Urban Housing in India

Devendra B. Gupta

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ABSTRACT

Evidence indicates that the situation of urban housing in India has been poor over the past thirty years and may have even deteriorated in many important aspects over this period. There is a high degree of crowding which has been getting worse over the years; by now there are an average of over three persons per room in Indian towns and cities. Despite increasing urban population the share of housing investment has been declining as a proportion of total investment in the country and is much less than in many other countries. One consequence of the lack of housing supply is the increasing proportion of people living in slums and squatter settlements, now estimated to be over a third of total urban population. This paper documents and brings together a range of scattered information not hitherto accessible to shed light on this neglected area of economic policy in India. It evaluates the existing housing stock in the country and the role of housing in the national economy. It analyses the components of increasing housing demand and identifies the series of constraints that impair the expansion of supply. It concludes that there is a clear need for a major overhaul of many of the government policies and regulations such that housing supply may be more responsive to demand from all income levels. Prime candidates for revision include urban land policy, rent control, housing standards set by urban land zoning and building by-laws, the provision of infrastructure and security of tenure to the poor, and a streamlining of the approval process for home building. Several policy interventions are proposed in the field of housing finance in order to expand significantly the currently low level of available

housing finance. It is clear from the analysis that economic demand exists for such an expansion of housing finance which will therefore be easily utilized. However, many innovations will be necessary in its delivery system so that much of existing housing stock can be upgraded in addition to new starts, and that housing finance can also reach the poor.

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SUMMARY AND CONCLUSIONS

A. Housing in the National Economy

The contribution of the housing sector to national income in India has been between three and four percent throughout the decades of the sixties and seventies respectively. This share is lower than many other countries and indicates the relatively tardy progress made by India in the housing sector. The pace of urbanization has also been slow but there has been a steady increase in urban population of between 3 and 4 percent a year over the same two decades. Since urban housing is, in general, more expensive than housing in rural areas, the overall share of housing might have been expected to increase over this period.

What is more disturbing is that the rate of growth of gross capital stock in housing has been only about 1.5 to 1.6 percent per annum. The total investment in housing had declined from about 4 percent of GDP in 1950-51 to less than 2.5 percent by the mid-seventies. These figures are for both urban and rural housing but the trends for urban housing alone are no more encouraging. There are some problems underlying the data on which these estimates are based but the broad trends should be regarded as reliable, given other corroborating evidence on urban housing in India. The public sector has not been involved heavily in the provision of housing with the bulk of housing coming from the private sector. Organized private sector activity is also small, the large part of housing being provided for themselves by private households. Investment in housing as a percentage of total investment in the economy has fallen from about 34 percent in the early fifties to about 8 percent

in the late seventies. The share of housing in planned public investment has fallen from 16 percent in the First five-Year Plan to about 1.6 percent in the Sixth Plan. Some of these declining trends in the proportion of housing investment to total investment should be expected in an economy undergoing industrial diversification as India has been. But the evidence of housing problems in urban areas in the country is strong enough to warrant a close new look at the components of housing, at housing policy, and at the underlying data.

The overall demand for urban housing can be expected to arise from increases in urban population and from increases in income. There has clearly been a steady increase in urban population. Though separate accounts on urban income are not available, it is clear that urban income has also been increasing and probably a little faster than national income. There are no good estimates of the income elasticity of housing demand in India but judging from the evidence from other countries it should be positive and a little less than unity. Interestingly, average urban household size appears to have increased and so the growth in the number of urban households has been lower than that of urban population. This, however, may be because the supply of housing has not kept up with demand and there may be a relationship between household formation and availability of dwellings. It is quite likely, for example, for single member households to merge with relatives and delay their own household formation. There is evidence that the average number of persons per dwelling has increased, as has average number of persons per room resulting in a decline in space per person in urban areas. It is therefore clear that crowding has increased in urban India. More than 70

percent of households have less than 300 sq. ft. of floor space. One would expect this to happen if the shadow price of housing has been increasing which itself would result from constraints in housing supply.

The one positive trend in housing in urban India over the past quarter century has been a clear improvement in quality. The proportion of houses which are "kutcha" (made of temporary materials like mud walls and straw roofs) has shown a continuing decrease and the proportion of brick or other permanent type structures has increased. This finding would be consistent with a rise in unit housing price and higher crowding. There does not appear to be any difference in the quality of housing according to mode of tenure. Overall, about half of households are renters and the other half owners, but the proportion of renters is considerably higher in the largest cities.

It is also clear that the provision of public services has improved. There have been improvements all round in the access of households to drinking water, toilet facilities, cooking facilities, bathing facilities and lighting. The average level of these services continues to be very low and there is therefore considerable room for improvement. Much of the access to such services is still shared among many households. Contrary to popular impression, the quality and quantity of services is much higher in larger cities as compared to the smaller towns. The improvement in these services has essentially been due to widespread government activity in these areas.

B. Slums and Squatter Settlements

The constraints in the supply of housing have resulted in large number of slums and squatter settlements that have continued to grow in Indian towns and cities. While comparative time series information is hard to get, it is quite probable that the proportions of people living in slums have increased over the years, and particularly so in the larger cities. There can clearly be no hard and fast definition of slums but the existence of slums is usually associated with dilapidated structures or with the lack of basic services. In India they are covered by a legal definition which declares areas as slum areas under various slum (Clearance and Improvement) Acts. The existence of slum is, at the same time, a solution to inadequately met housing demand as well as an indicator of inappropriate housing policy.

Government policy has evolved slowly over the years from one of slum clearance in the early years to slum improvement now. The early idea was merely to remove slums and to rehabilitate the uprooted dwellers in newly constructed government contracted structures. It was realized that this was clearly impracticable given the costs involved. A more realistic policy has been followed over the last decade. This has been to improve the environment of slums by making provision for basic services--water supply, drainage, sewerage, pavements and lighting. This has been successful to a limited degree. The main drawback is that this policy does not touch the issue of security of tenure nor of the improvement of existing dwellings in slums. In this respect it is striking that more than half of the area covered by slums in urban areas is government owned land.

Rationalizing security of tenure is therefore very much within the power of the government. Unlike other less successful measures, improving the access of slum dwellers to land they are already living on, would do much to improve the distribution of land ownership. While it is not procedurally easy to implement it is clear that much improvement could take place if the tenure status of many slum dwellers would be regularized. It would be expected, for example, that they would make greater investments in improving their own structures if security of tenure was assured. Considerable progress has, however, been made in the environmental improvement of slums in many cities, the programs in Calcutta and Madras being striking examples where World Bank projects have had a prominent role. The wholesale relocation of the poor to the outskirts of Delhi provides a contrasting example where slums were cleared and people moved out. Once they were moved to those far-flung locations the principle of sites and services was frequently used and the resulting development of these areas is generally successful. Given these varying experiences around the country, there should be a new look at policy towards slums such that the environmental improvement program is strongly supplemented with measures providing security of tenure and assistance resulting in higher housing investments.

C. Government Interventions in the Supply of Urban Land

The major supply constraint in housing has been the supply of developed urban land. The policy response to this problem has mainly consisted of two kinds of measures, both of which have probably had counterproductive effects. The first, best exemplified by urban land

policy in the development of New Delhi, has consisted of schemes for large-scale acquisition, development and disposal of land. The idea is for the public sector to acquire in advance large tracts of land in and around developing cities; to develop the tracts and then to sell parcels at essentially cost-plus prices to selected and deserving sections of the population and at auction prices to others. The objective is to control unwarranted increases in land prices. The private sector is then excluded from land development. The effect of such programs is often counterproductive. There are two problems. The first is that it is difficult for a public authority to develop land fast enough to keep up with demand because of both financial as well as physical implementation constraints. A queue for developed land therefore develops. Second, it is not easy to devise equitable procedures for the allocation of land such that the poor actually have improved access. The effect of the first problem is an increase in the black market or effective price of land and the effect of the latter is a worsening in the access to land of the poor. In New Delhi, for example, the proportion of people living in slums and squatter settlements is the highest among the largest Indian cities, a fact contrary to popular impression.

The second major land policy enunciated in India has been the imposition of the urban land ceiling in 1975. The idea was to acquire all excess land held by individuals over stated limits to permissible holdings. These limits varied by city size, the limit being 500 sq. meters in the largest cities. It was expected that the public sector would be able to acquire large tracts of land by this procedure, develop them and allot plots to the poor at affordable prices. This procedure would help in promoting equity in land holdings and help in moderating the

rise in urban land prices. The actual effects have been quite the opposite. First, there simply was not enough surplus land for a major redistribution even if all the implementation could be done efficiently. Second, there have been immense physical problems in terms of lot size, lot shape, etc., for plots acquired to be used effectively. Third, the imposition of the acts froze the supply of urban land in the private market and froze all land transactions. All such transactions were now subject to approval by a government authority and this has led to obvious bureaucratic red tape and corruption. Fourth, not much of the officially declared surplus land has actually been acquired and so there has not been much to develop, let alone allot to the poor. The result has been a major spurt in urban land prices since the imposition of urban land ceilings. A solution to this problem is yet to emerge although attempts are being made to tighten the provisions in the Acts.

D. Rent Controls and Other Regulations

In addition to the constraints in the supply of developed urban land, there are other constraints in the supply of housing. The paper has offered a theoretical analysis of the effects of rent control. As might be expected, this analysis shows that rent control unequivocally reduces supply unless the government counteracts this effect by subsidizing supply. In addition to transferring wealth from landlords to tenants, imposition of rent control also involves a dead weight social welfare loss. The analysis also shows how rent control induces a landlord to reduce maintenance and repair expenditures. The overall result is that limiting the rent below the market level results in the decline of new as well as replacement investment in housing, unless the government intervenes to overcome the distortions introduced.

Rent restrictions were first introduced in India (in Bombay) in 1918. But rent control acts became pervasive in almost all states during and after World War II. A key feature of most acts, in addition to limiting rents, are procedures making it difficult, if not impossible, to evict a sitting tenant. Except for new construction where a holiday is provided from rent control provisions for usually 5 years, rents are virtually frozen for postwar construction. In addition to the deleterious effects of rent control acts suggested above, there are other adverse consequences as well. First, it is likely that home owners withhold letting their premises even when they do not need the space because of fear of permanent occupation by the tenant. This can apply to portions of self-occupied premises as well. Second, the revenues of local authorities are affected since they are based on annual value of holdings--and these cannot obviously be higher than the legislated rent control value. Third, a black market is created whereby transacted rents are higher than the legislated rents. Fourth, there is little evidence that the equity argument is justified since tenants are often found to be better off or at least as well off as the landlords. In summary, the rent control acts must be adjudged as serious impediments to the expansion of housing supply in urban India and urgent measures must be taken to amend them.

There are also other constraints in the expansion of housing supply in India. Until recently, when the supply of cement was controlled, as was that of steel, it was difficult to obtain these key construction materials, except in the black market at heavily inflated prices. Constraints in the supply of these materials along with the increase in energy prices which has made bricks more expensive, has made

the price of construction increase at a faster rate than the overall wholesale price index. With increasing deforestation problems, the price of timber has also increased significantly. There is little hope of these prices moderating unless supplies are increased significantly in the future through expansion in domestic production or in imports of materials. The effect on construction cost of price rises is exacerbated by the exercise of antiquated building by-laws and regulations, which discourage the introduction of cost reduction techniques. These laws do not encourage the use of new materials, lack uniformity and are more specification oriented than purpose oriented. The resulting minimum costs of construction are far too high in relation to the income of the Indian urban population. The vast majority of the poor have then little choice but to live in dwellings which cannot be legalized under the existing by-laws. Although an amended National Building Code taking account of these problems has been recommended at the national level, it is yet to be implemented by local authorities. Separate guidelines for housing for the poor are also being suggested now. These recent suggestions must be implemented early if there is to be any likelihood of the poor getting access to legal housing in urban areas in the foreseeable future.

E. Housing Finance

The last issue addressed in the paper is that of housing finance. Under the system of rationed credit in India, the availability of housing finance has been highly restricted. There is no equivalent of a building society or Savings and Loan system. Banks are not permitted to lend for housing except for a small amount restricted to the poor at

heavily subsidized rates. The banks have found it difficult to deliver even the latter. There are few sources of housing finance available although the situation has been improving in recent years. Each state has housing boards and other housing authorities who undertake new construction and finance individuals at relative low morgage rates. The refinancing agency for these activities is the national Housing and Urban Development Corporation (HUDCO). The volume of this construction is still low and the unit cost of public sector constructed structures typically too high for the people they are meant for. Other agencies supplying housing finance are the Life Insurance Corporation, housing cooperative societies, the relatively recent Housing Development and Finance Corporation (HDFC) and employers funds (including the government). The overall volume of these sources is small in relation to probable demand and much can be done to expand the supply of housing finance. It will be necessary to innovate so that procedures can be found to extend small amounts to the poor for improvements as well as new construction. Funds currently spent on expensive public sector construction could perhaps be better spent in the provision of housing finance to individuals who are better at economizing and at meeting their own needs.

This paper documents the slow growth of the housing sector in India since about 1950. The key components of both demand and supply are identified. Considerable detail is given on the condition of existing housing stock, on the evidence of deteriorated supply conditions as well as improvements in quality. Problems in urban land policy, rent control acts and the lack of housing finance have been identified as the key

constraints in limiting the supply of urban housing which is clearly not meeting expanding demand resulting from urban growth. Urgent measures are needed in these areas to ameliorate the current urban housing situation in India.

I. HOUSING IN THE INDIAN ECONOMY

The importance of the housing sector in the national economy can be measured in terms of its contribution to national income, capital formation and employment. This section, therefore, contains a brief description of trends in the share of housing in these aspects of India's economy. But before analyzing these trends, we need to define rental income and capital formation in the housing sector. 1/ Dwellings produce housing services which form a part of national product. The income accrues to the owner in the form of rent. It is immaterial whether the owner gets the rent from a tenant, or the owner himself lives in the house and thereby consumes the income generated out of the housing sector. 2/ In India, the contribution from the housing sector to national product is reckoned as net national income originating in the ownership of residential dwellings. Accordingly, the net rental figures are derived from gross rentals by subtracting current expenses on repairs and maintenance, and depreciation charges. The gross rental is estimated as a product of average gross rental per dwelling and the number of census dwellings, and includes inputed rent of owner occupied houses. Appendix 1 contains the details of the procedure employed for obtaining these estimates. It should be noted that the census definition of house makes no distinction between a house in the formal and informal sectors.

1/ For purposes of national income accounts in India, the housing sector covers "ownership of dwellings" in the shape of occupied residential houses. Outlays on such activities as maintenance of utility systems, streets and schools etc. are not included.

2/ The logic of including imputed rents on owner occupied houses arises from the fact that the service is performed not by the owner himself but by the capital he owns.

Table 1.1

Contribution of Housing* to National Income

(Rs. crores)

Year	Income from Housing						National Income (G.D.P. at factor cost)		Percentage share of housing in National Income	
	Current Prices			1970-71 prices						
	Rural	Urban	Total	Rural	Urban	Total	Current prices	1970-71 prices	Current prices	1970-71 prices
1960-61	349	229	578	553	362	915	14071	25534	4.11	3.58
1965-66	472	342	814	670	473	1143	22030	29023	3.69	3.94
1970-71	749	608	1357	749	608	1357	36736	36736	3.69	3.69
1975-76	1053	1050	2103	804	704	1508	65993	42633	3.19	3.54
1976-77	1131	1227	2358	816	734	1550	71616	43248	3.29	3.58
1977-78	1274	1502	2776	828	762	1590	80040	46750	3.47	3.40

* Relates to residential buildings only.

Source: Handbook of Housing Statistics, 1980, NBO and National Accounts Statistics, CSO, Series 1960-61 - 1972-73, 1960-61 - 1974-75 and 1970-71 - 1975-76.

The contribution of the housing sector to the national income of India is shown in Table 1.1. During the period 1960-61 to 1977-78, the share of the housing sector in national income, whether in current prices or at constant prices, has been around three to four percent, with some marginal fluctuations. But in absolute terms, a significant increase in the amount of aggregate income from housing occurred during this period; the increase is, however, less sharp when housing income is considered at constant prices. On the whole, the aggregate housing income in urban areas has grown at an average rate of nearly 4.2 percent per annum (compound at constant 1970-71 prices) during the period 1960-61 to 1977-78, a rate faster than the overall growth of housing income in the country. Comparative figures indicate that the share of national income from housing is lower in India than in more developed countries. 1/

Table 1.2 shows that the share of expenditure on rent in private final consumption expenditure has not shown any change during 1950-51 and 1977-78.

The amount of money a nation spends on housing is perhaps an appropriate indicator of its commitment to housing, and indeed of the quality of its stock of houses. At present, India spends about two to three percent of its GNP on housing. This is much lower when compared to developed countries. Table 1.3 illustrates the importance of the housing sector in a number of developed countries, and shows a rising trend in the proportion of housing investment as a percent of GNP during the 1970s as compared to the 1960s.

1/ For instance, France (8.7 percent); Greece (7 percent); Japan (6.8 percent) and West Germany (5.6 percent).

Table 1.2

Year	Percentage private final expenditure on rent to total at 1970-71 prices	Total final consumption at 1970-71 prices (Rs. crores)
1950-51	3.3	14708
1955-56	3.2	17540
1960-61	3.6	21202
1965-66	3.5	23836
1970-71	3.5	29838
1975-76	3.6	33454
1977-78	3.5	36002

Source: Central Statistical Organization.

Table 1.3

Residential Investment as Percentage of GNP

Country	1961-69	1970-78
Japan	6.0	7.6
France	5.8	7.1
West Germany	7.2	6.5
Belgium	5.9	6.2
Canada	4.5	5.7
Holland	5.0	5.6
Italy	6.6	5.4
United States	4.2	4.4
Britain	3.5	3.6

Source: OECD quoted from the Economist, January 17, 1981 in Munjee, Nasser M., "Profile on Housing", Indian Merchants' Chamber, Bombay, 1982, p. 16.

By contrast, the national income accounts indicate that housing investment as a proportion of gross capital formation in India has shown a steady decline from about 30 percent in 1950 to only 9.4 percent in 1975-76 (Table 1.4). In 1977-78 it rose to about 15.3 percent. To a large extent, this is to be expected in an economy experiencing considerable diversification with massive investment in industry. What is more disturbing, however, os that the rate of growth of gross capital stock in housing (in terms of real value) has been only about 1.5 to 1.6 percent per annum.

The growth of housing, as indicated by the above trends, is not very encouraging, especially when compared to the developed countries and even some of the developing countries. This is true as well of urban housing, although the situation is relatively more satisfactory. These figures, however, are only broad magnitudes, as the quality of data, both in respect of the income generated in the housing sector as well as capital formation in housing, is somewhat uncertain. For instance, the income generated in the housing sectors ignores for intercensal periods that part of the informal sector housing stock which is left out of the municipal house tax net. Another source of underestimation is the use of rateable value of the property for purposes of estimating rentals of residential dwellings. These values are grossly underestimated: first, because a lot of "black" money is known to be concealed in land and buildings, and second, in order to effect savings on the stamp duty. it is, however, difficult to estimate the extent of such underestimation. Since the capital formation estimates themselves are based on the gross rental values, clearly these estimates are likely to be underestimates. Yet another source of error is that neither the expenditures

Table 1.4

Capital Formation in Housing*

Year	Gross capital formation (GCF) 1970-71 prices (Rs. crores)	GDP at factor cost (GDP) 1970-71 prices (Rs. crores)	GCF in residential dwellings 1970-71 prices (GCFR)		GCF/GDP	GCFR/ GCF	GCFR/ DGP	GCFRU/ GCFR
			Urban (GCFRU)	Total (GCFR)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1950-51	2379	17501	285	698	13.59	29.34	3.99	40.83
1955-56	3323	20924	218	501	15.88	15.08	2.39	43.51
1960-61	4523	25603	296	553	17.67	12.27	2.16	53.53
1965-66	6170	29086	380	782	21.21	12.67	2.69	48.59
1970-71	7177	36736	491	962	19.54	13.40	2.61	50.11
1975-76	8653	43633	425	810	19.83	9.36	1.86	51.04
1977-78	10790	46750	-	1650	23.08	15.29	3.53	-

* Relates to residential buildings only.

Source: Handbook of Housing Statistics, 1980, NBO.

incurred on improvements of the existing housing stock nor the demolitions of the houses are usually reported, and hence do not get reflected in these estimates. If, however, the extent of underestimation is assumed to be more or less constant from one period to the other, the trends, both in the gross value of rentals as well as in capital formation in housing, can be inferred as constant.

It would be interesting to examine the relative contribution of private and public sectors in housing investment. Unfortunately, the CSO does not provide such sectorwise data about the investment in housing. Except for the planned expenditure on housing schemes, no data on housing investment in teh public sector are available on a regular basis, The Government's role in this field has been limited, however, dur to both general resource constraints and the lower priority given to investment expenditure which does not contribute directly to further economic growth.

In the main, the role of Government in the past has been restricted to providing subsidized housing in the public sector for industrial workers and economically weaker sectors of the community. In addition, finance was also provided to State Governments and Central and State Housing Boards for undertaking projects of land acquisition and housing construction to address the needs of the low and middle income groups. Also, provisions were made by the public sector undertakings for accommodating their own employees. If we take into account the total investment of the public sector in housing, we find its contribution to be rather small. The Planning Commission itself has pointed out that investment in housing as a percentage of total investment in the economy has fallen from 34 percent in the First Plan to about eight percent in the Sixth Plan (Table 1.5). Further, total public sector outlay in housing has been falling as a proportion of total public sector investment from 16 percent in the First Plan to about 1.6 percent in the Sixth Plan.

Table 1.5

Investment in Housing in India - Private and Public Sector

Plan period	Total investment in the economy (in Rs. crores)			Investment in Housing * (Rs. crores)			Investment in housing as percentage of total investment in the economy
	Public	Private	Total	Public	Private	Total	
First Plan	1560	1800	3360	250	900	1150	34
Second Plan	3650	3100	6750	300	1000	1300	19
Third Plan	6100	4300	10400	425	1125	1550	15
Fourth Plan	13655	8980	22635	625	2175	2800	12
Fifth Plan	31400	16161	47561	1044	3636	4680	10
Sixth Plan (1980-85)	97500	74710	172210	1491	11500	12991	7.5

* Does not include investment in informal housing.

Source: India's Five Year Plans, Government of India.

Housing, as a labour intensive activity, assumes particular significance in a labor surplus economy like India, since it can provide greater employment per unit of expenditure when compared with many other sectors of the economy. According to estimates prepared by the National Buildings Organization of India (NBO), investment of Rs. ten million in building construction is capable of generating on-site employment of 923 man years and off-site employment of 1,477 man years. According to the 1971 census, nearly 2.2 million workers were engaged in construction activity in India. This represents 1.23 percent of the country's total workers, compared to 1.09 percent for 1961. The proportion of workers engaged in building construction was 0.75 percent of the total workers in 1971, compared to 0.68 percent in 1961. Table 1.6 shows that these proportion are higher for urban than for rural areas. The Sixth Plan envisages a higher share of employment in the construction sector.

Thus, though housing presently contributes significantly to national income, capital formation and employment, the trends in housing growth are not particularly encouraging. Since housing expenditure is found to have strong inter-industry linkages in the Indian economy 1/, an increase in housing investment would induce an increase in the output of almost all sectors in the economy. This suggests that higher priority be accorded to housing in the allocation of scarce resources. The study also shows the dominant role of private sector investment in housing. Clearly, if housing is to be encouraged, policies conducive to more private investment should be formulated.

Finally, it is useful to consider explicitly the adequacy of the data base on housing. The existence of a substantial informal sector housing in India as well as variety of concepts used in the collection of data on housing

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1/ See Dholakia, Bakul, H., Housing in India, NBO (mimeo).

Table 1.6

Share of Employment in Housing to Total Employment and Employment in Construction According to 1961 and 1971 Census

Employment Sector	1961		1971	
	Rural	Urban	Rural	Urban
1. Proportion of workers in construction to total workers	0.67	3.65	0.74	3.50
2. Proportion of workers in building construction to total workers	0.32	2.89	0.39	2.43
3. Proportion of workers in building construction to workers in construction	46.85	79.15	52.59	69.55

Source: N.B.O.,Handbook of Housing Statistics, 1981.

is likely to vitiate some parts of the foregoing analysis. It would, therefore, be useful to undertake detailed studies relating to the role of informal housing sector in the economy. Also scrutiny of the concepts used in the collection of data, especially with regard to trends in share of housing in national product, capital formation and employment, with the object of evolving a reasonable uniformity in the concepts would go a long way in improving our knowledge of housing in India.

II. HOUSING DEMAND AND SUPPLY

This section describes the trends of various determinants of demand for and supply of urban housing. Housing, one of the most durable and expensive of assets, is an immobile form of goods which can be considered in two ways - as housing stock and as services supplied by that stock. Housing stock may be defined as the fixed capital stock that is accumulated for the purpose of sheltering the population. Housing services or housing consumption, on the other hand can be thought of as the services implied by the use of the housing stock. The services which are derived from housing stock have two dimensions: the quantity of housing services yielded by housing stock is normally related to some measure of the physical size of a unit of stock; the quality of services is, on the other hand, a vague concept relating to the amount of satisfaction which can be obtained from a given quantity of services. These together can be combined into a single measure and termed as housing services.

The distinction between the stock of housing and the flow of services it yields over a period of time provides the basis for two measures of value, commonly encountered in the housing market. These are rent, which is the payment made for a flow of housing services received over a specified period of time, and price, which is the capital value associated with a particular unit of the stock.

The aggegate demand for urban housing has a different behavior in the short run than in the long run. In the short run, both the stock and the supply of housing services are relatively fixed, because housing is an extremely durable commodity. In a short period of time, the supply of housing

services will be determined largely by the used stock of housing, with an annual rate of growth of housing stock that is only about 1.5 percent. It requires tremendous efforts and involves high costs to add significantly to the supply in a short period. It is clear therefore, that in the short run housing services would be mainly controlled by the demand side of the market, with short run demand largely a reflection of incomes and income expectations as well as of costs and availability of financing. In the long run the aggregate demand for housing is related to the size and distribution of the population as well as to the magnitude and distribution of household income, and to relative prices of housing services. There are numerous estimates of the income elasticity of demand for housing services. The range of these estimates is rather large, extending, for example for the U.S. data, from 0.3 to 1.5. 1/ The British evidence appears to be consistent with that obtained in the United States. 2/ There are hardly any reliable elasticity estimates available for India. According to one estimate both income and price elasticities for housing demand are found to be significantly less than +1 and -1 respectively. 3/

In short, we may assume demand for housing to be a function of income level, relative prices, population size, and distributions of households, household size, and income level. The aggregate supply of urban housing is related to the prices of quantities of inputs of factors of production. One

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1/ Most estimates are however in the range 0.3 to 0.5 for renters and 0.5 to 0.7 for owners. See Mayo Stephen K. "Theory and Estimation in the Economics of Housing Demand," Journal of Urban Economics 10, 1981, pp. 95-116.

2/ For a brief description on this, see Robinson, Ray, Housing Ecnomics and Public Policy, MacMillan, London, 1979, pp. 41-49.

3/ Dholakia, Bakul, H., Housing in India, N.B.O. (mimeo).

of the most influential of these factors is land. 1/ The long run aggregate supply schedule of residential dwellings appears to be highly price elastic. Building material prices as well as wage rates paid to labor seem to have little relation to the rate of new residential construction. Overall, the housing supply can be assumed to be a function of the cost of land and building construction, tenure, and availability of funds.

II.1 DEMAND FOR HOUSING

Three major factors relating to the demand for urban housing will be described below: the trends in urban population, household size and household income.

II.1.1 Trends in Urban Population and Household Formation

One of the important factors determining the demand for housing is the rate of growth of population. Table 2.1 shows the trends in town and urban population growth from 1901 to 1981. The table shows that almost 24 percent of India's population in 1981 lived in urban areas, with 86 percent of the population in towns of more than 20,000 persons. Further the number of towns has been increasing over the period. Although both the rate and level of India's urbanization are clearly low when compared to most other countrie of the world, India is so populous a nation that, except for China, USSR, USA, Japan and Brazil, this increase during 1971-81 is larger than the total urban population of any other country.

1/ Various studies indicate a large difference between the supply elasticity of urban land in the aggregate and that of urban residential land.

Table 2.1

Growth of Urban Population in India

Year	Total population (millions)	Number of towns	Population in towns above 20,000 persons (millions)	Total urban population (millions)	Urban Percentage of total population	Percentage growth of urban population
1	2	3	4	5	6	7
1901	232.0	1834	13.5	25.6	11.0	-
1911	246.0	1776	13.8	25.6	10.4	0.00
1921	244.3	1920	15.5	27.7	11.3	0.79
1931	270.7	2049	19.6	33.0	12.2	1.77
1941	309.0	2210	28.7	43.6	14.1	2.82
1951	349.8	2844	43.2	61.6	17.6	3.52
1961	424.8	2330	61.4	77.6	18.3	2.34
1971	528.9	2531	89.6	107.0	20.2	3.26
1981	658.1	3245	134.9	156.2	23.7	3.86

Source: Rakesh Mohan and C. Pant, "The Morphology of Urbanization in India - Some Results from the 1981 Census", Planning Commission, India, 1982, (mimeo).

Table 2.2

The Growth of Large Cities* and Their Hinterland**

City	1981 Population ('000)		Annual Growth Rates Percentage per year) City			Hinterland
	City	Hinterland	1951-61	1961-71	1971-81	1971-81
1	2	3	4	5	6	7
Calcutta	9165	1377	2.26	2.05	2.69	3.04
Bombay	8277	1273	3.42	3.70	3.26	5.09
Delhi	5713	2073	5.08	4.45	4.59	5.83
Madras	4276	972	2.35	5.01	3.04	2.93
Bangalore	2913	1127	4.42	3.27	5.82	3.40
Hyderabad	2528	642	1.03	3.71	3.42	5.08

* City refers to urban agglomeration

** Hinterland for each city refers to all those towns with 1971 population of 20,000 persons and more and within roughly 100 km. radius of the city measured as straight line distance.

Source: Rakesh Mohan and C. Pant, The Morphology of Urbanization in India - some results for the 1981 Census, Planning Commission, India, 1982, p. 22.

Another feature of the urbanization process is that the increase in urban population has been due not only to an extension in the urban boundaries, but also to a rapid increase in the population of the existing urban areas, especially the large cities. This can be seen from Table 2.2.

Apart from population levels, a study of housing requires some idea of the number of households. Because the household is an independent economic unit, the need for housing accommodation and the choice of types and locations are best expressed on a household basis rather than on a population basis. Table 2.3 shows that the number of households in urban areas has also been increasing.

Table 2.3 also shows a rising trend in the size of the households, which maybe related to a shortage of housing stock. Unfortunately, at present the data with regard to the number of residential houses is not available for the census year 1981. Since urbanization is closely related to the phenomenon of development, we expect this trend in household size growth to continue for some time. A consequence of this is likely to be strain on various civic services, including housing. Because of the financial constraints it is not easy for housing, including related civic amenities, to keep pave with rising population. The pressure on housing is seen in the growth of slums, especially in big cities, as well as increased crowding.

The increased demand for housing is met in several ways: (i) through new constructions, (ii) through more units created from the existing housing stock, with house owners moving in to smaller apartments, and through subtenancy, (iii) through squatting. A major part of the demand for housing caused by the migration of large numbers of rural poor is met through unauthorized constructions on public land. This phenomenon of squatting on public land is rampant in large cities where both land and construction costs are prohibitively high, especially when considered in relation to the low affordability of poor migrants.

Table 2.3

Census Year	Population (million)	Household (million)	Average Household Size
1	2	3	4
1951	62.4	12.8	4.785
1961	78.9	14.9	5.295
1971	108.8	19.1	5.696
1981	156.2	27.42	5.696*

* On the assumption that the household size was the same in 1981 as in 1971.

II.1.2 Household Income and Housing Expenditure

Household income is the major determinant of affordability of a given type of dwelling. Thus, any analysis of housing affordability requires a knowledge of both the trends in the average income of households and the breakdowns among different household income groups.

First, analyzing the distribution of urban households and the level of household expenditure, in Table 2.4 we find that about ten percent of the urban households had a per capita expenditure of less than Rs. 28 per month at 1972-73 prices, while about nine percent of households had an expenditure level of about Rs. 100 per month. The remaining households were in the range of Rs. 28 and Rs. 150 per month. The National sample Survey data for 1973-74 indicate similar trends with regard to distribution of households in different expenditure groups. 1/ As might be expected, both these tables show that the household size is generally small for households with high levels of per capita expenditure.

Table 2.5, enumerating these trends for households in metropolitan cities like Bombay, Calcutta, Delhi and Madras, shows that the percentage of households in the expenditure group below Rs. 28 is negligible in Bombay and Delhi. In Madras, this percentage is about seven percent, in contrast to the all-India picture where almost ten percent of households had a per capita expenditure of less than Rs. 28 per month. Further, almost 20 to 25 percent of the households in Bombay and Delhi had an expenditure of Rs. 150 and above at 1972-73 prices, with Madras and Calcutta at almost half this percentage. This indicates a generally higher rent paying capacity of households in metropolitan cities, as shown in the last four columns of Table 2.5 and the last column in Table 2.4. And we find that the rent levels in metropolitan

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1/ See Table 3.12.

Table 2.4

Consumer expenditure on rent per person for a period of 30 days classified by monthly per capita expenditure classes in urban India (1972-73)

Monthly per capita expenditure class (Rs)	Percentage estimated number of households	Estimated number of persons per household	Per capita expenditure on rent* (Rs.)
0 - 13	0.35	4.80	0.10
13 - 15	0.27	5.90	0.26
15 - 18	0.76	6.12	0.22
18 - 21	1.37	6.45	0.26
21 - 24	2.15	6.48	0.28
24 - 28	4.24	6.36	0.39
28 - 34	8.38	6.15	0.57
34 - 43	13.83	5.80	0.83
43 - 55	15.88	5.35	1.36
55 - 75	17.96	4.72	2.18
75 - 100	13.44	3.82	3.49
100 - 150	12.51	3.12	6.08
150 - 200	4.57	2.70	10.68
200 and above	4.33	2.42	21.74
All Classes	100.00	4.72	2.52

* Rents on residential houses, etc. (no imputation of rent is made for owned houses). It does not include expenditure on utilities.

Source: Sarvekshana, Vol. II, No. 3, N.S.S.O.

Table 2.5

Consumer Expenditure on Rent* Per Person for a Period of 30 Days Classified by Monthly Expenditure Class (1972-73)

Monthly Per Capita Expenditure Class	Percentage Distribution of Estimated Number of Households in				Estimated Number of Persons per Household in				Per Capita Expenditure on Rent* in			
	Bombay	Calcutta	Delhi	Madras	Delhi	Calcutta	Bombay	Madras	Delhi	Calcutta	Bombay	Madras
0 - 13	0.25	0.24	-	-	-	1.86	5.18	-	-	-	-	-
13 - 15	0.11	-	-	0.25	-	-	2.50	11.00	-	-	1.00	-
15 - 18	-	0.62	-	0.48	-	3.50	-	6.52	-	1.90	-	-
18 - 21	0.16	0.76	0.48	0.86	9.06	4.77	13.97	5.85	0.29	2.07	0.41	0.99
21 - 24	0.13	0.90	0.64	2.00	7.06	6.43	8.50	7.16	0.52	0.89	0.63	0.84
24 - 28	0.17	2.00	1.46	3.77	7.11	6.16	6.00	7.76	0.24	1.76	1.39	1.24
28 - 34	0.75	2.96	4.53	7.44	7.25	5.92	6.23	6.81	0.80	2.14	0.66	1.67
34 - 43	2.35	7.14	8.01	13.18	6.56	5.17	6.13	5.69	1.39	2.23	1.48	2.64
43 - 55	8.64	9.35	12.70	14.62	5.55	5.50	6.52	5.39	1.65	3.12	1.66	4.04
55 - 75	15.73	16.31	16.29	16.91	5.23	3.38	5.51	5.15	2.86	4.14	2.31	4.50
75 - 100	18.38	24.22	15.82	16.36	4.20	2.62	4.24	4.11	4.04	5.36	3.17	8.36
100 - 150	27.73	22.92	19.54	14.16	3.58	2.39	3.27	3.47	8.95	10.69	6.16	10.71
150 - 200	12.69	5.65	9.93	3.63	3.40	3.39	2.78	2.41	12.16	20.49	7.78	27.41
200 and above	12.91	6.93	10.60	6.36	3.04	2.85	2.96	2.48	34.41	33.74	22.73	20.72
All classes	100.00	100.00	100.00	100.00	4.63	3.45	4.10	4.86	6.22	7.36	5.53	5.54

* Rents on residential house, residential land and other consumer goods (no imputation of rent for residential houses owned by the same households was made)

Source: Sarvekshana, Vol. II, No. 3, N.S.S.O.

cities are indeed generally higher. 1/ These two tables also show that the share of expenditure devoted to rent declines as expenditure level rises, suggesting that expenditure elasticity of demand for housing is less than unity. But much more comprehensive data is needed to arrive at meaningful estimates of income elasticity for housing demand.

Table 2.6 sets out the distribution of households in slum areas by monthly household income. The figures are available for three cities: Hyderabad, Bangalore and Ahmedabad. First, we find substantial variations in the income distributions in these three cities. In Ahmedabad, for instance, over 75 percent of the households in slum areas had a total household income of Rs. 200 and above, whereas in Hyderabad, the percentage was about 30 percent, and in Bangalore 40 percent. And in Ahmedabad, almost one quarter of the households had a monthly household income of more than Rs. 400 per month. Comparison of average income distributions of households in metropolitan cities with those of slum dwellers reveals clearly the inferior economic situation of slum dwellers. 2/

Analysis of the distribution of households according to expenditure levels, clearly shows that it is the income level rather than the expenditure level that is the more appropriate measure of rent paying capacity. At the same time, both income and wealth status are indicative of the house-owning capacity of people. The NCAER collected some useful data on income, wealth

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1/ The average rents are arrived at by dividing the total rent by total number of persons irrespective of whether they are owner occupiers or live in tenanted dwellings. Thus these rents are clearly underestimated. But comparisons of rent levels in metropolitan cities with the all-India level would be roughly valid if we assume that the extent of underestimation is roughly the same in two cases.

2/ There are, of course, some households in slum areas whose dwellings are comparable with those in the non-slum areas. The essential difference usually is the inferior amenities, especially the public services available to slum dwellers.

and savings according to income range. Table 2.7 shows that nearly 47 percent of the households belonged to economically weaker sections of the society (on the assumption of Rs. 4800 per annum as boundary household income). Their shares work out to be roughly 19.7 percent of total income 1/, 13.1 percent of wealth and 4.9 percent of savings. In studies carried out by the Housing and Urban Development Corporation, the poor expressed a preference for house ownership, thus suggesting the possibility of encouraging savings among the poor through appropriate housing schemes. Any discussion of strategies to improve urban housing in India must take into account the family network and the custom for family members outside of the immediate household to assist the household in availing itself of major opportunities such as housing. This suggests that purchasing power for major durables is greater than either incomes or savings by themselves would indicate.

1/ Comparison of 1975-76 income distribution with that of 1967-78 shows that the share of bottom 50 percent urban households in total urban household income has increased from about 14.3 percent to 22 percent during the period.

Table 2.6

Percentage Distribution of Slum Households by Monthly Income

Monthly Household Income (Rs.)	Percentage of slum households in		
	Hyderabad	Bangalore	Ahmedabad
1 - 49	10.9		
50 - 99	18.1	27.6	
100 - 199	39.8	32.9	23.9
200 - 299	16.6	28.3	
300 - 399	9.2	9.2	50.6
400 and above	5.4	2.0	25.5

Source: Handbook of Housing Statistics, 1980, N.B.O., Delhi

Table 2.7

Distribution of Households, Average Household Income and Wealth by Income Class - Urban India, 1975-76

Average annual income of the household	Percentage Household	Average Income Rupees	Percentage share in Total Income	Average Wealth Rupees	Percentage share in Wealth	Gross Saving Rs. Lakhs	Percentage Share in Gross Saving
Below 1200	1.34	874	0.2	4115	0.44	20	0.06
1200 - 2400	11.55	1864	3.0	1732	1.60	1006	0.30
2401 - 3600	18.08	2959	7.0	2846	4.13	4605	1.38
3601 - 4800	16.28	4113	9.5	5301	6.93	10735	3.21
4800 - 6000	13.78	5337	10.4	5874	6.50	18017	5.39
6001 - 7500	10.13	6752	9.7	11116	9.04	21096	6.31
7501 - 10000	11.23	8512	13.5	11416	10.30	36308	10.87
10000 - 15000	8.62	12014	14.6	29163	20.18	52499	15.71
15001 - 20000	4.20	17232	10.2	32831	11.08	49938	14.94
20001 - 25000	2.07	22453	6.6	47917	7.97	38048	11.39
25001 - 30000	1.22	27137	4.7	83213	8.16	27947	8.36
30001 - 40000	0.91)						
40001 - 60000	0.37)	47441	10.0	113461	27.32	73929	22.12
60000 and above	0.22)						
all							

Source : NCAER, Survey of Household Income and its Disposition, 1975-76, New Delhi

II.2 STRUCTURE OF THE HOUSING STOCK

Having analyzed the major demand factors, the study turns now to the amount and kinds of housing we have to meet this demand. The analysis is based on the housing data collected during various decennial population censuses and rounds of the National Sample Survey.

II.2.1 Trends in Urban Housing Stock 1/

Table 3.1, which lists the number of occupied residential dwellings for the census years, shows that during the period 1951-71, the number of occupied residential houses increased from 10.3 million to 18.1 million. Also, the net addition of four million dwellings to the housing stock during 1961-71 was slightly higher than for the period 1951-61.

Table 3.1 shows that the annual rate of growth of dwelling units has averaged about 2.5 percent. 2/ This relatively slow rate of increase is directly attributable to the durability of housing which results in a stock that is the cumulative total of many years' production; for instance, nearly half of the housing stock in 1965 was built before 1945. These figures, however, should be treated with caution. First, the net addition to the housing stock during the various decades is the result not only of new constructions but also of sub-divisions and mergers of existing dwellings, as well as demolitions and conversion of existing residential dwellings into non-residential houses. There is no data with regard to such conversions. Also, the information about new constructions

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1/ By housing stock we mean the number of dwelling units in existence at each decennial census, and flow represents net addition of dwellings in each decade between two censuses.

2/ This is not the same thing as the rate of growth of gross capital stock in housing (in real value terms). The dwelling number may change not only because of new construction but, say, also due to sub-division of existing dwellings.

Table 3.1

Households and Housing Stock and Flow - Urban India

Census Year	Households (million)	Occupied residential houses (million)*	Housing gap (million)	Addition to housing stock (million)
1951	12.8	10.3	2.5	-
1961	14.9	14.1	-0.8	3.8
1971	19.1	18.1	-1.0	4.0

*Includes dwellings, shop-cum-dwellings and workshop-cum-dwellings

Source: N.B.O., Handbook of Housing Statistics, 1981, Delhi.

is available only in regard to the organized housing sector and there, too, the information is inaccurate because of procedural problems in obtaining completion certificates for new buildings.

Comparison of the number of housholds with the available dwellings shows that there are more households than dwellings, a gap that has shown little change during the decades 1951-61 and 1961-71. But such comparisons can often be misleading if they are used to establish housing shortages and surpluses. For one thing, the number of households is not independent of dwellings. To some extent, household formation rates are constrained by dwelling availability. For another, these aggregate indices are of limited use, since they do not reflect local and regional shortages. Further it may happen that more than one household lives in one dwelling. Indeed, census definitions of house and household indicate that such a possibility is real.[1/] Though the exact size of the housing deficit is hard to estimate, it is clear that most metropolitan cities show serious deficits, with the gap particularly large in the case of Delhi (Table 3.2). Table 3.3 also indicates that the number of households in each state is greater than the corresponding number of residential houses, with substantial variations between states.

II.2.2 Value of Housing Stock

Table 3.4, which contains the estimated value of the stock of urban residential dwellings, shows that the amount actually spent on constructing the existing stock increased from Rs. 3,848 crores in 1950-51 to Rs. 9,452 crores in 1975-76. In terms of current prices, the corresponding figures are Rs. 5110 crores and Rs. 37,598 crores, and at 1970-71 prices, the estimated values are Rs. 12,889 crores and Rs. 19.066 crores.

1/ See Appendix 2.

Table 3.2

Growth of Population, Household and dwelling Units in Metropolitan Cities in 1971

Metropolitan city*	Population		Households		Dwelling Units	
	1971 (Lakhs)	Increase over 1961 Percentage	1971 (lakhs)	Increase over 1961 Percentage	1971 (lakhs)	Increase over 1961 Percentage
1	2	3	4	5	6	7
Calcutta	31.49	-	5.65	-	5.51	-
Greater Bombay	59.71	44	10.73	44	10.62	46
Delhi	32.88	59	6.05	65	5.54	93
Madras	24.69	43	3.94	20	3.92	33
Hyderabad	16.07	44	2.06	5	2.02	6
Bangalore	15.41	35	2.46	34	2.38	31
Ahmedabad	15.86	38	2.69	19	2.68	7
Kanpur	11.54	31	2.36	34	2.27	39
Poona	8.56	41	1.57	34	1.56	33

*Municipal corporation Area.

Source: i. Census of India 1971, Part II A, General Population Tables.

ii. Census of India 1971, Part IV KB, Housing Tables

iii. National Building Organization.

Table 3-3

Households in Urban Area, and Residential Dwellings in Urban Areas

(Figures in thousands)

		Households		Residential Houses	
		1960-61	1970-71	1960-61	1970-71
1.	Andhra Pradesh	1122.6	1482.7	1079.5	1431.9
2.	Assam	157.5	222.3	157.0	219.6
3.	Bihar	706.4	1000.5	622.6	915.2
4.	Gujarat	1037.2	1304.1	1024.8	1296.1
5.	Haryana	245.8	307.8	243.6	299.9
6.	Himachal Pradesh	44.5	58.0	43.1	55.8
7.	Jammu and Kashmir	99.0	134.1	98.2	105.4
8.	Karnataka	917.9	1162.2	891.0	1138.1
9.	Kerala	385.4	514.0	369.4	494.2
10.	Madhya Pradesh	966.6	2268.2	942.3	1151.4
11.	Maharashtra	2076.5	2763.4	2050.9	2735.5
12.	Orissa	234.4	363.7	215.7	348.4
13.	Punjab	464.6	560.7	462.9	543.5
14.	Rajasthan	634.4	827.8	637.8	806.8
15.	Tamil Nadu	1782.5	2268.0	1588.5	2185.8
16.	Uttar Pradesh	1790.2	2136.3	1570.9	1954.1
17.	West Bengal	1650.3	1962.9	1634.3	1919.5
18.	Other States and Union Territories	525.8	845.0	429.3	776.7
	All India	14840.6	19084.6	14061.8	18377.9

*includes shop-cum-dwellings and workshop-cum-dwellings

Sources: i. Census of India 1961, Vol. I, Part IV-B, Housing and Establishment Tables.

ii. Census of India, Part IV-B, Housing Tables.

Table 3.4

Growth of Housing Stock in Urban India

Year	Estimates value of stock of urban residential dwellings (Rs. crores)		
	Historical cost*	Current Prices	Constant 1970-71 Prices
1950-51	3848	5110	12889
1955-56	4012	5698	13341
1960-61	4354	7521	14108
1965-66	4815	10443	14863
1970-71	6732	17093	17093
1975-76	9452	37598	19066

*Amount actually spent on constructing the existing stock of residential buildings

Source: N.B.O.

Table 3.4 indicates that during 1950-51 and 1975-76 the value of housing stock at constant 1970-71 prices increased by 67.60 percent, an annual increase of 1.52 percent (compound). The table also shows that on the average, an amount of Rs. 215 crores was invested every year during the period.

II.2.3 Availability of Living Space : Room and Floor Area

An important index of the adequacy of the community's housing supply is provided by the number of occupants per dwelling unit. If an excessive rate exists, the unit is considered to be overcrowded - one possible criterion of substandard housing. The factor of overcrowding is frequently related to household income.

First, analyzing the availability of rooms to a household, we observe from Table 3.5 that the average number of persons per room increased from 2.62 to 2.77 during 1961-71, with the average number of persons per room in each dwelling size also showing an increase during 1961-71. The proportion of households living in "one-room" tenements and "five or more rooms" tenements shows slight decline. Analyzing inter-state differentials, we observe from Table 3.6 that in all states, except Andhra Pradesh, Jammu, Kashmir and Kerala, the average number of persons per room increased during 1961-71. The extent of crowding as indicated by figures in Table 3.7 is relatively greater in metropolitan cities, especially in Calcutta and Bombay. Comparison of Tables 3.5 and 3.8A further reveals that, while for the country as a whole, nearly 50 percent of households lived in one room tenements, the corresponding

Table 3.5

Average Number of Persons Per Room and Percentage Distribution of Population and Households by Size of Urban Dwellings - 1961 and 1971

Size of Dwelling Unit	Percentage of Population		Percentage of Households		Average Nmber of Persons Per Room	
	1961	1971	1961	1971	1961	1971
One Room	43.52	41.72	53.05	50.10	4.17	4.57
Two Rooms	26.14	28.08	24.66	26.93	2.69	2.86
Three Rooms	12.55	13.62	10.29	11.42	2.06	2.18
Four Rooms	7.29	7.59	5.35	5.71	1.73	1.83
Five or more rooms	9.73	8.95	5.76	5.64	1.28	1.34
Unspecified	0.77	0.04	0.89	0.20	-	-
Total	100.00	100.00	100.00	100.00	2.62	2.77

Source: National Building Organization, Handbook of Housing Statistics, 1981, Delhi.

Table 3.6

Average Number of Rooms Per Dwelling and Average Number Persons per Dwelling in Urban India 1960-61 - 1970-71

	Average number of rooms per dwelling	Average number of persons per room	Average number of rooms per dwelling	Average number of persons per room
	1960-61		1970-71	
1. Andhra Pradesh	2.050	2.54	1.935	2.39
2. Assam	2.186	2.37	1.935	2.90
3. Bihar	2.549	2.44	2.521	2.51
4. Gujarat	1.883	2.77	1.851	3.15
5. Haryana	+	+	2.210	2.60
6. Himachal Pradesh	2.508	1.57	2.048	1.99
7. Jammu & Kashmir	2.974	2.07	3.951	2.02
8. Karnataka	2.131	2.61	2.222	2.63
9. Kerala	2.825	2.30	3.303	2.06
10. Madhya Pradesh	2.068	2.33	2.189	2.46
11. Maharashtra	1.647	3.16	1.639	3.37
12. Orissa	2.478	2.00	2.289	2.18
13. Punjab	2.120	2.48	2.255	2.53
14. Rajasthan	2.269	2.29	2.464	2.31
15. Tamil Nadu	1.943	2.75	1.901	2.84
16. Uttar Pradesh	2.438	3.35	2.310	2.66
17. West Bengal	1.643	3.05	1.700	3.63
India		2.62		2.77

+ included in Punjab.

Source: National Buildings Organisation, Handbook of Housing Statistics, 1981, Delhi.

Table 3.7

Average Number of Persons Per Room Classified by Number of Rooms Occupied in Metropolitan Cities - 1971

Metropolitan City	Number of Persons per room occupying					Average Number of Persons Per Room
	One Room	Two Rooms	Three Rooms	Four Rooms	Five or more Rooms	
Calcutta	4.46	3.21	2.57	3.34	1.99	3.40
Greater Bombay	5.26	2.83	2.01	1.69	1.45	3.99
Delhi	4.50	2.93	2.16	1.80	1.40	3.04
Madras	4.23	2.99	2.16	1.70	1.41	3.01
Hyderaba	4.58	3.02	2.32	1.97	1.59	2.81
Bangalore	4.77	2.82	2.15	1.69	1.18	1.58
Ahmedabad	5,14	2.84	2.04	1.65	1.28	3.22
Kanpur	4.14	2.73	2.24	1.85	1.40	2.94
Poona	4.87	2.85	1.93	1.55	1.17	3.21

Source: i. Census of India 1971
ii. National Building Organization, Handbook of Housing Statistics, 1981, Delhi

Table 3.8A

Percentage Distribution of Households by Size of Dwelling Unit Occupied in Selected Metropolitan Cities - 1971

Metropolitan City	Percentage of Households in				
	One room	Two room	Three room	Four room	Five or more
Calcutta	67.6	17.2	8.1	3.7	3.3
Greater Bombay	77.4	14.2	5.3	1.9	1.1
Delhi	57.1	25.7	9.5	4.3	3.1
Madras	53.6	24.4	11.0	5.2	5.5
Hyderabad	44.9	28.9	12.8	7.2	6.2
Bangalore	45.4	27.5	11.9	7.4	7.8
Ahmedabad	57.5	27.5	7.8	3.9	3.2
Kanpur	59.6	27.0	7.1	3.3	3.0
Poona	65.1	20.9	7.3	3.6	3.0

Source: i. Census of India 1971, IV-B, Housing Tables.
ii. National Buildings Organization.

Table 3.8B

Percentage Distribution of Households by the Number of Rooms Occuppied Metropolitan Cities: 1961

City	Percentage Size of Dwellings				
	1 room	2 rooms	3 rooms	4 rooms	5 rooms and above
Calcutta	75.2	12.4	6.0	3.0	3.3
Bangalore	55.3	21.8	8.6	5.3	5.0
Greater Bombay	72.3	16.5	5.0	2.1	1.7
Madras (M.C).	67.5	17.1	7.2	3.7	4.2
Pune	59.9	23.5	8.8	3.6	3.6
Ahmedabad	65.3	23.0	5.5	2.8	3.2
Hyderabad City	45.8	26.9	12.7	7.3	7.3
Kanpur	62.4	23.7	6.9	3.1	2.9

Source: 1961 Population Census

Table 3.9

Percentage Distribution of Households by Number of Rooms Occupied: Urban India

Number of Rooms Occupied	53-54	N.S.S. Round					
	7 (10/53-3/54)	10 (12/55-5/56)	11 (8/56-1/57)	12 (3-8/57)	15 (7/59-6/60)	19 (7/64-6/65)	28* (10/73-6/74)
One	43.64	36.62	39.48	44.00	48.91	51.94	51.05
Two	28.16	34.09	29.87	28.99	28.67	27.21	25.05
Three	12.00	16.55	12.79	12.46	10.29	10.33)	
Four		5.53	9.01	6.43	5.21		14.25 a/
	10.65						
Five and six		4.14	4.77	4.71	4.31	10.52 #	
Seven and above	5.55	3.07	4.08	3.41	2.61		
No room	-	-	-	-	-		9.65
Total	100.00	100.00	100.00	100.00	100. 00		

* Number of living rooms satisfying N.B.O. specification.

\# Refers to Four-rooms and above.

a/ Refers to Three-rooms and above.

Source: i. National Sample Survey Rounds, India (Report Nos. 26, 50, 51, 67, 146, 195)
ii. Sarvekshana, Vol. 1, No. 2.

figures for the metropolitan cities of Calcutta, Bombay and Pune were as high as 67.6, 77.4 and 65.1 percent respectively for 1971.[1]

The National Sample Survey also collected some data on household proportions according to both size of the dwelling unit and the average number of persons per room. Table 3.9 reveals a rising trend in the proportion of households living in one-room tenements. For example, the proportion increased from nearly 40 percent in the mid-fifties to 51 percent in 1973-74. Another one quarter of the households lived in two-room tenements. While this trend is similar to one indicated by the Census data, the National Sample Survey data indicates a lower average of the number of persons per room. According to Table 3.10, the average has remained around two persons per room.

The size of rooms is another measure of overcrowdig. The National Sample Survey collected data on floor space availability during some of its rounds. The last column of Table 3.10 shows that between 1953-54 and 1973-74, the floor space per person declined from nearly 7.9 square meters to 6.9 square meters. Further, the average availabilityy of floor space in metropolitan cities is lower than the all-India average. Another interesting feature is the high value of the concentration ration of 0.432 in respect to floor space when compared to that of 0.134 in respect to the number of rooms (see Table 3.10), clearly showing the vast disparities in floor space availability. Table 3.11 shows that almost 70 percent of households had, on the average, less than 300 square feet floor area.

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1. Comparison of 1961 and 1971 figures show that the proportion of households residing in one room tenements declined in metropolitan cities (see Table 3.8A and 3.8B).

Table 3.10

Estimates of Average Number of Rooms Per Household, Average Number of Persons Per Room and Average Floor Space Per Persons from Different NSS Rounds for Urban India

N.S.S. Round	Average Number of Rooms per Household	Average Number of Persons per room	Average Floor Space (Sq. Mt.) per person
7. (10/53-3/54)	-	-	7.86*
10. (12/55-5/56)	2.27	2.0	7.69**
11. (8/56-1/57)	2.39	2.1	7.45
12. (3-8/57)	1.47	2.2	6.45
15. (7/59-6/60)	2.01	2.3	6.47
19. (7/64-6/65)	1.97	2.3	-
28. (10/73-6/74)	2.41	2.0	6.89

* In big cities (Calcutta, Bombay, Delhi and Madras), the average floor space available per person was only 6.11 sq. meter. Also nearly 67 percent of households had floor space of less than 4.5 sq. meter per person.

* Concentration ratios for the distribution of floor space and number of rooms occupied are 0.432 and 0.134 respectively. Also the availability of floor area increases with he level of household expenditure (range from 165 sq. ft. to 43 sq. ft. per person.).

Table 3.11

Percentage Distribution of Households by Floor Space: Urban India

Floor Space (Sq. Ft.) in the House	NSS Round			
	7 Oct. 53- March 54	10 Dec. 55- May 56	11 Aug. 56- Jan. 57	12 March-Aug. 1957
Below 51	10.59	5.34	6.26	3.96
51 - 100	15.85	14.58	16.42	15.51
101 - 200	24.96	30.10	26.61	30.38
201 - 300	14.19	16.00	17.80	19.51
301 - 400	10.11	11.16	9.06	9.49
401 - 500	5.92	4.69	6.65	6.85
501 - 600	5.28	3.58	4.13	3.40
601 - 800	5.01	4.91	3.66	4.22
801 - 900	2.54	2.40	3.42	2.45
900 and above	7.05	7.24	5.99	4.23

Source: N.S.S Reports 26, 50, 51 and 67

Table 3.12

Distribution of Urban Households and Average Number of Persons and Average Total Area Per Household by Monthly Per Capita expenditure Group: 1973-74

Monthly per Capita Expenditure (Rs.)	Percentage Number of Households	Average Number of Persons Per Household	Average Total Area (in sq. Meter per Household	Floor Area Per Person (Sq. mt.)
Below 21.00	2.18	6.28	23.82	3.79
21.00 - 27.99	4.90	6.87	28.99	4.22
28.00 - 42.99	24.87	6.05	30.82	5.09
43.00 - 74.99	33.24	5.07	33.84	6.67
75.00 - 99.99	12.83	3.85	31.99	8.31
100.00 - 149.99	13.47	2.93	34.01	11.61
150 and above	8.34	2.15	36.51	16.98
Net recorded	0.17	2.17	35.19	15.50
All	100.00	4.75	32.64	6.89

Source: Sarvekshana, Vol. 1, No. 2, October 1977.

Availability of floor space and rooms according to household expenditure are shown in Table 3.12 from data taken in the 28th round of the National Sample Survey for 1973-74. The Table indicates that the household size tends to be low for high levels of per capita expenditure. And, while the differences in the availability of floor space per household are not substantial, when we consider the household size, the floor space availability per person increases rather sharply with the increase in per capita income, the ration being a little more than one to four. Thus, while the per capita income has an inverse relationship with the household size, it has positive relationship with the per capita floor space availability. As a result wide disparities in the per capita space availability exist based on income. Table 3.12 shows that almost two-thirds of households indicate a per capita income of less than Rs. 75 per month. If we assume Rs. 75 per month at 1973-74 prices to be approximately the upper limit of income for the aconomically weaker sections of the population, we find that the majority can only afford rather modest housing. For tenanted households, Table 3.13 sets out the distribution of households, household size, and floor space availability according to the level of monthly rent in 1973-74. Nearly three-forths of the households residing in rented accommodation paid a rent of less than Rs. 50 per month. Since households at such low rent levels must either have the use of poor housing or be protected by the rent control legislation, it would be instructive to have a breakdown of which households are covered by rent control acts and which are not. This table also indicates a close relationship between the rent level and floor space availability, with total floor area increasing steeply with increases in rent levels. In terms of per capita floor space, the differentials are smaller for the three bottom classes. Further, while the average floor

Table 3.13

Percentage Distribution of Rental Households and Average Number of Persons and Average Total Per Rented Household by Monthly Rent Group - All-India Urban, October 1973 - June 1974

Monthly Rent Group (Rs.)	Percentage of Households	Average Number of Persons Per Hosehold	Average Total Area (in sq. mt.) per Hosehold	Floor Space Per Person (in sq. mt.)
0 - 10	19.58	3.29	16.86	5.12
10 - 20	26.14	4.08	18.67	4.58
20 - 50	29.77	5.80	25.99	4.48
50 - 100	9.75	5.26	39.28	7.47
100 - 150	2.34	5.51	53.83	9.97
150 - 250	1.47	5.43	71.26	13.12
250 and above	0.56	5.36	82.49	15.39
Not recorded	10.39	3.11	25.84	8.39
All	100.00	4.17	25.14	6.03

Source : Sarvekshana, Vol. 1, No. 2, October 1977.

space indicated per person is 6.9 square meters for all urban households in India, it is only 6.0 square meters for the household residing in rented accommodation, showing that people living in their own houses have more floor space per person.

The 1971 Population Census data provides some interesting data on tenure status. Table 3.14, on the distribution of households living in rented houses classified by household size, shows, first, that nearly half of households live in rented accommodation, with considerable inter-state differentials. Second, it shows that the proportion of households residing in rented houses is lower in large-sized dwellings, and, conversely, that a high proportion live in small-sized tenements. A similar picture emerges from Table 3.15 in respect to metropolitan cities, although the proportion of households living in rented dwellings is much higher than the all-India average.

In summary, the foregoing description of crowding indicates a rising trend in the average number of persons per room, with almost three quarters of the households living in one or two room dwellings and an identical percentage paying a rent of Rs. 50 or less per month. Our analysis also shows wide disparities in the per capita availability of floor space, with much smaller disparities in room availability. Since neither the type of structure nor its condition is clearly known, it is difficult to say whether floor space availability is an adequate indicator of housing. Indeed <u>pucca</u> small houses with adequate housing facilities are preferable to larger dilapidated dwellings with inadequate housing facilities. And, from the given data, it is difficult to say that low

Table 3.14

Proportion of Households Living in Rented Houses Classified by Size of Household - Urban India, 1971

(Per cent households living in rented accommodation)

State	All House-holds	One Person	Two Persons	Three Persons	Four Persons	five Persons	Six Persons	Number of Persons Unspecified
1. India	52.88	70.01	64.24	61.92	58.48	54.43	42.94	80.14
1. Andhra Pradesh	45.78	53.94	54.59	52.42	49.38	46.39	38.48	68.28
2. Assam	53.22	78.88	74.65	65.73	85.58	53.71	37.09	0.00
3. Bihar	46.23	73.69	60.09	55.43	51.62	46.58	33.94	31.71
4. Gujarat	58.01	66.44	66.26	67.57	65.45	61.54	49.90	96.03
5. Haryana	37.37	58.27	52.82	49.31	45.74	39.29	25.52	82.46
6. Himachal Pradesh	70.97	88.27	81.52	77.36	72.79	64.58	46.06	99.28
7. Kerala	26.35	52.54	39.68	36.64	32.10	28.43	20.45	94.69
8. J and K	25.91	66.81	51.76	40.00	32.36	26.35	15.50	42.86
9. Madhya	53.94	71.02	62.29	62.46	59.21	55.15	41.56	58.06
10. Maharashtra	68.39	76.85	75.00	74.69	72.50	70.51	61.99	92.75
11. Karnataka	55.29	68.03	67.00	65.49	61.61	57.81	46.57	79.63
12. Orissa	68.10	66.41	56.94	53.17	50.62	47.49	36.27	100.00
13. Punjab	39.80	64.31	54.97	51.99	47.34	41.06	27.35	55.56
14. Rajasthan	49.09	69.98	55.82	51.11	45.25	41.09	28.18	72.57
15. Tamil Nadu	43.95	56.98	59.47	58.59	56.43	53.55	47.66	91.64
16. Uttar Pradesh	45.99	69.58	59.68	55.66	51.01	46.46	34.86	57.71
17. West Bengal	59.87	80.94	77.90	72.92	67.77	61.27	45.26	80.34

Source: 1971 Census

Table 3.15

Percentage Households Residing in Rented Accommodation Classified by Size of the Households - 1971

City		Size of Household						
		All Households	One Person	Two Persons	Three Persons	Four Persons	five Persons	Six Persons
1.	Ahmedabad	76.33	77.96	79.18	79.44	76.76	73.29	65.58
2.	Ahmedabad (M.C)	-	76.33	83.00	82.80	80.58	77.33	71.07
3.	Bangalore	74.16	70.60	82.19	80.13	76.11	73.40	62.14
4.	Banglaore (M.C)	-	85.60	85.65	83.02	79.43	76.05	66.01
5.	Bombay (M.C)	85.15	86.76	85.21	85.44	84.40	85.38	85.98
6.	Calcutta (M.C.)	81.27	91.86	91.72	89.44	86.58	84.00	7.60
7.	Delhi (M.C.)	83.83	86.86	78.03	79.40	82.57	84.40	85.02
8.	Delhi (NDMC)	55.54	67.75	62.01	61.89	59.89	56.28	48.25
9.	Hyderabad	78.31	77.53	76.11	71.06	68.24	61.88	50.35
10.	Kanpur (M.C)	91.33	91.33	90.04	89.24	86.24	86.53	75.08

Source : 1979 Census and NBOs' Handbook of Housing Statistics.

rentals are necessarily an indication of low quality of housing. It is certainly true that some tenants, being protected under Rent Control Legislation, are paying old, low rents. The other feature which emerges from the preceding description is that a larger proportion of small sized households depend upon rented accommodation, many of whom are likely to be migrants to urban areas. Finally, housing deficiencies seem more serious in metropolitan cities where the crowding appears to be worst.

II.2.4 Tenure

In any community there are some households who prefer to rent dwellings, while others would choose to live in owned dwellings. A classification of dwelling supply on the basis of tenure is useful to determine how adequately both these demands are being met. Table 4.1 shows that in 1971 almost 53 percent of households lived in rented dwellings, with a slight shift in favor of owned dwellings during 1961-71.

Comparisons at the state level indicate differing trends (Table 4.2). For example, during 1971, almost 75 percent of households in Kerala and Jammu and Kashmir lived in owned houses. The percentage was substantially lower for the industrially advanced states of Maharashtra, Gujarat, West Bengal and Tamil Nadu. These proportions were extremely low in cities where only ten to 25 percent of households lived in owned dwellings (Table 4.3). Further, during the period 1961-71, while some cities and states experienced a rise in percent of households living in owned dwellings, others showed a decline. Indeed, the relative stability of the all-India average during the decade 1961-71 is the result of combining these differing trends. To evaluate the effect of rent control

Table 4.1

Percentage Distribution of Households by Their Tenure Status in Urban India

Tenure Status	Population Census	
	1961	1971
Owned	46.2	47.1
Rented	53.8	52.9

Source: Census of India 1961 and 1971, Part IV B, Housing Table

Table 4.2

Proportion of Total Households Staying in Owned Houses Urban Areas

	State	1960-61	1970-71
1.	Andhra Pradesh	60.55	54.22
2.	Assam	47.37	46.70
3.	Bihar	56.50	53.77
4.	Gujarat	39.30	41.99
5.	Haryana	57.20	62.63
6.	Himachal Pradesh	29.89	29.03
7.	Jammu and Kashmir	71.43	74.09
8.	Karnataka	47.16	44.71
9.	Kerala	71.74	73.65
10.	Madhya Pradesh	44.08	46.86
11.	Maharashtra	30.28	31.61
12.	Orissa	61.68	51.90
13.	Punjab	54.86	60.20
14.	Rajasthan	56.71	58.91
15.	Tamil Nadu	48.00	46.85
16.	Uttar Pradesh	52.56	54.01
17.	West Bengal	33.90	40.13
18.	Other States and Union Territories	33.32	41.50
19.	All India	46.22	47.12

Source: Census of India, 1961 and 1971.

legislation on the rental housing sector, however, would require a more disaggregative analysis. And the above analysis, admittededly, does not tell us whether the efforts in the two housing markets have on the average been equal, nor does the existing data permit us to carry the analysis further. The increase in number of rental dwellings need not imply more investment in rental housing. For instance, rising prices may prompt many owner occupiers to rent part of the premises they previously occupied, in order to meet the increased cost of living. Also, it is quite possible that a stagnant or relatively shrinking rental stock is accommodating more households through subdivision or sharing. This is not to imply that such a process is necessarily undesirable, since rising prices may result in more efficient utilization of the housing stock.

In summary, we find almost half of urban households staying in rented dwellings, with the percentage substantially higher in relatively industrialized states and in large cities. Further, while at the all-India level, the proportion of households staying in rented dwelling has not shown any appreciable change during the dacade 1961-71, the trends at the state level differ, with some states showing an increase in this percentage while others show a decliine.

Table 4.3

Proportion of Total Households Staying in Owned Houses
(for million plus cities)

SI. No.	Cities (Urban)	Urban Areas 1961	Urban Areas 1971
1.	Ahmedabad	17.62	23.67
2.	Bangalore	29.96	25.84
3.	Bombay	10.00	14.85
4.	Calcutta	17.29	18.63
5.	Delhi (M.C.)	33.52	16.67
6.	Hyderabad	32.99	21.69
7.	Kanpur	12.87	8.67
8.	Madras	26.06	26.77

Source: Handbook of Housing Statistics, N.B.O., 1980.

II.3 Quality of Housing

One of the most important characteristics of housing supply is the quality of housing. A significant measure of that quality is the physical condition of the houses. The condition of structure, as well as other characteristics such as type, size, age and access to various amenities, provides the basis for evaluating the overall supply of housing better. The data base for description is the 1961 and 1971 Population Censuses, and the various rounds of the National Sample Survey.

II.3.1 Types of Structure and Dwellings

We will first consider the type of structure of dwellings by the building materials used in their construction. The data for this purpose comes from the Population Censuses which classify the dwellings according to the kind of building materials used in the construction of walls and roofs, and from the National Sample Survey which classifies all dwelling structures under three distinct categories: pucca, semi-pucca and Katcha. 1/ A similar classification is adopted to present housing data collected in the course of the 1961 and 1971 Population Censuses.

1/ Broad definitions are:

Pucca House is one whose walls and roof at least are made of burnt bricks, stone, cement concrete, jack board (cement plastered reeds) or timber. Tiles, galvanished iron or asbestos cement sheets and stone blocks used in construction of roofs are regarded as pucca material. Katcha House is one whose walls and roof are made of unburnt bricks, bamboo, mud, grass, leaves, reeds or of thatch.

Semi-Pucca House is one which is neither exclusively pucca nor katcha. Generally a semi-pucca structure comprises walls made of pucca materials, namely, stones, oven burnt bricks, etc. And roofs made of Katcha materials, namely, mud, grass, etc. In some cases, it may consist of walls of katcha materials like unburnt bricks, bamboo, etc. and roofs of pucca material like timber, jack board, etc.

First analyzing the Census data for 1971, we observe from columns 4 and 6 of Table 5.1 that over 70 percent of urban dwellings have pucca wall material and about 80 percent have pucca roof material. 1/ Clearly, the proportion of dwellings which are pucca would, in general, be less than either the dwellings which are with pucca walls or with pucca roofs. Table 5.2 classifies Census houses into four categories: Pucca, Semi-Pucca, serviceable Katcha and unserviceable Katcha. A housing unit is termed pucca if both walls and roof are pucca, serviceable Katcha if it has mud walls and thatched roof, and unserviceable katcha when both walls and roof are thatched. The remaining units fall in the category of semi-pucca dwellings. For the country as a whole, the share of pucca dwellings has increased from 46 percent in 1961 to 64 percent in 1971. Moreover, the share of katcha dwellings, serviceable and unserviceable, has declined from 19 to 13 percent. The results of the National Sample Survey confirm this trend. Table 5.3 shows that whereas the share of pucca units increased from about 28 percent in 1953-54 to 65 percent in 1973-74, the share of katcha housing stock declined from 25 to 15 percent during the period. An analysis of the data at the state level shows substantial inter-state variations, although there is a clear trend towards more pucca constructions. Further, Table 5.4 indicates a higher proportion of pucca housing stock in metropolitan cities when compared to the all-India average, although roughly ten to 20 percent of the housing stock is still katcha.

1/ Pucca wall dwelling: Burnt bricks, GI sheets, or other metal sheets, stone, cement concrete, etc. Pucca roof dwelling: Tiles, Slates, corrugated or zinc or metal sheets, ACC, RBC, RCC, brick line, stone, etc.

Table 5.1

Percentage Distribution of Census Houses by Predominant Material of Wall and Roof in Urban Area - 1971

State/Union Territories	Predominant Material of Wall			Predominant Material of Roof	
	Grass, Leaves, reeds or bamboo	Mud, unburnt bricks, wood	Burnt bricks, G.I. sheets, other metal sheets, stone, cement concrete, etc.	Grass, Leaves, reeds, thatch, bamboo, mud, unburnt bricks, wood	Tiles, Slates, shingle, G.I. sheets, bricks, lime-stone RCC, RBC
1	2	3	4	5	6
Andhra Pradesh	6.79	30.84	62.37	37.70	62.30
Assam	58.55	6.37	35.08	36.27	63.73
Bihar	6.45	23.92	69.63	10.12	89.88
Gujarat	2.44	12.36	85.20	5.62	94.38
Haryana	0.13	9.38	90.49	43.05	56.95
Himachal Pradesh	0.13	17.37	82.50	15.58	84.42
Jammu and Kashmir	0.12	26.47	73.41	41.51	58.49
Karnataka	4.88	26.52	68.60	24.50	75.50
Kerala	9.90	24.18	65.92	35.10	64.90
Madhya Pradesh	6.04	26.45	67.51	3.07	96.92
Maharashtra	7.44	15.99	76.57	11.48	88.52
Orissa	5.45	38.91	55.64	35.18	64.82
Punjab	0.18	8.89	90.93	32.04	67.96
Rajasthan	0.45	13.39	86.16	10.52	89.48
Tamil Nadu	1.81	34.33	63.86	27.68	72.32
Uttar Pradesh	0.48	16.93	82.59	23.44	76.56
West Bengal	8.87	15.21	75.92	6.57	93.43
India	5.26	22.20	72.54	18.92	81.08

Source: Census of India, 1971, Part IV-B, Housing Tables.

Table 5.2

Percentage distribution of Residential Houses by Type of Structure in Major States of India - 1961 and 1971 - Urban

State	1961				1971			
	Pucca	Semi-Pucca	Serviceable Katcha	Unserviceable Katcha	Pucca	Semi-Pucca	Serviceable Katcha	Unserviceable Katcha
Andhra Pradesh	29	34	30	7	49	20	24	7
Assam	29	33	-	38	30	29	-	41
Bihar	35	52	4	9	66	24	4	6
Gujarat	48	43	6	3	79	19	-	2
Haryana	30	8	62	-	55	37	8	-
Himachal Pradesh	46	44	10	-	71	25	4	-
Jammu & Kashmir	30	21	-	49	50	33	7	10
Karnataka	39	49	5	7	51	37	7	5
Kerala	43	7	35	15	49	15	25	11
Madhya Pradesh	38	56	2	4	64	34	-	2
Maharashtra	50	39	3	8	67	28	-	5
Orissa	26	24	42	8	46	21	28	5
Punjab	30	7	62	1	67	24	8	1
Rajasthan	74	12	13	1	80	12	7	1
Tamil Nadu	19	48	31	2	57	16	25	2
Uttar Pradesh	72	21	6	1	65	26	8	1
West Bengal	59	33	-	8	74	20	-	6
India	46	35	14	5	64	23	9	4

Source: Census of India, 1961, 1971.

Table 5.3

Percentage Distribution of Households by Type Structure and House

Type of Structure	Number 26 % age of Households Oct. 53-March 54	Number 195 %age of Households July 64-June 65	28 Round %age of Household Oct. 73-June 74
1. Pucca	27.64	52.75	64.52
2. Katcha	24.49	29.95	15.84
3. Semi-Pucca	38.97	17.19	19.64
4. Others	8.30	0.11	0.17

Notes: 1. Semi-Pucca structure has been taken as those structures made withh

a. Katcha plinth and wall and pucca roof
b. pucca plinth, katcha wall, and roof any type
c. pucca plinth and wall and katcha roof.

Source: National Sample Survey Reports, 26, 195, and Sarveksnana, Vol. 1, No. 2, October 1977.

Table 5.4

Number of Households, Households Without Separate Houses, Residential Houses and Percentage of Occupied Residential Houses (Pucca, Semi-pucca, katcha) in Metropolitan Cities - 1971

City	Number of Census Households	Total Number of Residential Houses	Households Without Separate Houses		Percentage of Occupied Residential Houses		
			Number	%age	Pucca	Semi-pucca	Katcha
Calcutta (M.C.)	565460	550850	14620	2.58	85.8	0.7	13.5
Greater Bombay	1072785	1062465	10320	0.96	73.4*	-	-
Delhi	728925	599358	129567	17.78	82.3	8.5	9.2
Madras	394625	391590	3035	0.77	69.0	4.4	26.6
Bangalore	24.5775	238145	7630	3.10	86.2	2.7	11.1

* 26.6 percent would be semi-pucca and katcha

Source: Handbook of Housing Statistics, 1981, National Buildings Organisation, New Delhi.

Table 5.5

Percentage Distribution of Households by Type of Structure and Type of Dwelling - Urban - India, 28th Round (1973-1974)

Type of Structure	Percentage of Households in each Category			Total
	Independent Houses	Chawls Bustees	Flats or Shared Houses	
Pucca	19.4	5.7	39.5	64.6
Semi-Pucca	8.1	3.8	7.7	19.6
Katcha	7.8	3.0	5.0	15.8
Total	35.3	12.5	52.2	100.00

Source: Sarvekshana, Vol. 1, No. 2

Table 5.5, based on the 28th round of the National Sample Survey, gives the distribution of households cross-classified by type of dwelling and type of structure. The dwellings are classified into three types : Chawl/Bustee, independent house, and flat. 1/ The Table clearly shows the preponderence of flats and shared type of dwellings in the total housing stock. It further indicates that 12.5 percent of the total housing stock comprises bustees and chawls, more than half of which are katcha structures.

The overall data on building materials point to improvement in the housing conditions through a clear trend towards pucca constructions. However, 15 to 20 percent of dwellings need to be gradually improved by replacing the existing katcha walls and roofs with pucca. Further, the problem does not seem to be confined to bustees and chawls, for even in the independent type of dwellings, over 20 percent of the stock is katcha.

1/ A Chawl/Bustee is described as a collection of huts or tenements which is generally poorly built with katcha and semi-pucca materials. These Chawls or Bustees are generally found in urban areas, particularly in cities.

An independent house is a separate structure with a room or rooms with a separate entrance to the house. In other words, if the dwelling unit and entire structure of the building are physically co-terminous, it is considered as an independent house.

A flat is a self-contained dwelling unit with a room or rooms within a house and provided with normal housing facilities like water supply, bath and latrine which are used exclusively by the family residing therein or jointly with other familites. It also includes detached room or rooms with or without housing facilities. It is a distinct category of dwelling as, opposed to the categories, such as, independent house and Bustee type of dwelling.

It is clear from Table 5.6 that while nearly two thirds of the pucca structures were occupied by tenants, over 62 percent of the katcha dwellings were owner occupied. This is not unexpected since most katcha housing is usually a makeshift arrangement for shelter by the poor for their own use.

Another interesting aspect of type of dwelling structure is the relative costs for their maintenance, provided by figures in Table 5.7 from the 19th round data for 1964-65. The figures show that nearly one third to one half of annual rental income was devoted to repairs. Given the increases in cost of building materials and wages of masons, etc., there is little likelihood that this percentage declined, especially since the rents are frozen for same housing stock. Further, as weather affects katcha housing more than the more durable pucca, the maintenance and repair costs of katcha houses are likely to remain greater as a percentage of rent.

Finally, Tables 5.8 A and 5.8 B provide information about the type of dwelling structures which households at various expenditure levels are able to afford. Of the 24.6 percent urban households living in katcha dwellings, nearly 23 percent are indicated as having had a household expenditure level of less than Rs. 100 per month while more prosperous households are generally shown to afford superior dwelling structures. Similar features emerge from Table 5.8 B, relating to households staying in rented dwellings. Expect for expenditure class Rs. 0-8, the proportion of households living in pucca dwellings tends to increase with rise in expenditure levels, although even in the highest expenditure class, almost 30 percent of households lived in katcha and almost 20 percent lived in semi-pucca dwellings.

Table 5.6

Percentage Households by Type of Structure and Tenure Status, Urban Indis (1973-74)

Type of Structure	Ownership of Dwelling		Total
	Owner Occupied	Rented	
Pucca	22.93	41.59	64.52
Semi-Pucca	10.51	9.13	19.64
Katcha	9.79	6.05	15.75
Total	43.23	56.57	100.00

Source: Sarvekshana, Vol. 1, No. 2.

Table 5.7

Average Annual Cost of Repair and Maintenance and Monthly Rent Per Household Residing in Rented Houses - All-Indis: Urban - 1964-65

Type of Structure	Monthly Rent (Rs.)	Annual Cost of Repair and Maintenance (Rs.)	Percentage Repair and Maintenance Cost of Rent
Pucca	21.23	88.50	34.74
Semi-Pucca	10.13	55.20	45.41
Katcha	7.89	44.70	47.21

Source: Sarvekshana, Vol. 1, No. 2.

Table 5.8 A

Percentage Distribution of Household by Structure Type and Monthly Household Expenditure Level: 1957

Sl. No.	Structure	Monthly Expenditure of Household (Rupees) 0-25	26-50	51-100	101-200	201-300	301-400	401 and above	Total
1.	All Katcha	3.83	9.52	9.54	1.54	0.15	-	0.03	24.61
2.	Katcha plinth, wall and fabricated roof	1.08	3.33	2.48	0.51	0.04	0.25	-	7.69
3.	Pucca plinth, Katcha wall and roof of any type	0.27	1.10	2.72	0.48	0.18	0.11	0.04	4.90
4.	Pucca plinth, wall and Katcha roof	0.62	2.49	4.24	1.48	0.17	0.03	0.03	9.06
5.	Pucca plinth, wall and fabricated roof	0.89	4.15	7.12	3.91	0.92	0.23	0.23	17.45
6.	All Pucca	0.59	1.43	3.04	2.33	0.16	0.17	0.04	7.76
7.	Others/not reported	2.21	7.95	9.39	5.62	2.00	0.77	0.59	28.53
8.	Total	9.49	29.97	38.53	15.87	3.62	1.56	0.96	100.00

Source: National Sample Survey Report No. 67.

Table 5.8 B

Percentage Distribution of Urban Households Residing in Rented Houses and Type of Structure According to Per Capita Monthly Expenditure: 1963-64

Per Capita Expenditure (Rs.)	Percentage of Households Residing in Rented Houses	Pucca	Katcha	Semi-Pucca	Percentage Households
0 - 8	37	44.86	41.60	13.54	0.60
8 - 11	24	25.25	52.70	22.05	1.69
11 - 13	30	27.87	52.91	19.80	2.24
13 - 15	29	33.67	43.60	22.54	3.66
15 - 18	31	30.20	47.94	21.85	7.13
18 - 21	34	39.61	38.65	21.59	7.62
21 - 24	36	41.45	37.85	20.59	7.96
24 - 28	43	45.55	36.43	18.02	9.91
28 - 34	46	51.43	30.19	18.28	12.72
34 - 43	50	54.01	28.94	16.93	11.97
43 - 55	55	61.94	22.21	15.68	11.07
55 - 75	56	68.06	18.77	12.87	10.84
75 and above	70	79.37	9.87	10.69	12.59
All	47	52.37	29.95	17.19	100.00

Source: N. S. S. 18th Round.

II.3.2 Age of Dwellings

The age of dwelling units is significant primarily in relation to other characteristics of housing supply. For example, information about age of dwellings in itself may be of little consequence without the knowledge of their condition, size, type, etc. While the age of an existing dwelling may be a rough index of its condition, age alone will not measure the adequacy of the dwelling or its structural soundness. The quality of initial construction and the level of subsequent maintenance can make all the difference to the life span of a dwelling. In any case, the aging process alters the mix of housing types with the passage of time, as well as changing the quality mix of the existing housing stock.

Table 5.9 for 1964-65 shows that nearly 50 percent of houses were built twenty years prior to 1964-65. We can assume (i) that about half of the housing stock was tenanted, and (ii) that in cities, where rent control acts have been enacted, rents of nearly 25 percent of the dwellings would be frozen at around the 1940 level.[1/] This clearly has implications for revenues, especially property tax, which is computed on the basis of annual rental value.

Based on the 16th round of the NSS, Table 5.10 presents 1960-61 data on the percentage distribution of total costs of repair and maintenance of existing urban housing stock in relation to both age and

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1/ The 16th round of the NSS relating to 1960-61 shows that nearly 44 percent of the households residing in rented houses lived in dwellings built before 1940-41. This reinforces our assumption of 25 percent, of course, if half of total dwellings are assumed to be rented out.

Table 5.9

Percentage Distribution of Households by Age of the House - Urban India

Age of the House	N. S. S. Round. 19
Years	1964-65
0 - 5	13.87
6 - 10	14.61
11 - 20	17.83
Above 20	49.25
Not recorded	4.44
Total	100.00

Source : Government of India, Handbook of Housing Statistics, 1979, National Building Organization, p. 34.

Table 5.10

Percentage Distribution of Total Costs of Repair and Maintenance by Period Built Since and Condition of Structure - 1960-61

Condition of	Period Built Lines (Years)								
	0-2	2-3	3-5	5-7	7-10	10-15	15-20	20 and above	All
1. Excellent	8.08	0.36	0.81	1.41	1.97	2.98	7.15	8.52	31.28
2. Fairly Good and Needs No Repair	8.12	0.28	1.01	0.32	1.27	17.66	1.14	30.12	59.92
3. Bad, Dilapidated and Impoverished	1.37	0.25	1.13	0.19	0.11	1.28	0.96	3.15	8.80
Total	17.57	0.89	2.96	1.92	3.35	21.92	9.25	42.14	100.00

Source : N. S. S. Round No. 16, Report No. 137.

condition of structure. The Table shows that the share of costs on repair and maintenance was less than ten percent for "bad, dilapidated and impoverished" dwellings, although they constituted nearly 20 percent of the total part of this stock would consist of houses which were constructed to inferior standards (including katcha structures) and hence from the start would have suffered from relatively poor maintenance. There is also the possibility that some of the old housing stock which is covered by the next control legislation is being willfully neglected. Considering the scarcity of housing, if may be worth exploring the fesibility of recovering at least part of such housing stock through repairs. But before doing this, specific studies are needed to determine the relative costs involved in upgrading dilapidated dwellings verses undertaking new constructions.

II.3.3 Condition of Structure

The National Sample Survey Organization provides some additional data on the condition of the structure of the building in terms of its requirements for repair. For this purpose, the housing data was classified into three categories : "excellent," "fairly good and needs no repair," and "bad, dilapidated and inprovised." The housing stock under the last category could indeed serve as a useful indicator of the effort needed to upgrade or replace the existing housing stock. Table 5.11 gives the distribution of the households by condition of structure in urban areas for 1960-61, 1961-62 and 1963-64.

It shows that during the mid-sixties nearly onefifth of the housing stock was in dilapidated condition, requiring replacement through new constructions or upgrading through major repairs. Although no recent data are available, there is no reason to expect that the situation has significantly changed. In II.3.2(above) we mentioned the need to carry

out a comparative study of the financial implications of upgrading versus replacing such dilapidated housing stock. In fact, there was a HUDCO study of the costs involved in upgrading old buildings in the rental housing sector in Bombay whose average remaining life was six years in 1975-76. They calculated the requirement to be about Rs. 116 per square meter to upgrade these buildings so as to increase their life by 15 years. Thus, when compared to the sums of money required for new constructions, the costs of upgrading the existing old housing stock appear financially more attractive. Of course, there are problems, legal and otherwise, which may obstruct such a step. The problem may indeed by serious where tenanted buildings are covered by rent control legislation, both because of the difficulties in enhancing rents and in persuading the tenants to vacate the premises for major repairs or reconstruction.1/

Analyzing the relative conditions of dwelling structure by tenure, we find from Table 5.12 that distributions are broadly identical for tenanted and owner occupied dwellings.

1/ Even non-rented buildings present problems. For example, if old buildings are replaced by new ones, restrictive building by laws relating to the floor space index may act as a disincentive.

Table 5.11

Percentage Distribution of Households by Condition of Structure in Urban Areas

Condition of Structure	16 (1960-61)	17 (1961-62)	18 (1963-64)
1. Excellent	17.99	19.37	18.28
2. Fairly Good and No Repair	59.88	58.99	63.26
3. Bad, Dilapidated and Improvised	22.13	21.74	18.46
4. All Structures	100.00	100.00	100.00

Source: National Sample Survey Report Numbers, 137, 150 and 170.

Table 5:12

Percentage Distribution of Households by Condition of Structure in Urban Areas by Tenure Status - 1963-64

Condition of Structure	Rented	Owned	All Households
1. Excellent	18.97	17.76	18.28
2. Fairly Good and Needed No Repair	63.11	63.37	63.26
3. Bad, Dilapidated	17.92	18.87	18.46

Source: NSS Report No. 170, Round 18, February 1963 - January 1964.

II.4 Housing Amenities

Besides the type of structure of the dwelling unit and its physical condition, access to housing amenities such as running water, lighting, toilet and kitchen facilities is the other indicator of housing quality. The following description gives an account of the availability of such amenities in urban India.

II.4.1 Drinking Water

It is well known that the quality and adequacy of drinking water contributes importantly both to preventing diseases and to improving the health of the population. Table 6.1 gives a profile of the availability of drinking water facilities by sources for 1953-54, 1959-60, 1964-65 and 1973-74. Where tap water is regarded as safe, we find from this table that dependence on non-tap water sources has declined from about 55 percent in 1953-54 to 23 percent in 1973-75. Figures in Table 6.2, however, show substantial interstate variations in the availability of tap water. The situation in big cities like Calcutta, Delhi, Bombay and Madras is much better, where over 90 percent of the households are indicated to have had access to municipal tap water. In 'big towns', the percentage is 86 percent, while in 'small towns' (with population less than 3 lakhs) it is only 39 percent. The 31st round of the National Sample Survey for the period 1976-77 shows that almost 80 percent of the slum population had drinking water facilities either from tap or tube-wells. This percentage for cities with a population of one million and over is as high as 93.5 percent. For cities with less than one million population, the percentage is nearly 80. It is clear from these figures that towns, both large and small, need greater attention to the provision of safe drinking water.

Table 6.1

Percentage Distribution of Urban Households by Source of Drinking Water

Source of Drinking Water*	National Sample Survey Periods			
	Oct. 53-March 54	July 59-June 60	July 64-June 65	Oct. 73-June 74
Tap	45.42	54.54	60.28	66.97
Well	40.49	32.03	24.26	18.05
Tubewell	5.25	4.92	11.31	12.69
Tanks and ponds	5.41	1.72	1.28	0.76
Rivers, Lakes and Spring	3.43	1.92	1.42	0.96
Others	-	4.87	1.45	0.42
Not recorded	-	-	-	-
Total	100.00	100.00	100.00	100.00

* In the big four cities, Calcutta, Delhi, Bombay and Madras, 92 percent of households get municipal tap water. In big towns nearly 86 percent and in small towns about 39 percent households get their drinking water from the municipalities. (Big towns with population over three lakhs, small towns less than three lakhs).

Source: National Sample Survey of India, Report Nos., 26, 146, 195, and Sarvekshana, Vol 1, No. 2.

Table 6.2

Access to Amenities in Urban Housing by State

State/Area	Percentage of Households: Source of drinking water			Type of lighting			Latrine arrangement	
	Tap	Well & tube	Others	Electricity	Kerosene	Others	No latrin	Some latrin
Andhra Pradesh	65.97	25.87	8.16	43.81	55.73	0.46	47.67	52.33
Assam	36.34	47.43	16.23	36.39	63.07	0.54	15.66	84.34
Bihar	50.38	33.81	15.81	41.33	58.28	0.39	46.16	63.84
Gujarat	84.81	11.18	4.01	67.92	31.77	0.31	27.52	72.48
Haryana	64.21	5.87	29.92	72.23	27.43	0.35	46.62	53.38
Himachal Pradesh	85.24	10.39	4.31	84.60	14.77	0.63	42.00	58.00
Jammu & Kashmir	90.40	1.98	7.62	88.88	10.17	0.95	18.77	81.23
Karnataka	78.48	20.42	1.10	57.07	42.74	0.19	37.07	62.93
Kerala	41.52	53.69	4.79	47.39	52.37	0.24	39.19	60.81
Madhya Pradesh	63.57	31.56	4.87	47.04	52.51	0.45	39.64	60.36
Maharashtra	85.60	13.53	0.87	64.84	34.53	0.63	26.48	73.52
Manipur	66.50	1.46	32.04	44.66	55.10	0.24	3.89	96.11
Meghalaya	88.31	4.44	7.25	67.29	32.01	0.70	7.71	92.29
Nagaland	80.48	13.21	6.61	55.51	44.49	-	13.79	76.21
Orissa	54.93	38.59	6.48	41.73	57.71	0.56	52.56	47.44
Punjab	41.25	3.39	55.16	77.28	21.57	1.15	12.23	67.77
Rajasthan	70.93	25.37	3.70	50.46	48.86	0.68	42.46	57.54
Tamil Nadu	72.81	17.93	9.26	51.36	48.08	0.56	39.62	60.35
Tripura	35.41	54.05	10.54	20.54	79.19	0.27	7.30	91.70
Uttar Pradesh	55.42	20.51	24.07	44.89	54.31	0.80	27.33	72.68
West Bengal	58.78	40.53	0.69	48.24	51.30	0.46	14.94	85.06
Chandigarh	98.45	1.04	0.51	82.47	16.50	1.03	11.86	88.44
Delhi	70.02	1.71	28.27	66.32	33.26	0.41	19.52	90.46
All India	66.97	23.40	9.93	53.48	45.99	0.53	33.01	66.99

Source: N.B.O., Hand Book of Housing Statistics, 1980.

Table 6.3, based on the 28th round of the NSS for 1973-74, gives further breakdowns of the extent to which drinking water facilities were available for the exclusive use of the urban households.

Table 6.3 shows that almost 77 percent of the urban households lacked the exclusive use of drinking water facilities. Further, irrespective of the nature of source, only about 40 percent of all urban households had drinking water facilities within their own dwellings. Table 6.4 also shows that almost 30 percent of the households had to traverse more than 50 yards of distance from their dwellings to obtain water. In short, efforts are needed to provide larger number of households with safe drinking water facilities within a reasonable distance from their dwellings.

Table 6.3

Percentage Distribution of Urban Households According to Access to Drinking Water Facilities : 1973-1974

Source of Drinking Water	For Households's Exclusive Use	For Commercial Use	Shared with Other households in the Same Building	Total (including others not reported
Tap	17.3	18.5	29.2	67.0
Other Sources	5.9	7.0	17.1	33.0
Total	23.2	25.5	46.3	100.0

Sources : Sarvekshana, Vol. 1, No. 2.

Table 6.4

Percentage Distribution of Urban Households by Distance from Source of Drinking Water

Distance from Source (yards)	National Sample Survey Round No.s	
	16	18
	7/60 - 8/61	2/63 - 1/64
Within premises	35.35	39.84
Up to 50	34.10	30.51
51 - 100	14.89	14.95
101 - 400	10.72	8.77
Over 400	4.74	5.93
Total	100.00	100.00

Source : NSS Report Nos. 137 and 170

Table 6.5

Percentage Distribution of Households by Type of Lighting in Urban India

Type of Lighting	N.S.S. Round	
	15 (July'59 - June'60)	28 (Oct.'73 - June'74)
Kerosene Oil	71.45	45.99
Electricity	27.90	53.48
Others	0.65	0.53

Source : N.S.S. Report No. 146 and Sarvekshana, Vol. 1, No. 2

II.4.2 Energy Source for Lighting

Access to proper lighting and the implied greater access to many aspects of modern life, such as the use of appliances, bring obvious social benefits. Table 6.5 shows that the increased pace of power generation has reduced dependence on kerosene oil for domestic lighting.

If we analyze inter-state differentials in the type of lighting from Table 6.2, we find wide variations. In such states as Bengal, Punjab, Jammu and Kashmir, Himachal Pradesh and Haryana, almost 70 to 80 percent of the households use electrical lighting. Andhra Pradesh, Assam, Bihar, Uttar Pradesh, on the other hand, indicated a rather flow coverage of urban households by electrical lighting. Although no recent data are available, it appears that despite rapid increase in power generation, a large number of households even in cities and big towns still depend on kerosene oil lamps for lighting. If the situation in slums is taken as a rough indicator of the deprived sections of urban households in cities, 15 to 20 percent of the population remains without any access to electric power for lighting purposes.

II.4.3 Toilet Facilities

Adequate toilet facilities ensure the proper disposal of human waste and minimize hazards to health by preventing the spread of diseases. Thus, from the viewpoint of sanitation and hygiene, availability of toilet facilities is another important factor in quality of housing. Table 6.6 shows that almost one third of dwellings were without any facility of built-up latrine. Columns (16) and (17) of Table 6.2 indicate wide inter-state variations with regard to this amenity. Table 6.7, which gives the breakdown according to the type of laterine used, shows that the proportion of households using the flush system of laterine has gone up from about 12 percent to 20 percent, and of septic tank system latrine from about five

Table 6.6

Percentage Distribution of Urban Households by Facilities of Built up Latrine

Facility of built up latrine	National Sample Survey Round Number					
	7 10/53-3/54	10* 12/55-5/56	11 8/56-1/57	12 3-8/57	19 7/64-6/65	28 10/73-6/74
1. In use of individual household	21.43	20.23	20.29	18.55	23.93	24.13
2. Shared with others	34.94	36.75	37.61	37.37	36.55	42.68
3. Number built up latrines	43.63	43.02	42.10	44.08	39.04	33.01
4. Not recorded	-	-	-	-	0.48	0.18

* In big cities (Bombay, Calcutta, Delhi and Madras), the distribution being 13 percent, 81 percent and six percent.

Source: National Sample Survey of India, Report Nos. 26, 50, 51, 67, 195, and Sarvekshana, Vol. I, No. 2

Table 6.7

Percentage Distribution of Urban Households by Type of Latrine

Type of Latrine	National Sample Survey Round No. 15 9/61-7/62	28 10/73-6/74
Flush	12.40	20.08
Septic Tank	4.70	13.92
Services	-	30.25
Bucket	28.37	-
Pit	8.54	-
No latrine	36.93	33.01
Others	9.06	2.74
Total	100.00	100.00

Source: National Sample Survey Report No. 146 and Sarvekshana, Vol. 1, No. 2.

percent to 14 percent. Further, Table 6.8 shows that of the 65 percent households who had some type of toilet facilities, only 23 percent had the exclusive use of this amenity.

The situation with regard to toilet facilities in slum areas in towns and cities appears to be even worse. The results of the 31st round of the NSS relating to survey of slums in 1976-77 indicate that for towns with less than one million population, the percentage of households without any toilet facility is around 40-50 percent and for cities with a population of one million and more it is 82 percent. Further, almost 90 percent of the slum population had to rely on community facilities for this purpose, and only five percent of those who had some latrine facility had its exclusive use.

These figures attest to widespread unhygienic conditions resulting from the acute shortage of toilet facilities in urban areas, especially among slum dewllers.

II.4.4 Cooking Facilities

Table 6.9 sets out the proportion of urban houses having access to kitchen facilities for 1957. 1/ Colomn 8 shows that nearly 44 percent of urban households had the exclusive use of kitchen facilities, six percent shared kitchen facilities with other households, and nearly 35 percent of the households used part of thier living room for cooking purposes. The figures in the last column of the table indicate a less satisfactory situation in big cities like Calcutta, Bombay, Madras and Delhi. Expectedly, a positive relationship exists between the proportion of households with exclusive use of kitchen facilities and the level of household expenditure.

1/ Data relating to post 1957 period is not available.

Table 6.8

Percentage Distribution of Urban Households by Facility of Latrine: 1973-1974

Type of Latrine	For exclusive use of the household	For community use	Shared with other households in the same building	Other or not recorded	Total +
1	2	3	4	5	6
1. Flush system	7.17	2.74	9.89	0.28	20.08
2. Septic tank system	5.66	1.60	6.36	0.30	13.92
3. Services	10.07	6.43	13.02	0.73	30.25
4. Others/No latrine, etc.	-	-	-	-	35.75
5. All	22.90	10.77	29.27	1.31	100.00

Source: Sarvekshana Vol. 1, No. 2.

Table 6.9

Percentage Distribution of Urban Households by Kitchen Type and Monthly Households Expenditure
(12th NSS Round - March-August 1957)

Facility of Kitchen	Monthly Household Expenditure in Rupees								
	Under 25	26-50	51-100	101-200	201-300	301-400	Above 400	All Towns	In big Cities
1. In Individual Use	28.97	32.40	44.08	62.98	77.18	76.42	85.00	44.23	27.05
2. In Common Use with other Households	9.47	9.62	3.46	3.62	1.95	11.34	11.92	6.05	6.31
3. Part of Living Room Used as Kitchen	45.12	41.36	35.21	26.91	12.83	4.60	-	35.04	41.20
4. Covered Verandah Used as Kitchen	7.62	5.68	8.32	4.98	5.67	7.64	3.08	6.79	12.10
5. No Specific Part of House Used as Kitchen	5.01	6.44	4.98	0.57	2.37	-	-	4.51	2.49
6. Individuals Forming a Mess	3.81	3.13	2.59	0.63	-	-	-	2.40	6.01
7. Others	-	1.37	1.36	0.31	-	-	-	0.98	4.84
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Source: National Sample Survey Report No. 67.

II.4.5 Bathing Facilities

The figures presented in Table 6.10 show that until 1960 almost two thirds of urban households were without a fixed bath. Of the remaining households, nearly 14 percent had to share a bath.

Although no recent data are available, it is safe to infer that increased income of urban households would have somewhat improved the situation with regard to bathing facilities, since a close relationship between expenditure levels and access to bathing facilities is indicated from Table 6.11.

II.4.6 Summary

The above analysis shows that while the proportion of dwellings lacking basic amenities has declined steadily during the period under study, the situation is still far from being satisfactory, especially with regard to toilet facilities. Further, a substantial proportion of dwellings in slum areas and small and medium towns lacked most of these amenities, while most urban dwellings lacked the exclusive use of selected amenities. Admittedly, given the existing constraints on resources, it will be difficult to provide the exclusive use of these amenities in the near future. It should be possible, however, to provide these amenities at least on a shared basis. Second, the availability of amenities varied widely between different states. The existence of regional differences in the age of housing stock and household incomes are possible factors responsible for such a trend.

One basic gap in the present analysis is the unavailability of detailed information about access to various amenities by income levels and tenure status. Such data would be useful to understand the links of dwelling characteristics with income levels and tenure status. Moreover, since public intervention in housing is generally income specific, income may be usefully employed as a criterion for a primary disaggregation of the housing system.

Table 6.10

Percentage Distribution of Households by Type of Bathroom: All-India Urban

Type of Bath	N.S.S. Round	
	12th (March-August 57)	15th (July 59-June 60)
1. In Individual Use	16.66	19.40
2. In Common Use	11.60	13.67
3. No Bathroom	71.74	66.93
Total	100.00	100.00

Source: National Sample Survey Report Nos. 67 and 146.

Table 6.11

Percentage Distribution of Households by Type of Bathroom According to Household Expenditure in Urban Areas: July '59 - June '60

Type of Bathroom	Monthly Expenditure Group (Rs.)						
	0.25	26-50	51-100	101-200	201-300	301-400	400 and above
1. No Bathroom	88.59	83.02	70.02	54.50	47.08	38.18	12.49
2. Bathroom in Individual Use	6.03	5.58	15.82	33.62	42.62	43.28	77.73
3. Bathroom in Common Use	5.38	11.40	13.47	11.88	10.10	8.54	9.78
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00
%age Household in Monthly Expenditure Group	9.49	2.97	38.53	15.87	3.62	1.56	0.96

Source: National Sample Survey, Report No. 146.

III. SLUMS AND SQUATTER SETTLEMENTS IN INDIA

Slums and squatter settlements are all-too-familiar parts of the urban Indian scene. 1/ According to a special survey of Conditions of Slums in Cities conducted by the National Survey during its 31st round relating to 1976-77, nearly 18 percent of the urban population in cities with over one lakh population was living in slums with extremely poor housing conditions. 2/ The following figures provide some idea of the magnitude and tenacity of the problem.

3.1 Conditions in Slum Areas

A more recent survey reveals that in 1980 the same percentage of India's urban population, nearly 18 percent, continued to reside in slums (Table 7.1). The Table, which lists the estimated slum population by size class of urban agglomerations, sets this percentage for cities of one million or more at almost 29 percent. Figures in this table also reveal a close relationship between size of slum population and the total population of the city. In general, large cities contain a higher percentage of slum population, and Table 7.2 further shows that industrially developed cities have a significantly larger share of slum population.

An overview of the conditions in slum areas follows, based on the results of a special survey on "Conditions of Slum Areas in Cities" conducted by the National Sample Survey during its 31st round covering the period,

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1/ While there is a central legislation in India defining a slum, various state governments have enacted their own legislations for this purpose. Appendix 3 presents a statement showing the definitions of slums laid down in the Central Act and the relevant acts of some states.

2/ National Sample Survey, Draft Report No. 290, Government of India, New Delhi (Mimeo).

Table 7.1

Estimated Slum Population by Size Class of Urban Agglomerations (UA) Cities and Towns in 1980

Population size of cities/towns	Number of U.A./Cities/ Towns in 1971	Estimated Urban Population	Percentage	Estimated Slum Population	Percentage	Percentage of Slum Population to Total Population
10 lakhs and above	9	37563	25.06	10776	40.65	28.69
5 - 10 lakhs	10	8980	5.99	2211	8.22	24.62
3 - 5 lakhs	25	14486	9.66	2624	9.75	18.11
1 - 3 lakhs	104	23271	15.53	4125	15.33	17.73
50,000 - 100,000	183	17353	11.58	1955	7.27	11.27
Below 50,000	2319	48232	32.18	5216	19.38	10.81
All Classes	2650	149885	100.00	26907	100.00	17.95

Source: National Building Organization, Handbook of Housing Statistics, 1980, New Delhi.

Table 7.2

Slum Population in Cities with Population 10 Lakhs and Above as Per 1971 Census

(Population in '000)

Urban Agglomeration or City	Estimated Populatuion in 1980		
	Urban Population	Slum Population	Percentage Slum Population
1. Calcutta	8450	2965	35.05
2. Greater Bombay	8325	2883	34.63
3. Delhi	5438	1509	27.75
4. Madras	4968	1263	25.42
5. Hyderabad	2504	492	19.65
6. Ahmedabad	2438	602	24.69
7. Bangalore	2217	231	10.42
8. Kanpur	1634	636	38.92
9. Poona	1580	195	12.34
All cities with population above 10 lakh	37563	10776	28.69

Source: National Buildings Organization, Handbook of Housing Statistics, 1980, New Delhi.

July 1976 - June 1977. According to this survey, there were 1,321 declared slums and 3,320 undeclared slums in 142 class one cities having 1971 populations of less than one million, and 5626 declared slums in eight big cities having 1971 populations of one million and more. 1/ The density of population in slums is generally much higher than the average density of cities, as shown in Table 7.3. The figures listed in this table also show that both density of population and average household size in slum areas differed widely between cities belonging to different size classes and also between eight big cities. 2/ Slum areas in Kanpur city were found to be most densely populated, followed by Delhi and Hyderabad.

Major characteristics of slums vary according to city size. To demonstrate this, cities have been classified into three major categories: type A (Population between one lakh - three lakhs); type B (Population between three lakhs and one million); and type C (Population of one million and above). The characteristics in question listed in Table 7.4.

First, analyzing tenure, we find that the percentage of households residing in rented houses in slum areas was higher in large cities. The average monthly rent paid varied between Rs. 15 and Rs. 18, with rents slightly lower in eight big cities when compared to smaller B type cities. Clearly, this may have to do with the quality of the housing stock. Data on the dwelling structure in slum areas show that a very large percentage of the population lived in katcha and semi-pucca dwellings. The percentage of slum

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1/ An undeclared slum was defined as an area or unit having 25 or more katcha structures mostly of a temporary nature, or 50 or more households residing mostly in katcha structures with practically no private latrine and inadequate public latrine and water facilities.

2/ The slum densities of population are much greater when compared to overall population density (see Section of Land Constraints).

Table 7.3

Density of Population and Average Household Size in Slum Areas

City-group		Average No. of Persons Per acre of land	Per Household
Cities having 1971 census Population			
i.	1 lakh or more but less than 3 lakh	151	4.8
ii.	3 lakh or more but less than 1 million	111	4.8
iii.	1 million or more: (declared slums only)		
	a. All cities	97	4.6
	b. Hyderabad	210	5.1
	c. Ahmedabad	73	6.1
	d. Bangalore	48	5.6
	e. Bombay	40	4.5
	f. Madras	190	5.0
	g. Kanpur	484	4.0
	h. Calcutta	88	3.7
	i. Delhi	255	4.7

Source: N.S.S. Draft Report 290, Government of India.

Table 7.4

Some Characteristics of Slum Dwellers 1976-77
(31st NSS Round)

Characteristics	A	B	C
% house owned	54.12	50.74	42.47
House neither owned nor rented	8.61	6.20	8.88
Rented house	37.27	43.06	48.65
Average monthly rent (Rs.)	15.11	18.22	17.92
Wall % katcha	59.38	54.76	33.18
% Semi-pucca	8.95	7.94	17.46
% Pucca	31.67	37.30	49.36
Roof			
% Katcha	37.51	30.36	25.55
% Semi-pucca	52.21	52.59	52.23
% Pucca	10.28	17.05	22.22
Latrine %			
Separate for households (Sanitary)	2.55	2.32	5.18
Separate for households others	7.49	6.46	3.02
No separate latrine	89.96	91.22	91.80
Ownership with Private Sector			
% Areas	50.99	73.07	35.00
% Households	50.74	60.58	57.80
% Persons	50.94	59.54	56.26

Cities: A 1 lakh to 3 lakhs population
B 3 lakhs to 10 lakhs population
C 1 million population and over

Source: N.S.S. Draft Report 290.

population residing in dwellings with pucca roof and wall is, however, higher for large cities. 1/ About 90 percent of households were found to lack access to a separate latrine for exclusive use of their households. Another interesting feature provided by this table is the extent of public versus private ownership of dwellings. The last three rows of the table show that nearly 65 percent of slum land area in million plus cities is publicly owned and that it housed nearly 44 percent of the population. On the other hand 56 percent of the population resided on the 35 percent of land that is privately owned. The situation is somewhat different in 142 class (B type) where, on 73 percent of privately owned land area, nearly 60 percent of the population resided. 2/

The type of housing and community facilities available to slum dwellers is presented in Table 7.6. 3/ In general, comparison of the magnitude of various housing facilities in different city groups contradicts the common belief that the problem is more acute in big cities. On the whole, we find that big cities have relatively greater access to various housing amenities. However, the table also shows that a substantial percentage of the slum population is still adversely affected by water-logging during the

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1/ Table 7.5 corroborates the poor quality of dwelling structure in slums. For instance, 70 percent of slum dwellers in Hyderabad resided in dwellings whose floor material is mud. Also 57 percent of dwellings had mud walls, and nearly one fourth had thatched roofs. The situation is somewhat better in Bangalore and Ahmedabad.

2/ About 80 percent of the slum population were found to reside in slums situated in the residential areas of the cities, and the remaining 20 percent in the slums situated in the industrial commercial and other areas of the cities (N.S.S. Draft Report 290, p. 5).

3/ The percentages reflect the availability and not the adequacy of the facilities. For example, the entire population of a slum inhabited by, say, more than one thousand persons was considered as having the facility of drinking water even with one single tubewell for the use of the entire slum population. This is applicable to other facilities, too.

Table 7.5

Housing Condition in Slums of Selected Cities

Percentage Distribution of Slum Dwellings by Material of Floor, Wall and Roof

Type of Material	%age of slum dwellings in Hyderabad	Bangalore	Ahmedabad
1. FLOOR			
(i) Mud	69.3	0.4	...
(ii) Stone slashed	19.2	68.8	...
(iii) Cement	11.0	3.2	...
(iv) Mud and Bricks	...	...	...
(v) Others	0.5	27.6	...
All Materials	100.0	100.0	
2. WALL			
(i) Mud	56.5	0.3	70.0
(ii) Brick	39.6	63.0	
(iii) Metal sheets	1.1	35.7	...
(iv) Bamboo, Palm leaves	2.4	...	25.4
(v) Lime, Cement	...	...	4.0
(vi) Others	0.4	1.0	1.00
All Materials	100.0	100.0	100.00
3. ROOF			
(i) Thatch	23.3	0.2	...
(ii) Tiles	37.1	40.2	...
(iii) Metal sheets	26.0	42.2	53.00
(iv) Cement, R.C.C.	13.4	...	...
(v) Rags, Straw	...	...	25.00
(vi) Wood, Asbestos	...	...	22.00
(vii) Others	0.2	17.4	...
All Materials	100.0	100.0	100.00

Source: National Buildings Organization, Handbook of Housing Statistics, 1980, New Delhi.

Table 7.6

Percentage Distribution of Slum Population by Type of Housing Facility - 1976-77

(NSS 31st Round)

Type of facility provided the slum areas	Percentage of slum population having the facilities in city group (Population 1-3 lakhs)	(Population between 3 and 10 lakhs	(With 1 million and above proper)
1. Electricity	82.1	85.4	81.1
2. Approach road other than katcha to reach slum area	78.1	87.1	91.6
3. Slum area not water logged during monsoon	53.7	51.4	65.3
4. Tap or tubewell as source of drinking water	79.9	79.2	93.5
5. Latrine facility	44.8	51.5	81.9
6. Tap or tubewell and latrine facility	40.8	47.3	81.0
7. Underground sewerage system	3.9	10.5	44.8
8. Garbage disposal system	75.7	84.7	89.9
9. With facilities (6) and (7)	3.4	9.9	44.3
10. With facilities (6) and (8)	33.3	43.3	78.0
11. With facilities (6), (7) and 8	2.6	9.7	42.8
12. Minimum needs program	15.7	26.4	59.3
13. Slum clearance program	14.9	25.8	46.9
14. Both (12) and (13)	8.6	18.8	28.4
15. Some development made in slum areas during last 5 years	53.9	63.9	56.2

Source: N.S.S. Draft Report 290.

monsoon and by the absence of an underground sewerage system. Further, only about 60 percent of population in million plus cities is covered by a minimum needs program. The percentage of population covered by slum clearance programs is still lower (47 percent). However, almost 60 percent of the population had experienced some development in slum areas within five years prior to the survey-period. Comparison of housing conditions in slums with those in other areas would have been instructive in providing a clearer insight into the conditions of slum dwellers, but, unfortunately, no comparable data are available.

In summary, the preceding description reveals the existence of deplorable conditions in the slums of India. These slums, generally characterized by poor housing with inadequate housing amenities, also lack the services of an adequate urban infrastructure. The situation appeared to be worst in smaller cities. Clearly, this reflects government policy, since both slum clearance and minimum needs programs had a wider coverage of slum population in bigger cities.

3.2 Government Policies Towards Slums and Squatter Settlements

The government policies towards slums and squatter settlements have been evolved within the broad framework of existing resource constraints. First, there is the policy of general redevelopment 1/ which has proceeded under the auspices of the slum clearance program. Essentially, the concern has been with the demolition and replacement of areas of unfit housing. Under the Slum Clearance/Improvement Scheme of 1956, the government was vested with necessary powers to compulsorily acquire such areas and redevelop them.

1/ The term redevelopment is used here to refer to schemes that involve the demolition of existing housing and its replacement by new dwellings. On the other hand, improvement or renovation would generally refer to the upgrading of existing dwellings.

Simultaneously, the emphasis of the program was also on rehabilitation. In implementing this scheme, serious efforts were to be made to rehouse the slum dwellers as far as possible at the existing sites or at sites nearby to ensure that they were not uprooted from their areas of employment. Further, keeping in view the low paying capacity of slum dwellers, this scheme aimed at providing minimum standards of environmental hygiene and essential services rather than construction of any elaborate structures. The scheme also prescribed minimum standards for redevelopment of plots and construction of tenements, as well as laying down ceiling limits for various types of accommodation. The rehousing facility was made available to slum dwellers belonging to the category of economically weaker sections (EWS) of the society, with an income of less than Rs. 350 per month. Those with higher incomes were encouraged to avail themselves of housing facility under various income specific housing schemes.

In 1972, however, the emphasis of government policy shifted from programs involving redevelopment and rehabilitation to improvement in environment through provision of tap water, sewer and storm water drains, community baths and latrines, paved roads, street lights, etc. There were a number of factors which contributed to this change in policy direction. First, there was the widespread resentment against the wholesale demolition of established communities that redevelopment often entailed. Second, the volume of available resources for redevelopment were inadequate to bring about the desired increase in the quality of housing stock within a reasonable period of time and to match the rate at which fit dwellings were deteriorating. Moreover, the shift in emphasis was expected to induce the owners of sub-standard dwellings to invest in renovating their properties. Finally, it was expected that a given quantity of resources would distribute benefits more

widely if they were used for renovation work rather than devoted to redevelopment. With this shift in emphasis, explicit recognition was also given to the fact that neighborhood environment constitutes an important housing externality. Accordingly, the 1972 scheme gave local authorities the power to carry out projects of street widening, road improvements, landscaping and street lighting, etc. India's Sixth Plan has proposed an expenditure of nearly Rs. 151 crores under the Environmental Improvement Scheme.

The 1972 Scheme, although applicable to slums on both public and private lands, has accorded priority to structures built on public land. The ones located on private land would be considered only after obtaining an undertaking from landlords that rents would not be raised consequent to such improvements. Further, while in principle, all slums are covered by the 1972 Scheme, the enormity of the problem has recently compelled the government to concentrate its efforts on worst slums through provision of minimum amenities, environmental improvement and rehousing schemes. The 1972 Scheme, which is now a component of the Minimum Needs Program of the Government of India, is currently applicable to all urban areas, irrespective of their population size.

The problem of squatting is not so widespread as slums, and is confined to a few cities only. The initial impulse of the government policy was to forcibly remove these squatters and rehouse them in alternative resettlement colonies. Recently, the trend has been to regularize the squatter colonies through provision of common public services. The possibility of conferring tenurial rights on squatters is also being explored in order to encourage them to undertake improvements in structures at their own cost. Finally, to discourage further encroachment on valuable public land, the government is initiating such legal and other measures as would prevent further squatting.

In summary, because of the enormity of the problem of slums and squatting and the paucity of resources, the focus of the government program has presently shifted to the worst slums. Also, widespread resentment against bulldozing policies had compelled the government to shift the emphasis from programs involving redevelopment and rehabilitation to provision of minimum community facilities and environmental improvements. Economic studies of one or two resettlement colonies would aid in the evaluation of these policy shifts.

3.3 Bustees of Calcutta

Recently Calcutta slums or bustees 1/ have attracted international attention, but they are nothing new. They grew with the growth of the city, its ports and its industries. It is estimated that at present there are over 300 registered slum clusters in the metropolitan area. Further, it is estimated that one third of the total population of Calcutta city and one fourth of the people of metropolitan Calcutta live in slums. 2/ The pervasiveness of slums can be judged from the fact that out of 100 municipal wards in Calcutta, slums exist in 97.

1/ The Calcutta Municipal Act 1951 defines Bustee as an "area of land occupied by or for the purposes of any collection of huts standing on plot of land not less than 10 cottahs in area" (1 cottah=1/6 acre). A hut means "any building no substantial part of which excluding the walls up to a height of 18 inches up to floor or floor level is constructed of masonry, reinforced concrete, steel, iron or other metal."

2/ The following gives the approximate distribution of 2.644 million bustee population:

Calcutta city coterminus with Calcutta Corporation	13.51 lakhs
Howrah-Bally Area	402 lakhs
East Bank Municipalities	6.25 lakhs
West Bank Municipalities	2.66 lakhs

Most of these Calcutta bustees are different from squatter settlements. A definite three tier tenancy araangement is recognized by law, and each category in these tiers has a legal right. The first is the landlord (or owner of land) who rents land to an intermediary (thika tenant) who builds huts on the leased land and rents them to the families and individuals who live in bustees. Sometimes thika tenants are themselves bustee dwellers. Most bustees are located in the low lying lands around ponds and ditches, and are characterized by scanty supply of potable water, absence of drainage, winding unpaved pathways and lack of garbage removal facilities. The following data provides a sobering suggestion of what a typical unimproved slum would be like:

Identity	: 39, 39-B, Beltolla Road, Calcutta
Population	: 1239
No. of hutments	: 44
No. of families	: 283
Area	: 2.73 acres
Road and Pavement	: None
Sanitary latrine	: None
Service latrine	: 11
Primary school	: 1
Water points	: 10

(Source: PRO : CMDA)

The Basic Development Plan for Calcutta published in 1966 was the first one to advocate a massive Bustee Improvement Program (BIP), although some efforts towards improving the living conditions in the bustees were made under the Calcutta Municipal Act, 1951, and the Calcutta Slum clearance and

Rehabilitation of Slum Dwellers Act, 1958. It was, however, only in 1970 with the setting up of Calcutta Metropolitan Development Authority (CMDA) that the work of the Bustee Improvement Program began in 1971.

The CMDA has undertaken only the Bustee Improvement Program (BIP) because of the huge costs involved in the redevelopment of bustees. 1/ The strategy of the CMDA has been not to attempt the removal of slums, because at present the addition of new housing to the stock is of the order of six to seven thousand units a year, and that mainly in the public sector. CMDA has essentially focused on environmental improvement through pavement and widening of internal roads, provision of electricity on internal roads, provision of drinking water, conversion of service or bucket privies into sanitary latrines and provision of such services as storm water drains and sewerage. The task of effecting improvements in the dwelling structures is left to slum dwellers. 2/ According to CMDA, up to June, 1981, this program had benefited nearly 1.7 million slum dwellers. 3/

According to an evaluation study of the Bustee Improvement Program of CMDA' carried out by CMDA (January, 1981), the impact on residential environment within the bustees was found to be substantial, and had

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1/ The report of the Working Group on Slums of the Planning Commission had pointed out that in view of the vast problems of bustees in Calcutta, because of physical and financial constraints, it was not possible to do much towards slum clearance and redevelopment, rehousing program that would create a really congenial and healthy living condition for the poor slum dwellers.

2/ The ownership pattern in bustees creates legal complications in carrying out slum rehousing program. Further, when any slum improvement or slum rehousing program is undertaken, it is not always clear whether the persons benefiting from it are the ones for whom the program was intended.

3/ The following gives some highlights of the program up to June, 1981: Latrines: 51,108; Roads: 1.4 m^2; Drain: 0.56 m; Sewer: 4.1 m.; Street light numbers: 9,306.

contributed to increased social awareness of a better quality of life among bustee dwellers.

Two complications, however, deserve mention. A major problem has arisen with regard to the maintenance of services once they are provided. Fortunately, the responsibility for the maintenance of services in slums has now been entrusted to the Calcutta Corporation. The survey, however, found that revenue collections from bustees provided only a small fraction of the Corporations's likely liability incurred from maintenance of service consequent on completion of the BIP.

The other complication relates to a considerable rise in rentals of "improved" dwellings in bustees, with an average rise of 43 percent in rentals of such dwellings compared to 16 percent in the case of less improved bustees. Though these increased rentals should help local bodies bring in higher revenues, they have resulted in some displacement of the original bustee dwellers. The survey results show a change in the social-economic composition of bustees, perhaps because increased rentals induce existing bustee dwellers to move elsewhere, giving place to economically more prosperous households. Thus, this new, more prosperous group, along with the thika tenants, appear to be major beneficiaries of the BIP.

A revised concept of slum clearance-cum-rehousing is that of slum modernization. It envisages the acquisition of existing slums and replacing the existing structures by four storied tenements. The land released in the process could be sold in the open market at a higher value and its sale proceeds utilized for subsidizing the modernization program. CMDA has worked out the net per capita cost of rehabilitation or modernization in Chetla (a slum area of about 10 acres) to be around Rs. 7,500. Clearly this is an expensive experiment and cannot be undertaken on any large scale.

Realising that the physical improvement program in the slums can, at best, provide better environment and sanitary conditions,, CMDA, in collaboration with five commercial banks and the State Governments Cottage and Small Industries Department, has recently launched a pilot program, Small Scale Enterprises Program, to provide special facilities to such homogeneous groups as tailors, clay modellers and wood-workers. The program's purpose is to improve slum dwellers' income and employment opportunities.

In summary, the above description shows that the focus of CMDA activities has been on environmental improvement of slums. Because of resource constraints, there is no effort to provide help to the slum dwellers either to effect improvements in the dwelling structures or to redevelop the bustees. While it is true that Bustee Improvement Program has generally improved the living conditions of slum dwellers, it is difficult to assess its adequacy as a durable solution. In fact, even the maintenance of services provided under BIP is proving a serious resource problem. And the benefits of the bustee improvement program are often passed on to persons for whom the scheme was not intended. The existing ownership pattern in bustees is likely to present serious obstacles in undertaking any major programs of slum modernization and rehousing. The West Bengal Authorities/Government, anticipating the legal complications, has recently passed the Calcutta Thika (intermediary) Tenancy (Acquisition and Regulation) Bill, 1981, providing that lands comprising thika tenancies and other lands, including the title and interest of landlords in such lands, shall be vested in the state. In other words, under this Act, the state will become the landlord in respect of the land.

3.4 Unauthorized Colonies in Delhi

Delhi, because of the employment opportunities it offers, has become a major center for migration from surrounding states, resulting in a mushroom

growth of squatter colonies. According to one survey, in 1958 there were 25,000 families squatting on public land. Another survey, in 1960, by the Superintendent of Census Operations, showed 45,000 families squatting on public land. The problem has indeed become more acute in recent years. According to the Town and Country Planning Organization, their number in 1973 rose to 1.41 lakh families. According to a survey carried out in 1974-75, there were 1.42 lakhs structures in 471 unauthorized colonies. Most of these colonies are constructed on undeveloped or semi-developed land with hardly any provision for roads, drains, and other civic and community facilities. The colonies have generally sprung up on lands notified for acquisition by the government, and unscrupulous colonizers, taking advantage of the shortage of and hunger for land for housing, transferred land to the new settlers and left them to their fate. These unauthorized colonies violate all the existing provisions of the municipal laws with regard to the development of land and building plans.

The Central Government, realizing the gravity of the situation, and to arrest the rise in urban land prices, set up the Delhi Development Authority (DDA) to secure planned development of Delhi. It was also entrusted with the task of the development of urban areas and empowered to take such measures as would check the price rise.

In 1961, the government introduced a scheme for large scale acquisition, development and disposal of land in Delhi, with the basic objective to control and stabilize land prices in the urban areas of Delhi, particularly for the economically weaker sections of society, by giving land at pre-determined rates which did not involve any profit. The Delhi Master Plan was to acquire 30,000 acres of land by 1981, but as late as 1978, less than 10,000 acres were developed. The slow pace of development of land for

residential purposes has led to an acute scarcity of land. The following description summarizes the main policy decisions taken in regard to unauthorized colonies, their regularization under Municipal Bylaws and their release from the purview of acquisition.

In 1961, all built-up areas put up before the date of preliminary notification were released from the purview of acquisition notification. In 1966, unauthorized constructions located in densely populated areas and existing before the enforcement of the Master Plan in 1962 and not violating the land use pattern, became eligible for regularization. In March 1969, the local authorities were asked to prepare a regularization plan for unauthorized colonies and construction put up prior to 1967, subject to the condition that in all such unauthorized colonies, construction would be allowed and houses and plots leased out to individuals, after charging a premium equivalent to the cost of acquisition and development. Finally, three successive announcements were made in 1977, 1978 and 1982, regularizing all unauthorized colonies in Delhi.

Regularization of unauthorized colonies has, from tim to time, had the effect of providing encouragement for more unauthorized constructions, an effect evidenced by the rapid growth of unauthorized colonies. One major reason for unauthorized construction appears to be the influx of a very large population from rural areas and other parts of the country in Delhi. These migrants are extremely poor, and given the land prices, the encroachment on land as well as unauthorized construction occur. Unfortunately, DDA does not have any legal grounds to remove these slum until such time as that land gets vested with the Authority. Also, once these unauthorized colonies come up, their demolition,, because of human and legal considerations, become a problem, warnings by DDA and other local authorities prohibiting putting up new structures, have been ignored.

Table 7.7 gives the number of structures removed during the period 1973 to 1978.

Table 7.7

Year	No. of pucca/ semi-pucca houses demolished	Remarks
1	2	3
1. 1973	2602	Including juggies
2. 1974	7013	Including juggies
3. 1.1.75 to 24.6.75	1259	Including juggies
4. 25.6.75 to 31.12.75	4529	Pucca/Semi-pucca
5. 1976	5138	Pucca/Semi-pucca
6. 1977	-	
7. 1978	105	Pucca/Semi-pucca
Total	20646	

Source: Estimates Committee Report, Government of India.

Despite the unauthorized character of these colonies, many of the local bodies have provided them with water and electricity connections, roads and other civic amenities. Even the house tax was reported as collected from many slum dwellers. According to the civic authorities, however, such provision of civic amenities, as well as collection of house tax, do not validate unauthorized constructions.

After June 1977, action to remove encroachment from development areas at initial stages has been continuously taken before the unauthorized colony could become well established. Although most of the existing unauthorized colonies have been regularized, many still lack basic amenities, like drinking water, sewerage, pucca roads and streets.

Let us now briefly indicate the specific steps taken by the government to deal with the problem of squatters. The first major scheme in this context, the Jhuggi Jhompri (JJ) Renewal Scheme, had envisaged allotment of developed plots to JJ dwellers on payment of 50 percent of cost. It was soon found that most of the plots were sold through benami (fictitious) transactions. Therefore the allotment was subsequently made on a rental basis. It was decided to construct 5,000, two room tenements and develop 20,000 plots of 80 square yards and 25,000 plots of 25 square yards. But when squatting went on unabated, the plot size was reduced to 25 square yards and simultaneously construction of tenements was abandoned.

The second major clearance operation was launched during 1966-67, covering such congested areas of Delhi as Jamna Bazar, Kela godown, Tilak bridge, Jhandewalan and Moti Bagh. The squatters in these areas were settled on alternative sites developed by DDA. The object of these operations was not merely the removal of slums but also to secure land for various public utility programs. Between 1960 and 1975, over 53,000 squatter families were relocated in 16 JJ colonies.

The third major operation of clearance of squatter colonies and resettlement of households was carried out during 1975-76. Nearly 80,000 households were resettled in 27 newly developed colonies. In addition, by mid-1976, 70,000 sites were laid out and 50,000 families had actually shifted. This indeed was a massive operation. A detailed study of the householders' saving behavior before and after moving to resettlement colonies could prove useful in formulating policies for low income housing.

In summary, the rapid growth of population of Delhi, and the shortage of developed land at reasonable prices, has forced people to encroach on both public and private lands. There does not appear to be any slowing down of the

process of encroachment, perhaps because of the leniency shown to such unauthorized colonies. The unscrupulous elements have also taken advantage of the provision of "stay orders" and human considerations, to continue to indulge in the creation of more and more of these unauthorized colonies. A more exact assessment of present policies would require a detailed study of their effects on the phenomenon of growth of unauthorized colonies.

3.5 Madras Slums and Low Income Areas in Madras

Madras is a fast growing metropolitan city, both in terms of population and employment growth. According to the 1971 Census, Madras city had 3.38 lakh residential units, of which 0.87 lakhs were kutcha houses or mere huts. 1/ And nearly 22 percent of the pucca houses were more than 50 years old, which can be considered the normal life of a house. In 1978, out of 7.61 lakh households, 2.25 lakhs were estimated to live in the slums. 2/ Further, nearly 1.963 lakh slum households were concentrated in 750 hectares of land. Although the number of huts built per year is not known, 3,000 to 3,500 are estimated to be added every year. The income distribution of the households in Madras city and of the slum dwellers are given in Tables 7.8 and 7.9.

Assuming that a typical household is prepared to devote 10 percent of its total income to housing, we find that 15 percent of households living in slums and earning less than Rs. 100 per month can afford to pay less than Rs. 10 per month for their accommodation, 53 percent can afford to pay Rs. 20 per

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1/ Comparable data for 1981 are not yet available.

2/ In Tamil Nadu, a slum is taken to mean "Hutting areas with huts erected in haphazard manner, without proper access, without protected water supply and drainage arrangements, and so congested as to allow of little free flow of air to get in."

Table 7.8

Distribution of Households in Different Income Groups - 1975
Madras City

Income Category (1)	Upto Rs. 350 (2)	Rs. 351-Rs. 600 (3)	Rs. 601-Rs. 900 (4)	Rs. 900 (5)	Total (6)
Number of Households	453,000	101,000	35,000	38,000	627,000
Percentage	72.2	16.1	5.6	6.1	100

Table 7.9

Income Distribution in Slums - Madras City

Percentage Distribution of Households	Income Per Month/Household Rupees
15	0 - 100
53	101 - 200
23	201 - 300
6.5	301 - 400
2.5	401 - 500

month, and a further 23 percent can afford to pay only Rs. 30 per month. Apart from the slums, there are many congested areas existing in old parts of the city, where the average density is as high as 1,250 persons per hectare. Many of these households have hardly 12 to 15 square meters of living space, with shared bath and lavatory facilities.

The Tamil Nadu Government, realizing the gravity of the slum situation of the city, set up the Tamil Nadu Slum Clearance Board in 1970. To tackle the problem of slum clearance expeditiously, a separate Act, called the Tamil Nadu Slum (Improvement and Clearance) Act of 1971, was passed with the object of clearing slums and preventing further growth of slums. The Tamil Nadu Slum Clearance Board (TNSCB) activities are restricted to the slums in Madras. The two major schemes initiated by the TNSCB to ameliorate the living conditions of the slum dwellers in Madras are the Slum Clearance Scheme and the Environmental Improvement Scheme. The former scheme is concerned with removal of existing slums and construction of multistoryed tenements in their place to house slum dwellers. Since it was difficult to clear all the slums in the city within a short period of time, the latter scheme proposed the provision of such basic amenities as paved pathways, streetlighting, water supply, drainage baths and latrines.

Table 7.10 gives the amount spent in each year and the number of families benefiting under these two schemes. Over 29,000 tenements were constructed up to April 1, 1980, involving an outlay of Rs. 33.22 crores.

In order to accelerate the pace of work connected with the provision of basic amenities in areas where such amenities were either absent or inadequate, the government introduced in 1976 the Accelerated Slum Improvement Scheme. Under this Scheme, public standpipes and public conveniences were provided in a crash program. During 1977-78, basic amenities in 186 slums

Table 7.10

Housing Activity by Tamil Nadu Slum Clearance Board: Amount Spent in Lakhs of Rupees, Beneficiaries and Number of Families Benefited

Scheme (1)	1971-72 (2)	1972-73 (3)	1973-74 (4)	1974-75 (5)	1975-76 (6)	1976-77 (7)	Total (8)
Slum Clearance Scheme							
a. Amount Spent	360.30	452.80	315.90	387.86	308.24	297.70	2122.80
b. Beneficiaries	2842	4724	4768	3784	1654	2554	20326
Slum Improvement Schemes (Environmental Improvement Schemes Only)							
a. Amount Spent	-	95.60	103.85	113.06	29.90	25.61	368.02
b. Beneficiaries	-	12705	13815	15044	3985	3405	48954

located on government and quasi-government lands were brought to the prescribed standards benefiting nearly 33,000 families.

The World Bank has recently come forward to render substantial aid to the Tamil Nadu Slum Clearance Board for its Environmental Improvement Scheme. The slum improvement work will now be undertaken under the World Bank assisted Madras Urban Development Project (MUDP). The infrastructural facilities to be provided under this scheme include new and improved roads, footpaths and drainage, drinking water supply, public conveniences with bathing facilities and various community facilities. Households in the improved areas would be provided with security of tenure. During the period 1977-80, an expenditure of Rs. 3.30 crores was incurred in the provision of basic amenities benefiting 27,382 households. Under the Slum Clearance Scheme of the TNSCB, the average cost per tenement unit came to Rs. 10,000. Rental charges of Rs. 10 per month recovered less than 10 percent of the cost of construction, maintenance, etc. TNSCB added only about 4,000 units per annum, a number approximately equal to those demolished. But under the World Bank MUDP, the average cost would work out to be Rs. 1,300 per household. Thus it has the potential to cover a larger proportion of the slum population.

Recently, two other clearance schemes, namely, the HUDCO financed Composite Scheme and the Buckingham Canal Scheme, have been launched by TNSB with the object of relocating slum dwellers in <u>pucca</u> tenements, with all facilities. It would be useful to undertake detailed comparative study of the progress made under various slum clearance and slum improvement schemes. For example, it is reported that a significant number of public conveniences in the Environmental Improvement Scheme and Slum Improvement Scheme areas were not functioning properly due to poor maintenance and lack of adequate water supply. Given the resource constraints, an examination of the viability of

continuing with slum clearance programs and construction of multistoried tenements seems indicated. Also, attention needs to be paid to problems of management, once necessary improvements are effected in the slums.

3.6 Summary

The foregoing description has brought into focus the deplorable conditions in which slum dwellers and squatters, in general live. Most slums and squatter settlements were characterized by extremely poor housing with inadequate basic amenities. They were also found lacking in urban infrastructural facilities such as paved roads, electricity, underground sewerage, and garbage disposal system. The conditions in the three metropolitan cities - Calcutta, Delhi and Madras - presented an even more dismal picture.

Despite various government programs, the problem of slums and squatting continue to be acute. Clearly the success of these programs is conditional upon a simultaneous improvement in the economic status of the slum dwellers and squatters. These improvements have to go hand in hand with efforts to relocate the squatters nearer to their places of work, which may, to some extent, mitigate the problems arising from encroachment on valuable urban land. Further, given the existing resource constraints and tenure pattern, the foregoing discussion underlines the need for government programs to concentrate on environmental improvement of slums. In this context, the possibility of revaluing improved dwellings for purposes of strengthening the property tax base should also be explored. Such a step would, through enhanced resources of local bodies, clearly help in proper maintenance of improved slums. The possibility of providing tenure security to the existing squatters should also be explored. To evaluate this possibility, it would be useful to investigate some of the squatter settlements before and after the

conferment of tenure (Delhi experiment). There is also a need to evolve criteria for evaluating alternative approaches to provision of shelter (Madras experiment). So far, most existing studies have had a social focus, but clearly slums represent a serious economic problem as well. There is a clear need for an objective, systematic analysis of the cost of slums to our cities.

CHAPTER IV

SUPPLY CONSTRAINTS IN URBAN HOUSING

There are a number of factors which inhibit the supply of urban housing. A description of these factors is intended to aid in evolving appropriate policies to overcome various supply constraints. The following sections will consider the major constraints that influence housing production - land, rent control, construction materials, financing, and property taxation.

4.1 Land Ownership Constraints

The concentration of urban land in a few hands is the traditional pattern of land tenure in India. It has, however, special significance and repercussions in the urban areas. The rapid increase in the urban population generally results in higher demand for developed and serviced land for various uses, especially for residential purposes. Pressure on land, unequal wealth ownership, and private buildings to cover land in order to keep unearned capital gains, drive up land prices. A consequence of the rising land prices is further increase in speculative demand for land. There are, besides, other factors which cause market values of land to rise. The failure to expand public services to match the growing demand further accentuates existing shortages of urban land. Sometimes unwarranted service standards are also responsible for this. Land use regulations, whatever their rationale, also tend to limit supply and raise

the value of land available for restricted use. Further, the cost of land development and transfer charges are important land costs.

4.1.1 Ownership of Urband Land and Land Values

The pattern of urban land holdings is indicated in Table 8.1, provided by the results of the National Sample Survey relating to its 17th round. The Table shows that less than four percent of households with holdings of less than 0.5 acres, accounting for only 0.31 percent of area. Further, 55 percent of the households did not own any land. The skewed distribution of ownership of urban land is indicative of the existence of monopolies in urban landholding. Further evidence is provided by figures listed in Table 8.2 giving the size distribution of individual holdings in the Borivali area of Bombay, which also shows a high proportion of large holdings.

It would be useful here to have an idea of the trend in urban land prices. Table 8.3 indicates the extent of price rise in urban land values in various areas in India during 1950-65, showing a manifold increase in land prices. Table 8.4 for Delhi illustrates further the phenomenon of steep rise in land prices.

Table 8.1

Percentage of Households Owning Land Below Specified Size and Cumulative Percentages of Area Owned

Size of Household Ownership Holding (Acres)	Numbers of Households	Area Owned	Number of Households	Area Owned
1	2	3	4	5
0.00	58.62	-	55.33	0
0.05	75.85	0.25	75.18	0.31
0.10	80.26	0.45	79.38	0.51
0.50	84.69	1.20	83.88	1.25
1.00	87.53	2.57	86.44	2.59
2.50	92.26	7.40	90.81	7.85
5.00	95.26	15.37	93.92	16.36
7.50	96.90	21.83	95.84	25.27
10.00	100.00	100.00	100.00	100.00

Source: From NSS Table with notes on some aspects of landholdings in urban areas, as quoted in Kabra, K.N., Urban Land and Housing Policies - Ceiling and Socialization, People's Publishing House, New Delhi, 1975, p. 26

Table 8.2

Land Ownership Pattern in Borivali Area in Bombay

Size of Holding	Number	Percent
Up to 300 sq. yards	1	0.9
301 - 600 sq. yards	24	22.4
601 - 900 sq. yards	10	9.4
901 - 1200 sq. yards	13	12.2
1201- 1500 sq. yards	9	7.5
1501 and above sq. yards	51	47.6
Total	107	100.00

Table 8.3

Maximum Percentage Increase in Land Values in India's Urban Area During 1950-1965

City	Central or functionally important areas	Underdeveloped areas within municipal limits	Surrounding areas outside municipal limits
Calcutta	100	900	1,300
Kanpur	400	61	51
Nagpur	220	80	n.a.
Sholapur	594	400	733
Patna	100	543	900
Indore	n.a.	n.a.	n.a.
Gauhati	1,804	4,900	319
Ujjain	150	260	100
Bikaner	150	300	n.a.
Kota	4,344	700	n.a.
Hyderabad	1,567	1,900	300
Trichur	6,844	1,779	-
Cuttack	700	1,100	1,400
Ludhiana *	254	174	1,233

* Percentage figures for first category related to increase in values in 1965 over average of 1955-60 period, while for the remaining two categories percentages are for increase in 1965 over average of 1950.

Source: Yojana, 26 January, 1966, p. 56.

Table 8.4

Trends in Price Rise in Land (Delhi)

Year	Price Ranges Rs. per square yard
1949	3 - 4
1955	8 - 10
1959	30 - 35
1965	50 - 65
1966	90 - 100
1967	110 - 125

Source: Land Speculation in Delhi, NBO, 1969.

Recent study of the land prices in Delhi has shown that during a short duration of two years, that is, between 1980 and 1982, the land prices in Delhi rose by almost three times in practically all the colonies. 1/ The price for residential land in some colonies was reported to be as high as Rs. 5,000 per square meter. Even in the less affluent colonies, the price of land was almost Rs. 500 - 1,000 per square meter. This increase in land prices seems to bear no relationship whatsoever to the trends in the general price level in India (see Figure 1). In other comparative terms, the reserved price of about Rs. 400 per square meter fixed by the Delhi Development Authority for serviced land is probably very close to the highest average price of land in any city of the U.S.A. Clearly, this phenomenon needs close scrutiny.

In emphasizing this steep rise in land prices, we wish to bring out the fact that the increase in land prices is not merely the result of increased demand for land and rise in the general price level. Indeed, high land values could, in general, encourage efficient use of scarce land resources, and low prices wasteful use of land. But concentration of ownership in land perpetuates unplanned and wasteful use of scarce land resources. Further, high land values make land acquisition financially an expensive proposition, since the relevant legislation, namely, the Land Acquisition Act of 1894, provides for compensation at market prices. Except for excess vacant land, even the new Urban Land Ceiling Act of 1976 relies on the Land Acquisition Act of 1894 for determining the quantum of compensation. The importance of the land factor in urban housing can be

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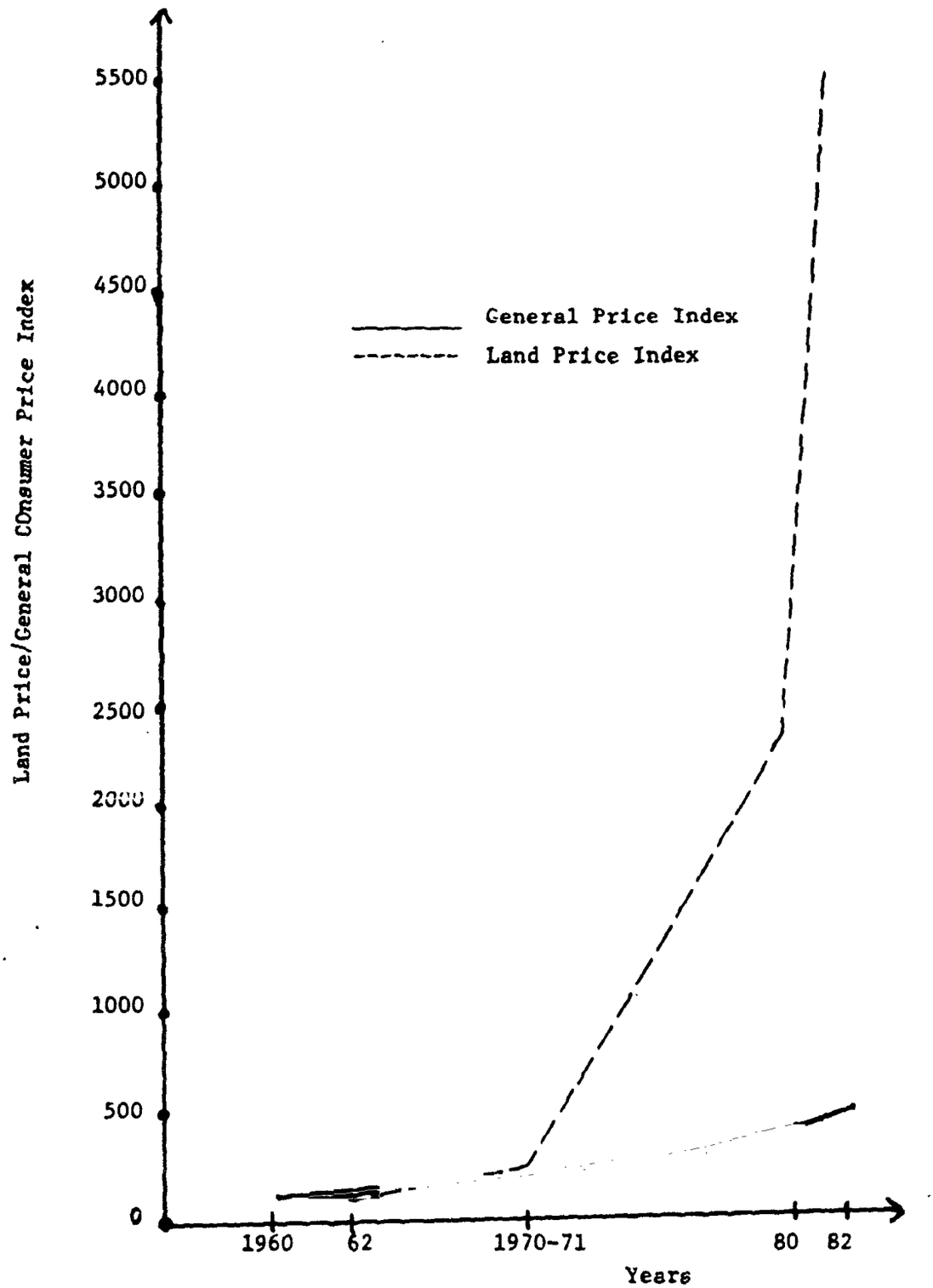
1/ Shafi, S. Syed and Dutta, S.S., "Urban Land Policy in Delhi: A Critique", (Mimeo).

TRENDS IN LAND PRICE & CONSUMER PRICE INDICES-DELHI

(Residential - 1960-82)



Source: Urban Land Policy in Delhi - A critique
(by S.S. Shafi & S.S. Dutta)

seen from Table 8.5, which shows that the land component in building cost was already around 20 to 35 percent in 1967.

Comparison of indices of building costs and land prices would show that over the years, because of a more rapid rise in land prices, the land factor has become even more important. For example, during 1950-74, while the building cost index in Delhi showed a four-fold rise, the land prices rose many times faster (from about 25 times to 50 times). 1/

These disturbing trends in land ownership and land values in urban areas clearly underline the need for public participation in the urban land market. Indeed, in 1976, the government enacted the Urban Land (Ceiling and Regulation) Act to curb monopolistic practices in urban land ownership.

4.1.2 Studies of Land Use and Density Patterns

The principal sources for a description of the trends in urban land use and density patterns are the two studies on land use in India by Town and Country Planning Organization (briefly TCPO). They are (i) "Land Use Patterns of India's Cities and Towns," published in Urban and Rural Planning Thought, New Delhi, October 1968; and (ii) "Urban Land Use and Sensity Patterns in India," (mimeographed), TCPO, June, 1979. The third study is by S.K. Kulshreshtha, "Land Use Pattern of Urban Centres in India," also published in Urban and Rural Planning Thought, October, 1968.

1/ For the sake of illustration, assume that land in Delhi is available at price of Rs. 400. In a house on 100 sq. meters of land with carpet area of say 150 sqm (permissible under existing land laws), the total construction cost would be around Rs. 160,000. The land factor works out to be 20 percent. Note that the actual price of land is much higher.

Table 8.5

Breakdown of Total Investment on Housing

	Ahmedabad	Delhi	Hyderabad	Madras	Patna
1. Cost of land as percentage of total investment	34.86	24.70	20.10	21.21	27.90
2. Construction cost as percentage of total investment	65.14	75.30	79.90	78.79	72.10
3. Total	100.00	100.00	100.00	100.00	100.00

Source: NCAER, Tax Incidence on Housing, 1967

4.1.2.1. Density

Table 9.1 shows that the average density in urban India has increased from 21 persons per hectare in 1961 to 25 persons per hectare in 1971 [1/], an increase that accelerates in cities with a population of one million and above.

We also find the patterns of density distribution in the two census years to be broadly similar, with small sized towns indicating low densities, and large towns and cities with high densities. Further, cities with a population of one million and above [2/] show a sharp increase in population density. This trend is not unexpected, because of the role of migration in urban growth [3/] and the importance of petty trade and casual service work in large cities.

Of density issues relating to urban housing, the primary concern is the availability of developed and serviced land. Table 9.2, taken from the TCPO (1979) study of 407 cities and towns, shows that all cities and towns taken together have an average gross density of 41, developed area density of 89, and residential area density of 249 persons per hectare.

1/ India's overall density of 190 per sq. km. in 1976 is comparable with Israel's average of 174, but well below those of the U.K. (229), Japan (336), and South Korea (370), according to Ewin S. Mills and Charles M. Becker, Studies in Indian Urban Development, the World Bank, Washington, D.C. 1984, mimeographed.

2/ Preliminary results of the 1981 Census do not indicate any reversal in the trend.

3/ In the growth of larger cities, a greater role is played by migration since the rate of natural increase is found to be lower in these cities.

Table 9.1

Density Patterns of Indian Cities and Towns by Size Classes
1961 and 1971

Size Group	Density (Persons/hectare)	
	1961	1971
10 lakhs and above	58	85*
5 - 10 lakhs	42	43
1 - 5 lakhs	55	40
Above 1 lakh	54	53
50,000 - 1 lakh	30	32
2,000 - 50,000	19	21
Below 20,000	8	9
All Classes	21	25

Source : Census 1971

* The average density in Madras is around 210 persons per hectare. The corresponding figure for Calcutta is neary 300 persons.

Table 9.2

Gross, Developed Area and Resident Area Densities of Population by Size Classes of Cities/Towns

(per hectare)

Sl. No.	Size Class	No. of Cities Towns	Gross Density	Developed Area Density	Residential Area Density	Ratio: Developed Area Density to Gross Density	Ratio: Residential Area Density to Gross Density
1.	10 lakhs and above	3	75	118	414	1.6	5.5
2.	5 lakhs to 10 lakhs	6	74	143	431	1.9	5.8
3.	1 lakh to 5 lakhs	86	53	100	249	1.9	4.7
Above 1 lakh		95	58	108	286	1.9	4.9
4.	50,000 to 1 lakh	72	37	64	172	1.7	4.6
5.	20,000 to 50,000	125	21	61	190	2.9	9.0
6.	Below 20,000	115	10	47	206	4.7	20.6
Below 1 lakh		312	23	60	183	2.6	8.0
All Classes		407	41	89	249	2.2	6.0

Source: TCPO (1979)

The earliest TCPO (1968) study with a smaller sample of 103 cities and towns indicated the following [1/]:

Gross Density	: 33 persons per acre
Developed Area Density	: 57 persons per acre
Residential Area Density	: 121 persons per acre
Maximum Spot Density	: 5,228 persons per acre
Minimum Spot Density	: two persons per acre

A comparison of the two studies indicates identical patterns, namely, large cities have higher densities.

Further, a cross classification of ward densities and size classes of towns presented in Table 9.3 shows that about one-third of the total population occupies four-fifths of the total land area, under the lowest density range of less than 62.5 persons per hectare. If, for purposes of broad comparisons, the density range between 62.5 and 250 persons per hectare is taken as moderate, 250 - 1,000 as high, and above 1,000 as very high, then percentage areas under three categories work out to be 16.4, 3.2 and 0.1. The corresponding population percentages are 38.6, 26.3 and 2.5 respectively. These figures clearly indicate the existence of areas with very high and very low densities. Also, within cities, substantial density variations are found. Further investigation of the reasons for this uneven pattern of densities would be useful in the evolving of rational land use policies.

Summarizing, we find population density to be closely related to the size of town or city. Further, while most cities have experienced increases in population density, such increases have been very steep in

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1/ For details, see Table 9.3.

Table 9.3

Densities of Cities and Towns (Persons per acre)

Sl. No.	Population Group	No. of Towns to which Data Relate	Density	Developed Density	Residential Density Density	Maximum Spot Density	Minimum Spot Density	Remarks
1.	1,000,000 and over	5	71	97	257	5,228	15	two cities have not reported max. and min. density
2.	500,000 - 1,000,000	4	28	53	137	815	11	- do -
3.	200,000 - 500,000	8	29	42	86	665	5	two towns have not reported max. and min. density
4.	100,000 - 200,000	18	20	35	63	410	2	- do -
5.	50,000 - 100,000	24	20	41	73	478	4	eight towns have not reported max. and min. density
6.	20,000 - 50,000		17	33	58	661	3	seven towns have not reported max. and min. density
7.	Less than 20,000	13	6	26	48	300	2	One town has not reported max. and min. density
	Total	103	33	57	121	5,228	2	

Source: TCPO (1968) "Land-use Patterns of Indian Cities and Towns" in Urban and Rural Planning Thought, Vol. XI, no. 4

the case of large and metropolitan cities. Clearly greater employment opportunities in large cities and intensive utilization of land resources because of high land prices are the two most likely factors contributing to this trend. Wide variation in density within large cities certainly suggests polarization. It may be, however, that these pockets of high densities offer greater job opportunities. Indeed, unable to deal adequately with the current land problem through the Land Acquisition Act 1894, the government enacted the Urban Land (Ceiling and Regulation) Act in 1976 to deal with the distortions in the urban land market. Salient features of this legislation are discussed later.

4.1.2.2 Land Use

Before the onset of land use regulations, the pattern of land use could be assumed to be unplanned and determined mainly in an ad hoc manner. But wherever land use regulations have come to exist, the land use pattern would, to some extent, be the product of both the pre-regulation development and the post-regulation era. This section outlines briefly the trends in land use patterns, which reflect, in part, the collective demands of the society.

Analyzing the distribution of urban land into developed and undeveloped land, we find that, according to a TCPO (1979) study for 407 cities constituting a total urban land area of 9.14 lakh hectares, 46.6 percent was developed. 1/ Table 9.5 gives the breakdown according to the size of the city.

1/ The earlier TCPO study for 103 cities indicated that this percentage was 58.8.

Table 9.4

Ward Density Patterns of Cities and Towns by Size Classes
(Selected cities/towns)

Sl. No.	Population Range of Towns	No. of Total Towns	G. D.	Less than 62.5/ha Less than 25/ac		62.5 - 125/ha 25 - 50/ac		125 - 250/ha. 50 - 100/ac		250 - 500/ha. 100 - 200/ac		500-1000/ha. 200-400/ac		100+ha. 400+ac.		Total	
				A	P	A	P	A	P	A	P	A	P	A	P	A	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.	Above ten lakhs	3	76	52841 (61.3)	623 (15.8)	9847 (19.8)	897 (22.8)	6318 (12.2)	1012 (25.7)	3195 (6.1)	919 (23.5)	754 (1.4)	462 (11.7)	15 (neg.)	21 (0.5)	51970 (100.0)	3934 (100.0)
2.	5 lakh- ten lakhs	6	62	50624 (79.3)	1161 (29.6)	5933 (9.3)	488 (12.4)	4590 (2.5)	802 (18.0)	1610 (2.5)	708 (18.0)	978 (1.5)	655 (16.7)	106 (0.2)	113 (2.9)	63841 (100.0)	3927 (100.0)
3.	1 lakh - ten lakhs	46	58	119089 (75.8)	3027 (33.0)	22847 (14.6)	1946 (21.2)	9772 (6.2)	1698 (18.6)	3519 (2.2)	1193 (13.0)	1563 (1.0)	937 (10.2)	264 (0.2)	364 (4.0)	157054 (100.0)	9165 (100.0)
4.	Class I (above 1 lakh)	55	62	201554 (73.9)	4811 (28.3)	38627 (14.2)	3331 (19.6)	20680 (7.6)	3512 (20.6)	8324 (3.0)	2820 (16.5)	3295 (1.2)	2054 (12.1)	385 (0.1)	498 (2.9)	272865 (100.0)	17026 (100.0)
4.	50,000 to 1 lakh	35	46	44236 (82.3)	1082 (43.4)	5453 (10.1)	472 (18.9)	2601 (4.8)	437 (17.5)	1170 (2.2)	326 (13.1)	287 (0.5)	137 (5.5)	27 (0.1)	39 (1.6)	53774 (100.0)	2493 (100.0)
5.	20,000 to 50,000	76	23	92993 (92.2)	1136 (48.1)	4299 (4.3)	366 (15.5)	2409 (2.4)	402 (17.1)	966 (0.9)	328 (13.5)	221 (0.2)	109 (4.6)	21 (neg.)	20 (0.8)	100909 (100.0)	2361 (100.0)
6.	Below 20,000	62	22	31345 (93.2)	348 (47.7)	1113 (3.3)	99 (13.5)	625 (1.9)	111 (15.2)	475 (1.4)	139 (19.0)	61 (0.2)	31 (4.2)	3 (neg.)	3 (0.4)	33622 (100.0)	731 (100.0)
All Towns																	
	(Below 1 lakh)	173	30	168574 (89.5)	2566 (45.9)	10865 (5.8)	937 (16.8)	5635 (3.0)	950 (17.0)	2611 (1.4)	793 (14.2)	669 (0.3)	277 (5.0)	51 (neg.)	62 (1.1)	188305 (100.0)	5585 (100.0)
Total		228	49	370128 (80.3)	7377 (32.6)	49492 (10.7)	4268 (18.9)	26315 (5.7)	4462 (19.7)	10935 (2.4)	3613 (16.0)	3864 (0.8)	2331 (10.3)	436 (0.1)	560 (2.5)	461170 (100.0)	22611 (100.0)

Note: 1. A denotes area in hectares and P denotes population in '000
2. G.D. i.e. gross density refers to persons per hectare
3. Figures within brackets represent percentages to total area and total population in columns 17 and 18
4. Wardwise area and population figures have compiled from various District Census Handbooks 1971

Source: TCPO (1979)

Table 9.5

Distribution of Urban Land by Size of City

Size of City	Total Land Area ('000 hectares)	Percentage of developed land
10 lakhs and above	63.3	63.5
5 lakhs - 10 lakhs	55.2	51.7
1 lakh - 5 lakhs	355.6	53.0
10,000 - 1 lakh	130.3	58.2
20,000 - 50,000	181.7	35.5
Below 2,000	127.8	22.2
All Classes	913.9	46.6

Table 9.5 shows that the proportion of developed land is higher in large cities. The low percentage of developed land in small towns suggests the possibility of land still being used for such non-urban activities as agriculture. Table 9.6, relating to number of persons per hectare of developed and undeveloped land, shows that small towns still exhibit the characteristics of rural areas.

The pattern of use of the developed area is demonstrated in the results of three studies -- two by TCPO and the other, "Land Use Patterns of Urban Centres" relating to 122 urban centers by S.K. Kulshreshtha, are presented in Table 9.7. The majority of master plans suggest the following land use:

Residential	43 - 48 percent
Commercial	2 - 3 percent
Industrial	10 - 12 percent
Parks and Playgrounds	11 - 14 percent

Based on this model of land use, the table shows that actual use of urban land provides sufficient areas for residential use, but that most towns and cities seem to deviate from the norms in other categories.

An interesting aspect is the availability of 15.4 percent of vacant land in developed areas. This percentage is over 25 percent in cities with million plus population. 1/ In the case of other cities, an inverse relationship is indicated between the size of the city/town and the percentage of developed vacant land. 2/ Although theoretically

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1/ See Table 9.8

2/ Refers to vacant plots of land in developed areas

Table 9.6

Urban Land Availability Per Thousand Persons

Size of Cities/Towns	Gross Urban Land (ha.)	Developed Land (ha.)	Undeveloped Land (ha.)
10 lakhs and above	13.4	8.5	4.9
5 lakhs - 10 lakhs	13.5	7.0	6.5
1 lakh - 5 lakhs	18.8	10.0	8.8
50,000 - 1 lakh	26.9	15.7	11.2
20,000 - 50,000	46.5	16.5	30.0
Below 20,000	95.6	21.2	74.4
All Classes	24.2	11.3	12.9

Table 9.7

Distribution of Land by Use Category

Land Use Category	Percentage of Developed Area		
	TCPO (103 centers)	TCPO (407 centers)	Kulshreshtha (122 centers)
Residential	46.91	35.7	47.9
Commercial	3.08	2.3	3.2
Industrial	5.72	6.8	6.8
Public and Semi-public	12.01	10.8	14.5
Park and Public Fields	3.95	3.7	6.2
Roads and Streets	13.33	10.9	13.6
Other Uses	14.82	15.4	7.8
Vacant Land			

the existence of vacant land would influence land prices as well as encourage encroachment, much would depend on the pace with which serviced land is made available to meet the increasing demand for residential purposes. Since these data lack comparability, they fail to given an idea of the trends in land use patterns over time. In this context, it would be useful to present the data for Madras for 1964 and 1974.

Table 9.9 shows that as far as residential development is concerned, the area devoted to this use increased in the city by 35 percent. As against this, the corresponding percentage increase is 160 percent for residential use in the Madras Metropolitan Area, excluding Madras City. This suggests the rapid spread of residential development on the periphery of Madras City and the possible reduction of undeveloped land left in the city for conversion to residential uses. The illustration in Table 9.9 of the development of Madras has implications for land use policies in other cities as well.

In summary, only about half the urban land is developed, and the percentage of developed land to total urban land is closely related to the size of the town of city. But even in large cities, almost one third of total land remains undeveloped, and vacant land exists in developed areas in all cities and towns. Yet in spite of the availability of developed land, we find the land prices rising. One contributing factor may be the slow pace with which serviced land is being released, a situation that might be improved by suitable measures relating to land use policies. There is also a need to increase the pace of acquiring and developing urbanizable land, especially in cities and large towns. Further, density norms relating to the number of tenements that can be built on a given

Table 9.8

Existing Land Use Patterns of Cities/Towns in India

(Area in hectares)

Population Ranges	No. of Towns	Population (1971) (Lakhs)	Total Area	Undeveloped & Agricultural Area	Developed Area	Land use classification of developed area							
						Residential	Commercial	Industrial	Parks & Playgrounds	Public & Semi-public	Roads and Streets	Vacant land	Other uses
10 lakh and above	3	47.25	63,921	23,097	40,194	11,408	726	2,041	1,672	3,442	3,011	10,208	7,686
		(%)	100.0	36.5	63.5	28.4	1.8	5.1	4.2	8.6	7.5	25.4	19.0
		(1,000)	13.4	4.9	8.5	2.4	0.2	0.4	0.4	0.7	0.6	2.2	1.6
5 to 10	6	40.90	55,275	26,674	28,601	9,483	915	4,018	973	4,298	2,945	3,047	2,922
		(%)	100.0	48.3	51.7	33.2	3.2	14.0	3.4	15.0	10.3	10.7	10.2
		(1,000)	13.5	6.5	7.0	2.3	0.2	1.0	0.2	1.1	0.7	0.7	0.7
1 to 5 lakhs	86	88.95	355,527	167,202	188,325	75,867	4,572	10,042	6,506	24,211	21,475	23,982	21,670
		(%)	100.0	47.0	53.0	40.3	2.4	5.4	3.5	12.8	11.4	12.7	11.5
		(1,000)	18.8	8.8	10.0	4.0	0.2	0.5	0.4	1.3	1.1	1.3	1.2
50,000 to 1 lakh	72	48.46	130,286	54,446	75,840	28,172	1,722	4,768	2,568	5,740	7,484	12,265	13,121
		(%)	100.0	41.8	58.2	37.1	2.3	6.2	3.4	7.6	9.9	16.2	17.3
		(1,000)	26.9	11.2	15.7	5.8	0.4	1.0	0.6	1.2	1.5	2.5	2.7
20,000 to 50,000	125	39.10	181,729	117,178	64,551	20,583	1,316	6,573	3,302	5,576	8,270	9,993	8,990
		(%)	100.0	64.5	35.5	31.9	2.0	10.2	5.2	8.6	12.8	15.4	13.9
		(1,000)	46.5	30.0	16.5	5.3	8.3	1.8	0.8	1.4	2.1	2.5	2.3

Table 9.9

Land Use in Madras City: 1964 - 1974

Land Use	1964		1974		Percentage Increase or Decrease
	Hectare	Percentage	Hectare	Percentage	
Residential	4,290	33.3	5,780	44.9	35
Commercial	420	3.2	760	5.9	71
Industrial	490	3.8	860	6.6	76
Institutional	3,700	28.8	2,160	16.8	-42
Open Space	3,980	30.9	3,320	25.8	-16

land area need to be reviewed. Finally, any policy that imposes artificial controls on land prices should be followed cautiously, as such controls may result in inefficient utilization of the existing land resources. And, when evaluating the land use pattern, the typical functions of the urban centers must be taken into account.

4.1.3 Public Intervention in the Urban Land Market

The effectiveness of government intervention in the urban land market depends a great deal on the extent to which land is publicly owned. In cases where large tracts of public land -- whether vacant or occupied by squatters -- are available, the government may directly intervene. For instance, publicly owned vacant land could be sub-divided and made available for various housing programs. Similarly, where public land is occupied by squatters, the government can intervene through various slum improvement programs, with the possibility of conferring tenure security or through moving the squatters to new resettlement colonies. However, public intervention poses serious problems, legal and financial, where privately owned land is involved. The following descriptions sets out the main elements of two major legal instruments available to the government to control the supply of land. They are the Land Acquisition Act, 1894, and the Urban Land (Ceiling and Regulation) Act, 1976.

The Land Acquisition Act of 1894 is the basic law with regard to the acquisition of property and empowers the government under eminent domain principles to acquire land for "public purpose." Unfortunately, the lengthy and cumbersome procedures laid down in this Act, and its inability to

permit disposal of land for individual use or for use of commercial or industrial concerns, restrict its usefulness. 1/ Also, in the context of urban areas, high land values make this Act financially unattractive, since under its existing provisions compensation is determined by the existing market value of the land. Besides solatium is to be paid over and above this highly speculative price. A further limitation of this Act is that it bears no relationship with the land policy of any particular state.

To overcome some of the disabilities of the Land Acquisition Act of 1894, and in response to the disturbing trends in the urban land market, the Government of India enacted the Urban Land (Ceiling and Regulation) Act in 1976. The basic objectives of this Act were to ensure orderly urban development, to check speculation and price escalation in land, and to promote the production of low income housing. These objectives were to be implemented through (i) imposition of a ceiling on the vacant land holdings of individuals or companies, (ii) limiting the size (in terms of plinth area) of dwelling units to be built in the future on lots, and (iii) regulating the transfer of urban land.

For the purpose of this Act, the cities have been classified on the basis of their population size into four categories: (a) metropolitan cities of Delhi, Bombay, Calcutta and Madras, (b) urban agglomerations with a population of one million and above, (c) urban agglomerations with population between three lakhs and one million, and (d) urban agglomerations with a population between two and three lakhs.

1/ The land can be acquired for the use of a government department or public agency or local authority only.

The ceiling on holdings of vacant land as well as plinth area of dwelling units have been graded according to the above mentioned four categories of cities. This Act required all persons to register their land holdings, and where vacant lands exceeded the specified limits, such excess vacant land was to be surrendered for a token payment not exceeding Rs. 10 per sq. meter for categories A and B, and Rs. 5 per sq. meter for categories C and D cities. But where land yielded income, the compensation was fixed at the standard compensation rate of one hundred times the monthly net rent. 1/ The Act, however provided for exemption from surrendering excess vacant land where the landowner intended to use it either for public purpose or for low income housing. In the latter case, the 1976 Act lays down a ceiling of 80 sq. meters on the plinth area of each dwelling unit. 2/ Further, to make these dwelling units accessible, an upper limit was also prescribed on the cost that a landowner was allowed to charge. This Act also exempted such group housing schemes as were approved prior to its commencement, and did not cover housing cooperative societies.

Before discussing the implicatons of this Act, let us briefly indicate some of the handicaps in its implementation. First, the absence of any systematic documentation of urban land holdings comparable to the old revenue records in respect of agricultural holdings, is a serious obstacle in the smooth implementation of this Act. Second, in many cities, a substantial part of the land, which is used for agricultural purposes, is not treated as

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1/ Under the Land Acquisition Act, 1894, the compensation would be several times higher than the one fixed under the 1976 Act since the 1894 Act envisages compensation at the prevailing market value of land.

2/ Each state government has, however, evolved its own guidelines for the size of dwelling units for low income groups.

vacant land unless otherwise shown in the Master Plan. The Act also excluded from its scope those pieces of land on which construction of buildings was not permissible as per the Master Plan. This is somewhat curious because not many master plans have legal backing. A further problem arises in respect of peripheral areas or urban agglomerations in one State which fall within the boundaries of another State. For example, this Act excluded peripheral areas of Delhi agglomeration which fell within the boundaries of Haryana. Clearly, this loophole is conducive to speculation in such peripheral agglomerations. Another difficulty relates to the shape of excess vacant land which would be available to the government. The landowner under this Act is given the option to decide upon the shape and dimensions of the plot which he could retain within the ceiling limit. The landowner is thus in a position to leave with the government excess land in a shape which would be of little use. Clearly, there is scope for effecting various modifications in the Act. The Indian Government is watching the situation, and intends to carry out necessary changes in the Act.

As already stated, the Act had sought both to curb undue rise in urban land price and to promote low income housing. In regard to the objective of reducing land prices, the Act seemed to have had the opposite effect. In the short run, the government, in theory at least, is able to build low income housing at a cheaper cost. Subsequently, however, because of the sizeable transfer of land to public ownership, the supply of land left for private development will decline, causing the market price of exempted land to continue to rise. Indeed, whatever evidence is

available shows that vacant land which is exempted under the Act is fetching a much higher price when compared to land not exempted. The success of the other objective of the Act, to promote low income housing, is also suspect. The upper limit imposed on the cost of dwelling for EWS is found to be unrealistic in relation to the present levels of cost of construction. For instance, the Maharashtra Government had stipulated a price of Rs. 500 per square meter for such dwellings. This hardly covered the construction cost, let alone expenses incurred on interest overheads and establishment. If this measure is to succeed, clearly the landowner must be provided with sufficient incentives. Also, given the upper limit of income of the EWS, it is not clear how even the existing limit would be within the means of EWS. The Act is also likely to dampen the construction activity since it severely restricts the supply of land for development. Further, the Act would encourage high rise buildings, since the existing provisions of 1976 do not impose any restriction on the number of dwelling units that may be constructed on the floors or in the buildings, or on the vertical height or coverage of the building. Of course, the existing provisions of the building code would put a limit on the height of the structure. If high rise buildings are constructed, the increased density would probably be a severe strain on the existing urban infrastructure and other services. 1/

1/. Studies of high rise buildings in relation to per unit cost of providing public services suggest a certain trade off: HUDCO's study reveals that four storyed buildings are ideal from this point of view.

Despite various weaknesses pointed out above, the existing Act, in principle, if implemented, probably has great potential for providing low income housing. Since the cost of acquiring land under the new Act is relatively insignificant, the government appears to be in an excellent position to supply housing cheaply to the poor. 1/ The government can also induce the private sector to supply truly low income housing. It is indeed too early to evaluate the effectiveness of the new Urban Land Ceiling Act in terms of its objectives of promoting low cost urban housing in India.

The immediate impact of the Act, however, was suspension of land transactions and a sudden rise in the cost of land falling within the prescribed ceiling limits. The present Act applies to 64 urban agglomerations having population of two lakhs and more and its implementation is being watched by the government through its four regional committees. Also, a working group is going through several suggestions received for amending the Act. This would, of course, require the state Legislatures to pass a resolution under Article 252 of the Constitution authorizing the Parliament to amend the legislation. According to the 1980-81 Annual Report of the Ministry of Works and Housing, Government of India, 385,141 persons holding vacant land in excess of the ceiling had filed statements and 40,532 of these statements were disposed of. The total excess vacant land so far acquired and vested

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1/ It should be mentioned that this Act covers only excess vacant land; for any other land to be acquired, the LAA, 1894, would be applicable for compensation, which is based on current market value of the land.

with the state governments is nearly 1,925 hectares as presented below:

		Hectares
1.	Andhra Pradesh	94.19
2.	Bihar	0.21
3.	Gujarat	64.27
4.	Karnataka	185.52
5.	Madhya Pradesh	182.52
6.	Maharashtra	1103.00
7.	Rajasthan	10.44
8.	Uttar Pradesh	240.79
9.	West Bengal	44.66

It would be useful to look at the exemptions granted under various sections of the Act. The state governments are empowered to grant exemption to vacant land, in excess of the ceiling limits, for purposes of industries, etc. Out of 74,251 applications for exemption received, 18,751 were granted exemptions involving 38,599 hectares of land. The Act also permits a person to hold land in excess of the ceiling for constructing the dwelling units for the weaker sections of the society. This attracted 12,181 declarations, and out of 5,657 schemes received, 1,132 were approved, covering 1,794 hectares of land and envisaging 163,300 dwelling units.

In short, the Urban Land (Ceiling and Regulation) Act of 1976 does not so far appear to have contributed toward the provision of low cost housing. Perhaps this is because it has not yet resulted in any sizeable transfer of land from private to public ownership. Also, to the extent that vacant land has become available for public acquisition, the government has been very slow in taking it over. Indeed, by severely restricting the supply of land for development, this Act seemed to have adversely affected construction activity. Further, limitations imposed on land holdings have tended to push up urban land prices, especially of the exempted vacant land, adversely affecting the production of housing for the poor.

4.2 Rent Control and Urban Housing

Rent control is an important but highly controversial element of housing policy in most countries of the world. Its importance for India can be judged by the inclusion of a review of the working of rent control Acts in the terms of reference of an Economic Administration Reforms Commission recently appointed by the Government. Unfortunately, much of the literature that has appeared on rent control has focussed mainly on its adverse effects on housing supply[1/] with an explicit or implied plea for a return to a regime of an unrestricted free market in rented housing. In India, the existing studies on rent control are mainly concerned with reviewing the various provisions of the rent control legislation. There are also some N.B.O. sponsored surveys which have attempted to examine the impact of rent control on housing production, and or repairs and maintenance of the existing house stock.

4.2.1 Rent Control; Theoretical Considerations

This section analyzes briefly the effect of rent control policies on the supply of housing, as well as on maintenance and repair. It is well known that rent control is a policy designed to protect tenants from high market rents which otherwise would result from a shortage in the supply of rented housing. The rent control policies usually involve specifying the maximum rent that a landlord may charge a tenant -- a rent that is usually below market clearing rent. It will be shown that by depressing rents below

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1/ This is based on the assumption that restricting the price below its equilibrium level results in an unsatisfied excess demand for housing and a reduction in its supply.

equilibrium level, control of rent gives the tenant a subsidy equal to the difference between the controlled and market rents. The subsidy is entirely met by the private houseowner, unlike other programs where government or public authorities contribute directly towards the subsidy under their various programs. Further, in the long run, rent control reduces supply below what it should be, unless government subsidizes supply. We also show that a reduction in maintenance and repair expenditure is the optimal response for the profit maximizing landlord faced with rent control.

4.2.1.1 Rent Control and the Supply of Housing

Diagram 1 makes the following assumptions: (i) that the housing units are homogeneous and each household can possess one dwelling unit[1/], (ii) that OL_1 is the actual housing stock for rent, and S_1S_1 is a perfectly inelastic short run supply curve, (iii) S_2S_2 is the long run supply curve, assuming a perfectly competitive market under constant cost conditions, while OP_1 is the long run market clearing rent. This represents a situation in which demand is equated to supply with neither landlord nor tenant penalized. It is assumed that OP_1 is a fair rent for accommodation of a specified quality and location.

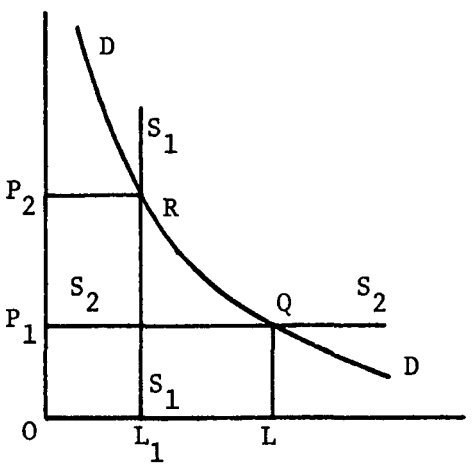

Diagram 1

1/ This assumption is not too restrictive in India's context.

In the above diagram, while OL households are both ready and willing to pay a rent OP_1, supply in the short run is only OL_1. In the short run, equilibrium will be achieved at rent OP_2. In the long run, assuming constant cost conditions, new entrants will ensure that a rent of P_1 would ultimately be attained and OL households housed.

Let us consider the situation when rent is fixed at OP_1. In the short run, this will imply a producer's loss equal to P_1P_2RQ when compared to the free market short run situation with the price at P_2. This loss is exactly equal to the gain of consumers or the tenants, which merely implies transfer of wealth from owners to tenants and prevents the landlords from exploiting a short run shortage. Such a situation does not, however, provide an incentive to landlords to increase supply, even in the long run. Further, the knowledge that OL households are willing to pay a rent of OP_2 will tempt the owners to circumvent rent legislation. Those who are able to do this will find some of the enhanced consumers' surplus finding its way back to them. Also, this implies an excess demand of L_1L dwelling units.[1/]

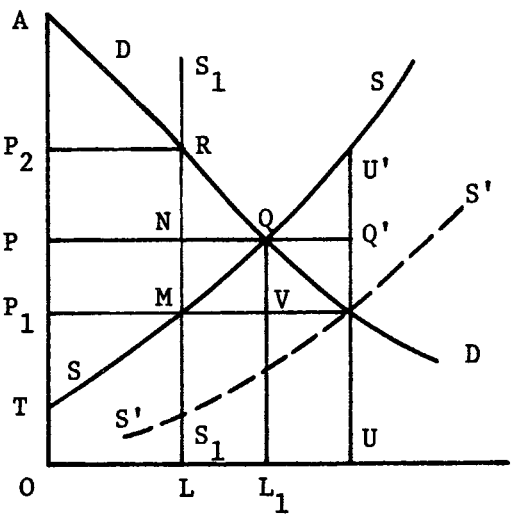

Diagram 2

1/ This reflects a condition of economic shortage, as indicated by overcrowding, homelessness and general bidding up of rent levels in the rented sector.

Diagram 2 makes the more realistic assumption that the supply curve SS slopes upwards from left to right. In this situation the government is faced with a number of possibilities.

By fixing the rent again at OP_1, in Diagram 2 we analyze the redistribution of surplus between landlords and tenants. In this figure, OP is the market clearing rent and OP_1 is the rent (the fair or standard rent) which is permitted under the rent control legislation. It is seen from this diagram that at price OP_1, the supply of housing will fall from L_1 to L and an excess demand equal to LU will develop. Before rent control the landlords' surplus is PTQ and the tenants' surplus is APQ. With rent set at OP_1 landlords' surplus is P_1TM and tenants' surplus is AP_1MR. Thus by fixing rent at OP_1, loss in landlords' surplus is PP_1MQ. This is always positive. The change in tenants' surplus, on the other hand, is the difference in the areas represented by RNQ and PP_1MN. This difference may be positive negative or zero depending on parameters of housing supply and demand. In addition to transfering wealth from landlords to tenants imposition of rent control also involves a dead weight social loss which is given by the area RMW. Rent control also unequivocally reduces supply (since OL OL_1). If the government wishes to offset the concomitant croweling or worsened housing conditions, it could subsidize supply (e.g. by shifting the supply curve to S'S').

4.2.1.2 Rent Control and Housing Maintenance

We will now discuss the impact of rent control on maintenance and repair expenditure. For this purpose, Moorhouse[1/] and Frankena[2/] have

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1/ Moorhouse, J.C., "Optimal Housing Maintenance Under Rent Control," Southern Economic Journal, Vol. 39, 1972, pp. 93-106.

2/ Frankena, Mark, "Alternative Models of Rent Control," Urban Studies, Vol. 12, 1975, pp. 303-308.

developed formal models to show how reducing maintenance and repair expenditure will be the optimal response for the profit maximizing landlord faced with rent control. We will demonstrate this with the help of the following diagram:

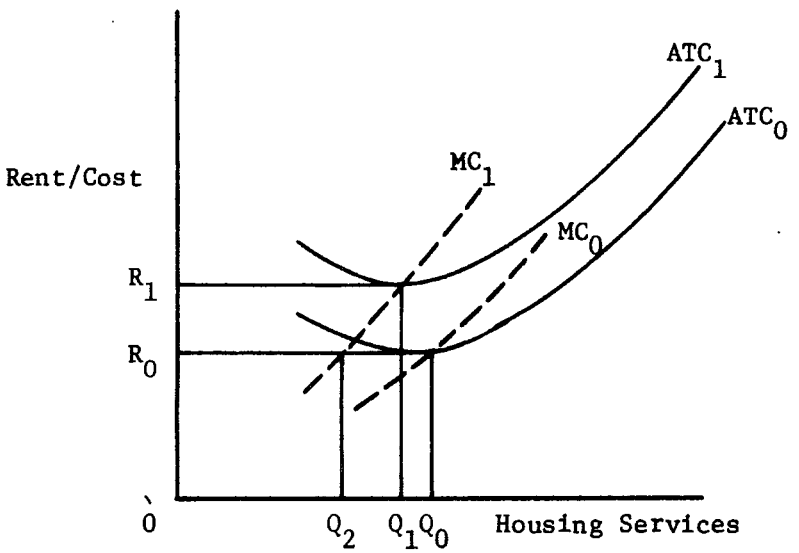

Diagram 3

The horizontal axis represents housing services per period of a single building[1/] and the vertical axis rent or unit cost. Let OR_0 be the initial rent level and OQ_0 the corresponding initial quantity of housing services. We now assume that over time the costs of maintenance and repair rise so that the new cost curve is ATC_1 and new equilibrium price or rent is OR_1. Because of this rise in the operating costs, the quantity of housing services is reduced to OQ_1. If, however, we impose rent restrictions and control the rent at R_0, the optimal strategy of the landlord would be to

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1/ The service stream is a function of the number of dwellings and their quality.

reduce his costs by reducing expenditure or repairs and maintenance relative to that required to maintain quality ($Q_0 - Q_2$). In general, the fall in maintenance will be greater in the controlled sector for a given increase in costs, as can be seen from the diagram where $(Q_2 - Q_0)$ $(Q_1 - Q_0)$.
In summary, upward shifts in demand or costs or both, whether the result of inflation or changes in real factors, provide an incentive for curtailing the maintenance of a rent controlled building. Thus, the stimulus to maintain the dwelling is reduced and such controls result, then, not only in a reduction in the gross number of dwellings but also in the quality of those provided.

The above discussion, therefore, shows that limiting the rent below the market level results in the decline of new as well as replacement investment in housing, unless the government intervenes to overcome the distortions introduced in the housing market on account of rent control legislation.

4.2.2 Rent Control Policies in India

Bombay was the first city in India where rent restrictions were imposed in 1918. It was, however, only in 1939 that the first major rent legislation, known as the Bombay Rent Restriction Act, was enacted. Since then, such rent acts have been enacted in cities where acute housing shortages were felt. These acts followed the policy of freezing rents of existing buildings at certain base year levels (generally at pre-war levels). Initially, these controls, which were viewed as ad hoc emergency measures to prevent war profiteering by landlords in areas of acute housing shortages, were intended to be abandoned when normal conditions were reestablished. These controls have, however, persisted even to the present day and have, in fact, marked the beginning of an era of public intervention in pricing decisions of the private rental market in housing.

Although, at present, all the states in India have their own acts, it is possible to identify key features which are essentially similar and can be summarized as follows. First, all the rent control acts have the provision of regulating rent by laying down the basis for determination of fair or standard rent. In general, they draw distinctions between pre-war and post-war constructions. With the pre-war dwellings, rents are frozen as of a specified year without any provision for subsequent increases in rents. For post-war constructions, rents are, however, determined on the basis of specified returns on total investment in housing. At present, the gross returns permitted under different acts vary between six percent and 8 1/4 percent on the total cost of land and building at the time of construction. In arriving at the cost of construction and market value of land, some acts give consideration to such aspects as location, etc. For post-war constructions, most rent acts also allow for lawful increase in rents in cases involving any improvement, addition or structural alterations in the premises. There is one essential point on which the various acts diverge, namely, while some acts allow houseowners to recover either in part or in whole the increase in local taxes, rates, and rents; others do not permit the landlords to pass on the liability to the tenants. An interesting feature of many rent acts is the provision of a rent control holiday on new buildings for a specified duration (generally five to seven years from the date of first letting). During this period, the rent agreed between the landlord and the tenant is deemed as standard rent. However, when the exemption period is over, such tenancies come under the provision of fair or standard rent.

Another feature common to various acts is the protection provided to tenants against eviction, a provision intended to make rent restriction policies effective. Most state acts spell out in detail the grounds on which

a sitting tenant is to be evicted. Normally, as long as the tenant pays his rent regularly and the dwelling unit is not required for personal use of the houseowner, the eviction of the tenant is difficult under the existing provisions of various rent acts. One of the grounds on which the premises could be recovered is when they become unsafe or unfit for human habitation and where repairs cannot be carried out without eviction, or where vacated premises are required for building, re-building, or substantial additions or alterations. But complications arise out of the non obstante clause in the provisions to the ground for eviction in the rent act. Because of the existing legal framework, the operation of the slum areas act prevents the landlord from evicting tenants living in slum areas, even when these premises are required for demolition or improvement at owner's cost.

Besides providing for control of rent and eviction, various rent acts provide regulation of letting and prevent landlords from denying accommodation to specified persons. They also lay down the obligations and duties of the landlords, which include maintenance of essential supplies and services as well as keeping the premises in good and tenantable repair.

It will be seen from the above description of the salient features of various rent acts that, except for new constructions where rent holiday is provided, the rents are virtually frozen even for post-war constructions.[1/] In none of the acts is there a provision for enhancing the rents to take care of increased cost for repair and maintenance. The rent acts are also ambiguous regarding the provision of alternate accommodation for tenants when

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1/ This is ensured by the provisions relating to control of eviction.

the question of development of a property arises. This has left many properties undeveloped, especially in large cities. Also, the liability in most cases to bear the burden (either in part or in full) of increased taxes further erodes the yield, which is already low when compared to financial returns from other forms of investment. The existing provisions of various rent acts in India do not appear to be conducive to new investments in housing either for undertaking new constructions or for proper maintenance of the existing housing stock. The situation is further aggravated by the rising price level, especially of building materials.

We now proceed to briefly examine the impact of the above-mentioned provisions of rent legislation on the housing situation in India. Although very little empirical work has been done in this area, an attempt is made to provide whatever evidence is available to substantiate our analysis.

We begin by considering the implication of the provision relating to control of rent. As already stated, rent acts classify properties under three major heads, namely, (a) those on which there is a freeze on rents without any permissible rent increases, (b) those which are covered by rent control holiday, and (c) those on which standard or fair rent is charged. In respect to the old properties under category (a) above, maintenance of rents at pre-war levels in a period of sustained price rise has resulted in a steep fall in the real value of rents and poor maintenance of dwellings. In real terms, given six fold increase in the price of building materials in India during 1950-80, the cost of normal maintenance of those properties may sometimes imply even negative returns.

In their recent study, "Housing Delhi's Millions," Gupta and Bose (1978)[1/] found that the amount that a landlord got by way of rent was not adequate even for normal maintenance of the property, let alone carrying out any minor or major repairs. Landlords, in fact, wished that their properties would collapse, so that they could pull down the structure and reap huge profits by the sale of vacant land. Indeed, in 1964, in Greater Bombay, there were nearly 1.6 lakh tenements which were in bad shape and needed replacement in the course of 15 years. Their situation is known to have worsened substantially since then.[2/]

As we saw, the rent control provision also puts limitation on yield (or gross returns) on post-war constructions. The permissible returns in the range of six to 8 1/4 percent on cost of land and structure at the time of construction are grossly inadequate in relation to financial returns in other fields of investment. For example, the commercial banks currently offer up to 11 percent interest on fixed deposits, Unit Trust of India offers a dividend of about 12 percent and more, and debentures from reputed public limited companies carry a yield of 13 1/2 to 15 percent with the possibility of capital appreciation and equity participation. Moreover, the ever increasing taxes and other levies by local authorities have further widened the gap between gross returns and net returns, making investment in rental housing even less attractive. The rising operating costs due to increases in the price levels penalize the landlord further. Rising costs, in general, prompt him to reduce the quality of housing service by reducing maintenance and

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1/ Gupta, D.B. and Bose, Ashish, "Housing Delhi's Millions - A Study of the Rent Structure," National Buildings Organization, 1978.

2/ Mehta, J.B., "Urban Housing: A Pragmatic Approach of Planning," in Urban Problems and Perspectives by Gopal Bhargava (ed.), Abhinav Pub., New Delhi, 1981.

repair expenditure.[1/]

Although the provision of rent control holiday on new buildings mitigates to some extent any dampening of interest in construction of new housing, it must be admitted that the house builder has a much longer time horizon because of the durable nature of the housing asset. He does not look only at the returns during the rent holiday, but also at returns after expiry of this period when the premises get covered by the rent act. NBO studies have found, however, that the sitting tenants have very seldom persuaded the Rent Controller to provide fixation of a standard rent.[2/]

The existing empirical evidence does not indicate any adverse effects of rent legislation in India. However, this appears to be the result of circumventing the provisions of these Acts. There is, in fact, evidence available which shows that the operation of rent control legislation has in many cases been bypassed, and rents paid by tenants and realized by houseowners have generally remained outside the purview of rent control measures. The NBO study "Incidence on Residential Construction, 1957-58," for example, estimates the return on housing in Delhi at 13.85 percent against an all-India average of 6.93 percent. The NCAER Study, "Tax Incidence on Housing" (1967) estimates it at 10.48 percent.[3/] The NBO study (1968), "Rent Control and Housing in Delhi," puts the average return on rental dwelling at 11.2 percent. Moreover, on the basis of the index of housing construction, this study did not find any slackening in the

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1/ While rent acts specify the duties of the landlord with regard to his obligation for proper upkeep of the premises, they are silent about how to get implementation.

2/ For instance, see the NBO study, "Impact of Rent Control on Housing Construction in Calcutta," p.13.

3/ For Ahmedabad and Patna, net returns on investment in housing were indicated to be as low as nearly four percent.

rate of residential house construction in the private sector. This conslusion, however, needs to be further examined. For one thing, low returns on low cost housing have generally resulted in constructions for the upper and middle income groups. This is clear from the distribution of rental dwellings according to income levels which shows that the proportion of tenants in top income groups is higher.[1/] The low income groups are forced to take recourse to squatting and erection of temporary dwellings.

In summary, if rent control expects owners to keep properties in good condition, the standard rent must rise with increase in maintenance costs. Controls must also provide for adequate returns if they are to encourage the provision of private housing for rental purposes. Finally, the indefinite continuation of the original lease results in old tenants continuing to occupy dwellings at old rates, while the new tenants, whose economic circumstances may be no better, are required to pay much higher rents for similar accommodation. This creates obvious problems of equity.

4.2.2.1 Summary of the Studies of the National Building Organization on the Working of Rent Control and Its Effect on the Housing Supply

The Calcutta study, which was carried out by the Indian Institute of Management, examined the impact of rent control on house construction in Calcutta by estimating the return on investment in residential housing and comparing it with the returns permitted under the fair rent clause of the WBPT Act of 1956, which defines fair rent as 6 1/4 percent per annum of the aggregate of (a) cost of construction, (b) the market price of the land on the

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1/ See Rakesh Mohan, "Strategy for Housing and Urban Development - Some New Perspectives," Planning Commission 1982 (mimeo).

date of construction, and (c) half of municipal taxes and rents payable annually in respect of the premises. The results of the survey for the period 1951-66 show that the composition of house construction has changed in favor of the relatively high rent units. The shape of the rate of return is indicated to be U-shaped, which implies that the returns are relatively high for houses with low investment when the rent is higher than is permissible under the fair rent clause, that rent tends to fall in the case of medium level investment housing units, and rises in the case of high level housing units. This results in polarization of housing construction in favor of low and high income groups, which, while providing amelioration for the former, would bestow an undeserved subsidy on the latter. At the same time, the housing problem becomes more acute for the middle income groups, who constitute the backbone of metropolitan urban areas. The study also shows that both landlords and tenants lack awareness of the various provisions of the rent control Act. It may, therefore, be reasonable to assume that the rent control legislation will have little impact on the housing supply.

The second study was carried out for Delhi by the Indian Institute of Public Administration. The results of the survey indicate preference for investment in housing compared to other investments. There is no indication that rent control influences the decision to build houses. The results of this study, as well as of our own study, suggest the existence of reasonably cordial relations between the tenants and the houseowners. The survey also indicates little impact of rent control on the type or the nature of the occupancy or the tenure status of the newly constructed houses. There is a severe indictment of the rent control machinery, based on findings that a majority of the houses seem to escape rent control. The survey recommends that low density areas should be exempted from the purview of the rent control and that standard rent should be formulated every five years.

The third study was carried out by the Indian Institute of Economics in Hyderabad. There, the houseowners feel that rent control has affected new construction as well as proper maintenance of existing stock. They also pointed out that because of the high land prices they would welcome the collapse of their tenanted structures. The study concludes that the scrapping of rent control is not likely to have any positive or decisive effect on the house construction, mainly because both houseowners and tenants seem to be ignorant of the provisions of the rent control Act.

On the whole it appears from these studies that the rent control legislation has not adversely affected housing production. The tenants and houseowners were found to be generally ignorant about the provisions of rent control and in any case were not keen to resort to it. From the results of these surveys, it does seem, however, that rent control has adversely affected the proper maintenance of the existing tenanted housing stock.

4.2.3 Conclusion and Implications

As the preceding discussion suggests, our knowledge of the precise consequences of the working of rent control is rather incomplete and sketchy. Whatever studies are available on the subject are based on rather limited samples and their conclusions have to be treated with utmost caution. In order to improve our knowledge of the working of rent control acts in India, the following areas are suggested for further work.

1. First, by depressing rents below the existing market level, rent conntrol legislation may compel houseowners to withhold letting part of their premises even when they exceed their needs. At present, the magnitude of such housing stock (which in the absence of rent control would be avail_ able for rental purposes) is not know. Further, as already indicated,

because of the steep rise in operating costs, especially in relation to the rents realized by them, it is difficult for houseowners to maintain their tenanted properties in proper condition. Indeed, there is a clear possibility that some housing stock has depreciated completely, and hence is a dead loss to the society. There is unfortunately no information on this aspect either. The first specific suggestion, therefore, is to undertake detailed studies in a few large cities, including the metropolitan cities, to determine the extent to which rent control legislation has been responsible for keeping properties out of the rental market and for the dead loss from properties which have become totally non-useable.

2. Second, rent control does not merely penalize the landlord, it also adversely affects the revenues of local authorities, since property tax is fixed on rateable values determined under the relevant rent legislation. This is particularly relevant in an inflationary situation, since once these rents are fixed, there is no provision for readjustment in rents. This revenue loss may seriously hamper programs for provision of various urban infrastructure. In this context, it would be useful to determine the extent of such losses and its impact on the urban developmental programs in general.

3. Rent control, by keeping the rents of tenanted properties well below the free market rents, would, in general, create a black market. A detailed study of the mechanism by which the black market in housing is generated and maintained would be very useful for reformulating the rent control legislation.

4. In the context of rent control legislation, the equity argument is posed in terms of landlords versus tenants. But, over time, even among tenants, "old" tenants are an advantaged group vis-a-vis new tenants. One would therefore like to investigate especially how the equity argument works

among the tenants of different vintages. Clearly it is possible to argue that it subsidizes "old people" at the cost of "young people," and similarly that it penalizes the mobile over the more static.

4.3 Construction Constraints

The availability of building materials is another important factor influencing the pace of housing supply. This is particularly true of urban areas where, because of the existing provisions of building bylaws and the desire for modern housing, the emphasis is usually on the construction of pucca houses, using mainly processed building materials such as cement, steel, bricks, timber, etc. Because the supply of most of these materials is relatively inelastic in the short run, any excess short run demand tends to push up the prices. The cost of these materials is likely to limit the expansion of low income housing or may sometimes result in the use of substitute building materials, though the extent of their use may be constrained by existing building bylaws.

4.3.1 Building Materials

Building materials constitute an important component of the cost of construction. This is clear from Table 10.1 which shows that almost 67 percent of the building cost (excluding the cost of land) consists of various building materials, while the remaining 33 percent is devoted to various categories of labor.[1/] Cement, steel, brick and timber are among the most

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1/ Actual proportions would clearly undergo changes with changes in the relative prices of building materials and labor.

Table 10.1

Proportion of Value of Key Building Materials to the Value of Building Materials going into Housing Activity

	Materials		%age of overall cost
A.	Materials		
	Cement		18
	Steel		9
	Brick		13
	Timber		10
	Sand		6
	Aggregate for concrete		5
	Rubble and Miscellaneous		6
		Subtotal	67
B.	Labor		
	Mason		12
	Carpenter		4
	Painter		1
	Plumber		5
	Electrician		4
	Unskilled labor		6
		Subtotal	33
		Aggregate total	100

Source: Report of the Working Group on Housing and Urban Development for the Five Year Plan 1978-83.

Table 10.2

Index Number of Wholesale Prices of Selected Building Materials

(Base: 1970-71 = 100)

Building Materials	Index Number of Wholesale Prices (annual average)								
	1971-1972	1972-1973	1973-1974	1974-1975	1975-1976	1976-1977	1977-1978	1978-1979	1979-1980
Cement	105.4	109.5	112.3	147.9	170.5	173.6	173.8	196.6	229.4
Bricks	109.3	128.1	187.7	263.2	291.2	344.4	299.6	314.2	351.5
Tiles, Ceramic	107.6	110.3	140.6	205.9	242.8	243.0	231.7	227.4	233.5
Logs, Timbers and Bamboo	105.8	113.9	133.1	168.0	178.2	155.3	220.3	303.7	382.9
Paints and Varnishes	103.6	108.7	131.0	192.1	194.6	204.9	204.9	204.6	239.9
Fire Clay	100.0	114.6	129.2	129.2	146.7	159.2	160.1	167.5	187.2
Lime Stone	100.0	113.9	183.4	184.4	187.2	187.2	187.2	204.8	212.1

Source: Revised Index number of Wholesale Prices In India, April 1980 - Ministry of Industry

Table 10.3

All India Production of Building Materials

Items	Unit	Years									
		1951	1956	1961	1966	1969	1970	1971	1976	1977	1978
Cement	'000 Tons	3,246	5,008	8,245	11,058	13,624	13,956	14,932	18,684	19,165	19,632
A.C. Sheets	Do	84	122	214	295	295	361	390	488	513	-
Sheet Glass	'000 Sq. Mtr.	1,030	4,428	6,780	12,372	17,280	14,713	16,685	19,723	20,736	19,968
Sanitary Wares	Tons	657	2,760	6,744	11,270	12,599	12,762	14,349	20,008	18,967	-
Refractories	'000 Tons	242	323	626	722	621	743	789	770	811	840
Glazed Tiles	Tons	1,416	2,064	4,680	7,572	18,218	19,639	19,905	39,373	42,582	-
Paints & Varnishes	Do	34,023	42,276	59,236	67,236	62,208	65,217	68,596	73,699	75,268	-
Commercial Plywood	'000 Sq. Mtr.	948	2,400	6,312	12,667	17,018	18,960	20,207	32,508	38,904	36,000
Wood Screw	Million Nos.	115	1,080	1,500	1,700	1,304	1,453	1,496	1,390	1,632	3,036
Lime Stone	'000 Tons	2,965	8,385	14,755	19,831	22,517	23,843	25,079	29,892	29,556	30,171
Semi-finished Steel	Do	1,269	1,508	1,049	1,356	1,087	874	1,069	1,765	1,633	1,464
Finsihed Steel	Do	1,094	1,360	2,798	4,483	4,849	4,820	4,468	6,360	6,738	6,492

Source: (1) Statistical Abstract of India, C.S.O.
(2) Monthly Abstract of Statistics, C.S.O.

Table 10.4

(Million tons)

Year	Demand	Expected production	Shortfall
1980-81	27.99	20.00 (estimated)	7.99
1981-82	30.22	25.23	4.99
1982-83	32.64	28.98	3.66
1983-84	35.25	32.86	2.39
1984-85	38.07	37.26	0.81

Source: Report of the Working Group on Private Housing, Government of India, November, 1981.

important components of the cost of building materials; hence their prices are major determinants of the total cost of construction.

Price and production trends are reflected in Table 10.2, which shows a rising trend in the prices of most materials. And there is little hope for a reversal in this trend, at least in any near future. Indeed, in the last two years, there has been a very steep rise in the prices of all building materials, despite the increase in the production of most building materials (Table 10.3). This is an indication that demand has outstripped supply. The figures in Table 10.4 show that the expected production of cement is likely to catch up with the projected demand in 1984-85.

In order to promote housing activity, the acute shortage of building materials, especially steel and cement, must be overcome. This can be partly achieved by encouraging the use of alternative building materials through adopting low cost specification/designs, particularly those saving on cement and steel, and at the same time promoting the use of lime and other substitute materials. The government is also taking measures to step up cement production through setting up a number of new cement units, as well as by encouraging the existing units to expand their production. In order to provide remunerative prices to cement manufacturers, and, at the same time, to discourage luxury housing, the government has recently decided to permit the sale of non-levy cement in the open market. The levy cement (at control price) would be available only for priority needs, including residential housing on plots of less than 200 square yards and maximum plinth area of 80 square meters.

The building bylaws often act as a serious obstacle to the introduction of cost reduction techniques and to the use of substitute materials, thus necessitating suitable modifications in these bylaws. Besides, prospective housebuilders, engineers and architects should recognize that the life of a

building is not entirely dependent on the extravagant use of building materials.[1/] Thus, to overcome recent shortages in building materials, it is essential not only to encourage the use of substitute building materials, but also to find ways and means to economize in the existing use of the scarce building materials. Clearly, without such measures, building material shortages will continue to hit the housing industry hardest.

4.3.2 Building Bylaws

In India, building bylaws are framed by local governmental authorities, who are also entrusted with the task of their implementation. In their present form, these bylaws seem dated and are thus serious obstacles to economical use of land and building materials. For example, the existing norms for the number of tenements per unit of land area are not conducive to efficient utilization of land. Similarly, the norms for front, rear and side setbacks lead to wasteful use of scarce land resource. Some building bylaws are even known to prescribe the type of building materials to be used, reducing construction options.

The existing provisions of building bylaws in India are also known to inhibit the application of recent advances in the fields of building science and technology, and consequently present a serious obstacle to the possible use of cost reduction techniques. Since many builders find these bylaws too expensive, it is not surprising that they indulge in large scale violations. It is not merely the various specifications that must be followed under the

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1/ Part of the reason for this extravagance may be the poor quality of building materials. For example, the manufacture of low load bearing bricks in India inhibit economy in the use of bricks.

existing building bylaws, but also the lengthy procedures that are involved and the restrictive nature of these bylaws that have generally resulted in their violation and in unauthorized construction work. Most of the violations seem to arise both from the nature of the bylaws and from the inadequacy of the urban administration to cope with their responsibilities. This inability of the local authorities to control such violations, together with the pressures which unauthorized housing colonies and squatter settlements are able to muster for their regularization once they are built, has encouraged further violation of the building bylaws.

A few examples will serve to illustrate the situation described above.

1. According to the building bylaws, any person interested in the erection or re-erection or in the major alteration, addition and repairs of buildings is required to have prior approval of the local authority, as well as a completion certificate. Clearly, this clause stands in the way of effecting any improvements in the existing built-up areas which are not in conformity with the Master Plans. Normally, no permissions are granted until the new proposals are in conformity with the Master Plans. It is known that old buildings, generally, do not follow the existing building bylaws and consequently any proposed improvements often entail losing built-up areas, because of such norms as floor area ratio for ensuring minimum spaces around building setbacks, restrictions on the number of stories and on the height of buildings in relation to road width, etc. Thus people do not carry out the improvements preferring to hang on to their junk houses. And these restrictions clearly stand in the way of undertaking any major improvements in the old built up areas with regard to widening the streets, etc. It is, therefore, necessary to determine the extent to which present rigid standards could be relaxed to take into account the existing situation.

2. Whenever a house builder violates any of the provisions of the building bylaws, he is let off after payment of prescribed penalties which, in general, are nominal. Moreover, there are maximum penalties and no minimum penalties. This encourages violation of existing building bylaws, since paying for violations by low penalties and fees costs less than conforming to bylaw regulations.
3. There have been frequent amendments to the building bylaws and, since many of these amendments have been ad hoc in nature, certain inconsistencies have crept into the existing bylaws. Thus, it is seldom possible for any house builder to construct a house strictly in accordance with these laws. Moreover, the licensed architects and house builders are not always informed of the various amendments to the building bylaws, a gap in knowledge that leads to unintentional violations.
4. Most building bylaws provide for a minimum plot size of 80 square yards. This figure, in the context of the day, is a somewhat high limit. In fact, a realistic review of this standard has made it possible to settle over two lakhs families in Delhi on plots of 25 square yards.

From the viewpoint of promoting new housing construction and efficient use of existing housing stock, together with proper utilization of scarce land resources, inadequacies in the existing building regulations need to be identified in order to carry out necessary modifications. An effort in this direction was made by the Indian Standards Institution (ISI) to identify the major defects in the building bylaws and suggest a National Building Code. The ISI, in recommending the National Building Code, identified the following defects in the existing building bylaws:

1. The current bylaws, wherever they exist, are outdated.
2. They do not cater to the use of new building materials and to the latest developments in building designs and technology.

3. They lack uniformity, and

4. They are more specifications-oriented than purpose-oriented.

The building bylaws also need revision to bring them into conformity with the requirements of development control envisaged under the Master Plan. Further building bylaws prescribing standards or norms of construction need modification, since such standards are within the reach of only a very small section of the people. This is not to belittle the usefulness of adopting some minimum standards for decent urbanization and for the health and safety of the people. But it must be realized that the inability of a large number of people to comply with such standards, and the difficulties in enforcing these standards make violations inevitable. It might be useful to explore the possibility of prescribing different standards for different income groups, while avoiding social and economic segregation of the low income group of urban dwellers.

It is also unfortunate that, despite the fact the National Building Code was evolved in 1970, no attempt has been made to revise the existing building bylaws in accordance with it. We must, however, point out that even the National Building Code has paid little attention to the problems of housing for the low income categories of house builders. Recently the National Buildings Organization recommended separate guidelines for evolving housing schemes to suit the requirements of low income groups. Since in India a very large number of households belong to the low income category, it is essential that the provisions of the building bylaws should be so modified that they do not obstruct the building of houses at affordable costs.

The following examples of the situation in some urban agglomerations in India suggest the inconsistency in housing regulation and the deterioration of environmental conditions.

1. The building bylaws in the various cities of Tamil Nadu and Andra Pradesh are still essentially the same as originally enforced in 1942.
2. In the old city of Bhopal there are no specific building bylaws as such. Permission for new development in and around the city is being carried out on an ad hoc basis through the instructions of the Town and Planning Department.
3. The minimum plot size in the already congested Bhopal is 110 square yards and plots of smaller size are not given permission for house building. At the same time, there are shops on most streets and some lanes in the old parts of the city creating the appearance of a shopping city.

Judicial Interpretation

The following court decisions concerning the power of Municipal bodies to enforce housing bylaws indicate their ineffectiveness:

a. A Municipal Board refused permission for the construction of building on land which, in the opinion of the board, did not belong to the applicant. The Court observed that the Municipal Board under Section 180 of U.P. Municipalities Act is not entitled to assume the powers of the Civil Court and decide matters of right to property. This decision must be made by a body responsible for health measures (Mahadev ... v/s ... U.P. Government, A.I.R. 1949-A-56).

b. A Municipal Corporation withdrew a sanction for building construction, which it had given earlier due to oversight. The

Court observed that unless fraud or collusion is proved, the sanction cannot be withdrawn according to the Municipal Act (Tullaram ... v/s ... Calcutta Corporation, 30 Cal : 316-333).

c. A Municipal Corporation ordered demolition of a building being constructed without permission. The Court observed that although such powers are vested in the Corporation, they could be used only in extreme cases of defiance of encroachment prohibitions on government land. If there is no violation of bylaws, then only a penalty could be imposed (Municipal Corporation, Meerut ... v/s ... Mohammad Zaki, A.I.R. 1945-A 11-393).

The preceding examples and Court cases clearly indicate the ineffective and inefficient application of the building bylaws, which are clearly not helping in promoting housing development. All existing building bylaws and subdivision regulations need to be thoroughly scrutinized, and necessary modifications carried out.

4.4 Housing Finance

It was seen earlier that the annual rate of growth of gross capital stock in housing in India has been rather low, around 1.5 to 1.6 percent (in real terms) in contrast to almost five percent and above in developed and even in some developing countries. Clearly one major reason for this is the short supply of finance for housing. In India, housing is just one of many national priorities that compete for government funding and, because it represents large investments and long term commitments, is less attractive than most. While, in general, investment in housing is encouraged by governments through tax incentives, easy access to housing finance, interest subsidies on housing

loans and other incentives, a major factor in promoting houseownership is the ensuring of a steady flow of mortgage finance through housing finance institutions on reasonable terms. Unfortunately, despite the fact that almost 90 percent of housing investment in India is privately financed, a systematic institutional structure to channel financial resources by way of mortgage loans into housing investments is still lacking.

There are several reasons for this. First, since the housing sector needs long term capital, and also because housing investment is generally less remunerative, the organized money market is often shy of providing funds for investment in housing. No such restrictions, however, seem to operate on the unorganized money market, where flexibility in respect of the quantum of loans and of lending terms, including interest rates, makes borrowing from this sector more attractive. Besides, the procedures for obtaining funds from the organized market are complex and time consuming. It must, however, be pointed out the the two sectors are not quite independent. Indeed, interest rates in the unorganized money market are largely determined by those in the organized. At present, in spite of its importance, hardly any study is being done on the role of the unorganized money market as a provider of housing finance. As a result, this report of necessity limits itself to a description of the activities of government and of various institutions involved in the finance of housing activities.

4.4.1 Public and Private Sectors

With the exception of essential housing for its employees, the government sector until very recently had left residential housing to the initiative of the private sector. It is only recently that the government, both at the center and at the state levels, has stepped into the field of

social housing, which has often been characterized by makeshift arrangements. Given the meager income of a substantially large segment of India's urban population, a very large number of dwellings, especially in big towns and large cities, are in the informal housing sector where people depend upon their own efforts for shelter, and construction is generally in illegally occupied public land.

The role of the public sector has been two-fold: (i) to provide housing for the weaker sections of society; and (ii) to provide financial resources to public servants. Additionally, it participates in rental housing mainly for its own employees. A major reason for the dominant role of the private sector in housing has been its relatively greater profitability and investment security. Furthermore, in India, housing ownership has always been a symbol of social status. However, physical control of housing, rent control and general inflation have adversely affected housing activity, particularly during World War II, and more recently during the 1970's. To date, rent control has been maintained, and adjustments to the law have been sporadic and inadequate to encourage a reasonable return on construction as well as maintenance of dwellings in the rental sector.

The persistent inflation, accompanied by an exhorbitant rise in land values and construction costs, have further dampened private housing. The lack of an appreciable shift in favor of owner-occupied dwellings, as pointed out earlier, may, in fact, be the result of a stagnant or at least shrinking rental housing stock, forcing the accommodation of households through sub-division and sharing.

In terms of financial costs as opposed to real economic costs, private housing is more expensive than public housing since the latter both receives public land cheaply and gets more generous terms of finance than private housing, which must borrow from a tight money market. Consequently,

private housing is resorted to by those who are not eligible for public or subsidized housing, and who are either willing to pay the higher prices for better quality dwellings and better locations or -- because of poverty -- are compelled to depend upon temporary structures usually built on illegally occupied land. Clearly, private housing is, therefore, characterized by extremes of high quality or very poor quality housing.

Both public and private housing sectors are, in some way, related. For instance, houseowners who are recipients of public housing contribute to rental housing in the private sector. Second, the private housing sets the tone for size and quality, forcing public housing to raise its own standards. The private sector is also responsible for bidding up prices of building materials and skilled workers, adversely affecting public housing. While in principle private sector housing has the effect of releasing pressures on public sector housing, the fact that the private housing adversely affects public housing, both through setting higher standards and through raising the prices of inputs, has created a demand to curb the private sector, especially luxury housing.

Despite the fact that housing is predominantly privately financed, no formal system of housing finance has emerged. Those who construct houses rely on advance payments by future owners and future owners rely on privately available funds rather than on institutional support. The survey results of a Bombay study on the sources of finance for house construction clarify this pattern. The sources were classified into two parts: viz., the self-generated sources, which include individual and family saving and its dishoardings, etc.; and the external sources, which refer to personal loans from banks, the housing finance society, the Life Insurance Corporation of India, the provident fund, private parties and miscellaneous lending institutions. Table 11.1 shows that individual savings play as important a

Table 11.1

Sources of Funds, Dwelling Size, Average Funds and Number of Flats

Source of Funds	Up to 55 sq. ft.		501-750 sq. ft.		751-1000 sq. ft.		1001 and above sq. ft.	
	Rs.	N/F	Rs.	N/F	Rs.	N/F	Rs.	N/F
Self generated	25	9	83	22	147	14	382	9
External	25	7	109	19	44	5	181	5
Both	39	10	122	27	169	14	459	8

Rs. Average funds for dwelling houses, and

N/F Number of dwellings

Note: In this table, N/F value is not the sum of self-generated N/F and external N/F because the funds for the same flat may have been obtained from both the self-generated and external sources.

Source: P. Ramachandran et al, "Monetary and Fiscal Policies, and Investment in Housing, Somaiya, Bombay, 1979.

Table 11.2

Sources of External Funds, Dwelling Size (sq. ft.)
Average funds and number of flats

External Funds	Size of Flat (in sq. ft.)							
	Up to 500		501-750		751-1000		1001 and above	
	Rs.	N/F	Rs.	N/F	Rs.	N/F	Rs.	N/F
Private Loan	18	2	27	5	-		185	3
Bank	-		97	9	49	3	63	3
Finance society/govt.	24	5	33	2	23	1	-	
LIC	-		10	2	4	1	-	
Other institutions	-		43	6	-		6	1
Provident Fund	6	2	19	10	-		10	1
Any other	8	1	7	1	-		10	1

Source: Ramchandran, P., et al, "Monetary and Fiscal Policies, and Investment in Housing," Somaiya, Bombay, 1979.

part as the external sources. Table 11.2 also indicates that the personal loans from private parties and banks, the state level finance society, and against the provident fund seem to play the key roles. The reported rate of interest on these loans varied from two to 17 percent.

4..4.2. Housing Needs

The extent of the requirements of housing finance would clearly depend on the additional investment required to meet (i) the demands for new housing, and (ii) any expenditure on the maintenance and repairs of the existing housing stock. Traditionally, the problems of housing have been discussed in terms of the housing gap, a gap essentially assessed on the basis of the requirements of the population in terms of a certain prescribed housing standard. If the housing gap is worked out in terms of the minimum housing requirements, the additional financial requirements to meet the housing deficit would be staggering. The policy response can then only be one of helplessness in the face of such large deficits. A more realistic as well as a more accurate approach would be an assessment of housing demand by taking into account the prevailing income distribution, consumption patterns, and potential household savings available for financing shelters. On the basis of such a model, using rough approximations, Dr. Rakesh Mohan in his recent paper, "Strategy for Housing and Urban Development - Some New Perspectives," presented to the Planning Commission, has shown that the additional funds required for the purpose are of the order of Rs. 500 crores per annum over and above the present level of Rs. 3000 crores for urban housing. This estimate is based on the assumption that the urban population would grow at the rate of 3.5 percent and the replacement demand will be 1.5 percent. Further assumptions are made about the percentage of expenditure which the various

income groups would make on housing. The main point of the exercise was to demonstrate that the issue of shelter is not beyond a feasible solution, and that the increase in the availability of housing finance that may be required in a realistic assessment of financing and investment patterns is well within the reach of resources.

If we accept broadly the estimates prepared by Dr. Mohan, the question arises as to the strategy which would need to be adopted to implement the housing policy. We can broadly consider housing for the poor and not-so-poor separately when discussing the allocation of the additional housing finance. As we saw earlier, nearly 30 to 50 percent of the urban dwellers (including both slum dwellers and squatters) are extremely poor and live in dwellings constructed by themselves or with the help of friends and relatives. Most of these people are able to construct houses at much lower cost than any system of public sector construction would provide. These dwellings, expectedly, are unable to meet the prescribed standards in the local building bylaws. These unauthorized or illegal constructions cost one-fourth to one-fifth of what comparable constructions in the public sector would cost. In order to evolve a proper housing finance policy for such buildings, it would be useful, therefore, to identify the specific constraints that these poor are confronted with for shelter. A useful model is the experiment of the Bustee area in Calcutta, where local authorities have undertaken to provide various public facilities such as street lighting, paved roads, provision of sewerage and drainage facilities, improved water supply, etc. In a similar way, public agencies would be wise to refrain from the direct construction of houses for the poor, and instead help them with such public services as they themselves are unable to provide.

The other half, the less poor urban population, lives in dwellings provided by both the public and private sectors. The majority of housing is

still provided by the private sector, although the contribution of the public sector has been steadily rising since the formation of HUDCO at the national level and of housing boards in most states. Of the 13,500 crores (1979-80) over the sixth plan period, only about 1,500 crores are expected to come from the public sector. Therefore, the constraint in housing investment remains the lack of an organized system of housing finance on a large scale. At present, only a few agencies, such as employers (both government and private), LIC, Provident Fund and Cooperative Housing Societies, provide funds. While the employees in the organized sector do have access to finance, the self-employed and others outside of the organized sector should also have access to such sources of finance. It is, therefore, necessary to provide institutions at the local level where the individual can go to the private market to get finance at reasonable rates for a long term. Indeed, the recent Working Group on private housing has strongly recommended the setting up of a mortgage insurance corporation as a subsidiary to the HUDCO.

4.4.3 Social Housing Programs

Since profitability is an important determinant of investment in housing, it is unlikely that the private sector has made any significant contribution to rental housing for the poor. 1/ Further, in view of the fact that nearly 75 percent of the people are so poor (family income of less than Rs. 350 per month), they are left with little choice but to do their own housing (of whatever sort) and make their own investments commensurate with their financial capacity (which is extremely low). While these people are able to provide some sort of shelter in the form of slums and squatter areas,

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1/ This is not to suggest that profitability is the only factor for lack of private investment in housing; there are indeed other factors pertaining to the problems created by Rent Control Act and regularity of rent payments etc.

they are clearly in no position to provide for themselves such basic public services as water, sewerage and power. The fact, however, remains, that through their own initiative and with practically no money, they are able to contribute to the supply of housing.

To alleviate this situation, the government initiated a number of social housing schemes to meet the housing needs of the economically weaker sections of the society (with family income of less than Rs. 350 per month), the low-income group of people (family income of Rs. 351 - Rs. 600 per month), industrial and plantation workers, etc. All these schemes, except the scheme for provision of house sites to landless workers which was introduced in 1971, were initiated between 1952 and 1960. It will be seen from Table 11.3 that up to December 30, 1980, almost 80 percent of over one million houses sanctioned were completed. But considering the fact that these schemes have been in operation for such a long time, the contribution of these housing schemes to the supply of housing appears to be far from adequate. This is especially true of the housing for the EWS, since many state governments have not adhered to prescribed cost ceilings to ensure that the intended beneficiaries are able to afford these houses. The benefits have clearly accrued to the more prosperous persons.[1/] It would, therefore, be instructive to evaluate the working of various social housing schemes, and assess the extent to which the economiallly weaker sections have benefited. Since not much data are available for this purpose, it is suggested that small, well designed field studies relating to selected housing schemes be carried out. These

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1/ According to a HUDCO survey of the occupancy of HUDCO housing in Jaipur, Fairdabad, Panipat and Baroda; it was found that a little over 52 percent of the houses constructed under EWS were found to be in possession of those with monthly income much more than eligibility (20 percent), or rented out by the original allottees (28 percent) or sold (4 percent). This percentage in the case of LIG housing was 41 percent.

investigations would help in making more realistic appraisal of the paying capacity of the intended beneficiaries, which could lead to effecting modification in standards so that the housing units become affordable. There are, of course, limits to the lowering of costs of public housing which is expected to ensure certain minimum standards of safety. We do not expect the government to provide 'substandard' or mud housing. Further, there are legal and political implications in providing affordable but dangerous housing structures.

4.4.4 Institutions Dealing with Housing Finance and Construction

The institutional finance granted for house building has shown a continuous rise since 1970-71, as can be seen from Table 11.4 Among the financial institutions, Life Insurance Corporation has been the single largest source of funds for house construction, funds made available mostly through the state governments and housing societies, but also to individuals. Direct finance extended by Commercial Banks accounted for approximately Rs. 93 crores at the end of December 1978. The table excludes assistance granted by the housing boards, City Development and Improvement Trusts, which are mainly construction rather than financing institutions. It also excludes loans granted for housing by government, semi-government bodies and private companies to their own employees and others.

We will briefly describe the role of some major institutions dealing in housing finance and construction. But first, a word of caution is in order. Many of the agencies whose activities are described below provide finance to other institutions and, in interpreting the efforts of these institutions, we must take into account these inter-institutional loans.

Table 11.3

Social Housing Schemes

	Scheme	Year	Number of Houses (30.9.1980)		Amount sanctioned (Rs. crores)
			Sanctioned	Completed	
	(1)	(2)	(3)	(4)	(5)
1.	Integrated Subsidized Housing Scheme, for Industrial Workers and Economically Weaker Sections of Community	1952	251018	187580	125.1
2.	Low Income Group Housing Scheme	1954	428008	337470	232.4
3.	Subsidized Housing Scheme for Plantation Workers (in only six States)	1956	35437	21079	-
4.	Slum Clearance/Improvement Scheme	1956	169475	124694	-
5.	Village Housing Projects Scheme	1957	103556	69777	58.3
6.	Middle Income Group Housing Scheme	1959	53998	43600	117.0
7.	Rental Housing Scheme for State Government Employees	1959	39373	34213	-
8.	Land Acquisition and Development Scheme	1959			
9.	Rural House-sites-cum-Hut Construction Scheme for Landless Workers	1971	1080864	818413	

Source: Handbook of Housing Statistics, NBO, 1980.

Table 11.4

Loans for Housing by Major Financial Institutions - 1970-71 to 1979-80

(Rupees crores)

At the end of year	Loan amount outstanding for the financing institutions					
	LIC	HUDCO	Apex Co-op Housing Societies	Private Co-op Housing Societies	Commercial Banks	General Insurance Corporation
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1970-71	223.14	1.99	96.11	67.59	-	-
1971-72	263.05	5.14	120.25	81.52	-	-
1972-73	306.69	9.66	143.03	85.82	43.94	-
1973-74	352.69	16.43	169.82	110.03	60.63	-
1974-75	411.59	32.67	202.48	125.92	-	-
1975-76	463.14	56.69	224.08	144.21	-	-
1976-77	527.08	81.55	232.75	157.73	-	-
1977-78	568.64	112.24	240.23	152.30	-	-
1978-79	633.93	160.28	-	-	-	14.00*
1979-80	723.97	-	-	-	-	14.00*

* Loans allocated to various state governments for Village Housing Projects Scheme and Construction of Houses for E.W.S. The G.I.C. also re-closed Rs. 31 crores to HUDCO up to December 1979.

4.4.4.1 Life Insurance Corporation of India

In financing housing construction, the Life Insurance Corporation (LIC), like the insurance companies abroad, occupies a significant place as an institutional lender.[1/] Besides, LIC itself undertakes housing programs on a mass scale and on an all-India basis. Up to March, 1981, the cumulative contribution of the LIC to the development of the housing was of the order of Rs. 1,141 crores. Table 11.5 gives the LIC's contribution to housing development.

This table shows that the major part of LIC's funding is to state governments for the finance of housing for low and middle income groups of people, for Apex Cooperative Housing Finance Societies and HUDCO, with a continuous rise in the funding of these agencies

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1/ The high priority accorded by the LIC to housing is clear from the fact that its investment in housing was second largest, next only to its investment in government securities.

Table 11.5

LIC's Contribution to Housing Development

(Rs. crores)

Agency/Item	Loan up to 31st March of the year		
(1)	1978 (2)	1979 (3)	1980 (4)
1. Loans to State Governments	284.18	307.56	349.03
2. Loans to Apex Co-operative Housing Finance Societies and other Authorities, Housing Boards and HUDCO	370.17	418.62	491.37
3. Loans on mortgage of houses*	44.45	47.52	50.92
4. Loans under "Own Your Home" Scheme	58.88	64.05	70.40
5. Loans to public limited companies for staff quarters	3.60	3.87	4.24
6. Loans to cooperative societies of employees of public limited companies	1.95	2.03	2.08
7. Loans to cooperative societies of the corporation (LIC) employees	14.49	15.10	15.36
8. Loans to individual employees of the Corporation	17.29	20.24	23.89
9. The "Own Your Apartment" Scheme	0.65	0.73	0.75
10. Scheme for grant of loan to LIC Agents	0.15	0.22	0.29
11. LIC's staff housing:			
i. Staff quarters	9.15	9.32	9.56
ii. Township development	9.65	10.28	10.66
Total	814.56	899.54	1028.55

* Loan for purposes other than housing also.

Source: NBO Handbook of Housing Statistics, 1980.

by the LIC. The LIC's support to the Apex Societies is particularly important, as it constitutes a major part of their funding. With the aid of LIC's funds, these societies have been able to provide loans to primary societies for the construction of over four lakhs units up to January, 1979, of which 2.36 lakhs were reported as already constructed and occupied.

The LIC also provides direct mortgage loan for housing to individual policy holders, but its quantum has been limited to about Rs. 80 crores up to March, 1981. The General Insurance Corporation also contributes about 35 percent of its portfolio for housing purposes. The financing of house construction through mortgage of property also includes LIC's "Own Your Home" scheme introduced in 1961, under which loans amounting to Rs. 70 crores were granted up to March, 1980. The LIC also introduced in April, 1973, an "Own Your Apartment" scheme for its policy holders. The amount committed for this scheme has been rather meager, i.e. Rs. 75 lakhs up to March, 1980. This scheme is applicable to Bombay, Calcutta and Bangalore only. In addition, LIC has undertaken direct house construction activities under its township development program, which envisages acquisition of land, construction of colonies and sale of tenements to low income and middle income households.

4.4.4.2 Housing and Urban Development Corporation (HUDCO)

Housing and Urban Development Corporation (HUDCO), which was established in 1970 by the Central Government to undertake the housing and urban development program in the country, channels finance through other institutions such as State Governments and other local institutions. These finances are, however, targeted for particular types of dwelling units with restriction on plinth area, overall cost and income classification of the beneficiaries. Usually HUDCO financing is confined to low income groups of people and the economically weaker sections. While no finance is provided to

individuals, HUDCO finances State Housing Boards (62.35 percent of total loan sanction) through various State Governments' Slum Clearance Boards (2.28 percent), Rural Housing Boards (0.68 percent), Development Authorities (15.54 percent), Improvement Trusts (1.9 percent), Municipal Corporations (3.04 percent), Public Sector (10.22 percent), Private Sector (0.69 percent), Primary Cooperative Societies (0.19 percent), Apex Cooperative Societies (1.16 percent) and other agencies (1.23 percent). Table 11.6, which shows the year-wise loans sanctioned and the amount released by HUDCO, indicates a rising trend, in both the amount of loans sanctioned and the amount released. The gap between the loans sanctioned and the amount released is also found to be substantial. This is partly because of constraints on HUDCO's financial resources and partly because of the limited absorptive capacity of beneficiary states.

HUDCO's total loan approval up to March 1980 was of the order of Rs. 804 crores for nearly 6.25 lakhs dwelling units. At present, HUDCO's annual loan approval is around Rs. 160 crores. A breakdown of loans sanctioned by HUDCO according to the category of beneficiaries shows that as of 1980 the economically weaker sections and the low income groups accounted for nearly 46.5 percent of the loans sanctioned (constituting nearly 88 percent of the dwellings to be constructed by HUDCO), the middle income groups of people accounted for 30 percent of the loans sanctioned, and the remaining belonged to the high income and rental housing groups. HUDCO has so far sanctioned loans amounting to Rs. 555 crores for schemes involving housing, urban development, building materials and commercial activities. Rs. 315 crores have been disbursed for housing and building material schemes.

Table 11.6

Loans Sanctioned and the Amounts Released by HUDCO: 1971-72 to 1979-80

Year	Loans sanctioned Rs. lakhs	Amount released Rs. lakhs
1971-72	2398	551
1972-73	2860	793
1973-74	2791	1208
1974-75	3537	2263
1975-76	5165	3560
1976-77	6759	4008
1977-78	8156	4878
1978-79	10798	6580
1979-80	13920	7750

Source: NBO Handbook of Housing Statistics, 1981

Although the main function of HUDCO is to act as a financing institution, it has also undertaken direct execution of certain housing schemes in Calcutta for economically weaker sections of the society. Similarly, construction of office complexes for public sector corporations was undertaken in New Delhi.

With a view to conserve resources and to increase the size of the revolving fund, all surpluses each year have been credited to the Corporation's reserves without declaring any dividend.

HUDCO's resources are raised either by long term borrowing from insurance companies or by the issue of debentures. As indicated earlier, LIC was the major contributor to HUDCO's resources (nearly 25 percent).

4.4.4.3 The Scheduled Commercial Banks

Commercial bank loans for housing in India, unlike their counterparts in developed countries, have played a relatively minor role in providing housing finance in the country. This does not appear to be the result of either the legislative restrictions existing on such advances or the long term nature of these loans. The difficulties, particularly the legal technicalities connected with title and valuation of property, etc. in accepting immovable property as security and, further, in realizing the amount lent in cases of default, have discouraged commercial banks from advancing money on mortgage of real estate in general. Further, granting of housing loans has been considered a function of institutions specializing in housing finance. Besides, banks usually view housing loans as unproductive and inflationary. Thus, granting of housing loans has not been recognized as a legitimate activity of commercial banking in India. Apart from housing schemes meant for their own employees, the total direct finance to housing by the banks has been roughly Rs. 100 crores per annum, most of which (around 75

percent) is through the subscription of government guaranteed bonds issued by HUDCO and State Housing Boards; of the remaining loans, 20 percent were to individuals and five percent to Housing Development and Finance Corporation. A further sectoral breakdown of housing loans from commercial banks during calendar year 1975 shows that almost 63 percent of the housing loans from commercial banks went to individuals, mostly the employees of the commercial banks, while ten percent went to the partnerships, proprietary concerns, joint families and associations and 1.4 percent to public and private non-governmental companies. 1/ Nearly one quarter of the total amount of housing loans went to the cooperative sector, the remaining one percent went to the public sector undertakings owned by central and state governments and other housing boards and quasi-government bodies. Unless housing is included in the priority sector, it is unlikely that the commercial banks would be able to make any significant contribution to housing supply. The Shah Report on Housing Finance (Reserve Bank of India: Finance for Housing Schemes - Report of the Working Group on the Role of the Bank System, 1978) has, however, made it clear that banks ought to be able to invest at least Rs. 75 crores every year in the housing sector. This amount would exclude (a) investments in HUDCO debentures (which count as eligible assets to meet Statutory Liquidity Ratio requirements), and (b) housing loans to employees. Although the government has, in principle, accepted this recommendation, the banks have yet to respond to this lending program.

Recently, with a view to attracting more deposits, loans for house construction were offered by some banks under their specific saving schemes, such as Cumulative-cum-Housing Deposit scheme of five to ten years. For

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1/ See Reserve Bank of India, Finance For Housing Schemes, Report of the Working Group on the Role of Banking System, 1978, Table 2, p. 80.

instance, the Syndicate Bank would grant a loan for housing purposes equal to double the amount payable to a person on maturity of deposit.

The indirect assistance granted by banks in financing housing construction is roughly of the same magnitude as direct assistance. Table 11.7 gives the investments of commercial banks in bonds and debentures of Housing Boards and HUDCO. This table shows that the involvement of commercial banks in the housing sector, including investments in bonds and debentures, may continue to rise by about Rs. 25 crores per annum.

4.4.4.4. Housing Development and Finance Corporation

In India, while there are a number of house builders and developers - mostly private companies who undertake construction of residential buildings, especially in big towns and cities -- the scene with regard to housing finance in the private sector is rather depressing. The Housing Development and Finance Corporation (HDFC), established in 1977, is the only public limited company which is a financial intermediary in the private sector providing long term loans on the basis of a mortgage for residential housing in India. HDFC, the principal institution which channels resources directly to individuals for purchase of a residential dwelling unit, raises resources through long term lines of credit from banks, insurance companies and international agencies and through deposits under a Certificate of Deposit Scheme. It has recently introduced a Loan Linked Deposit Scheme to raise deposits from the household sector for future housing investment. After a minimum deposit accumulation of Rs. 3,600 over a period of 18 months, depositors become eligible for a housing loan of up to four times their total accumulated savings. One of the key merits of these formal savings is that those in the unorganized sector can save in the official market economy, and thus convert "black" money into earning investments. Over a period of time, this is not only likely to bring

Table 11.7

Investments of Commercial Banks in Bonds and Debentures of Housing Boards and HUDCO

Year (at the end of March)	1971	1972	1973	1974	1975	1976	1977
Investments (Rs.lakhs)	1142	1956	2508	3840	4640	6224	7768

out substantial resources into the official sector, but also to channel much needed additional resources into housing investment.

HDFC is thus emerging as a major housing financial institution operating on lines quite similar to those of Savings and Loan Associations in the USA, and Building Societies in the U.K. It has an enormous role to play in India, as it is the only institution that raises resources specifically for housing and channels them mainly to individuals for the purchase or construction of residential houses. Up to May, 1982, HFDC had approved loans totalling Rs. 100 crores and disbursed Rs. 60 crores for nearly 40,000 dwelling units in over 200 towns and cities in India. 1/ In 1981-82, it approved loans exceeding Rs. 45 crores. Table 11.8 shows the performance of HFDC up to June 1981. It also gives an idea of the income groups to which the various beneficiaries belong, as well as the distribution of borrowers by the size of the dwelling unit.

This table shows that nearly 45 percent of the borrowers had a monthly income of less than Rs. 1000, the loan amount being 17 percent of the total loans. Also, 49 percent of the dwelling units benefiting from HFDC had an area of less than 50 square meters.

4.4.5 Problems of Private Finance

A major problem in encouraging investment by private builders in housing is the risks involved in housing finance. In India, the long drawn out procedure for the foreclosure of a mortgage adds to the problem. Since, as already mentioned, the availability of institutional finance is rather limited, the scope for introducing mortgage insurance at present appears to be somewhat restricted. However, once the mortgage insurance scheme is introduced, it would almost certainly result in a much larger availability of

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1/ Parekh, H.T., "Key Factors for Housing Development in the 7th Five Year Plan," H/F/D/C/, June, 1982 (mimeographed).

Table 11.8

A. HDFC's Performance as of June 1981
Total Loans Approved and Disbursed

	1978-79	1979-80	1980-81	Cumulative
Total Loan Approvals (Rs. in crores)	7.08	22.75	31.44	61.27
Total Loan Disbursements (Rs. in crores)	1.31	9.06	22.08	32.45
Total number of units	6665	7255	9185	23105

B. Distribution of Borrowers by Income Group
(Cumulative)

Monthly Income (Rs.)	Units	%age	Loan Amount (Rs. in crores)	%age	Average
Up to - 1,000	9,975	45	10.11	17 m	10,000
1001 - 2,000	7,134	32	21.20	37	30,000
2001 - 3,000	3,113	14	13.94	24	45,000
3001 and above	1,955	9	12.80	22	65,000
	22,177	100	58.42	100	26,000

C. Distribution of Borrowers by Area of Dwelling
Unit (Cumulative)

Area of sq. mets.	Units	%age	Loan Amount (Rs. in crores)	%age	Average Loan (Rs.)
Up to 50	10,958	49	16.44	28	15,000
51 - 80	6,823	31	19.48	34	29,000
81 - 95	1,118	5	5.38	9	48,000
96 and above	2,033	9	11.32	20	56,000
Not selected	1,245	6	5.42	9	44,000
	22,177	100	58.04	100	26,000

Source: Munjee, Nasser M., Profile on Housing, Economic Research and Training Foundation, Bombay, 1982.

housing finance on comparatively easier terms. Recently, the study team on private housing recommended the setting up of a mortgage insurance corporation as a subsidiary to the HUDCO on an experimental basis. And, with the setting up of mortgage insurance scheme, the possibility of a secondary mortgage market could be explored.

4.4.6 Fiscal Incentives and Housing Investment

The various taxes and fees charged by local bodies, state and central governments have an important bearing on the level of investment in house construction activity, especially in the formal sector. One way of promoting investment to finance housing is to provide for suitable incentives in the tax system. In this section, an attempt is made to briefly describe the existing tax laws as they affect the investment in housing sector, confining ourselves to some of the direct taxes and property tax. No attempt is made to include a discussion of sales tax and other taxes levied by the state governments. This must not be construed to mean that they are not important. In fact, sales tax raises the prices of building materials, and hence the costs of construction.

4.4.6.1 Direct Taxes

4.4.6.1.1. Income from House Property

Under the Income Tax Act of India, ownership of houses, buildings, bungalows, etc. attracts income tax under the head "Income from House Property." The income under this head is not based on the actual income accruing from property but rather on notional income or the annual value of the property. The annual value of any property for this purpose is defined as:

a. The sum for which the property might reasonably be expected to be let from year to year; or

b. where the property is let and the annual rent received or receivable by the owner in respect thereto is in excess of the sum referred to in clause (a), the amount so received or receivable.

Provided that where the property is occupied by a tenant, the taxes levied by any local authority in respect of the property shall, to the extent such taxes are borne by the owner, be deducted in determining the annual value of the property.

We see that even when the house property is occupied by its owner for his residence, income is deemed to be accruing from such property as if it were let out. What is therefore relevant here is the inherent capacity of the property to yield income. Since municipal authorities also determine the annual value of the property with reference to the sum for which the property could reasonably be expected to be let from year to year, the bonafide annual value of the property is ordinarily determined with reference to the municipal rateable value, unless the actual realization by way of rent or license fee is higher than the municipal valuation. Some local authorities compute the rateable value after deducting from the gross rental value a certain allowance for repairs and service taxes. 1/ In such cases, the net rateable value is suitably increased to determine the reasonable rent of the property. In cities like Bombay, Calcutta, Delhi and Madras, the Corporations compute the rateable value after deducting an allowance of ten percent of the gross

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1/ See Section on Rent Control Policies in India.

gross rateable value on account of repairs. The municipal rateable value is accordingly enhanced for income tax purposes by one-ninth of the rateable value.

When computing the income from house property, certain concessions are permitted for newly constructed properties not occupied by the owner. For example, in the case of residential houses, the construction of which commenced after April 1, 1961, and was completed after March 31, 1971, but before April 1, 1978, a deduction of Rs. 1200 per independent residential unit from its rateable value is allowed as new construction allowance for a period of five years from the date of completion of the unit. 1/ The permissible deduction for houses completed after March 31, 1978, but before April 1, 1982, is Rs. 2,400 per unit of the annual vaue of such unit - whichever is less.

In the case of houses which are self-occupied, a statutory deduction to the extent of 50 percent of annual value or Rs. 1800 (whichever is less) is available in the case of one house. From assessment year 1983-84, the statutory deduction rate is raised to Rs. 3600. If a person owns more than one house, such a concession is available in respect of any one house of his choice. Further, if the house is part occupied and part rented, then they are treated respectively as let out and self-occupied houses for purposes of new construction allowance and statutory deductions. Apart from these concessions, there is provision for: making certain deductions in respect of repair costs; the premium paid to insure property; ground rent charges; interest on borrowed capital for the acquiring, construction, repairs and reconstruction of properties; and costs incurred on rent collection, etc.

1/ In case the annual value is less than Rs. 1200, the full amount is allowed as new 'construction allowance.'

The various deductions are subject to a ceiling equivalent to the annual value of the property.

An interesting feature of these concessions relates to granting new construction allowance on partly rented houses, a feature clearly conducive to efficient utilization of housing stock. There is, however a serious drawback in respect to deductions permitted towards repairs, when such deductions are permitted without ensuring that repairs have been actually carried out. Unless ways are found to ensure that house owners carry out necessary repairs, it is unlikely that such repairs would be undertaken, especially for the tenanted properties.

The steps taken by the Government of India to promote savings specifically for housing permit deductions to the extent of Rs. 3000 from total income on account of interest on deposits with any authority constituted in India, by or under any law enacted for the purpose of addressing the need for housing accommodation or for the purposes of planning, development or improvement of cities, towns and villages, or for both. However, given the existing high interest rates offered by public limited companies, including the government undertakings, it is unlikely that housing financial institutions would be able to attract much in the way of deposits, unless, of course, the interest rates paid by them become sufficiently attractive. 1/ Further, there are only a couple of such housing financial institutions in existence.

1/ An incentive offered by the Housing Finance and Development Corporation relates to the priority accorded to their depositors for granting housing loans.

Certain deductions from total income are also permissible in respect of investment in shares of companies which provide long term finance for the construction or purchase of residential houses in India and are approved by the Central Government.

4.4.6.1.2 Wealth Tax

The Wealth Tax Act in India provides for certain concessions in respect of residential houses. It exempts from wealth tax one house or part of the house up to Rs. 1 lakh, irrespective of whether the house is used by the assessee for his residence or is rented out either for residential or commercial purposes. If it exceed this amount, only the balance amount is taken into account. Section 5 of the Wealth Tax Act also provides for exemptions from wealth tax on one or more dwelling units (each dwelling unit having a plinth area not exceeding eighty square meters) and the land appurtenant thereto, provided the construction work began on or after the first day of April, 1976. The exemption is available only for a period of five successive years after the date of completion of construction. Further, Section 5 (XXXa) of the Wealth Tax Act provides for exemption from wealth tax, "the value of any building belonging to the assessee where the building is used solely for the purpose of residence of persons employed by the assessee in any plantation or industrial undertaking belonging to the assessee and the income of each such person chargeable under the head SALARIES under the Income Tax Act is Rs. 10,000 or less."

Exemptions permitted in respect of dwelling units under the Wealth Tax Act again demonstrate an awareness on the part of the government of the problem of housing, especially for the low income groups. Also, the Wealth Tax Act provision relating to exempting dwelling units with plinth area of less than 80 square meters is an indication of the government's bias towards

promoting the construction of small dwelling units. Such a step should contribute to the proper utilization of scarce resources, both land and building materials. It would be interesting to find out the extent to which houseowners have availed themselves of such concessions.

The valuation of residential house property for purposes of wealth tax is usually based on the annual rateable value or the rent actually received. As we saw, because of the operation of the Rent Control Act, the rateable value does not reflect the current market value of the property. This, as we pointed out earlier, results in low yield from wealth tax. 1/

4.4.6.1.3 Estate Duty

Besides wealth tax, house property over Rs. 1 lakh and situated in a place with a population exceeding 10,000, attracts estate duty after the death of the assessee. To qualify for exemption of up to Rs. 1 lakhit is required that the house or part of it has been in actual use by the deceased as his own residence. For valuation of house property for purposes of computing estate duty, the fair market value is taken as the basis.

4.4.6.1.4. Capital Gains

Capital gains on house property are given special treatment under the Income Tax Act. The following two cases are relevant. (1) Capital gains from transfer of house property, under Section (53), when the sale price of house property or properties sold during the accounting period does not exceed Rs. 25,000, the charge of capital gains is not levied, provided the market value of all the house properties owned by the assessee immediately before the date of transfer of the property (including the one sold) did not exceed Rs.

1/ For an extensive discussion of the queston of property valuation, we may refer to a paper by Rakesh Mohan, "Indian Thinking on Property Tax Reform", Nagarlok, Vol. XIII, No. 2, April-June, 1981, pp. 59-78.

50,000. The income from such property must be assessed to tax under Section 22, i.e., under the head "Income from House Property." (2) Capital gains on transfer of house property self-occupied, under Section 54, when on the transfer of a house property or land appurtenant thereto, being taxable under the head "Income from House Property" and which was being used by the assessee for two years immediately preceding the relevant previous year for his own residence or for the residence of his own parents, and there occur some capital gains and such gain is reinvested in:

a. purchase of another house within one year before or after the sale of the house, or

b. construction of a new house within two years after the sale of the house,

c. purchase or construction of another house must be for the purposes of self-occupation of assessee. If newly purchased or constructed house is let out, the assessee loses the right to claim exemption under Section 54.

The capital gains arising from long term capital assets are also exempt, provided the sale proceeds are invested in seven year Rural Development Bonds bearing an interest of 7 1/2 percent.

An attempt has been made under the provision of the Indian Income Tax Act relating to capital gains not to allow money already tied down to residential housing to flow into other channels. This is certainly conducive to preserving and promoting residential housing stock. However, the existing concession relating to reinvestment of capital gains in low yield seven year Rural Bonds is not sufficiently attractive, especially in view of the prevailing high rates of interest, and the period of seven years appears to be too long in the context of the current inflationary situation.

The conditions of self occupation of the property by the taxpayer or his parent before its transfer, as well as the purchase or construction of the new property to be used for the residence of the taxpayer, as requirements for exemption of capital gains created hardship for the taxpayer. Realizing that the employment or business of the taxpayer may be distant from the place where such property is situated, the government has made the following modifications to be applicable from the assessment year 1983-84.

i. The conditions of residence by the tax payer or his parent in the property which was transferred, as also residence by the tax payer in the new property purchased or constructed by him, have been removed.

ii. The period of construction of new property has been raised to three years.

The other significant step taken by the government to promote house construction relates to investment of capital gains (other than building or land appurtenant thereto, the income from which is charged under the head "Income from House Property"). Taking effect from the assessment year 1983-84, all such long term capital gains, if invested in the purchase or construction of residential property, will be exempted from tax.

The first modification dropping the residence requirements is likely to contribute towards the expansion of rental housing. The second, exemption from tax of capital gains for the specific purpose of the construction or purchase of houses, would clearly encourage flow of capital to residential housing. There are, however, dangers involved in exempting all types of capital gains from tax. First, it may lead to withdrawal of capital from priority sectors through dishoarding of shares to take advantage of this exemption. Second, if luxury housing is to be discouraged, then this exemption should be restricted to the purchase or construction of houses of a certain specified maximum plinth area.

In summary, while a number of tax concessions and exemptions are now available to houseowners and appear to be steps in the right direction, it is difficult to assess the extent to which they have promoted housing investment, particularly when these taxes vary with the total taxable income of the individual. There is, however, an urgent need to carry out such a study. It would be useful, as well, to ascertain how realistic the various exemption limits are. For example, the exemption limit of Rs. 1 lakh for wealth tax, appears to be somewhat low considering the existing high costs of construction and land. Also, the basis of property valuation for purposes of levying various taxes needs review. Of course, this calls for reviewing both the existing Rent Control Act and the desirability of continuing with the practice of linking property valuation with standard or fair rent.

4.4.6.1.5 Acquisition of Property

The Taxation Laws (Amendment) Act of 1972 amended the Income Tax Act of 1961 with the object of curbing the avoidance of capital gains tax, wealth tax and gift tax by the assessee. The provisions of this amending Act came into force with effect from November 15, 1972, and January 1, 1973. Through these provisions, the Central Government has acquired the powers under new Chapter XXA of IT Act 1961 to acquire the immovable properties which are transferred after November 15, 1982. The Act has further provided that no person is entitled to institute any suit on or after November 15, 1972, claiming ownership of any propery held by him unless the conditions laid down in Section 281A of IT Act 1961 are fulfilled. The provisions are applicable throughout India except Jammu and Kashmir.

The competent authority will have the power to initiate proceedings for the acquisition of any immovable property which has been transferred by way of sale or exchange on or after November 15, 1972 only if:

(a) he has reasons to believe that the immovable property is of a fair market value exceeding Rs. 25000.

(b) he has reason to believe that the fair market value of such property exceeds the apparent consideration by more than 15 percent of such apparent consideration, and

(c) he has reason to believe that the consideration for such transfer agreed to between the parties has not been truly stated in the instrument of transfer with the object of either: (i) facilitating the reduction or evasion of liability of the transfer, to tax in respect of any income arising from such transfer or facilitating the concealment of any income, or (ii) any money or other assets which have not been or which ought to be disclosed by the transferee for the purpose of IT Act 1922 or the IT Act 1961 or Wealth Tax Act 1957.

4.4.6.2. Urban Property Tax

The importance of taxation on urban property by local governmental bodies can be judged by the fact that almost 50 percent or more of the revenues of local bodies in India are derived from property taxes. 1/ Moreover, since wealth, gift, estate duty and capital gains taxes are all dependent on urban property, the procedures adopted for computing property tax are crucial to the whole tax structure.

Property taxes are usually levied on the basis of the rateable income or the annual rental value of a house as assessed by the local bodies. In the case of rental houses, the assessment is made on the basis of actual rental

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1/ According to A Study of the Resources of Municipal Bodies by the National Council of Applied Economic Research, 1980, the percentage collections from Corporations on account of property tax and octroi were 55.5 percent and 39.6 percent respectively for the year 1976-77. In the case of municipalities, the percentage yield from property tax was 40 percent.

Table 12.1

Rates of Municipal Taxes in Different State Capitals of India

Heads	Ahmedabad	Delhi	Hyderabad	Madras	Patna
General property tax	14 percent to 25 percent on the basis of progressive taxation	11 percent	Between 15 to 30 percent	5 percent to 14 1/2 percent on the basis of progressive taxation	12.50 percent
Water tax	2.50 percent	-	"	8.5 percent	10 percent where water connection and 6 percent where no connection
Conservay-ance tax	3.00 percent	1 percent	"	4 percent to 5 percent	10 percent (where service latrine)
Lighting tax	-	-	"	2 percent	-
Education cess	1.5 percent to 3 percent	-	"	0.88 percent	
Library cess	-	-	"	3.12 percent	-
Fire tax	-	1/2 percent	"	-	-
Total	21.5 percent to 33.5 percent	12.5 percent	15 to 30 percent	22.6 percent to 33 percent	29.3 percent to 33.5 percent

Note: Rebate of 1.25 percent is given in case there is flush latrine.

Source: MCAER, "Tax Incidence on Housing," New Delhi, 1967.

realized. An in the case of owner occupied houses, the basis of assessment is the rent potential of a building by comparison with similar premises in the locality at the time the building was constructed. The property taxes usually consist of the general property tax and the services tax. Some local bodies also levy various forms of cess, such as education cess, library cess, etc. The rates of general property tax and various services taxes vary from one city to another. Table 12.1, taken from the NCAER study, gives an idea of the variations in the rates of municipal taxes in five cities.

For instance, the municipal taxes are comparatively low in Delhi and high in Patna. The figures, however may be misleading. Because of the problems connected with under-assessment of property and the limitations imposed by the Rent Control Act, the actual incidence of property taxes is much less than the prescribed rates. This, in fact, is clear from the results of the study by NCAER. Table 12.2 sets out the relevant figures to illustrate this point. The table shows that, on the average, the incidence of municipal taxes on gross rent varied from 7.7 percent in Madras to 14.2 percent in Patna. These percentages are clearly lower than the prescribed rates of all municipal taxes. In this context, the underlying factors responsible for such low yields should be more thoroughly examined. Even if the properties are properly assessed, there is a severe limitation arising from the Rent Control Act, which in many states has pegged down rents at almost pre-war levels. As the Municipal Finances Commission of Maharashtra pointed out, the tax per square foot in the case of some of the luxury flats of Marine Drive in Bombay is less than the tax of low income housing built by the housing boards. This is not a plea for raising rents of the old buildings. Indeed, such a step would have disastrous effects, especially on the poorer sections of the society. But, clearly there is a need to re-examine the possibility of

Table 12.2

Municipal Tax, Depreciation and Repairs as Percentage of Gross Rental Income and Net Income as a Percentage of Total Investment

	Ahmedabad	Delhi	Hyderabad	Madras	Patna
Municipal Taxes as a Percentage of gross income	8.34	7.87	7.89	7.66	14.15
Depreciation as a percentage of gross income	15.37	7.03	10.32	12.69	14.84
Repairs as a percentage of gross income	8.33	8.33	8.33	8.33	8.33
Net income as a percentage of gross income	67.96	76.77	73.46	71.32	62.68
Net income as a percentage of investment	3.84	10.48	6.95	5.90	4.06

Source: Reserve Bank of India, "Finance for Housing Schemes, Report of the Working Group on Role of the Banking System, 1978, p. 29.

decoupling property valuation from standard or fair rent under the Rent Control Act. Though we do not choose in this paper to examine the various alternative methods of property valuation, we would like to refer to a paper by Rakesh Mohan, "Indian Thinking on Property Tax Reform," 1/ where he discusses in detail, the alternative methods of property valuation, as well as the limitations imposed by the Rent Act. In his paper, Rakesh Mohan makes a plea for major reforms of property taxes. Since the various direct taxes like wealth tax, income tax, capital gains tax, etc. are based on property valuation arrived at on the basis of rateable value, it is clear that both Union Government and local bodies are losing considerable revenues on account of low property values.

While the Rent Control Act provides protection provides protection to the tenant by restricting higher rents, and curbs profiteering by owners, the property taxes, on the other hand, give protection to the owner for a lifetime to pay taxes on the old rent potential, despite the fact that the rents may have increased. The property taxes are not periodically revised, on the supposition that rents have not increased. This leads to market distortions since, despite inflation, the old properties continue to pay small sums by way of property taxes. On the other hand, municipal authorities charge high property taxes on newly constructed houses since, as already mentioned, the rateable value is based on the cost of construction of land and buildings - one possible factor contributing to dampening of housing activity. Thus, the incidence of tax on new houses is quite high when compared to old properties, which has the effect of putting the housing beyond the reach of poor people. Also, because of poor administration of property taxes, including under-assessment, etc., the yield from property taxes remains low and usually prevents municipal bodies from undertaking urban development.

1/ Nagarlok, Vol. XIII, No. 2, April-June, 1981, pp. 59-78.

The above description shows the complex nature of urban property taxation, and underlines the need for thorough study of the urban property tax with a view to enhancing its yield 1/.

1/ Some of the main findings of a study, "Land and Property Vallues," by R.K. Wishwakarm, have implications for this question. They can be found in Appendix 4.

APPENDIX 1

Estimation of Gross Value Added in Ownership of Dwellings in Urban Areas: Methodology and Source Material

The gross value added in the ownership of dwellings is equivalent to gross rental of the residential dwellings, less cost of repairs and maintenance. Gross rental is estimated as a product of average gross rental per dwelling and the number of census dwellings, and includes imputed rent of owner occupied houses. The estimates are prepared separately for rural and urban areas.

The number of census dwellings in the base year (1970-71) in urban and rural areas is estimated by adjusting the 1971 figure for the mid-year, assuming the rate of growth between 1961 and 1971 applies. The estimates for later years for urban areas are prepared using the annual rate of change in the number of municipal houses, a rate determined from the data collected from municipalities annually. Data are collected from municipalities for two consecutive years on the number of municipal houses (subject to as well as exempted from house tax), annual assessed rentals of municipal houses subject to house tax, and the population of the reported municipalities according to the 1971 population census. The pooled data for all the municipalities in all the states from which returns are received are used to measure the all-India annual rate of change of municipal houses. In the case of rural areas, the annual rate of growth in census dwellings between 1961 and 1971 is used to obtain the annual estimates. For some of the states and union territories which have been reconstituted since the 1961 population census, the relevant data are not available according to the reorganized states. For these states, the growth rates observed in the corresponding pre-organized states have been used.

While census dwellings are defined clearly, no uniform definition exists for municipal houses. The gross rental per municipal house estimated from municipal returns cannot therefore be taken to be equivalent to the gross rental per urban census dwelling. Therefore, to ensure meaningful use of municipal data, per capita rent in groups of reporting municipalities is first estimated after classifying the municipalities (from which returns are received) according to the size of population. 1/ However, to obtain an estimate of per capita gross rental for all municipal houses, imputed rent for those exempted from house tax is also taken into account. This is assumed to be the same as the corresponding rent in the smallest size municipalities, i.e. those with population below 20,000. Total rent (imputed plus assessed) of municipalities by population groups is thus calculated, and the population of reporting municipalities is used to obtain per capita rent. The rent per census dwelling is then calculated using the information on total population of all municipalities, the total number of census dwellings in urban areas in 1971, and the per capita rent. For subsequent years, the base year estimate of gross rental per census dwelling is carried forward using the change in the average gross rental per municipal house. The total rental income is then calculated using the estimated number of census dwellings and the rent per dwelling.

Gross domestic product is estimated by deducting the expenditure on the gross rentals. Both expenditures on current repairs and maintenance, and consumption of fixed capital, are estimated separately for urban and rural areas and taken as fixed percentages of the value of capital stock in residential house property. In case of repairs and maintenance, this

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1/ (i) one lakh and above, (ii) fifty thousand to one lakh, (iii) twenty thousand to fifty thousand, and (iv) below twenty thousand.

proportion is estimated to be 0.47 percent for rural areas on the basis of the details in the All-India Debt and Investment Survey (AIDIS), 1971-72, and is assumed to be 0.5 percent for urban areas (in the absence of any other data). Consumption of fixed capital is assumed to be two percent and 1.67 percent of the total capital stock in house property in rural and urban areas respectively. The estimates of the value of capital stock are available from details of capital formation estimates prepared independently.

Domestic Capital Formation: Urban Residential Houses: Methodology and Source Material

The method of capitalization of rental income has been adopted for estimating the value of urban residential house property for the year 1961-62. Data for various municipalities and municipal corporations on capital value and annual letting value of residential buildings have been collected from the "Municipal Year Book" of Maharashtra State for the year 1964-65. The ratio between the annual letting value and capital value was obtained as 5.4 percent from 55 municipalities for which comparable data were available. It is assumed that this rate holds good for all municipal and urban areas in the country, except for the corporations of the four big cities this ratio has been taken to be 7.5 percent of capital value. These two ratios have then been combined in the proportion of population in urban areas (other than four cities), and in the four big cities according to the 1961 population census, to obtain an overall estimate. This works out to 5.7 percent. This ratio is applied to gross rental [1/] for the year 1961-62 to obtain the gross value of urban dwellings. Consumption of fixed capital at the rate of 1.67 percent is deducted to obtain the net value of urban dwellings in 1961-62.

1/ Estimated independently for purposes of measuring rental income of residential buildings.

The estimated value of urban dwellings in 1961-62 has been adjusted for 1970-71 with the help of the annual growth rate in the number of urban dwellings, worked out on the basis of data collected from municipalities each year, with the index of cost of construction of urban houses superimposed to estimate the value of urban dwellings in 1970-71. For the subsequent years, the value of urban dwellings has first been prepared at 1970-71 prices to work out net capital formation at 1970-71 prices. The estimates of consumption of fixed capital and "repairs and maintenance" in respect of urban dwellings have been prepared, assuming respectively the rates of 1.67 percent and 0.5 percent of the opening value of wealth of urban dwellings in each year. The estimates of net capital formation, repairs and maintenance and consumption of fixed capital in respect of urban dwellings at 1970-71 prices, have been then converted to current prices with the help of the index of cost of construction of urban houses.

APPENDIX 2

SOME CENSUS DEFINITIONS

Census House

A census house is a building or part of a building having a separate main entrance from the road or common courtyard or staircase, etc., used or recognised as a separate unit. It may be inhabited or vacant, and may be used for residential or non-residential purposes.

Occupied Residential Houses

The figures of occupied residential houses apply to those census houses actually used on the census day as residence (dwelling) or residence in combination with other use. The number of occupied residential houses thus includes, besides residential houses - workshops, factories, garages, shops, depots, etc., where one or more persons like watchmen, peons, drivers, attendants, etc. were found to be residing at the time of census. On the other hand, it does not include houses which are residential houses but which at the time of census were either vacant or where no person was found to be residing (i.e. those exclusively used for non-residential purposes).

Census Household

A household is a group of persons who commonly live together and would like to take their meals from a common kitchen unless the exigencies of work prevented any of them from doing so. There may be one member households, or two member or multi-member households. For census purposes each one of these types is regarded as a household.

Qualification

The definition of a census house may sometimes be difficult of application in its literal sense, in the context of varying patterns of structures and their usage. For example, in cities and towns, one does come

across a situation when a flat in the occupation of one household as residence may be made up of four rooms or so and all the rooms may have direct entrance from a common courtyard, or staircase. In terms of the definition of the census house, each of these rooms may qualify as a census house, though this does not realistically reflect the actual number of houses. In such a case, exclusive use of these rooms along with the main house by the householder should be taken into account and the entire flat comprising four rooms should be treated as one census house and assigned one householder. If, on the other hand, each of these rooms had been separately occupied by independent householders, and if each portion had a separate main entrance, then each can be justifiably treated as a separate census house.

It needs to be ascertained whether only one household occupies a census house or whether it is shared by more than one household. If there is more than one household in a census house, then each household is given a separate number.

Vacant House

A census house is treated as vacant if, at the time of enumeration, no person is living in it and it is not used for any of the specified purposes, e.g., dwelling, shop, etc. If the house is locked because occupants are away, it is not treated as vacant.

APPENDIX 3

Section 3 of the Slum Areas (Improvement and Clearance) Act, 1956, (Central Act)

3. (1) Where the competent authority upon report from any of its officers or other information in its possession is satified as respects any area that the buildings in that area -

a. are in any respect unfit for human habitation; or

b. are by reason of dilapidation, over-crowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities, or any combination of these factors, are detrimental to safety, health or morals,

it may, by notification in the Official Gazette, declare such area to be a slum area.

(2) In determining whether a building is unfit for human habitation for the purposes of the Act, regard shall be had to its condition in respect of the following matter, that is to say -

a. repair;

b. stability;

c. freedom from damp;

d. natural light and air;

e. water supply;

f. drainage and sanitary conveniences;

g. facilities for storage, preparation and cooking of food and for the disposal of waste water;

and the building shall be deemed to be unfit as aforesaid, if, and only if, it is so far defective in one or more of the said matters that it is not reasonably suitable for occupation in that occupation.

Section 3(1) of the Andhra Pradesh Slum Improvement (Acquisition of Land) Act, 1956

3. 1. Where the governments are satisfied that any area is or may be a source of danger to the public health, safety or convenience of its neighborhood by reason of the area being low-lying, insanitary, squalid or otherwise, they may, by notification in the Andhra Pradesh Gazette declare such area to be a slum area.

Section 3 of the Gujarat Slum Areas (Improvement, Clearance and re-development) Act, 1973

1. Where the state government is satisfied -

   a. that any area is a source of danger to health, safety or morals of the inhabitants of that area or of its neighborhood by reason of the area being low-lying, insanitary, squalid, overcrowded or otherwise; or

   b. that the buildings in any area used or intended to be used for human habitation are -

      i. in any respect, unfit for human habitation; or

      ii. by reason of dilapidation, overcrowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities, or any combination of these factors, detrimental to safety, health or morals;

it may, by notification in the Official Gazette, declare such area to be a slum area and such declaration shall also be published in that area in such other manner as may be prescribed.

2. In determining whether a building is unfit for human habitation, for the purposes of this Act, regard shall be had to its condition in respect of the following matters, that is to say -

i. repair;

ii. stability;

iii. freedom from damp;

iv. natural light and air;

v. water supply;

vi. drainage and sanitary conveniences;

vii. facilities for storage, preparation and cooking of food and for the disposal of waste water.

and the building shall be deemed to be unfit as aforesaid, if it is not reasonably suitable for occupation in that condition.

Section 4 of the Maharasthra Slum Areas (Improvement, Clearance and Re-development) Act, 1971

1. Where any competent authority, upon report from any of its officers or other information in its possession, is satisfied as respects any area, that the buildings in that area -

a. are unfit for human habitation, or

b. are by reason of dilapidation, over-crowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities, inadequacy of open spaces and community facilities, or any combination of these factors, detrimental to safety, health or morals.

2. In determining whether buildings are unfit for human habitation for the purpose of the Act, regard shall be had to the condition thereof in respect of the following matters, that is to say -

a. repairs;

b. stability;

c. freedom from damp;

d. natural light and air;

e. provision for water supply;

f. provision for drainage and sanitary conveniences;

g. facilities for disposal of waste water.

and the building shall be deemed to be unfit as aforesaid, if, and only if, it is so far defective in one or more of the said matters, that it is not reasonably suitable for occupation in that condition.

3. Any person aggrieved by a declaration made under sub-section (1) may, within thirty days after the date of such declaration in the Official Gazette, appeal to the Tribunal.

4. On an appeal, the Tribunal may make an order either confirming, modifying or rescinding the declaration; and the decision of the Tribunal shall be final.

Section 3 of the Mysore Slum Areas (Improvement and Clearance) Act, 1973

Declaration of slum areas, - (1) where the government is satisfied that

(a) any area is or is likely to be a source of danger to health, safety or convenience of the public of that area or of its neighborhood, by reason of the area being low-lying, insanitary, squalid, overcrowded or otherwise; or

(b) the buildings in any area, used or intended to be used for human habitation are,

i. in any respects, unfit for human habitation; or

ii. by reason of dilapidation, over-crowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities, or any combination of these factors, detrimental to safety, health or morals,

it may by notification, declare such area to be a slum area.

(2) in determining whether a building is unfit for human habitation, for the purposes of this Act regard shall be had to its condition in respect of the following matters, that is to say -

i. repair;

ii. stability;

iii. freedom from damp;

iv. natural light and air;

v. water supply;

vi. drainage and sanitary conveniences;

vii. facilities for storage, preparation and cooking of food and for the disposal of waste water.

and the building shall be deemed to be unfit as aforesaid if it is so defective in or more of the said matters that it is not reasonably suitable for occupation.

Section 3 of the Punjab Slum Areas (Improvement and Clearance) Act, 1961

3. (1) where the competent authority upon report from any of its officers or other information in its possession is satisfied as respects any area that the buildings in that area -

a. are in any respect unfit for human habitation, or

b. are by reason of dilapidation, overcrowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities or any combination of these factors, detrimental to safety, health or morals, it may, by notification in the Official Gazette, declare such area to be a slum area.

(2) In determining whether a building is unfit for human habitation for the purposes of the Act, regard shall be had to its condition in respect of the following matters, that is to say -

a. repairs;

b. stability;

c. freedom from damp;

d. natural light and air;

e. water-supply;

f. drainage and sanitary conveniences;

g; facilities for storage, preparation and cooking of food and for disposal of waste water;

and the building shall be deemed to be unfit as aforesaid, if, and only if, it is so far defective in one or more of the said matters that it is not reasonably suitable for occupation in that condition.

Section 3 of the Tamil Nadu Slum Areas (Improvement and Clearance) Act, 1971

3. Declaration of slum areas - (1) where the governments are satisfied that -

a. any area is or may be a source of danger to the health, safety or convenience of the public of that area or of its neighborhood, by reason of the area being low-lying, insanitary, squalid, over-crowded or otherwise, or

b. the buildings in any area, used or intended to be used for human habitation -

i. in any respect, unfit for human habitation; or

ii. by reason of dilapidation, over-crowding, faulty arrangement and design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation, light or sanitation facilities, or any combination of these factors, detrimental to health, safety or morals,

they may, by notification, declare such area to be a slum area.

(2) in determining whether a building is unfit for human habitation, for the purpose of this Act, regard shall be had to its condition in respect of the following matters, that is to say -

i. repair;

ii. syability;

iii. freedom from damp;

iv. natural light and air;

v. water supply;

vi. drainage and sanitary conveniences;

vii. facilities for storage, preparation and cooking of food and for the disposal of waste water:

and the building shall be deemed to be unfit as aforesaid, if, any only if, it is so defective in one or more of the said matters that it is not reasonably suitable for occupation in that condition.

Section 3 of the Uttar Pradesh Slum Areas (Improvement and Clearance) Act, 1962

3. 1. Where the Competent Authority upon information received or otherwise in its possession is satisfied as respects any area that a majority of the buildings in that area -

a. by reason of dilapidation, over-crowding, faulty arrangement or design of such buildings, narrowness or faulty arrangement of streets, lack of ventilation light or sanitation facilities, or any combination of these factors, detrimental to safety, health or morals of the inhabitants in that area; or

b. otherwise in any respect unfit for human habitation; it may, by notification in the Official Gazette, declare such area to be a slum area.

2. In determining whether a building is unfit for human habitation, regard shall be had to the following matters, that is to say -

a. extent of necessary repairs;

b. stability;

c. extent of dampness;

d. availability of natural light and air;

e. water-supply;

f. arrangements for privies, drainage and sanitation;

g. facilities for storage, preparation and cooking of food and for the disposal of waste matter and water;

and the building shall be deemed to be unfit as aforesaid if it is so far defective in one or more of the aforesaid matters that it is not reasonably suitable for occupation in that condition.

Section 3 of the West Bengal Slum Areas (Improvement and Clearance) Act, 1972

3. If the State Government is satisfied that the conditions of the land, huts or other structures in any area are, such that the continued existence of such conditions would be injurious to public health or safety or to the health, hygiene or morals of the inhabitants of such, it may, by notification, and in such other mannner as may be prescribed, declare such area to be a slum area.

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This model is a working tool for technicians and policymakers who are responsible for low-income settlement projects. It identifies tradeoffs among land use, physical design, and financial parameters.

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Johnnes F. Linn

Delineates the major policy issues that arise in the efforts to adapt to the growth of cities in developing countries and discusses policies designed to increase the efficiency and equity of urban development. Particular areas covered include urban employment, income redistribution through the fiscal system, transport, housing, and social services. The policy instruments considered include public investment, pricing, taxation, and regulation.

Oxford University Press, 1983, 252 pages (including bibliography, index).

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This analysis provides a framework in which to identify and trace the steps required to implement the site and service plot allocation process. It is based on a survey of twelve urban development projects and two in-depth project studies. A detailed picture emerges of the factors associated with allocating plots and the relationships and interdependencies of one factor to another. Potential problem areas and recommendations on how to avoid them are identified.

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Environmental Management of Urban Solid Wastes in Developing Countries: A Project Guide

Sandra J. Cointreau

This guide provides information and procedures for planning and implementation of solid-waste management improvements. It is designed to facilitate project preparation, appraisal, and implementation of Bank-assisted solid-waste projects in urban areas. Current Bank objectives, policies, and project requirements are summarized.

Technical Paper No. 5. 1982. 214 pages (including 5 annexes).

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Evaluation of Shelter Programs for the Urban Poor: Principal Findings

Douglas H. Keare and Scott Parris

This report provides an evaluation of four sities and services and area upgrading projects in El Salvador, the Philippines, Senegal, and Zambia and confirms that Bank-supported urban shelter projects have been remarkably successful. Recommendations are made for future projects.

Staff Working Paper No. 547. 1982. 109 pages.

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Evaluation of Sites and Services Projects: The Evidence from El Salvador

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Staff Working Paper No. 549. 1982. 233 pages.

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Orville F. Grimes, Jr.

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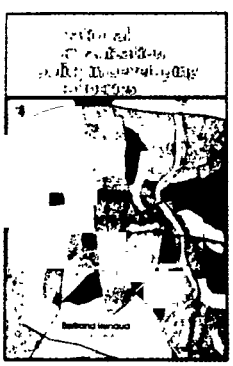

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Oxford University Press, 1982. 192 pages (including index, appendixes).

LC 81-3999. ISBN 0-19-520264-3, Stock No. OX 520264, $16.95 hardcover; ISBN 0-19-520265-L, Stock No. OX 520265, $7.95 paperback.

Also available in Korean from the Korea Research Institute for Human Settlements.

Ownership and Efficiency in Urban Buses

Charles Feibel and A.A. Walters

Staff Working Paper No. 371. 1980. 19 pages (including selected bibliography).

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The People of Bogota: Who They Are, What They Earn, Where They Live

Rakesh Mohan

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Staff Working Paper No. 435. 1980. 116 pages (including 2 appendixes, tables, references).

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Progressive Development and Affordability in the Design of Urban Shelter Projects

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The Transformation of Urban Housing: The Experience of Upgrading in Cartagena

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The Johns Hopkins University Press, 1982. 239 pages.

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The Johns Hopkins University Press, 1979. 192 pages (including bibliography, author index).

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This six-page newsletter published by the World Bank is concerned with practical approaches to urban problems in developing countries.

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Urban Land Policy: Issues and Opportunities

Harold B. Dunkerley, coordinating editor, with the assistance of Christine M.E. Whitehead

Various authors with experience in their respective fields discuss major problems of urban land: the rising cost, the relation of different types of land tenure to equity and efficiency, the rationale for government intervention and the forms it may take—taxation, acquisition and development of land, regulation of land use, and other forms of control. The analyses refine and illuminate many of the urban problems that confront developing countries and provide practical guidelines for dealing with them.

Oxford University Press. 1983. 224 pages (including bibliography and index).

LC 82-20247. ISBN 0-19-520403-4, Stock No. OX 520403, $22.50 hardcover.

Urban Transport

Attempts to analyze the long-term implications of alternative urban transport strategies and investments in the context of accelerated urban growth in developing countries.

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