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# Housing Conditions in Pakistan: 1960–80

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The paper sets out to examine the housing conditions, both quantitative and qualitative vis-a-vis population growth, particularly with reference to such factors as rural-urban migration, escalating prices of housing materials and the role of government agencies dealing in loans and plots distribution during the last two decades. Subsequently, the housing shortage is estimated by taking the habitation density level of 1960 as a bench mark. While analysing the quality of housing, composition of housing by the type of construction and various housing facilities available in them is considered.

## **INTRODUCTION**

Housing and healthy living environment are basic human needs which have farreaching social implications. In addition to providing shelter to human beings, proper housing has important bearing on national health, educational attainment, work performance, and, most significantly, the upbringing of children [4]. Furthermore, physical features of housing, like type of construction and the habitation density level, also have implications of demographic significance. In general, the provision of adequate housing facilities is an integral part of any meaningful programme of economic development. A number of studies, carried out by Loring [11], Martin [12] and Mitchel [13], have indicated that high habitation density and low quality housing are associated with many deprivations, stresses and infectious diseases. Also, environmental and residential factors interfere with a "promotive" style of life, and particularly affect the determination of infant and child mortality rates. It is obvious, therefore, that among basic necessities housing should have a high priority.

Housing conditions in Pakistan, in terms of both quantity and quality, are generally poor. In common with other developing countries, housing and living conditions in Pakistan show over-crowding, congestion and non-availability of various housing facilities to a large proportion of households as their salient features.

\*The author is a Research Demographer at the Pakistan Institute of Development Economics. He is highly indebted to A.R. Kemal, A. Razzaque Rukanuddin and Moazam Mahmood for their valuable comments on an earlier draft. Thanks are also due to Framurz Kiani and Khalid H. Sheikh for some of the computational assistance and to S. H. H. Naqavi for invaluable editorial help. Errors are, of course, solely the author's. The habitation density level comes to more than three persons per room in Pakistan which is significantly higher than the tolerably over-crowding level proposed by the United Nations -1.4 to 2.0 persons per habitable room [3; 22]. Various studies conducted so far have borne out the poorness of housing conditions in Pakistan [3; 5; 7; 21; 23].

## **OBJECTIVES**

The present study gives a description of various aspects of housing in Pakistan. The housing-population analysis, in particular, provides a detailed picture of the housing situation for the period 1960–80 and identifies population pressure as a significant factor in exacerbating it. The indices like habitation density (average number of persons per housing unit and per room), estimated housing shortage, composition of housing stock by type of construction (e.g. kutcha, kutcha-pucca and pucca) and the availability of various housing facilities explain the overall nature of housing and living conditions. Besides population increases, which are a dominant determinant of housing and living conditions, other potential determinants will also be highlighted. The analysis has been carried out at provincial level for both rural and urban areas.

The study will focus on the following four issues:

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- (i) A review of the growth of housing units vis-a-vis population growth over the period 1960-80. This would help us in understanding the role of population increase in worsening the housing conditions.
- (ii) An estimate of the shortage of housing units in 1973 and 1980 with the habitation density level of 1960 as a bench-mark.
- (iii) An analysis of the changes in distribution of housing units by type of construction over the period 1960-77.
- (iv) An analysis of the qualitative aspects of housing which includes housing facilities like lighting, source of potable water, kitchens, baths and toilets.

## DATA AND THEIR LIMITATIONS

## Sources of Data

The latest source of data relating to the housing situation in Pakistan is the Housing, Economic and Demographic (HED) Survey. The HED survey conducted during August-November 1973 was planned to supplement the 1972 population census. It was based on a national sample of 255,000 households. The available estimates provide "blown-up" information on various aspects of housing for the entire nation and its four provinces separately, based on the sample households. However,

the survey excluded the Federally Administered Tribal Areas (FATA) and Malakand Division of the North-West Frontier Province (NWFP). Thus, this survey excluded approximately 6.5 percent of the total population of Pakistan.

A comparative source of comprehensive data on housing for the Sixties is the 1960 Housing Census of Pakistan. The housing census was conducted in September/October of 1960 in conjunction with the 1961 population census of Pakistan. It was designed to collect information on the number and type of housing units, the status of their occupancy, the density of population and related information of demographic significance.

The third main source which updates the information on various aspects of housing is the Micro-Nutrient Survey of Pakistan 1976-77.<sup>1</sup>

### **Limitations of Data**

While the three main sources of data provide a comprehensive view of the housing situation at the national and provincial levels, the informations yielded by them are not quite comparable for the following reasons:

- (i) The 1960 Housing Census was a complete count while both the 1973 HED Survey and the Micro-Nutrient Survey of 1976-77 were sample surveys. Therefore, a comparison of various housing aspects over the period 1960-77, will be affected by sampling errors to some extent.
- (ii) Definitions of 'housing unit' and 'room' are not completely identical in the housing census of 1960 and the HED Survey of 1973. This also makes the comparability of figures pertaining to housing units and rooms, number of persons per room and size of housing unit difficult to some extent.
- (iii) The information on housing units by construction type and various housing facilities available in them for the period 1963-73 was collected through response to retrospective questions in the HED Survey, which are always subject to errors of recall.

## THE NATURE OF HOUSING PROBLEMS

## Population and Housing: Past and Present

A comparative analysis of population growth and housing situation as indicated by Appendix Table 1 shows a noticeable increase in the habitation density level in

<sup>1</sup>In addition to the above-mentioned three main sources of data, micro level information on distribution of plots and loans was gathered from two institutional sources:

- (a) The Improvement Trust, Rawalpindi, and
- (b) The House Building Finance Corporation, Rawalpindi.

1973 over that of 1960. A 2.7 percent annual rate of housing growth is significantly lower than the population growth rate of 3.6 percent.<sup>2</sup> In 1973, the housing units in Pakistan numbered 10.88 million and were occupied by a total population of 65.00 million persons. The corresponding figures in 1960 were 7.82 million and 43.00 million, respectively. Consequently, the national habitation density level increased to 6.22 persons in 1973 from 5.5 persons in 1960.

A housing-population ratio broadly similar to the national trend was observed at the provincial level as well. The disequilibrium between the rate of population growth and the rate of housing increase also resulted in a higher habitation density in 1973 over the 1960 level.<sup>3</sup> Among the four provinces, the highest habitation density level was observed in the NWFP (7.23 percent in 1960 and 8.09 in 1973) and was followed, in order, by those in Sind, the Punjab and Baluchistan where the habitation density level ranged between 5 and 6 persons.

The regional rural-urban differentials in the patterns of habitation density showed wide fluctuations between 1960 and 1973. The regional distribution showed relatively higher habitation density in the rural areas of the NWFP and Baluchistan while, in contrast, the urban areas of the Punjab and Sind showed higher habitation density than their rural counterpart in 1960.

However, Table 1 show that by 1973 the pattern of rural-urban differentials in habitation density level reversed at the national and the provincial level of Sind and Baluchistan. The habitation density level of rural areas of Sind, which was lower in 1960, exceeded that of urban areas in 1973. Conversely, the urban areas of Baluchistan, which had lower habitation density level than the rural areas in 1960, obtained higher habitation density level in 1973. At the provincial level of the Punjab and the NWFP, the pattern of rural-urban differentials in the habitation density level remained the same during this period.

The situation of habitation density further analysed by "the average size of housing unit" (number of rooms) describes a slight improvement in housing conditions between 1960 and 1973, (Table 2). The habitation density level in Pakistan in terms of the average number of rooms per housing unit increased from 1.7 rooms in 1960 to 2.0 rooms in 1973. A concomitant noticeable increase in the average number of rooms per housing unit is also noted at the provincial level. Compared to the average number of rooms per housing unit in the Punjab and Sind, the net increase in the average size of housing units was relatively higher in the NWFP and Baluchistan.

Also, when the analysis is carried out at a disaggregated level by the average size of housing units, a sharp percentage decrease is noticed with a gradual increase in the size of housing units at the national as well as provincial levels, both in 1960 and in 1973. The proportion of 'one-room', highly congested housing units

<sup>2</sup>Unadjusted rate of population growth for the intercensal period 1961-72.

<sup>3</sup>However, among the four provinces, the rate of housing growth and the rate of population growth were highest in Baluchistan: 5.03 percent and 5.16 percent, respectively.

decreased to 41 percent in 1973 from the 60 percent level in 1960. In contrast, proportions of 'two-rooms' and 'three-to-five rooms' housing units increased to 35 percent and 22 percent respectively, in 1973, from 24 percent and 15 percent respectively, in 1960, showing an almost fifty-percent net increase. The proportion of the highest size (six and more rooms) housing units also showed approximately a 30-percent net increase from 1.7 percent in 1960 to 2.1 percent in 1973.

### Table 1

# Changes in the Patterns of Rural-Urban Differentials in Habitation Density Level, Between 1960 and 1973

	Habitation Density Level						
Country/ Province	U	rban	Ru	ıral			
	1960	1973	1960	1973			
Pakistan	5.68	6.39	5.43	6.12			
Punjab	5.68	5.63	4.76	6.28			
Sind	5.65	5.91	5.07	5.68			
NWFP	6.06	8.35	7.46	6.81			
Baluchistan	4.38	4.89	5.02	5.60			

Source: [12; 13; 14].

The analysis of habitation density level in terms of 'average number of persons per room' endorses the fact of mounting population pressure on housing during this period. As indicated by Table 3, the country carried an average level of 3.3 persons per room in 1960. A habitation density level which already was significantly higher than the tolerable overcrowding level proposed by the United Nations, further increased to the level of 4.5 persons per room in 1973. The provincial level distribution, too, showed a worsening trend in the average number of persons per room; the net increase ranged between 0.7 and 1.1 person during the period 1960–73.

The composition of nation's housing stock by the index of 'average number of persons per room' explains a sharp increase in the proportion of housing units with a gradual increase in the average number of persons per room at the national as well as provincial level, both in 1960 and in 1973. The disaggregated nature of this index of habitation density also shows a deterioration in the level of habitation density between 1960 and 1973. The proportion of 'one-person, one-room' standard

			Perce	ntage of H	ousing Unit	ts with			Average 1	Number of
Country/ Provinces	One-Room Ty		Two-J	Rooms		to Five oms	Six & Roc		Rooms per Hous- ing Unit	
	1960	1973	1960	1973	1960	1973	1960	1973	1960	1973
Pakistan	59.9	41.2	23.9	35.0	14.5	21.7	1.7	2.1	1.7	2.0
Punjab	54.9	36.8	26.2	36.4	17.1	24.4	1.8	2.4	1.8	2.1
Sind	70.8	53.0	18.8	31.3	9.1	14.6	1.3	1.1	1.5	1.7
NWFP	66.8	44.1	21.9	35.2	10.2	18.9	1.1	1.8	1.5	1.9
Baluchistan	71.1	34.8	17.4	35.6	10.1	27.5	1.4	2.1	1.5	2.2

# Percentage Distribution of Housing Units by Size of Housing Unit (Number of Rooms), Pakistan and Provinces: 1960 and 1973

# Table 3

Percentage Distribution of Housing Units by the Average Number of Persons per room, Pakistan and Provinces: 1960 and 1973

	Housing Units with									
Country/ Province	One Pe	rson	Two Pe	ersons	Three t Pers		Five & Pers		-	Number ons per om
Pulling	1960	1973	1960	1973	1960	1973	1960	1973	1960	1973
Pakistan	10.6	7.8	16.3	12.0	29.6	28.2	43.5	52.0	3.3	4.5
Punjab	12.6	8.0	17.5	11.4	30.3	54.3	39.6	26.3	3.6	4.3
Sind	6.7	7.8	11.7	12.1	26.8	27.3	54.8	52.8	3.8	4.8
NWFP	7.0	7.3	13.3	11.4	29.9	28.2	49.8	53.1	3.5	4.8
Baluchistan	8.2	10.8	10.1	12.8	28.7	31.8	53.0	44.6	3.6	4.3

Source: [12;14].

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housing units which already were in small proportion (i.e. 10.6 percent) further decreased to a 7.8-percent level in 1973. In cotrast, the proportion of highly congested (five -and -more persons per room) housing units increased to 52 percent in 1973 from 43.5 percent in 1960. The provincial-level analysis gives a similar distribution, although wide variations existed across the regions.

The process of 'household formation' also has a vital importance in the discussion of population-housing disequilibrium. The new household formation, coupled with the housing-replacement demand, explains the true nature of housing deficit. If the average family size has been growing, one extra child per couple will lead to a kind of housing deficiency known as 'habitation density' while if a number of recently married couples and their children cannot find (or build) their own houses, this is much more severe kind of housing deficit, i.e. a straight shortage.

As shown by Table 4, the process of household formation, coupled with high housing replacement demand, makes the housing situation extremely deplorable.<sup>4</sup> The table shows a 38-percent increase in the total households at the national level between 1961 and 1972. When disaggregated at the provincial level, the data show the highest percentage increase for Sind (112 percent) followed by those in the NWFP (80 percent), Baluchistan (59 percent), and the Punjab (24 percent). The rural-urban distribution in this respect shows a higher percentage increase in the urban households of the Punjab and Sind compared to their rural areas while the reverse trend existed in the NWFP and Baluchistan.

The process of household formation, therefore, emerges as a dominant deterring factor of housing and living conditions. The large housing shortage is its main implication and the reason might be that a greater proportion of newly formed households did not own or build houses. The other obvious housing implication is the increased habitation density level during the 1960-72 period. This rises to an alarming situation when multiple household occupancy, a widely spread institution, is also considered.

The housing problem appeared more acute in 1980. When the habitation density level of 1973 is extrapolated to 1980, even with a lower population growth rate (3.0%), the habitation density level in Pakistan increases from 6.22 persons in 1972 to 6.35 persons in 1980 (Table 5). If the housing and population figures tend to grow with the same rates of growth as observed for the period 1960-73, a similar worsening trend in the habitation density is estimated at the provincial level as well as for both the rural and urban areas. However, wide variation emerge in the rural and the urban patterns of habitation density. While the rural areas of Sind and the NWFP have a higher habitation density level compared to their urban counterpart, the reverse patterns in the habitation density level exist at the provincial level of the Punjab and Baluchistan.

<sup>4</sup>Housing-replacement demand in Pakistan presents a bleak picture, particularly in rural areas where almost 75 percent of village dwellings required replacement or modification [6].

		Total			Rural			Urban	
Country/ Province	Total Households	iseholds	Percent Increase	Total Ho	Total Households	Percent Increase	Total Households	useholds	Percent Increase
	1961	1972	1961-72	1961	1972	1961-72	1961	1972	1961-72
Pakistan	7160 (5.5)	9893 (6.4)	38.2	5512 (5.5)	7306 (6.3)	32.5	1648 (5.7)	2587 (6.4)	57.0
Punjab	4719 (5.3)	5844 (6.4)	23.8	3777 (6.4)	4471 (6.4)	18.3	942 (5.5)	1373 (6.7)	45.8
Sind	1077 (5.6)	2287 (6.2)	112.3	874 (5.6)	1350 (6.2)	54.5	203 (5.4)	937 (6.2)	361.6
NWFP	736 (5.5)	1328 (6.1)	80.4	616 (5.5)	1130 (6.1)	83.4	120 (5.5)	198 (6.1)	65.0
Baluchistan	246 (5.2)	392 (6.3)	59.3	199 (5.2)	328 (6.3)	64.8	47 (5.1)	64 (6.3)	36.2

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## Table 5

# The Index of Habitation Density Level for Pakistan and Provinces: October 1, 1980

Country/ Province	Total estimated population	Total estimated housing units	Habitation density
	(79886)*		6.1
Pakistan	84137	13,136	6.4
Rural	60065	9,362	6.4
Urban	24072	3,774	6.4
Punjab	49181	7,821	6.3
Rural	36049	5,860	6.2
Urban	13132	1,961	6.5
Sind	20317	3,320	6.1
Rural	11714	1,823	6.4
Urban	8603	1,497	5.7
NWFP	10438	1,272	8.2
Rural	8801	1,047	8.4
Urban	1637	225	7.3
Baluchistan	4201	723	5.8
Rural	3501	632	5.5
Urban	700	91	7.7

\*Total Estimated Population with 3.00 percent rate of population growth.

The problem of housing in Pakistan, therefore, emerges as one of great concern. Its major cause evidently seems to be the high rate of population growth, which, however, can not be reduced significantly in the short run. The other main factors contributing to the housing problem are rural-urban migration, escalating construction costs, income inequalities, and inadequacy of government financing in the housing industry.

(a) Almost 75 percent of total Pakistan families belong to the lower middle and the lower income groups, of which about 35 percent families do not even have the capacity to finance a moderate habitable shelter. It is not surprising then that the housing deficit lies in the first three population declines [5]. Since income distribution is not going to be affected significantly in the short run, the role of government in providing compensatory housing for the lower income groups becomes a major necessity. It may be seen from Table 6 that aggregate government expenditure on housing has been insufficient relative to the needs. Although the allocation of funds for physical planning and housing has steadily increased over time, yet the proportion of total public sector development allocations to houses has been decreasing steadily since the Second Five-Year Plan. The situation is even worse because the criteria for allocation of loans and plots are highly imperfect. For instance, Table 7 shows that the distribution of plots in the Punjab is very biased. It may be noted that though the percentage and the number of total plots indicate that the larger proportion of total plots consists of less than 3 *marlas*,<sup>5</sup> the area allocated to this group is highly insufficient. As the size of the plots increases, the area allocated increase more than proportionately. For 10-*marla* plots, the area is roughly in proportion to the number of plots. It is important to note that 73 percent of the plots (i.e. those of small sizes) comprise only 50 percent of the total area.

### Table 6

# Proposed Allocation of Funds for Physical Planning & Housing Under Various Five-Year Plans

ofer the second					(Rs. in million)
anti di se	Fun	ds allocated to	Physical plant	ning and Housi	ng in
amoont of the	First Plan	Second Plan	Third Plan	Fourth Plan	Fifth Plan
Total	541	2,840	5,890	8,795	13,200
Public & Semi-Public Sector	*	1,315	2,740	3,795	9,780
Private Sector	*	1,525	3,150	5,000	4,320
Percentage of Total Public Sector Develop ment Financing		11.4	8.1	7.7	6.6

Source: [20].

\*Separate allocation not available.

<sup>5</sup> A unit of area measurement prevalent in the Punjab alone, a *marla* measures 30.25 square yards and is thus equal to one square perch.

<sup>6</sup> Another unit of area measurement prevalent in the Punjab alone, a Kanal is equal to 20 marlas or 605 square yards.

Table 7

Percentage Distribution Relating to the Number and Areas of Plots Allocated by Size of Plot Through the Low-Cost Housing Scheme in the Punjab (1973–78)

Plot Size	Percentage of Total Plots	Percentage of the Total Land
1-2 Kanal	4.9	17.6
10-Marla	12.7	20.8
7 -Marla	9.3	10.7
5-Marla	45.4	37.2
3-Marla	27.7	13.7

Source: Record of the Improvement Trust, Rawalpindi.

Table 7 represents a macro view of the Punjab. Disaggregating now to the district level, we have taken the district of Rawalpindi as a typical example. Table 8 shows the proportions of the loanees and the amounts of loans allocated by income groups by the House Building Finance Corporation (HBFC). The HBFC is theoretically supposed to be a medium for easing the most acute housing problem, i.e. that of the lowest income groups. However, this table shows a very different pricture. The lowest income groups (less than Rs. 500/- p.m.) are the smallest in proportion (4.6%) of the total number of loanees and the proportion of the total amount of the loanees and the proportion of the total amoun

Table 9 shows the proportion of the loanees and the proportion of the amounts of loan according to the various loan ranges. Ideally, the proportion (both number and amounts) of the smallest loans should be the largest, but only 20 percent of the loanees receives loans of less than 20,000 rupees, and only 8.4 percent of the total amounts of the loan was in terms of loans of less than 30,000 rupees each. On the other hand, larger proportions were distributed in sums of Rs. 30,000 to Rs. 50,000 and the largest in sums of Rs. 50,000 to Rs. 100,000.

(b) A major cause of high habitation density level in urban areas is the high rate of rural-urban migration which, along with other factors, accelerates the pace of urbanization. The dominant 'pull' factor of rural-urban migration in Pakistan has been rapid economic growth in urban areas during the Sixties [15;8].

Table 8

Percentage Distribution of the Number and Amounts of Loan Allocated by Income Groups Through the HBFC for Rawalpindi District (1978–1979)

Monthly Income of Loanees	Lo	anees	Percentage of Loan
(Rupees)	Number	Percentage	Amount
Up to 500	6	4.6	2.6
500 - 1000	48	36.9	28.3
1000 - 1500	33	25.4	32.8
1500 and above	43	33.1	36.3
Total	130	100.0	100.0

*Note:* Our observation are a random sample comprising 60 percent of the total cases processed between 1978 and 1979 by the House Building Finance Corporation, Rawalpindi.

## Table 9

# Percentage Distribution of the Number and Amounts of Loan Allocated by Size of Loans Through the HBFC for Rawalpindi District 1978–1979

Range of	Loa	nees	Percentage of
Loan	Number	Percentage	Loan Amount
Up to 30,000	27	20.1	8.4
30,000 - 50,000	41		25.1
50,000 - 100,000	62	48.4	66.5
Total	130	100.0	100.0

Note: Our observations are a random sample comprising 60 percent of the total cases processed between 1978 and 1979 by the House Building Finance Corporation, Rawalpindi.

The factor of rural-urban migration is seen contributing significantly to the high habitation density level in the urban areas of Pakistan. Table 10 provides detailed information on the process of rural-urban migration and its effect on the level of urban habitation density for the period 1951-61 and 1961-72. Estimates of habitation density for both the periods, 1951-61 and 1961-72, reveal a significant increase in the level of the urban habitation density at the national and provincial levels, when figures pertaining to rural-urban migrants are included in the numerator of the index of habitation density level from 4.52 persons to 5.68 persons during the 1951-61 period, while during the 1961-72 period the level increased from 5.42 persons to 6.06 persons – a net increase of 1.2 and 0.7 persons, respectively. During the 1961-72 period, the effect of rural-urban migration on the urban

## Table 10

The Rural-Urban Migration as a Determining Factor of the Habitation Density Level in Urban Areas of Pakistan and Provinces, During 1951–61 and During 1961–72

Country/	HD	L 1	HD	L 2
Provinces	1951 – 61	1961 – 72	1951 — 61	1961 – 72
Pakistan	5.68	6.06	4.52	5.42
Punjab	5.68	6.22	4.74	5.63
Sind	5.65	5.68	4.01	4.77
NWFP	6.06	6.72	5.27	7.12*
Baluchistan	4.38	6.52	3.58	5.84

Source: [13; 15].

- *Notes:* HDL 1 = Habitation Density Level calculated with rural-urban migration figures included in total urban population.
  - HDL 2 = Habitation Density Level calculated with rural-urban migration figures not included in total urban population. However, for want of relevent data, this density could not be worked out with the exclusion of such urban houses as had been built by rural migrants to the urban areas.
    - In view of Note 2 above the difference between HDL 1 and HDL 2 is slightly on the excessive (though undetermined) side.

The 1972 population census data reported that a total of approximately 72,000 persons out-migrated from the urban areas in the NWFP.

habitation density level in provinces is equally significant except in the North-West Frontier Province. The urban areas of the NWFP showed a net out-migration of 72,000 persons during this period which lowered the urban habitation density for 1961–72 relative to that of 1951–61. Among the four provinces, the highest increase in the urban habitation density level as a result of rural-urban migration is estimated for Sind – an obvious indication of the higher rate of urbanization in Sind compared to that in other provinces during the 1951–72 period.

An accelerated rate of rural-urban migration is further expanding the slum areas in urban centres where they are already in significant proportions and where, as a result of a rising level of habitation density, people live in gross congestion. Unless determined actions are initiated to counter the current migration trends, urban conditions will deteriorate even further.

(c) Since the housing deficit lies in the lowest three deciles of the population, escalating raw material prices (as shown by Table 11) and the sharp increases in the prices of building materials have enhanced the construction cost, rendering construction of housing units costly and difficult for the poor section of the society and thus further emphasising the need of State expenditure.

### Table 11

# Index Showing Increase in the Cost of Housing Construction

Year	Index of Construction Cost
1959-60	100.00
1960-61	100.18
1961-62	101.93
1962-63	101.99
1963-64	116.77
1964-65	126.67
1965-66	141.52
1966-67	148.26
1967-68	149.63
1968-69	165.16
1969-70	183.81
1970-71	215.50

Source: An unpublished table prepared by Dr. Kemal in connection with his study, "Sectoral Growth Rates and Efficiency of Factor Use in Large Scale Manufacturing Sector in West Pakistan", Pakistan Development Review, Vol. XV, No. 4 (Winter 1976).

The cost of construction increased 115 percent between 1959-60 and 1970-71 as shown by the index of the prices of five building materials; cement, steel, wood, glass, bricks and wages (Table 11).

It may also be pointed out that the situation has been even worse since 1973. The prices of raw materials have escalated. The cost of construction of a housing unit covering an area of 685 square feet tripled between 1970-71 and 1977 [5]. Table 12 shows the trend of prices of some of the building materials for the years 1974 and 1978.

## Table 12

# Index Showing Rise in the Cost of Construction Materials Between 1974 and 1978

Construction	Unit	Price in F	Rupees	Percentage increase in price: 1974 to
Material and Labour	OIIIt	1974	1978	1978
Steel	Ton	4700	4800	2.12
Cement	Ton	310	658	112.25
Sand	100 c.ft	65	90	38.43
Bajri (Gravel)	100 c. ft	68	95	39.70
Diar Wood	c. ft	45	100	144.44
G. I. Pipe	c. ft	4.50	4.80	6.55
Water Pumps	H. Power	865	1200	38.72
Enamel Paint	Gallon	130	130	
Labour (skilled)	Day	28	60	144.28
Labour (unskilled)	Day	9	16	77.77

Source: [26].

Estimated Housing Shortage in 1973 and 1980 with Habitation Density Level of 1960 as a Bench-Mark

As is evident from Appendix Table 1, Pakistan experienced considerable population-housing disequilibrium during the 1960–73 period: the population growth rate exceeded the housing growth rate, leaving a large housing deficit in the country. The actual number of housing units in 1973 fell far short of the number required to keep up even the habitation density level of 1960 (Appendix Table 2). By taking the habitation density level of 1960 as a bench-mark, i.e. 5.5 persons per housing units, a total deficit of 1.56 million housing units is estimated. The major proportion of deficit in housing units (1.15 million) lies in the Punjab and is followed by deficits of 0.25 million in Sind, 0.091 million in Baluchistan and 0.073 million in the NWFP. Housing-unit shortage, however, is more acute in the rural areas than in the urban areas: of the total housing-unit deficit, 85 percent is experienced by rural areas while only 15 percent is shared by the urban areas of the country. Of the total housing-unit shortage in Pakistan, 63 percent lies in rural Punjab alone.

It may be noted that these estimates of housing shortage have been obtained on the basis of the habitation density level of 1961, which itself reflects substandard living. If relatively low habitation density level, such as approved by the United Nations, is considered, the housing shortage will be even much larger and the overall housing and living conditions will emerge to be even more acute than are apparent from the foregoing discussion.

Housing shortage in terms of the housing units additionally required to maintain the habitation density level of 1960 assumed acute proportion in 1980. The estimated figures provided in Table 13 show that in Pakistan as a whole approximately 3.0 million additional housing units were required in 1980 to maintain the housing standard of 1960. The housing shortage in the Punjab, as expected, emerges particularly deplorable where approximately 2.2 million housing units are estimated to fall short of total housing units required to maintain the habitation density level of 1960. The estimated corresponding figures for Sind, NWFP and Baluchistan amount to approximately 0.53 million, 0.17 million and 0.13 million, respectively. Like in 1973, a large proportion (84 percent or 2.5 million units) of total housing units in shortage fall in the rural areas but almost 60 percent are estimated in the rural Punjab alone.<sup>7</sup>

Housing Units By Type of Construction: Past and Present

The composition of housing units by their duration and type of construction, particularly the proportion of dilapidated and kutcha housing units is fundamental in

<sup>7</sup>The estimation of housing shortage in 1980 assumes that population and housing figures increased at the same respective rates as were observed in the 1960 - 73 period.

## Table 13

## Estimated Housing Shortage as on 1st October 1980, by Taking the Habitation Density Level of 1960, as a Bench-mark

			(Figures in thousands)
Country/ Province	Housing Units required in 1980 to keep up the standard of 1960	Estimated Housing Units available on 1st October, 1980	Estimated shortage of Housing Units as on 1st October, 1980
Pakistan	16,125	13,136	2,989
Rural	11,860	9,362	2,498
Urban	4,265	3,774	491
Punjab	9,976	7,821	2,155
Rural	7,664	5,860	1,804
Urban	2,312	1,961	351
Sind	3,848	3,320	528
Rural	2,325	1,823	502
Urban	1,523	1,497	26
NWFP	1,444	1,272	172
Rural	1,174	1,047	127
Urban	270	225	45
Baluchistan	857	723	134
Rural	697	632	65
Urban	160	91	69

the estimation of housing replacement rates which, along with other factors, determine the overall housing demand and housing deficit.

Throughout the last two decades, the housing replacement and modification rates were very high in Pakistan. The structural composition of the nation's existing housing stock presents a bleak picture. According to Appendix Table 3, during the period 1963–73, almost 63 percent of the total housing units in Pakistan comprised kutcha housing units. Of the remaining 37 percent, the proportion of pucca housing units ranged between 7 and 9 percent only. The regional distribution also showed that the majority of housing units (about 60 percent) comprised kutcha housing units in the Punjab, Sind and the NWFP. The situation in Baluchistan, however, was icute where the corresponding proportions was 89 percent in 1963 and 87 percent in 1973. Among the four provinces, the province of Sind obtained better position in

terms of the proportion of pucca housing units. Compared with other provinces where the corresponding proportion of pucca houses did not amount to even 6 percent of all houses, such units in Sind constituted nearly 24 percent of all housing units, clearly due to the greater extent and rate of urbanization in that province.

As expected, the rural-urban distribution of housing units by type of construction showed wide differentials during the 1963–73 period. While in the Punjab, the NWFP and Baluchistan differentials in respect of pucca housing units ranged from 13 to 19 percent, in Sind it was 52 and 55 percent, respectively, in 1963 and 1973. In the rural areas of Pakistan as well as those of the provinces, the proportion of pucca housing units in both 1963 and 1973 did not amount to more than 2.2 percent of all rural housing units. However, a relative improvement was evident in the rate of construction of pucca urban housing units at the national and provincial levels between 1963 and 1973.

The pace of improvement in housing as indicated by Table 14, however was more significant between 1973 and 1977. More than a hundred percent increase (from 9 percent in 1973 to 20 percent in 1977) in the pucca housing units took place at the national level during this period. Among the four provinces the net increase in the proportion of pucca housing units during this period, was highest in the Punjab (27 percent), followed by those in the NWFP, Baluchistan and Sind where the proportion ranged between 5 and 11 percent. Nevertheless, it remains a fact that that housing situation in terms of composition of housing units by type of construction is still unsatisfactory. Therefore, the construction rates of pucca housing units are very much needed to be enhanced. Otherwise, with a majority of housing units still remaining kutcha, the overall quality of living will remain sub-standard.

## The Nature of Housing Facilities: Past and Present

While factors like population-housing disequilibrium, housing replacement and modification rates escalating prices of housing construction materials and income inequalities have a direct bearing on the quantitative aspect of housing (i.e. the housing deficit), the nature of various housing facilities available to households largely determines the overall quality of housing. A significant lack of fundamental housing facilities has far reaching socio-economic, psycho-physical and demographic implications. On the aggregate, they produce a sub-standard environment for living.

The situation in respect of the availability of basic housing facilities in Pakistan has been deplorable throughout the period from 1963 to 1977. A detailed picture of basic housing facilities, like lighting, potable water, kitchens, baths and toilets for the period 1963–73 is provided in Appendix Tables 4 and 5.

According to these tables, only 16 percent of the nation's total households had access to electricity, while the remaining 84 percent used kerosene oil existed at the provincial level during this period. However, the national and provincial rural-urban

## Table 14

# Housing Units by Type of Construction, Pakistan and Provinces, 1976-1977

Country/	Percentage of	f total housing units by con	struction type
Province	Pucca	Pucca-Kutcha	Kutcha
Pakistan	20.3	16.7	63.0
Rural	8.3	13.7	78.0
Urban	54.3	25.1	20.6
Punjab	31.5	17.5	51.0
Rural	8.5	16.0	75.5
Urban	67.5	19.5	13.0
Sind	31.1	22.5	46.4
Rural	3.0	8.0	89.0
Urban	48.2	31.3	20.5
NWFP	16.0	17.6	66.4
Rural	14.0	15.5	70.5
Urban	19.5	22.0	58.5
Baluchistan	15.5	17.0	67.5
Rural	due mense-lite and	15.0	85.0
Urban	35.4	19.4	45.2

Source: [19].

differentials in this respect ranged from 26 to 55 percent. Among the four provinces, the North-West Frontier Province had the highest proportion of rural and urban households that had access to electricity - 67 percent and 16 percent respectively - largely due to the facility of the Warsak Dam.

Also, the availability of hygienic, potable water (i.e. piped water) was low during the 1963 to 1973 period. At the national level, the proportion of household having access to piped water ranged between 10 and 17 percent while 83 to 90 percent households used handpumps, wells, ponds and streams as sources of potable water. The provincial situation of piped water did not vary much and the availability of it also remained low. Among the four provinces, the use of piped water was highest in Sind where 35 percent of all households carried piped water facility. As in the country as a whole, wide rural-urban differentials existed in the provinces also where the differential ranged from 36 to 77 percent. Almost, 78 percent of total households in Pakistan also lacked kitchen facility between 1963 and 1973. The very low level of kitchen-availability was also evident at the provincial level. However, the variation in the availability of kitchens across the regions showed Baluchistan with 30 to 33 percent of total households in better position. The corresponding proportion in other three provinces ranged from 20 to 22 percent. Also, the kitchen facility was better obtained in the urban areas. However, even up to 1973, the provincial rural-urban differentials in the availability of kitchens ranged from 18 to 22 percent.

The bath facility was also lacking in approximately two-thirds of total households in Pakistan during this period. It was also low at the provincial level, although, within the provinces, wide variations obtained among various regions. The provinces of Sind and Baluchistan, with one-third of their total households having independent baths, showed a better position in the bath facility over the Punjab and the NWFP, where the corresponding proportion did not exceed 20 percent. Also, wide ruralurban differentials existed in the availability of bath facility at the provincial level. They ranged from 23 to 49 percent with the smallest in the NWFP and the largest in Sind.

Lastly, like the above-mentioned four housing facilities, toilets also remained very inadequately available. Approximately two-thirds of the nation's total households lacked independent toilets within the premises of their housing units. The provincial situation did not differ much. But among the provinces, the province of Sind showed a better position in the availability of toilets. While the proportion of total households having independent toilets ranged between 46 and 50 percent in Sind during the 1963–1973 period, the corresponding proportion did not exceed 20 percent in any of the other three provinces. However, the provincial rural-urban differentials in this respect ranged from 37 to 71 percent with the smallest in the NWFP and the largest in the Punjab.

Nevertheless, the Micro-Nutrient survey which updates information on two housing facilities, viz. potable water and toilets, up to 1976 –77, shows a further deterioration in the availability of safe and hygienic potable water although the availability of toilet facility improved between 1973 and 1977 (Table 15). The proportion of the nation's total households having piped water decreased to 12.4 percent in 1977 from 16.1 percent in 1973. A significant proportional decrease is also evident in the NWFP and Baluchistan. But, the corresponding proportion in the Punjab increased to 20 percent in 1977 from 11.4 percent in 1973. On the other hand, the position as regards toilets facility during the 1973–1977 period, showed a noticeable increase. At the national level, households that had toilets increased to 44 percent in 1977 from 34 percent in 1973. At the provincial level, the improvement in toilets facility was particularly evident in the Punjab and Sind where the percentage increase between 1973 and 1977 was 11 percent and 13 percent respectively.

Table 15

Percentage Distribution of Households by Source of Potable Water and Toilet Facility, Pakistan and Provinces, 1976-77

	I	Potable Wa	ter	T	oilets
Country/ Province	Piped	Hand Pump	Well, Pond and others	Available	Not Available
Pakistan	12.4	47.7	40.9	55.9	44.1
Punjab	20.0	60.0	20.0	67.7	32.3
Sind	33.6	35.8	30.6	29.0	71.0
NWFP	3.4	15.1	81.5	47.0	53.0
Baluchistan	5.6	23.7	71.7	65.5	34.5

Source: [19].

To sum up, the salient features of the overall position of the availability of various housing facilities are as follows:

- (i) The availability of all the five housing facilities throughout the period 1963 to 1977 has been not only deplorable but is showing a worsening trend in some cases.
- (ii) Urban areas at both the national and provincial levels enjoys a far better position in the availability of all the five housing facilities than rural areas.
- (iii) The regional differentials demonstrate a relatively better position for Sind in the overall availability of housing facilities which can mainly be attributed to a higher rate of urbanization. In Baluchistan, better availability of bath and kitchen facilities throughout the 1963–73 period and toilets facility as reported by the Micro-Nutrient Survey of 1976-77 is probably due to the stricter cultural norms of 'purdah' and 'privacy'.

## POLICY IMPLICATIONS

From the foregoing discussion, the following policy implications emerge. In view of the high and increasing rate of population growth, it is imperative that the rate of the construction of houses be raised and accelerated. In this regard, the public sector has to play an effecting role as low-income groups who suffer the most from the acute shortage of houses can not afford to build even a moderate habitable shelter. Specifically, this means that there should be a significant increase in the absolute level of the allocations for the construction of houses. The proportion of development expenditure on housing, in particular, should be set by taking into consideration the rate of housing replacement and modification and the index of inflation. Though the participation of the public sector is a must, it is a very difficult task for the government in a developing country to allocate sufficient funds for the housing industry, because of the meagre economic resources and the difficulties involved in generating sufficient tax revenues. These factors tend to set low priority for the so-called non-development sectors which are largely seen ineffective in boosting the growth of income in the short run. However, once achieved, the qualitatively better housing conditions significantly contribute to the economic infra-structure, and thus have far reaching socio-psychological and demographic implications.

Anyhow, the government-sector financial constraints of developing nation are real and as such there is a need to encourage the private sector in the housing industry. Private sector schemes of house-building are obviously governed by a profit-maximizing motive which would not be realized in the expenditure incurred on housing schemes for low-income groups. The private house-building societies can function effectively if they are encouraged to build houses for higher income groups, i.e. for the middle and lower-middle income groups. On the other hand, the public sector can look after the housing need of the lower income groups. However, given the very weak financial position of the public sector target groups, obviously the terms and conditions of mortgage and loans need to be especially soft. In particular, the public sector expenditure made on these housing schemes should be recovered from the beneficiaries over a fairly long period of time in easy and soft instalments.

Furthermore, to facilitate government subsidization of housing schemes for low-income groups, a stricter price control needs to be exercised over the cost of construction materials. This can possibly be achieved by initiating and assisting in the setting up of proper building-material industry in the public sector, utilizing the indigenous materials. At present, sufficient capital is not being invested in this sector.

## SUMMARY AND CONCLUSIONS

An overview of housing conditions in Pakistan for the 1960–1980 period reveals some disturbing features. Throughout this period, housing conditions have been very congested and low in quality. A relatively low rate of housing growth, coupled with a higher rate of population growth, produces high habitation density levels which have been deteriorating over time. A large housing shortage has resulted, which is particularly acute in the rural areas. Approximately 1.56 million housing

units in 1973 and 3 million housing units in 1980 fell short of the total housing units required to keep up the habitation density level of 1960, which was 5.5 persons to a housing units.

The housing situation in Pakistan is characterized not only by a significant shortage of housing units but also by the low quality of housing units evidenced by the preponderance of kutcha housing units, and a lack of such fundamental facilities as electricity for lighting purposes, supply of safe and hygienic water for drinking and domestic purposes, kitchens, baths and toilets. The comparatively higher habitation density level of kutcha housing units than of pucca-kutcha or pucca housing units exacerbates the overall living conditions.

Housing conditions are better in the urban areas than in the rural areas in terms of the overall availability of basic housing facilities. Among the four provinces, Sind, on the average, is better provided with fundamental housing facilities as a result of higher rate of urbanization.

The high population growth rate in Pakistan, which far exceeded the rate of housing onstruction, has produced a large housing shortage. This housing shortage largely affects the lower-income groups. The ability of this affected segment of population to help itself through the means of private capital is obviously constrained. Therefore, the role of public sector in ameliorating the housing deficiency assumes great significance. The allocation of development funds for housing and physical planning in each of the five-years plans has been extremely insufficient relative to needs. Although the allocation has been steadily increasing over time, its proportion to total public-sector development allocations has been steadily decreasing since the second five-year plan. Moreover, the bias of the government agencies dealing in loans and plots works against the lower-income groups so that the acute housing problems faced by the low-income groups remains largely unsolved. The process of rapid urbanization and, especially, the escalating prices of housing materials are two other dominant factors which contribute to the worsening of housing problem in Pakistan. This latter factor limits the capacity of a considerable proportion of the families in Pakistan to finance the construction of even a moderate habitable shelter.

Housing Units Annual Growth 2.45 Rate (percent) 2.66 2.14 3.84 5.03 6 1960-73 3.60\*\* Population 4.62 3.33 5.16 3.41  $\infty$ Habitation Density L.L 5.8 0 6.0 5.8 5.8 and Housing Units and Index of Habitation Density Level for 1st October 1973 (thousand) housing Total units 2,550 6.744 10,881 1,075 512 9 Pakistan and the Provinces, 1960 & 1973 All Pakistan/Provinces (thousand) lation\* Popu-Total 64,955 14,810 2,954 38,892 8,299 5 Habitation Density 4.93 5.49 5.28 7.23 4.90 4 A. Housing Units (Sep. 1960) (thousand) 1960 Total 7816 5163 1585 792 276 3 Jan. 1961 (thousand) Population Total 42,880 25,462 8,367 5,731 1,353 2 Baluchistan Country/ Province Pakistan Punjab NWFP -

Sind

Numerical Progression, the Annual Growth Rate of Population

Appendix Table 1

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Continued

Appendix Ta	ble 1 – Continu	ued	В. н	Rural Areas				
		1960			1973		Annua	l Growth Rate
Area	Total Popu- lation (Jan. 1961) (thousand)	Total Housing Units (Sept. 1960) (thousand)	Habitation Density	Total Popu- lation (thousand)	Total Housing Units (thousand)	Habi- tation Density		nt 1960 – 73 Housing Units
1	2	3	4 (2/3)	5	6	7 (5/6)	8	9
Pakistan	33,225	6,117	5.43	47,584	8,034	5.9	3.344	2.212
Punjab	19,995	4,200	4.76	29,289	5,217	5.6	3.071	1.680
Sind	5,199	1,025	5.07	8,786	1,489	5.9	3.266	1.336
NWFP	4,973	667	7.46	7,055	891	8.0	3.266	1.336
Baluchistan	1,125	224	5.2	2,454	437	5.6	5.205	5.283
country.	garagaran -	Contraction participants	C. U	rban Areas	- percent.	(second )		epersole) - T
Pakistan	9,655	1,699	5.68	17,371	2,847	6.1	4.784	4.051
Punjab	5,467	963	5.68	9,603	1,527	6.3	4.573	3.620
Sind	3,168	560	5.65	6,024	1.061	5.7	5.223	5.036
NWFP	758	125	6.06	1,244	184	6.8	4.003	3.002
Baluchistan	228	52	4.38	500	75	6.7	4.927	2.870

#### R **Rural Areas**

Source: [15;16;17]. Notes:

Federally Administered Tribal Areas (FATA) and Federal Area of Islamabad are excluded.
Population and housing figures in thousands.
\*Population projections based on 1961 – 72 intercensal (unadjusted) annual rate of population growth.
\*\*1961 – 72 intercensal unadjusted annual rate of population growth.

# Appendix Table 2

# Estimated Shortage of Housing Units in 1973, Taking the 1960 Level of Habitation Density as a Bench-mark

Balachisten	-213	- 57 - 0	3 -813-	438				(Figur	es in thousands)
A State of the sta	Al	l Housing Ur	nits	Urb	an Housing	Units	Ru	ral Housing	Units
Country/ Province	Housing Units Required in 1975 to keep up the standard of 1960	Housing Units Avail- able in 1973	Shortage in 1973	Housing Units Required in 1975 to keep up the standard of 1960	Housing Units Avail- able in 1973	Shortage in 1973	Housing Units Required in 1975 to keep up the standard of 1960	Housing Units Avail- able in 1973	Shortage in 1973
Pakistan	12,445	10,881	1564	3077	2,846	231	9368	8,034	1334
Punjab	7,889	6,744	1145	1691	1,527	164	6198	5,217	981
Sind	2,805	2,550	255	1066	1,061	5	1739	1,489	250
N.W.F.P.	1,148	1,075	73	2066	183	23	942	891	51
Baluchistan	603	512	91	114	75	39	489	437	52

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Housing Conditions in Pakistan

Housing Units by Type of	f Construction, Pakistan	and Provinces 1963-73
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	All He	ousing U	Jnits		Ru	iral Hou	ising Uni	its	Uri	ban Ho	using Uni	its
Country/ Province	Total thousand	Pucca %	Pucca- Kutcha %	Kutcha %	Total thousand	Pucca %	Pucca- Kutcha %	Kutcha %	Total thousand	Pucca %	Pucca- Kutcha %	Kutcha %
PIPE N					Constructe	d Up to	1963	21				
Pakistan	7082	7.8	29.2	63.1	5261	0.8	23.4	75.8	1821	27.8	45.8	26.4
Punjab	4383	3.9	33.7	62.4	3378	0.8	25.4	73.8	1005	14.4	61.5	24.2
Sind	1456	23.1	10.4	60.5	835	0.7	10.2	89.1	621	52.7	29.2	18.0
NWFP	911	3.7	35.4	60.9	767	1.3	35.0	63.8	144	16.7	37.3	45 9
Baluchistan	332	3.3	8.0	88.7	281	0.6	5.7	93.7	51	18.1	20.7	61.1
Singer,	Reprised				Constructe	d Up to	1973					
Pakistan	10881	9.3	27.7	63.0	8034	1.2	22.3	76.6	2847	32.0	43.1	25.0
Punjab	6744	4.8	32.8	62.5	5216	1.0	25.0	73.9	1528	17.4	59.2	23.4
Sind	2550	23.9	14.8	61.4	1489	1.0	9.2	89.9	1061	55.6	22.4	22.0
NWFP	1075	5.4	35.7	58.9	891	2.1	35.3	62.6	183	21.5	37.4	41.1
Baluchistan	512	3.5	9.3	87.2	438	1.1	7.3	91.6	75	17.8	20.8	61.4

Source: [17].

# Appendix Table 4

Percentage Distribution of Housing Facilities Available to Households, Pakistan and Provinces, 1963

	Light	ing	P	otable Wa	iter	Kito	chen	Ba	th	То	ilet
Country/ Province	Electricity	Kerosene Oil & Others	Piped water	Hand Pump	Wells, Ponds & Others	Avail- able	Not Avail- able	Avail- able	Not Avail- able	Avail- able	Not Avail- able
Pakistan	18.7	81.3	16.5	42.2	41.3	21.8	78.2	23.4	76.6	35.2	64.8
Rural	5.3	94.7	3.2	45.2	51.6	18.2	81.8	14.8	85.2	18.2	81.8
Urban	57.3	42.7	54.9	33.0	12.1	32.3	67.7	48.2	51.8	84.1	15.9
Punjab	17.0	83.0	10.7	57.5	31.8	20.5	79.5	16.7	83.3	22.8	77.2
Rural	4.0	96.0	2.7	59.6	37.7	16.6	83.4	11.1	88.9	6.3	93.7
Urban	60.5	39.5	38.2	50.5	11.3	33.8	66.2	35.5	64.5	77.9	22.1
Sind	24.0	76.0	35.1	25.8	39.1	21.2	78.8	40.1	59.9	62.3	37.7
Rural	2.8	97.2	3.4	34.3	62.3	16.6	83.4	20.1	79.9	38.2	61.8
Urban	52.5	47.5	79.6	13.9	6.5	37.4	62.6	69.4	30.6	94.4	5.6
NWFP	22.9	77.1	11.2	4.2	84.6	21.3	88.7	20.3	79.7	51.9	48.1
Rural	14.9	85.1	3.5	3.3	93.2	19.0	81.0	16.6	83.4	46.0	54.0
Urban	65.1	34.9	48.5	8.6	42.9	33.7	66.3	39.8	80.2	83.5	16.5
Baluchistar	1 5.7	94.3	12.2	1.4	86.4	43.7	56.3	42.1	57.9	35.2	64.8
Rural	1.5	98.5	3.7	1.0	95.3	40.3	59.7	38.1	61.9	26.3	73.7
Urban	24.8	71.6	62.3	4.3	33.4	57.3	42.7	64.6	35.4	84.8	15.2

Source: [17].

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Percentage Distribution of Housing Facilities Available to Households, Pakistan and Provinces, 1973

	Ligi	Lighting	Ч	Potable water	ter	KIT	Kitchen	Ba	Bath		Toilet
ountry/ rovince	Electricity	Kerosene Oil &	Piped water	Hand	Wells, ponds &	Avail- able	Not Avail	Avail- able	Not avail-	Avail able	Not Avail
		Others			Others		able		able		able
akistan	17.9	82.1	16.1	40.4	43.5	21.6	78.4	24.0	76.0	34.2	65.8
Rural	4.9	95.1	2.9	44.9	52.2	17.8	82.2	14.8	85.2	17.2	82.8
Urban	54.6	45.4	54.7	33.1	12.2	32.5	67.5	48.1	51.9	83.0	17.0
Punjab	16.5	83.5	11.4	54.8	33.8	20.7	79.3	17.6	82.4	21.9	78.1
Rural	4.1	95.9	2.7	56.7	40.6	16.5	83.5	11.8	80.2	6.5	93.5
Urban	59.0	41.0	40.8	48.3	10.9	34.8	65.2	37.1	62.9	74.8	25.2
Sind	21.4	78.6	34.7	29.1	36.2	20.3	T.97	38.7	61.3	58.2	41.8
Rural	2.3	7.76	2.5	38.4	59.1	16.0	84.0	17.6	82.4	33.2	66.8
Urban	48.1	51.9	78.0	16.5	5.5	36.6	63.4	68.2	31.8	93.4	9.9
NWFP	24.5	75.5	10.2	3.8	86.0	22.9	77.1	22.6	77.4	53.8	46.2
Rural	15.8	84.2	3.1	2.7	94.2	20.0	80.0	18.2	81.8	47.7	52.3
Urban	6.99	33.1	48.0	9.3	42.7	37.0	63.0	43.8	56.2	83.9	16.1
Baluchistan	5.5	94.5	12.5	1.3	86.2	38.5	61.5	38.1	61.9	34.0	66.0
Rural	1.7	98.3	3.2	0.8	96.0	35.2	64.8	33.6	66.4	25.5	74.5
Urban	27.3	72.7	63.6	4.2	32.2	57.5	42.5	54.5	45.5	83.7	16.3

## REFERENCES

- The Population of Pakistan. Islamabad: Pakistan 1. Afzal, Mohammad. Institute of Development Economics. 1974. 2. Afzal, Mohammad, and Nasreen Abbasi. Urbanization and Internal Migration in Pakistan 1951-73. Islamabad: Pakistan Institute of Development Economics. 1979. (Mimeographed) 3. Ashfaq, Khalid. "Housing West Pakistan: 1970-2000". EKISTICS. Vol. 38, No. 224, July 1974. 4. Bielestein, Dicter. One World Only: Prospects and Feasibility of Low Cost Housing Activities in Asia. (Report No. 8). Friedrich Ebert Stiftung, Tokyo, Japan 1973. 5. Chhattari, R. S. "Shelter for the Shelterless". Economic Review. Vol. IX No. 10. October 1978. 6. Farooq, Hasan. "How to House the Masses". Economic Review. Vol. IX No. 10. October 1978. 7. Haidri, Iqbal. "Housing and Construction Need Attention". Economic Review. Vol. IX, No. 10. October 1978. 8. Hashmi, S. S. Demographic Characteristics of the People of Karachi. Karachi: Pakistan Institute of Development Economics. 1965. 9. Hashmi, S. S. "Slums and Squatters in Developing Countries: Need for a Positive Strategy of Rural-Urban Development". Pakistan Administrative Staff College Journal. Vol. IX. December 1973. 10. Husain, Imtiazuddin, et al. Social Characteristics of People of Karachi. Karachi: Pakistan Institute of Development Economics. 1965. 11. Loring, William C. "Residential Environment: Nexus of Personal Interaction and Healthful Development". Journal of Health and Human Behaviour. Vol. 5. Winter 1964. 12. Martin, A.E. "Environment, Housing and Health". Urban Studies. Geneva: WHO/ENV 1967. 13. Mitchel, R. Edward. "Some Social Implications of High Density Housing". American Sociological Review, Vol. 36, No. 1. February 1971.
- Pakistan. Ministry of Finance. Economic Adviser's Wing. Pakistan Economic Survey, 1977-78. Islamabad. 1978.
- 15. Pakistan. Ministry of Home and Kashmir Affairs. Home Affairs Division. Census of Pakistan: Housing, 1960. Vol. 10. Karachi. 1963.
- 16. Pakistan. Ministry of Home and Kashmir Affairs. Home Affairs Division. Census of Pakistan: Population. 1961. Karachi 1963.
- Pakistan. Ministry of Interior, States and Frontier Regions. Census Organization. Housing, Economic and Demographic Survey of Pakistan. Islamabad. 1973.

- Pakistan. Ministry of Interior, States and Frontier Regions. Census Organization. Population Census of Pakistan, 1972. Islamabad. 1975.
- 19. Pakistan. Planning and Development Division. Nutrition Cell. Micro-Nutrient Survey of Pakistan, 1976-77. Islamabad. June 1978.
- Pakistan. Planning Division. Workshop Papers for Development Prospectives (1975-80). Vol. II. Islamabad. 1975.
- 21. Pakistan. Planning Division. *Housing in the Private Sector 1974-75.* Study Conducted by United Consultants Limited, Lahore, 1976.
- 22. Sadous, Robert. "The Minimum Standard Approach to Housing and Related Series" *Development Digest*. Vol. XII, No. 3. July 1974.
- 23. Sandhu, Manzoor Hussain. *Low Income Housing in Urban Areas*. Lahore: Punjab Board of Economic Inquiry. 1972 (Publication No. 150).
- 24. UDRY. "The Effect of Great Blackout of 1965 on Births in New York City". *Demography.* Vol. 7. No. 3. August 1970.
- William, C. Bear. "Housing Indicators and Standards in USA". EKISTICS. Vol. 44, No. 26. August 1977.
- 26. World Bank. "Construction Industry: An Assessment". *Economic Review*. Vol. IX, No. 10. October 1978.