vital needs.

Its recommended appropriate public action falls into three general categories : (1) preservation of the existing housing stock, (2) elimination of barriers to efficient market functioning, and (3) direct public investment in shelter.

III. Housing Shortage : A Need - Supply Gap

We will get different estimates of housing shortage depending on the definition of need we use. Here we use four alternative methods.

Method - 1

We can recognise that every household is in need of a house and therefore be provided with one. According to this criterion, the problem of measuring housing shortage reduces itself to estimating the difference between the number of households and the available stock of residential dwellings in the economy (Table 2). Following Method 1, the total need for housing units in CMD, in 1981 has been estimated at 2 million units (Table 3). According to the Shelter Report[5] published by CMDA, the number of housing units within CMD in 1981 was 1.92 million. Therefore, there was a need-supply shortage of 80,000 housing units. Using the same method, there was a shortage of 60,000 housing units in 1971.

Method - 2

The first criterion ignores the average size of the households in relation to the average size of the dwellings. This generally give an underestimation of the housing need, especially for the lower income brackets. We can overcome this limitation by suggesting that we should have one housing unit for every five persons. According

to this criterion, the extent of housing shortage can be estimated as the difference between the total population divided by five, which indicates housing need, and the available stock of residential dwellings which indicates housing supply. Table 4 shows that the need-supply gap, on this basis, was around 120,000 units in 1981.

Method - 3

We can use another criterion for measuring housing need based on the norms that for every three persons one room should be provided. Usually, if the average number of persons per room exceeds two, it is regarded as an indicator of overcrowding. However, keeping in mind the extreme congestion in the CMD area we have used three persons per room as our standard. According to this criterion, housing need can be estimated by dividing the total population by three to derive the required number of rooms, which can be further divided by the average size of the house measured in terms of the number of rooms per dwelling to arrive at the required number of houses.

There were 24,10,820 rooms in CMD in 1971, while CMD population was 8.33 million. Thus, while the requird number of rooms was 2.78 million, the shortage in the number of rooms was 369,180. The average number of rooms per dwelling unit being 1.54, the shortage in the number of housing units was 239,727 in 1971. Similarly, in 1981, for the CMD population of 10.2 million the required number of rooms was 3.4 million and the required number of houses, assuming the same average size of the house as in 1971, was 2.2 million. The extent of housing shortage was of 287,792 dwelling units in that year. For Calcutta, housing shortage in 1981 and 1971 had been 0.12 million and 0.11 million, respectively.

Method - 4

        Both the second and the third methods involve
the basic assumption that the total number of dwellings
or rooms which are available can be equally distributed
among the existing population irrespective of the income
groups to which different sections of the population
belong. Checking the census data for the Calcutta District
in 1971, we find that a section of the population is
specified by the norm (3 persons per room). Though data
on income-wise distribution of houses is not at hand,
we can classify them according to the number of rooms
occupied for which data exist.

        Table-5 shows that a significant number of
people are members of households occupying three or more
rooms. Since, it may not be easy to make them sacrifice
or surrender the extra space that they are enjoying in
order to generate some surplus that can be distributed
among the less privileged sections of the society, a more
realistic estimate of housing shortage, therefore, would
be based on the assumption that the norm of three persons
per room would apply only to those households who occupy
one or two rooms, where the figures for persons per room
are 4.46 and 3.21, respectively.

        The housing need according to this criterion
can, therefore, be estimated by dividing the population
living in houses with no more than two rooms by three to
derive the required number of rooms. From Table 5,
population living in houses with two or less number of
rooms in Calcutta, in 1971 had been calculated as 2.33
million. The homeless population estimated as 22,000
(approximate). Basing on the norm above, the required
number of additional rooms in 1971 was 784,776.

By subtracting the actual number of rooms
occupied by these sections of the population from the
required number of rooms, we can get the number of
additional rooms that need to be constructed. Since the
number of rooms occupied by this section of the population
is 577,525, the estimated shortage in the number of rooms
becomes 207,251. Dividing this figure by the assumed
average number of rooms per dwelling of 1.54, the
estimated housing shortage is of the order of 134,578.

The measure of housing shortage so derived would
indicate the number of additional dwellings required to
ensure that one room is provided for every three persons
without any redistribution of surplus rooms occupied by
those with more than two rooms.

Therefore, we can arrive at different measures
of housing shortage depending on the particular definition
of housing need we are using. The smallest figure is
obtained from method-1 and the largest from method-4.
However, independent of the methods used, the seriousness
of the situation becomes abundantly clear from those
alternative estimates (Tables 6 and 7).

Let make some futuristic projections. Shelter
Report estimates the population in CMD in 2001 as being
14.72 million. Considering the average household size of
5.1 persons per household, the number of households
would be 2.89 million in 2001. In 1981, the number of
households in CMD was 2 million and at that time the
minimum housing shortage was of 80,000 housing units.
The number of additional households that would have to
be catered for in 2001 would be 890,000. Therefore,
there will be an additional need of 970,000 housing units.

If the 1981 deficit is allowed to remain but no further increase in deficit is allowed, then, to accommodate 890 thousand new households, 890 thousand new houses are to be built. To build 970,000 or 890,000 dwelling units in 20 years, we require that 48,500 or 44,500 dwelling units would be built per year, compared to the present day average of 15,000 housing units built per year in CMD.

These figures illustrate the magnitude of the task facing urban planning, which calls for some drastic steps; otherwise, the situation will turn from bad to worse and we will soon reach a stage, where no solution would be feasible.

IV. Housing Shortage - A Qualitative Dimension

Housing problem in CMD has a qualitative dimension. It reflects itself in various ways.

Construction Materials Used

Tables 8 and 9 provide data on the qualitative side of the housing question, in terms of the materials with which the walls and roofs of census houses were made in 1971 in different districts of West Bengal. The material used are grouped into two main categories - Kutcha and pucca - the former using elementary materials, while the latter the more sophisticated varieties. As for the walls, those made of grass, leaves, reeds, bamboo and mud fall into the category of 'kutcha wall'. Table-10 below gives percentage distribution of census houses according to pucca and kutcha materials of wall. Similarly, temporary or kutcha roofs are of grass, leaves, thatched

wood, mud, etc., while more durable pucca roofs are made of tiles, slate, shingle corrugated iron sheets, zinc, other metal sheets, RBC, RCC, etc.

The high percentage of kutcha walls, as revealed in Table 8, in urban West Bengal speaks volumes about the poor housing condition. In urban West Bengal, 22.06 per cent of houses have kutcha walls, whereas the figures are 12.52 per cent, 25.04 per cent, 24.88 per cent, 15.64 per cent and 18.61 per cent, respectively, for Calcutta, urban areas of 24-Parganas, Howrah, Hooghly and Nadia, respectively. In case of roof, the use of purely kutcha material is somewhat less in use, it is revealed from Table 9 : it is 6.57 per cent in case of urban West Bengal, whereas in other districts associated with CMD, these are 1.16 per cent, 2.86 per cent, 0.99 per cent, 3.14 per cent and 3.28 per cent in Calcutta, urban areas of 24-Parganas, Howrah, Hooghly and Nadia, respectively.

These purely kutcha materials have given way to somewhat more durable and semi-pucca material like tiles, slates, etc. In urban West Bengal 34.83 per cent of houses have roofs made of those. The figures are 37.36 per cent, 46.73 per cent, 51.85 per cent, 45.56 per cent, 14.05 per cent in Calcutta, urban areas of 24-Parganas, Howrah, Hooghly and Nadia, respectively.

In various cities within CMD the percentage of census houses using kutcha material for wall varies from a high 30.85 per cent (South Dum Dum) to a low 4.59 per cent (Bhatpara) (Table 11). However, as for roofs, tiles, slates and shingle roofs have been found in fair numbers in those cities, while grass, thatch or mud roofed houses are few (Table 12). In all these cities within CMD, less than half of the houses have roofs made of RBC/RCC or

concrete; Calcutta has only 45.06 per cent of such houses. These figures can be taken as a pointer to the abysmally low level of housing in the cities.

Congestion

The Basic Development Plan observed that most of the housing units in CMD were extremely small in relation to the number of people who were forced to live in these. In 1981, the average CMD housing unit had only 1.54 rooms.

Congestion in the existing housing stock is revealed by the number of people who live in a single housing unit. Data regarding this on a disaggregated level can be obtained from the District Census Handbooks of 1971 (Table 13). Taking a norm of 5 persons per housing unit, we use as a measure of dispersion from the norm, the formula

$$\left[n^{-1} \sum_i (X_i - A^2) \right]^{-2}$$

where n = number of municipalities considered

X_i = persons per housing unit in i-th municipality, i = 1,2,...,33.

A = the norm, which is 5 in this case.

In the municipalities considered above, number of persons per housing unit differs on average from our accepted norm by 21.26 per cent.

A similar analysis is made for different wards of Calcutta Municipal Corporation and Howrah Municipality, based on the Table 14 and 15. Here also, using the same measure of dispersion from our norm of 5 persons per housing unit, we have a dispersion of 22.6 per cent, which is close to the earlier figure. It seems that

congestion is greatest in Howrah city. Using the same
formula we arrive at percentage deviation from our norm
of 44 per cent for this city. In ward No. 31, for example,
on average 15.5 persons live in a dwelling unit.

All the above estimates are based on 1971 data
as 1981 data on such a disaggregated level were not
available at the time of writing. However, the number of
people per dwelling unit in the districts of Calcutta,
Howrah, Hooghly, 24-Parganas, Nadia were obtained for 1981.

While calculating deviations so far we have
included both the deficit and the surplus. If we want to
have an idea about shortage areas we have to exclude those
municipalities and wards, where the number of persons per
housing unit is less than or equal to 5. There are seven
such municipalities where the number of persons per dwelling
unit has not exceeded our prescribed norm, namely, Garulia,
Titagarh, South Dum Dum, Kalyani, Bhadreswar, Champdani
and Rishra (Table 13). Excluding these the percentage
shortage figure turns out to be 21.67 per cent. Which is
close to the earlier figure.

Excluding 13 wards of Calcutta Corporation,
namely wards 1,6,18,36,48,58,60,65,79,80,82,83,84,
where the number of persons living in a census house on
an average has not exceeded 5, we find a percentage
deviation from our norm, amounting to 23.80 per cent in
case of Calcutta. (Table 14).

By similar reasoning, we can exclude 17 wards
of Howrah Municipality, namely wards 4,5,6,8,9,13,14,21,
23,27,36,37,38,43,44,54. Excluding these we find the
percentage deviation from the norm is 52.5 per cent.
(Table 15).

However, we must keep in mind that 5 persons per house where the average size of a house is only 1.54 rooms, itself reflects a high degree of congestion, indicating a figure of more than 3 persons per room.

Lack of maintenance

Each year Calcutta Corporation publishes a list of dilapidated houses. This list reveals that in 1985, there were 12,000 dilapidated houses within the Calcutta Corporation area. This lack of maintenance has added greatly to the problem. As a report on Third World urban housing[6] says, 'For many years resources will be insufficient to meet what may be considered as desirable standards. New resources must therefore be used in the most cost effective manner and concentrated on those elements of urban development which are really essential and which are likely to provide the highest return to housing programme.' This report includes, among the most essential uses of resources, remedying what are regarded as completely unacceptable inadequacies within sub-standard areas, thus extending the useful life of the remaining buildings and infrastructure.

Slums

CMD's standard of housing, especially its low quality, is vividly reflected in the predominance of slums.

A project report[7] on the improvement of bustees says 'Slum population in CMD stands today (1983) at 3.03 million out of a total population of 92 millions - Calcutta city sharing 1.73 millions in a total population of 3.3 millions.' Therefore, one out of every three of the CMD population is a bustee dweller, while one out of every two persons in Calcutta City lives in a bustee.

Roy[8] categories the CMD bustees into eight
types: conventional bustees, squatter settlements, jute
lines, private self-help housing, old rented walk-ups,
Government tenements for low income people, legal refugee
colonies, extra legal refugee colonies. Roy says, 'some
six million refugees from East Pakistan entered the state
after 1947 and 2.4 million settled in CMD. They squatted
in well organised groups on vacant lands mostly owned
by private individuals. Skirmishes between the private
landowners and the refugees were frequent, in the early
days, but, since the refugees were well organised, they
could not be dislodged. Much of the land on which squatting
occured was eventually acquired by the government and
title was given to the refugees. However, there are still
many refugee colonies where, for various reasons, land
tenure could not be given.' These constitute the 'extra
legal refugee colonies.'

As Datta[9] says, 'bustees and shanties represent
a large reservoir of housing stock, built as private
response to the housing market and for a class of people
who can not afford anything better. Due to constraint of
space, when bustees can not grow further, shanties take
their places. The results are over-congestion in the
bustees and when the congestion crosses the limit,
the excess of population spills on road-sides, canal
banks and by the side of the railway tracks. The plight
of the homeless people does not need any description.
What needs to be emphasized is that the plight can not
be just wished away or removed without concerted efforts
directed towards developing a workable strategy.'

The Calcutta Slum Clearance and Rehabilitation
of Slum Dwellers Act, 1958, can be considered as the first
government intervention regarding bustees. Then the
concept was that the bustees could be removed. The Act
envisaged a gradual clearance of the bustees by rehousing
the bustee dwellers in conventional tenements within a
specified distance from their original locations and by
acquiring the vacated lands at a stipulated value, which
was below the market price. The plan, however, had to be
abandoned for various reasons. Land could not be acquired
in most cases as the zamindars went to the court. Whenever
new dwellings were offered, the bustee dwellers were
reluctant to go there, as it did not match with their life
style and income. The thika tenants, that is those who
were in effect operating as landlords, but were in reality
intermediary tenants, were not compensated, so they put
up a stiff resistance. As there was a patron-client
relationship between the thika tenants and the bustee
dwellers, the bustee dwellers refused to shift without
thika tenants. Many of the new dwellings changed hands
as the bustee people who got the new dwellings at a
subsidized rate were so poor that they were tempted to
encash the subsidy. Finally, the severe shortage of funds
made such high subsidy schemes infeasible on a large scale.
Bustee clearance on land-sharing basis also failed due to
lack of fund and legal restrictions.

Afterwards, admitting that bustees would remain
in the near future, the slum upgradation and improvement
schemes were given greater stress than their replacement.
This changed view is reflected in the Basic Development
Plan. There are two parts in any bustee improvement scheme :

one deals with environmental aspects and the other with shelter. The shelter part usually gets neglected due to several reasons. Determination of the legal status of a land is a difficult task. However, a greater emphasis was placed on environmental improvement by way of a five-point programme which included supply of water, sanitation, drainage, road repair and security lighting.

V. Special features in CMD

Population pressure and housing shortage in CMD is reflected in the number of homeless people. The Basic Development Plan revealed that there were 30,000 people in the CMD area in 1961 who had no home at all. Table 17 shows that 5.69 per cent of India's houseless population live in West Bengal: Calcutta City's share is 1.60 per cent and that of Calcutta Urban Agglomeration is 2.75 per cent. 28.34 per cent of West Bengal houseless population live in Calcutta and 48.48 per cent live within Calcutta Urban Agglomeration.

Institutional population

A large number of households in CMD are housed in different types of institutions like schools, boarding houses, and hospitals. In Calcutta City, the proportion of institutional population to total population is as high as 4.52 per cent though it is about one percent in the urban areas of the other four districts of CMD. The percentage of institutional population to total population is higher in the urban areas than in the rural areas in the CMD districts as well as in West Bengal and India, for obvious reasons.

Non-residential and partly residential houses

Census houses are put to various uses. 1971
census reveals that over 90 per cent of the census houses
are used for residential purposes. This is the pattern in
the urban and rural areas in every district. Other uses
include shops, workshops, hotels, business houses, offices,
factories, worksheds, eating places, places of community
gathering, places of worships, etc. Census reveals that,
at the state level, shops excluding eating houses formed
the second largest category after residential houses in
both urban and rural areas; the proportion of this category
of houses to the total number of census houses is far
greater in urban areas. Places of worship are mostly found
in rural areas.

The city of Calcutta shows a large incidence of
shops and shops-cum-residence; only 13.37 per cent of
the non-residential and partly residential houses are
factories, workshops and worksheds. In Calcutta, not even
one per cent of its non-residential census houses are
places of worship.

The three districts adjoining Calcutta, 24-Parganas,
Howrah and Hooghly show an uniformly high incidence of
shops, while, of the three, Howrah has the highest proportion
of factories, workshops and worksheds.

Table 19 shows the proportion of purely residen-
tial houses to the total number of census houses, for
different CMD districts and for the 100,000-plus cities
within it. Table 20 shows the distribution pattern of
partly residential and non-residential census houses in
the districts of Calcutta, 24-Parganas, Howrah, Hooghly

and Nadia and also for the prominent cities in CMD at
the 1971 level. The percentage of census houses put to
other than residential uses or partly non-residential
uses is the highest - 22.84 per cent, whereas the figure
for West Bengal as a whole is 13.44 per cent.

Tenancies

A major feature of the housing condition in Calcutta
is the dominance of tenancies. Table 21 shows that, for
the five districts fully or partly covered by CMD, and
taking both rural and urban areas together, the proportion
of accommodations which are rented is 44.37 per cent.
Taking these districts separately, one finds a close
correlation between the degree of urbanness of a district
and the proportion of rented accommodation in it. The
share of rented accommodation varies from 81.37% Calcutt
to 64.48 per cent in case of urban Howrah, 55.49 per cent
in case of urban Hooghly, 50.73 per cent in case of urban
24-Parganas to 27.81 per cent in case of urban Nadia.
Table 22 shows that the proportion of rented accommodation
is particularly high in the more industrialized towns
of CMD, such as Bhatpara, Garden Reach, Howrah, Baranagar
and Kamarhati.

The Bureau of Applied Economics and Statistics
conducted a housing survey in Calcutta in 1975, which gave
some figures about the tenure status of families according
to income levels. It, however, showed an increase in the
percentage of owner occupiers in Calcutta city in 1975
though 79.23 per cent were tenants.

The survey showed that only one in four families lived in their own house, while the other three used rented accommodations. Furthermore, there was a close linear relationship between house ownership and income levels, the proportion of house-owners increasing, though not monotonically, from 14 to 18 per cent for income levels Rs. 1-300, to almost 34 per cent for those with monthly income above Rs. 2000 in 1975.

VI. Role of government

We know that the private sector shows very little response to the housing demand, excepting for the demand generated by the richer sections of the population. Since it is not expected that the private sector will change this attitude, the task of providing accommodation to the poor and middle class is largely left with the public agencies.

The State Housing Board's primary objective is to provide ownership housing at reasonable costs to different categories of people, mostly low and middle income groups. It provides shelter to economically weaker sections and low income groups, on a no-profit basis. For schemes for the economically weaker sections (EWS), out of the total housing costs 9 per cent is spent on land, 82 per cent on construction, 3 per cent on interest, 6 per cent on overhead. For the lower income group (LIG), 10 per cent is spent on land, 80 per cent on construction, 4 per cent on interest and 6 per cent on overhead; and for the middle income group (MIG), 15 per cent is spent on land, 58 per cent on construction, 7 per cent on interest, 8 per cent on overhead, 2 per cent on others, and 10 per cent is retained as profit. For the high income groups (HIG) 20 per cent is spent on land, 47 per cent on construction, 9 per cent on interest, 7 per cent on overhead, 2 per cent on others and 15 per cent is retained as profit.

Between 1972-73 and 1982-83, the State Housing Board has provided 13536 housing units, of which 892 were for the economically weaker sections, 2623 for the low income groups, 6135 for the middle income groups and 3886 for the high income groups. The proportion of units constructed for the last group appears to be too high as it exceeds even the number for the poorest two groups taken together (Table 24). This indicates a misdirection of priorities.

Shortage of readily buildable land is one of the problems associated with the supply side of the housing market. As the private developers are generally shy on land development, the responsibility for this mainly rests on the public sector. The Calcutta Metropolitan Development Authority has undertaken several land development-cum-housing projects, mostly for the lower income groups; while   the high income groups account for about 1.5% of the residential units (Table 25). Table 26 gives the number of houses constructed by the housing department under various schemes upto 1981-82.

The role of the government in housing investment

The ever-increasing backlog of housing over the entire Indian economy is due to two major reasons according to Lall.[10]   He says, 'The growing deterioration on the housing front has arisen partly due to two major misconceptions about investment in the housing sector. In the first place, housing activity is generally regarded as peripheral to the national development process on the mistaken notion that it is only a resource absorbing capacity and not a resource generating capacity. Secondly, the emphasis on high capital-output ratio in the sector overlooks its income multiplier and employment generating potentials.'

Lall shows that, over the plan period, the proportion of investment in housing to total investment had fallen from 34.2 per cent in the first plan to 7.5 per cent in the sixth plan (Table 27).

Though the Basic Development Plan in 1966 held the view that the task of providing adequate housing facilities for the present and future inhabitants of the Calcutta Metropolitan District was not within the bounds of feasible achievements over a twenty-five year period, it did not recommend a massive investment in the housing sector as this would have meant a diversion of scarce resources from other 'more important' resource generating sectors.

Housing forms a significant portion of privately held wealth in most developing countries. It may yield a source of income in rental payments or as a place of business and so can be directly productive to owning families. Benefits to society are often higher than the returns to private investors. The true importance of housing is for greater than what is revealed by data, especially in developing countries, since self-help construction and commercial activities by independent contractors are often not reported at all or are greatly undervalued. Implicit rents of owner-occupiers tend to be ignored or underestimated and rents paid to private property owners often go unreported. The value of subsidized housing may be recorded at less than its cost of production.

Investment in housing

Investment in housing has a significant impact on income and employment through multiplier linkages. First round effects are the direct increments in income and

employment generated by construction activity. Industries
that supply construction materials in less developed
countries depend on housing demand to reach economic
scales of operation.

The National Building Organisation (NBO) estimated
in 1980 that Rs. 10 million of investment in housing in
India would generate 923 man years of direct and 1477
man years of indirect employment for skilled and unskilled
people. Dholakia[11] has estimated that a 10 per cent
increase in final expenditure in the construction sector
leads to more than one per cent increase in gross output
levels of five sectors, viz., mining, wood and wood
products, non-metallic minerals, basic metals and metal
products and electrical machinery. Similarly, it leads
to more than one and half per cent increase in the gross
output and other services. Dholakia also estimates that
a 10 per cent increase in expenditure in the construction
sector would lead to an increase in gross output (direct
and indirect) of Rs. 7436.6 million in 1977-78 (at 1971-72
prices), the incremental output being 1.1 per cent of
total output. Thus increased investment in housing would
stimulate other sectors in the economy. Further, construction
materials, being bulky in nature, enjoy a natural protection,
and therefore, development multiplier for housing has a
very high local value as local materials and labour are
generally used.

In an estimate, the National Planning Office in
Colombia,[12] in 1972, revealed that in Colombia, income
multiplier for housing construction is about two, and in
Korea also housing construction ultimately brings an increase
in national income of about twice the original investment.

The housing sector has an additional advantage
with regard to employment generation. In countries like
India, it is still a highly labour intensive activity and
it can absorb a large amount of unskilled or semi-skilled
labour, whose alternative marginal product is very low.
Newly arrived rural migrants often work for a few years in
construction, which provides a spring-board to other
income - earning opportunities in the city.

Census data reveals that, in 1961, in West Bengal
the proportion of construction workers in total working
force was 0.69 per cent for rural areas, 3.12 per cent
for urban areas and 1.31 per cent overall. In 1971, the
corresponding figures turned out to be 0.54 per cent,
2.29 per cent and 1.00 per cent respectively. In 1961,
in West Bengal, the proportion of workers in construction
of residential dwellings in total working force was 0.45
per cent in rural areas, 2.70 per cent in urban areas
and 1.02 per cent overall. The corresponding figures for
1971 were 0.36 per cent, 1.45 per cent and 0.65 per cent.
However, despite its declining importance, it still
accounts for an important share in the urban work opportunities.

Grimes[13] refers to certain other benefits derived
from shelter investment. He says that investment in housing
can have a beneficial impact on the spatial lay-out of
urban areas. Well planned housing economises on the use
of urban space, infrastructure, etc. Better location of
dwellings in relation to jobs can lessen traffic congestion
and increase households' take-home pay by reducing commu-
ting expenses. Staged urban development including coordinated
investment in infrastructure, transport, industrial estates
and housing offers an opportunity for increasing efficiency.

Moreover, health benefits leading to increase in productivity of an investment in shelter is very important, especially in case of less developed countries where a large section of the population lives under appalling conditions.

While making a cost-benefit analysis of a housing scheme, one should keep in mind these various benefits accruing from investment on it. Housing will surely have to compete with other sectors for resources, but it often uses resources which would otherwise have remained idle. For example, by utilising the willingness of the people to invest in their own housing, it can exact saving which would not have been otherwise generated.

Grimes[14] has made another very important statement, which we can not prove or disprove due to inadequacy of data. According to him, 'Total labour input is generally higher for luxury housing than for low income housing, because of the need for a variety of labour skills, as well as greater size. Yet, when all effects, indirect and direct are considered, the employment generating capacity of housing investment by low income groups may in some circumstances be greater than similar spendings by high income households.' His view, however, seems to be supportable if we keep in mind the indirect reinforcing or offsetting effects on savings and consumption.

Arguments for and against government intervention

To what extent the government should intervene in housing market, or allow the free market to work is an important issue of debate.

One view emphasizes on the need to eliminate
all barriers to the smooth functioning of the market in
terms of market imperfections. However, there are certain
typical government policies which affect housing, taxation
of property, of income, and of capital gains, interest
rates, land development, efforts to increase or curtail
development, and programmes affecting labour, wages and
prices. Usually, these policies affect housing as
numerous independent acts. If, instead, a comprehensive
approach is adopted which takes all those policy implications
into account, that would make government actions more
effective in doing away with market imperfections.

Private and social value judgements about the
quality of housing often differ. In a city like Calcutta,
people in need of shelter are bound to accept very low
housing standards. The bustees and shanties that are built
as a private response to the housing situation in Calcutta.
Here the government has to intervene and fix some norms or
standards for urban housing. However, setting a high
standard which the people can not afford can act as a
hindrance to housing supply and also might induce
illegal housing. On the other hand, one can not go too far
in lowering the standards, as the process may be
self-defeating and may lead to a further spread of low
quality houses.

The Indian Standard Institution (ISI) in 1978,
published a guide for the requirements of low income
housing. It fixed some norms for low income urban housing.
Some of the important norms are as follows :

1. The minimum plinth height shall be 30 c.m. from the surrounding ground level.

2. In the case of one-roomed house, the size of the multipurpose room including space for cooking shall be not less than 12.5 m^2 with a minimum width of 2.4 m.

3. In the case of two-roomed house, the size of a room shall not be less than 6.5 m^2 with a minimum width of 2.1 m, provided the total area of both the rooms is not less than 16 m^2. In case of incremental housing to be developed as a future two-roomed house, the first room shall not be less than 9.5 m^2 with a minimum width 2.4 m.

4. The minimum height of a habitable room should be 2.6 m.

ISI claims to have brought the standard down to the lowest possible level which does not jeopardize certain safeties, namely, fire safety, health safety and structural safety. There are others who would argue that these norms are too high and would jeopardize housing for the poor.

Another important issue arises from the fact that the private market caters only to the needs of the richer section of the population. A study by NBO for the period 1951-66 showed a change in the composition of housing construction in Calcutta in favour of the higher rent units.[15] Since the intermediate valuation is done at current prices, a part of this trend can be attributed to increase in prices. However, the trend persists though is not as pronounced in the mean of the size distribution after deflation by the wholesale price index. The NBO report says, 'The rate of return on investment with respect to various strata has turned out to be a U-shaped curve; which shows that the rate of return is more for low and

high investment and is smaller for medium investment.'
If this trend continues, there will be an increased
polarization of housing construction in Calcutta. This is
also a field where the government intervention is called
for.

With the present price-income situation in
Calcutta, it is quite clear that unaided private providers
of new housing can meet the needs of only the higher income
groups. It has been argued by some that, by a process of
filtering, the needs of successively lower income group
can be met. But the internal contradiction of this
argument can be easily exposed as is done by Cullingworth.[16]
He says that the size distribution of different income
groups is different. The higher income groups constitute a
relatively small group, whereas the houses they vacate in
preference to new buildings will be demanded at a lower
price by much larger groups at the next income levels.
Therefore, the resultant decrease in price will tend to be
small. Even if prices decrease, lower rents and prices
will reduce the profitability of the provision and dry up
new supply. Cullingworth prescribes direct aids by the
government to the lower income groups and says otherwise
supply will cease before prices fall to a level which they
can afford.

There are certain external economies associated
with the housing sector. Advantages from these external
economies can be obtained through co-ordination of
locations, reduced fluctuations in the rate of construction
and improved forecasts about market behaviour. The govern-
ment can use its housing policy as an instrument of
redistributing income through cross subsidies etc.

It is true that the organisation of the market and a proper distribution of the existing housing stock will ease the situation to some extent, but the real solution lies in increasing the supply at reduced cost by using superior technology. Research to lower cost and innovation of building techniques should be encouraged by the government for this purpose.

VII. A few recommendations

In conclusion, we can mention some of the recommendations made by economists to solve the shelter problems in the underdeveloped countries.

The first thing that most writers emphasise on is the need for the preservation of the existing stock. Since resources are scarce, they must be used in the most cost effective manner. The removal of existing dwellings, in however poor conditions they may be in the present situation, will be a step backwards. The current maintenance expenditure should be weighed against future benefits. With respect to the bustees, this means greater importance should be attached to bustee improvement programmes and large scale demolition should be avoided.

Even without public help, people show great initiative in getting a shelter over their heads, whatever be their quality. A successful housing strategy should be able to exploit the willingness of the people to build a shelter to economise on the use of public resources. A 'site and service' programme can mobilise savings very effectively. A CMDA report[17] considered three shelter alternatives for the lowest income brackets :
1. Open plot development with communalised utilities.
2. Bare skeleton for a shelter with sanitary care.
3. Habitable wind and water-tight self-contained shelter care with potential for future expansion.

The location decision is very important. Kingsley and Kristoff[18] recommended in 1971 a concentration on the already developed land rather than on the acquisition and development of new land within CMD. Low income dwellings should be located in places where there are suitable job opportunities. An adequate mix of shelter and income earning opportunity is essential. Better location of dwellings in relation to jobs can increase household take-home pay by reducing commuting expenses.

Grimes[19] also recommends a spectrum of serviced sites, ranging from bare, levelled sites without facilities for the poorest families to larger plots with individual utility connections on which a substantial house may be built. This, he says, will prevent a site and service project from becoming an entirely middle income enclave over time.

The middle income people are often too well off to justify receiving public sector help and at the same time too poor to get within the reach of the private sector. Therefore, housing standards must be consistent with the prevailing income composition. Flexibility of building designs, so that a low-standard house can be adopted to higher standards as income rises, is also prescribed by many.

Co-operative housing is becoming popular within the CMD due to its cost effectiveness. They make more individual savings or resources available to the housing sector and also help to improve the level of maintenance.

The government should also try to ensure an
equitable distribution of credit. High income groups
often consume a disproportionately larger share of
housing resources by virtue of their greater access to
credit. Development of a credit system that meets the
needs of a larger category of income groups will help
to ease the shelter problem to some extent.

To quote Muth[20], 'Housing quality improves
dramatically with income.' Therefore, solutions should be
geared to the employment needs and the purchasing power
of the low income urban families.

Notes

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12. Colombia, National Planning Office, 1972.

13. Orville F. Grimes, _Housing for Low Income Urban Families: Economics and Policy in the Developing Countries_, World Bank Research Publication, 1976.

14. Orville F Grimes, op. cit. pp. 7-8.

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16. J B Cullingworth, 'Housing and the State' in Adela Adam
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    New York, 1967.

17. C.M.D.A., <u>Shelter Core : A Developing Dwelling for the
    Urban Poor</u>, 1974.

18. G Thomas Kingslay and S Frank Kristoff, <u>A Housing
    Policy for Metropolitan Calcutta</u>, CMPO, 1971.

19. Orville F Grimes, op. cit., p. 27.

20. Richard F Muth, 'Slums and Poverty', in A A Nevitt
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TABLE - 1
DISTRIBUTION OF INCOME GROUPS

Economic group	Monthly income (in Rs.)	Percentage of households
Economically weaker section	(< 700)	45
Low income group	(701 - 1500)	26
Middle income group	(1501 - 2500)	24
High income group	(> 2500)	5

Source : CMDA, Shelter Programme and Perspective (Report
No. 170), Calcutta, 1982.

TABLE - 2
POPULATION AND HOUSING FIGURES IN 1971
(Unit - millions

State/District	Total population	Total No. of house- holds	Total No. of houses
C M D	8.33	1.63	1.57
Calcutta City	3.14	0.63	0.56
West Bengal	44.31	8.05	7.56
India	548.00	97.00	93.00

Source : CMDA, Shelter Programme and Perspective (Report
No. 170), Calcutta, 1982.

TABLE - 3
POPULATION AND HOUSING FIGURES IN 1981
(Unit - millions)

State/District	Total population	Total No. of house-holds	Total No. of houses
C M D	10.22	2.00	1.92
Calcutta City	3.30	.60	.59
West Bengal	54.58	9.74	9.59
India	665.28	119.77	113.73

Sources : i. Census of India 1981, Series - 1, Part II-A,
General Population Tables, Delhi, 1983.

ii. CMDA, Calcutta Metropolitan Statistics,
Calcutta, 1983.

TABLE - 4
NEED-SUPPLY GAP ACCORDING TO THE SECOND METHOD

	1971	1981
CMD	96,000	120,000
Calcutta City	68,000	57,327
West Bengal	1302,000	1324,628
India	16000,000	19222,027

TABLE - 5

HOUSEHOLDS CLASSIFIED BY NUMBER OF ROOMS OCCUPIED IN
CALCUTTA IN 1971

	1 room	2 rooms	3 rooms	4 rooms
Number of persons in households occupying	1705,370	626,960	352,220	198,065
Number of rooms occupied by them	382,465	195,060	137,070	84,820
Persons per room	4.46	3.21	2.56	2.34

Source : Census of India 1971, Series 22, Part - IV.

TABLE - 6

NEED-SUPPLY GAPS IN CMD USING DIFFERENT METHODS

	1971	1981
Method - 1	60,000	80,000
Method - 2	96,000	120,000
Method - 3	239,727	287,792

TABLE - 7

NEED-SUPPLY GAPS IN CALCUTTA CITY USING DIFFERENT METHODS

	1971	1981
Method - 1	7,000	11,361
Method - 2	68,000	67,327
Method - 3	110,000	120,000
Method - 4	134,578	NA

NA : Not available.

TABLE - 8

PERCENTAGE OF CENSUS HOUSES BY MATERIAL USED FOR THE WALL

State/District	Total Rural Urban	Grass, leaves, reeds, bamboo	Mud	Burnt brick	Cement concrete
West Bengal	T	13.85	54.06	28.80	0.34
	R	15.69	69.22	12.38	0.25
	U	8.87	13.19	73.10	0.59
Calcutta	U	3.56	8.96	83.59	0.16
24-Parganas	T	10.84	51.69	35.84	0.11
	R	8.22	75.88	14.64	0.02
	U	15.41	9.63	72.70	0.25
Howrah	T	3.87	51.87	42.67	0.09
	R	3.42	78.75	17.37	0.01
	U	4.39	20.49	72.22	0.18
Hooghly	T	5.09	53.28	40.90	0.02
	R	4.30	72.15	23.11	0.02
	U	6.96	8.68	82.96	0.03
Nadia	T	25.12	37.35	35.39	0.02
	R	28.05	45.80	24.29	0.02
	U	13.82	4.79	78.15	0.02

Source : Census of India, 1971, Series - 22, Part - IV

Housing Report and Tables, Calcutta, 1972

TABLE - 9

PERCENTAGE OF CENSUS HOUSE BY THE MATERIAL USED FOR ROOFING

State/District	Total Rural Urban	Grass, leaves, thatch, wood, mud, etc.	Files, slate, shingle	Corru- g ted iron sheets, zinc, or other metal sheets	Concrete RBC/RCC
West Bengal	T	45.56	24.18	12.66	14.10
	R	60.02	20.23	11.86	5.56
	U	6.57	34.83	14.81	37.14
Calcutta	U	1.16	37.36	12.60	45.06
24-Parganas	T	32.15	39.61	8.99	15.83
	R	48.99	35.52	7.47	5.99
	U	2.86	46.73	11.63	32.95
Howrah	T	16.90	47.97	13.06	18.23
	R	30.53	44.53	15.79	6.49
	U	0.99	51.85	9.87	31.95
Hooghly	T	26.45	37.14	10.33	17.47
	R	39.15	33.57	12.28	10.95
	U	3.14	45.58	6.73	32.86
Nadia	T	28.42	23.15	27.40	12.47
	R	34.94	25.51	26.03	7.51
	U	3.28	14.05	32.66	31.59

Source : Census of India 1971, Series 22, Part IV

Housing Reports and Tables, Calcutta, 1972.

TABLE - 10
DISTRIBUTION OF HOUSING UNITS BY QUALITY

State/District	Total/ Rural/ Urban	Percentage of census houses having kutcha wall	Percentage of census houses having pucca wall
West Bengal	T	67.91	29.14
	R	84.91	12.63
	U	22.06	73.69
Calcutta City	U	12.52	83.75
24-Parganas	T	62.53	35.95
	R	84.10	14.66
	U	25.04	72.95
Howrah	T	55.74	42.76
	R	82.17	17.38
	U	24.88	72.40
Hooghly	T	58.37	40.92
	R	76.45	23.13
	U	15.64	82.99
Nadia	T	62.47	35.41
	R	73.85	24.31
	U	18.61	78.17

Source : Census of India 1971, Series 22, Part IV

Housing Report and Tables, Calcutta, 1972.

TABLE - 11

PERCENTAGE OF CENSUS HOUSES BY MATERIAL OF WALL IN CITIES

Cities	Total no. of census houses	Grass, leaves, reeds, or bamboo	Mud	Unburnt bricks	Wood
(1)	(2)	(3)	(4)	(5)	(6)
Calcutta	100	3.56	8.96	0.26	0.72
Bhatpara	100	2.63	1.96	0.12	0.03
Panihati	100	21.52	3.37	0.12	0.22
Kamarhati	100	19.47	5.42	0.21	0.10
Baranagar	100	9.91	8.25	1.14	0.15
South Dum Dum	100	25.04	5.81	0.07	0.88
Garden Reach	100	1.32	4.96	0.69	0.05
Howrah	100	4.60	16.34	1.20	0.35
South Suburban	100	8.87	11.76	0.54	0.10
Hooghly-Chinsura	100	4.58	5.90	0.44	0.22

Cities	Burnt brick	CI sheets or others	Cement concrete	All materials
(7)	(8)	(9)	(10)	
Calcutta	83.59	2.72	0.16	0.03
Bhatpara	95.19	0.05	0.02	-
Panihati	73.36	1.27	0.12	0.02
Kamarhati	73.03	1.24	0.52	0.01
Baranagar	79.33	0.73	0.49	-
South Dum Dum	65.99	2.00	0.02	0.19
Garden Reach	92.82	0.14	0.02	-
South Suburban	77.19	0.52	1.01	0.01
Howrah	75.68	1.58	0.23	0.02
Hooghly-Chinsura	87.83	0.98	0.05	-

Source : Census of India 1971, Series 22, Part IV,
  Housing Report and Tables, Calcutta, 1972.

TABLE - 12

PERCENTAGE OF CENSUS HOUSES ACCORDING TO ROOF MATERIAL

Cities	Total no. of census houses	Grass, leaves, reeds, thatch, wood, mud, etc.	Files slate, shingle or other	Corrugated iron sheet, zinc metal sheets
(1)	(2)	(3)	(4)	(5)
Calcutta	100	1.16	37.36	12.60
Bhatpara	100	0.05	66.10	2.76
Panihati	100	0.48	43.44	13.81
Kamarhati	100	0.92	55.52	7.97
Baranagar	100	0.79	33.00	7.94
South Dum Dum	100	1.54	40.89	8.59
Garden Reach	100	0.11	74.64	3.33
South Suburban	100	0.59	39.77	9.77
Howrah	100	0.49	50.05	9.43
Hoowhly-Chinsura	100	0.76	30.57	12.67

Cities	Asbestos/ cement sheets	Brick and lime	Concrete RBC/ RCC	All other materials not stated
	(6)	(7)	(8)	(9)
Calcutta	2.47	1.24	45.06	0.11
Bhatpara	4.05	2.80	24.14	0.10
Panihati	4.16	2.30	35.78	0.03
Kamarhati	2.52	1.53	31.51	0.03
Baranagar	2.87	5.55	49.85	-
South Dum Dum	2.34	0.68	45.75	0.21
Garden Reach	2.28	0.04	19.60	-
South Suburban	5.29	1.12	43.42	0.04
Howrah	1.76	2.90	35.30	0.07
Hooghly-Chinsura	1.57	22.01	31.33	1.09

Source : Census of India 1971, Series 22, Part IV, Housing Report and Tables, Calcutta, 1972.

TABLE - 13

HOUSES, HOUSEHOLDS AND POPULATION IN DIFFERENT MUNICIPALITIES WITHIN CMD, 1971

Municipality	No. of residen-tial houses	No. of households	Population (including institutional and houseless)	Persons per residen-tial unit
(1)	(2)	(3)	(4)	(5)
1. Barasat	7,116	7,587	42,642	5.99
2. Kanchrapara	13,945	24,186	78,768	5.64
3. Halisahar	13,201	14,124	68,906	5.22
4. Nadia	14,715	16,117	82,080	5.58
5. Bhatpara	39,712	39,776	204,750	5.15
6. Garulia	10,376	10,449	44,271	4.27
7. North Barrackpore	14,189	14,436	76,335	5.38
8. Barrackpore	15,743	17,993	96,889	6.15
9. Titagarh	23,589	24,827	88,218	3.74
10. Khardaha	4,810	5,704	32,302	6.71
11. Panihati	25,050	25,952	148,046	5.91
12. Kamarhati	29,852	34,488	169,404	5.67
13. Baranagar	22,337	24,419	136,842	6.11
14. Dum Dum	4,554	4,921	31,363	6.89
15. North Dum Dum	9,398	9,995	63,873	6.81
16. South Dum Dum	54,337	54,552	174,342	3.21
17. New Barrackpore	5,097	5,160	32,512	6.38
18. Garden Reach	24,159	27,857	154,913	6.41
19. South Suburban	45,870	47,655	272,600	5.94
20. Budge Budge	7,954	11,895	51,039	6.42
21. Baruipur	3,436	3,560	20,501	5.97

TABLE - 13 (Contd.)

(1)	(2)	(3)	(4)	(5)
22. Rajpur	5,255	7,234	34,393	6.54
23. Kalyani	4,199	4,269	18,310	4.36
24. Bansberia	12,068	13,349	61,748	5.12
25. Hooghly-Chinsura	16,000	18,749	105,241	6.22
26. Chandannagar	13,889	14,832	75,238	5.42
27. Bhadreswar	10,051	10,174	45,586	4.53
28. Champdani	13,514	14,273	58,596	4.33
29. Baidyabati	7,746	9,463	54,130	6.99
30. Serampore	18,833	20,522	102,023	5.56
31. Rishra	14,261	15,130	63,486	4.45
32. Konnagar	6,758	6,833	34,424	5.09
33. Uttarpara-Kotrung	10,341	12,677	57,568	6.53

Source : Census of India 1971, Series 22, Part X,
District Census Handbook

TABLE - 14

DISTRIBUTION OF HOUSES AND POPULATION IN DIFFERENT WARDS OF CALCUTTA CITY 1971

Ward No.	Residential houses	Household	Population	Persons per housing unit
(1)	(2)	(3)	(4)	(5)
1	9,063	9,347	43,561	4.81
2	7,129	7,187	45,318	6.36
3	8,084	8,101	44,534	5.51
4	5,259	5,282	29,255	5.56
5	4,236	4,839	25,872	6.12
6	7,724	7,813	32,757	4.24
7	4,248	4,261	21,634	5.09
8	3,708	3,730	21,725	5.86
9	5,325	3,405	21,946	6.60
10	5,181	5,395	33,200	6.81
11	4,813	4,838	26,233	5.45
12	4,694	5,378	27,531	5.95
13	5,141	5,251	25,830	5.02
14	9,884	10,077	53,515	5.41
15	4,503	5,084	26,768	5.94
16	4,099	4,505	23,700	5.78
17	5,015	5,566	32,313	6.33
18	5,698	6,151	28,059	4.92
19	4,685	4,752	25,723	5.49
20	4,297	4,812	27,193	6.33
21	5,254	6,345	30,433	5.79
22	4,588	5,981	32,714	7.13
23	5,871	7,445	41,470	7.06
24	3,617	4,050	22,800	6.30
25	3,164	3,394	22,397	7.08
26	6,495	8,594	35,389	5.45

TABLE - 14 (Contd.)

(1)	(2)	(3)	(4)	(5)
27	4,063	4,422	23,504	5.78
28	2,960	3,322	20,444	6.80
29	5,447	7,042	32,071	5.89
30	6,964	7,203	36,109	5.18
31	4,779	4,864	25,858	5.41
32	9,437	9,898	48,846	5.18
33	5,552	5,675	28,862	5.20
34	5,314	5,325	31,154	5.86
35	6,403	6,484	34,276	5.35
36	5,252	5,810	24,942	4.75
37	4,736	5,925	28,672	6.05
38	4,847	5,639	35,001	7.22
39	3,328	3,561	20,231	6.08
40	5,581	6,394	33,458	5.99
41	4,097	5,915	25,442	6.21
42	4,168	5,953	29,920	7.18
43	3,787	6,792	26,550	7.10
44	4,200	8,741	26,049	6.20
45	2,398	4,510	16,975	7.08
46	6,413	10,029	49,604	7.73
47	6,135	8,085	41,077	6.69
48	6,836	8,869	31,312	4.58
49	3,712	4,592	22,337	6.02
50	4,793	6,326	30,442	6.35
51	3,749	4,313	20,850	5.56
52	4,195	6,377	24,649	5.87
53	2,750	4,693	18,875	6.86
54	3,841	6,261	24,105	6.27
55	4,539	6,331	27,021	5.95
56	6,163	7,507	34,502	5.60
57	5,871	6,648	31,812	5.47

TABLE - 14 (Contd.)

(1)	(2)	(3)	(4)	(5)
58	7,635	7,801	38,335	4.99
59	6,596	7,183	33,238	5.04
60	8,703	9,178	39,379	4.52
61	6,933	7,050	35,008	5.04
62	6,567	7,283	39,087	5.95
63	4,665	6,626	31,237	6.70
64	4,691	6,045	25,188	5.37
65	5,500	7,222	27,123	4.93
66	7,836	8,063	42,059	5.37
67	5,793	6,598	36,932	6.37
68	5,861	6,269	33,848	5.77
69	8,235	8,267	44,426	5.39
70	5,973	6,177	33,492	5.61
71	5,220	5,663	28,288	5.42
72	7,503	8,065	41,051	5.47
73	4,469	5,220	25,941	5.80
74	5,015	5,901	29,690	5.92
75	3,103	3,490	18,730	6.04
76	4,501	4,790	24,274	5.39
77	5,743	6,333	31,550	5.49
78	6,344	8,327	37,896	5.97
79	4,691	5,591	21,267	4.53
80	6,775	7,628	29,036	4.28
81	5,144	6,121	31,245	6.07
82	9,636	10,182	44,697	4.64
83	9,098	10,117	33,459	3.67
84	11,163	12,611	39,506	3.54
85	7,283	7,591	38,016	5.33
86	7,414	7,668	40,196	5.42

TABLE - 14 (Contd.)

(1)	(2)	(3)	(4)	(5)
87	4,783	5,312	27,949	5.84
88	4,647	5,789	30,304	6.52
89	3,267	3,469	19,885	6.09
90	4,193	4,958	27,514	6.56
91	5,469	5,690	35,388	6.47
92	3,271	3,400	18,325	5.60
93	4,922	5,088	27,986	5.68
94	6,247	6,250	40,634	6.50
95	9,095	9,350	48,580	5.34
96	5,745	6,297	36,637	6.48
97	4,711	4,845	26,626	5.65
98	5,461	5,978	39,847	7.27
99	5,918	5,982	37,743	6.37

Source : Census of India 1971, District Census Handbook,
Calcutta, 1972.

TABLE - 15

DISTRIBUTION OF HOUSES AND POPULATION IN DIFFERENT WARDS OF
HOWRAH MUNICIPALITY, 1971

Ward No.	Residential houses	Households	Population	Persons per housing unit
(1)	(2)	(3)	(4)	(5)
1	2,378	2,734	13,073	5.50
2	1,839	2,178	11,486	6.24
3	2,014	2,131	12,511	6.21
4	2,231	2,891	10,264	4.60
5	3,224	3,448	15,277	4.72
6	3,834	3,840	17,471	4.56
7	5,207	7,651	26,980	5.18
8	3,712	4,761	15,424	4.15
9	2,310	3,342	10,936	4.73
10	1,806	2,523	10,724	5.94
11	3,040	4,481	19,135	6.29
12	796	1,213	6,468	8.12
13	2,954	3,140	12,074	4.08
14	2,662	2,740	11,387	4.28
15	1,051	1,299	7,094	6.75
16	1,545	1,710	9,712	6.29
17	1,721	1,726	10,659	6.19
18	920	1,045	5,216	5.67
19	2,833	2,833	14,435	5.12
20	1,177	2,412	10,142	8.62
21	1,741	2,631	11,219	3.97
22	4,270	4,289	16,972	6.44
23	4,539	4,539	20,890	4.55
24	2,744	2,744	12,658	4.51
25	1,150	1,699	9,121	7.93
26	1,625	2,364	12,181	7.50
27	3,623	3,899	18,060	4.98

TABLE — 15 (Contd.)

(1)	(2)	(3)	(4)	(5)
28	2,525	1,108	20,810	8.24
29	2,097	2,448	11,103	5.29
30	1,970	3,310	17,735	9.00
31	1,517	3,705	23,643	15.50
32	1,152	1,637	9,817	8.52
33	1,610	1,611	10,136	6.29
34	1,553	1,557	11,469	7.38
35	1,993	1,993	13,020	6.53
36	2,181	2,329	9,969	4.57
37	2,673	2,929	12,001	4.49
38	3,517	3,633	15,331	4.40
39	2,464	2,694	13,562	5.50
40	1,602	1,602	11,413	7.12
41	2,443	3,027	20,513	8.40
42	4,337	4,500	27,197	6.27
43	4,665	4,726	20,814	4.46
44	1,531	1,541	6,848	4.47
45	2,788	2,893	17,455	6.26
46	3,060	3,260	21,171	6.92
47	1,461	1,461	9,825	6.72
48	1,757	1,760	11,740	6.68
49	2,352	2,383	13,834	5.58
50	1,149	1,265	6,621	5.76
51	1,006	1,371	8,582	8,53
52	1,360	1,664	8,209	6.04
53	942	1,191	6,096	6.47
54	2,288	2,310	11,396	4.98
55	2,093	2,711	15,728	7.51

Source: Census of India 1971, District Census Handbook, Howrah, Calcutta, 1972

TABLE - 16
NUMBER OF PEOPLE PER HOUSING UNIT, 1981

Region	Number of people per housing unit
CMD	5.31
India	5.85
West Bengal	5.69
Calcutta	5.57
Howrah	5.64
Hooghly	5.74
24-Parganas	5.65
Nadia	5.99

Source: Census of India 1981, Series 1, Part IIA

General Population tables, Delhi 1982

TABLE - 17
HOUSELESS POPULATION, 1981

	No. of households	No. of persons
India	629,924	2,342,954
West Bengal	39,232	132,802
Calcutta City	7,884	37,642
Howrah	4,503	12,286
Hooghly	3,229	11,631
24-Parganas	7,451	20,132
Nadia	719	2,350
Calcutta Urban Aglomeration	18,714	64,385

Source : Census of India 1981 Series 1, Part IIA

General Population Tables, Delhi 1983

TABLE - 18

POPULATION HOUSED IN INSTITUTION, 1981

		Institutional households	Institutional population	Percentage of institutional population
India	T	247457	3790700	6.94
	R	104442	1413141	3.52
	U	143015	2377559	16.45
West Bengal	T	32084	372995	0.68
	R	8373	106349	0.26
	U	23711	266646	1.84
Calcutta City	T	13898	149573	4.52
24-Parganas	T	3882	54519	0.50
	R	1103	16182	0.24
	U	2779	38337	0.92
Howrah	T	1597	15061	0.50
	R	241	2121	0.13
	U	1356	12940	0.97
Hooghly	T	1649	17727	0.50
	R	607	8475	0.34
	U	1042	9252	0.88
Nadia	T	721	13092	0.44
	R	379	6244	0.26
	U	342	6848	1.07

T: Total, R: Rural, U: Urban.
Source: Census of India 1981, Series 1, Part IIA,

General Population Tables, Delhi, 1983.

TABLE - 19

POPULATION OF PURELY RESIDENTIAL CENSUS HOUSES, 1971

State/District/ City	Total No. of census houses	Residence	Percentage of residence to total houses
West Bengal	8,528,890	7,382,635	86.56
24-Parganas	1,585,305	1,398,300	88,20
Howrah	492,580	418,190	84.90
Hooghly	561,255	477,900	85.15
Nadia	406,140	355,375	87.50
Calcutta City	661,670	510,575	77.16
Bhatpara City	29,865	28,070	93.99
Panihati	29,110	25,105	86.24
Kamarhati	36,330	31,635	87.08
Baranagar	26,680	23,085	86.52
South Dum Dum	33,990	29,810	87.70
Garden Reach	27,645	23,400	84.64
South Suburban	53,250	45,480	85.41
Howrah City	166,120	135,505	81.57
Hooghly-Chinsura	20,330	16,565	81.48

Source : Census of India 1971, Series 22, Part IV,

Housing Report and Tables.

TABLE — 20

PERCENTAGE DISTRIBUTION OF NON-RESIDENTIAL AND PARTLY
RESIDENTIAL HOUSES

State/District	Shops cum residence	Workshops cum residence	Hotels Daries	Shops excluding eating places
(1)	(2)	(3)	(4)	(5)
West Bengal	10.74	12.84	1.33	26.23
24-Parganas	9.78	6.45	1.45	35.44
Howrah	7.44	6.69	1.17	33.10
Hooghly	6.62	8.66	0.89	29.92
Nadia	7.48	11.03	0.74	29.10
Calcutta City	15.31	14.73	2.31	26.22
Bhatpara	24.71	8.23	1.96	25.88
Panihati	11.67	3.66	0.17	41.64
Kamarhati	16.44	10.22	1.63	34.52
Baranagar	15.90	7.77	1.59	38.69
South Dum Dum	21.04	14.02	0.33	29.88
Garden Reach	6.06	4.47	1.44	50.56
South Suburban	15.20	3.89	1.02	44.86
Howrah City	10.64	5.38	1.61	35.96
Hooghly-Chinsura	3.36	3.37	0.94	36.26

Source : Census of India 1971, Series 22, Part IV,
Housing Report and Tables, Calcutta, 1972.

TABLE - 20 (Contd.)

State/District/ City	Business houses, offices	Factories workshops, workshades	Restaurants, eating places
	(6)	(7)	(8)
West Bengal	4.17	12.43	3.21
24-Parganas	2.96	12.93	4.41
Howrah	2.77	19.69	4.80
Hooghly	2.73	16.41	4.77
Nadia	3.78	17.75	4.12
Calcutta	7.80	13.37	1.25
Bhatpara	1.57	5.49	5.49
Panihati	1.74	13.42	5.57
Kamarhati	0.89	13.04	4.00
Baranagar	1.06	17.49	1.94
South Dum Dum	2.50	12.19	0.67
Garden Reach	1.59	19.45	1.91
South Suburban	1.48	16.40	2.04
Howrah City	3.49	21.94	3.46
Hooghly-Chinsura	5.61	17.20	7.29

State/District/ City	Places of community gathering	Places of worship	Others
	(9)	(10)	(11)
West Bengal	1.26	10.75	16.99
24-Parganas	1.59	8.47	16.93
Howrah	1.78	7.32	15.24
Hooghly	1.25	11.95	16.80
Nadia	1.14	7.02	17.84
Calcutta	0.52	0.61	17.88
Bhatpara	1.18	1.57	23.92
Panihati	2.09	2.44	17.60
Kamarhati	0.59	0.89	17.78
Baranagar	1.24	0.18	14.14
South Dum Dum	1.00	1.34	17.03
Garden Reach	0.96	1.75	11.80
South Suburban	0.93	2.22	11.96
Howrah City	1.20	1.24	15.08
Hooghly-Chinsura	2.24	5.79	17.94

TABLE - 21

PERCENTAGE OF HOUSEHOLDS WITH OWNED AND RENTED ACCOMMODATION
TO TOTAL HOUSEHOLDS IN CMD, IN 1971

State/District/ City	Tenure status	Rural areas	Urban areas	Total
Nadia (CMD part)	Owned	93.57	72.19	89.56
	Rented	6.43	27.81	10.44
24-Parganas (CMD-part)	Owned	96.71	49.27	79.87
	Rented	3.29	50.73	20.13
Howrah (CMD part)	Owned	97.57	35.52	69.85
	Rented	2.43	64.48	30.15
Hooghly (CMD part)	Owned	94.25	44.51	79.83
	Rented	5.75	55.49	20.17
Calcutta City	Owned	-	18.63	18.63
	Rented	-	81.37	81.37
West Bengal	Owned	93.24	40.15	79.77
	Rented	6.76	59.85	20.23
CMD (total)	Owned	NA	NA	55.63
	Rented	NA	NA	44.37

NA: Not available.

Source : CMDA, Shelter Programme and Perspective

(Report No. 170), Calcutta, 1982.

TABLE - 22

PERCENTAGE OF HOUSEHOLD WITH OWNED AND RENTED ACCOMMODATION
TO TOTAL HOUSEHOLDS FOR 100000 PLUS CITIES IN CMD IN 1971

Cities	Owned	Rented
Calcutta	18.63	81.37
Bhatpara	26.04	73.96
Panihati	56.74	43.26
Kamarhati	35.18	64.82
Baranagar	41.06	58.94
South Dum Dum	45.79	54.21
Garden Reach	33.90	66.10
South Suburban	46.75	53.25
Howrah	26.04	73.96
Hooghly-Chinsura	66.45	33.45

Source: CMDA, Shelter Programme and Perspective (Report

No. 170), Calcutta, 1982.

TABLE - 23

PERCENTAGE DISTRIBUTION OF FAMILIES BY TENURESHIP AND BY INCOME LEVELS

Monthly income levels of families (in Rs.)	Proportion of	
	Renter	Owner
1 - 100	81.19	18.81
101 - 200	85.24	14.76
201 - 300	85.87	14.13
301 - 400	79.69	20.31
401 - 500	77.20	22.80
501 - 700	76.63	23.37
701 - 1000	79.97	20.03
1001-2000	76.66	23.34
2000 and above	66.16	33.84
Not reported	75.22	24.78
All combined	79.23	20.77

Source : Bureau of Applied Economics and Statistics, W.B.

Housing Survey in Calcutta, Calcutta, 1975.

TABLE - 24

HOUSES AND FLATS OFFERED FOR SALE BY WEST BENGAL HOUSING BOARD

	Economic categories				
	EWS	LIG	MIG	HIG	Total
1972-73 to 1977-78 (5 years)					
Number of units	0	1480	2496	1185	5161
Percentage of total	0	28.68	48.36	22.96	100
1978-79 to 1982-83 (4 years)					
Number of units	892	1143	3639	2701	8375
Percentage of total	10.65	13.65	43.45	32.25	100
Projections for 1983-84 to 1986-87 (4 years)					
Number of units	1568	584	2033	2926	7111
Percentage of total	22.05	8.21	28.59	41.15	100

Source : West Bengal Housing Board, Administrative Report, 1984-85, Calcutta, 1985.

TABLE - 25
PROJECTS TAKEN UP BY CMDA

Name of the projects	Number of residential units for					
	EWS	LIG	MIG	HIG	Group housing	Total
Baishnabghata Patuli (Area Development)	2456	1337	583	150	2300	6826
East Calcutta	3169	1646	747	139	1050	6751
East Calcutta extension	560	1090	127	65	703	2545
West Howrah	2800	3205	100	–	2475	8580
Salt Lake	248	–	–	–	–	248
Total	9233	7278	1557	354	6528	24950

Source : CMDA, Report of SURAD Sector, Calcutta, 1986.

TABLE - 26

NUMBER OF HOUSES CONSTRUCTED BY THE HOUSING DEPARTMENT UNDER VARIOUS SCHEMES UPTO 1981-82

Scheme	Construction agencies	No. of houses completed
Slum clearance	i. State	1,136
	ii. Calcutta Improvement Trust	3,564
	iii. Calcutta Corporation	352
	iv. Howrah Improvement Trust	264
Low income housing	i. State	5,238
	ii. Co-operative societies	76
	iii. Institutions	372
	iv. Local bodies	264
	v. Individuals	6,100
Integrated subsidized housing	i. Public sector (a) Govt. projects	12,642
	(b) C.I.T.	1,552
	ii. Private sectors	3,054
Rental housing scheme for state govt. employees		6,447
Middle income housing	i. State (a) Hire purchase	330
	(b) Rental purpose	1,012
	ii. Individuals	2,250
	iii. Local bodies	4

Source: CMDA, Calcutta Metropolitan Statistics, 1983, Calcutta, 1983.

TABLE - 27

INVESTMENT IN HOUSING IN INDIA OVER THE FIVE YEAR PLANS

Plan period	Total investment in the economy (Rs. 10 million)	Investment in housing (Rs. 10 million)	Investment in housing as percentage of total
First Plan			
Total	3360	1150	34.2
Public	1560	250	16.0
Second Plan			
Total	6750	1300	19.3
Public	3650	300	8.2
Third Plan			
Total	10400	1550	14.9
Public	6100	425	7.0
Fourth Plan			
Total	22635	2800	12.4
Public	13655	625	4.6
Fifth Plan			
Total	47561	4630	9.8
Public	31400	1044	3.3
Sixth Plan			
Total	172210	12911	7.5
Public	97500	1491	1.5

Source : National Building Organisation, Handbook of Housing
Statistics, 1980.

TABLE - 28

INCOME FROM HOUSING IN INDIA

(Rs. 10 million)

Year	At current prices	At 1970-71 prices
1970-71	1357	1357
1971-72	1467	1387
1972-73	1596	1411
1973-74	1750	1445
1974-75	1931	1476
1975-76	2103	1508
1976-77	2358	1550
1977-78	2570	1590
1978-79	2836	1634

Source : National Building Organisation,

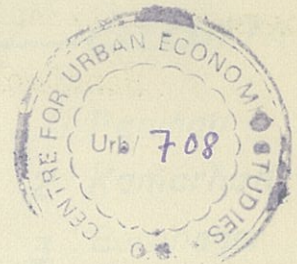Handbook of Housing Statistics, 1980.

TABLE - 29

INCOME GENERATED FROM HOUSING IN WEST BENGAL

(Unit : Rs. 100000)

Year	Income from housing	Income from housing as a percentage of state income
1970-71	12,077	3.78
1971-72	13,025	3.74
1972-73	13,754	3.84
1973-74	14,450	3.34
1974-75	15,319	2.92
1975-76	16,186	2.96

Source: National Building Organisation,

Statistical Handbook, 1980.

CALCUTTA METROPOLITAN AREA

Kalyani

Gayeshpur

Kanchrapara

Bansberia

Halisahar

Naihati

Hooghly - Chinsurah

Bhatpara

Chandernagore

Bhadreswar

Garulia

Champdani

North Barrackpore

Baidyabati

Barrackpore

Serampore

Titagarh

Rishra

Khardah

Konnagar

Barasat

New Barrackpore

Uttarpara - Kotrung

North Dum Dum

Dum Dum

South Dum Dum

Bally

Howrah

Salt Lake

CALCUTTA

1 Panihati

2 Kamarhati

3 Baranagar

Uluberia   Budge Budge

Rajpur

MUNICIPAL CORPORATIONS

MUNICIPALITIES

Baruipur

NOTIFIED AREA AUTHORITIES

0   5   10 Miles