

Population Growth Rates and Housing Shortages; A Comparison  
of Rural and Urban Areas, Provinces and Settlements in  
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Two basic assumptions strengthen the argument for government intervention in rural housing.

1) That a significant proportion of total households live in rural areas and will continue to do so for at least the medium term. (i.e. 20 years-year 2000)

2) That a significant proportion of total housing shortage (defined as the difference between population growth rate and housing construction rate) falls in the rural areas.

If these assumptions are correct, it can be argued that the need for housing construction, both as shelter for community facilities as well as private dwellings, lies in the rural areas.

This section will briefly examine these two assumptions in relation to Pakistan.

1. Population Distribution in Rural Areas and Settlements  
and their Growth Rates Relative to Urban Settlements.

(i.e. Do a significant proportion of total households live in rural areas and will they continue to do so for at least the next 20 years?)

The position taken here is that settlements up to 25,000 population may be considered as part of the rural sector

because they play a dynamic role in promoting the development of the rural areas. That is, they provide essential services for the rural areas; economic services (ex. location of banking credit institutions, agricultural equipment manufacture and repair workshops, agro-industries, sources of non-farm employment-seasonal or full time, etc.) social services (ex. location for primary and secondary health facilities, primary, secondary and vocational schools, agricultural training and experimentation institutes, etc.) and administrative-political services (ex. location of elected representatives, policy and decision making authorities for the rural hinterland, also lobbying for agricultural, rural interests within the national political structure, location of technocrats with technological and planning skills needed for <sup>the</sup> micro-region and rural hinterland, etc.)

Thus the main thrust of this section will be to examine the evidence ~~by comparing~~ the distribution of population and their growth rates in settlements and rural areas in settlements and rural areas greater and less than 25,000. However the evidence for the range of settlements will also be examined so that more detailed analysis can be undertaken of where potential housing problems lie in the settlement size groups. Furthermore we can then consider whether the assumption of continued rural majorities still holds if only settlements less than 10,000 or even less than 5,000

are considered as rural ( the latter is the official cut-off point of the government of Pakistan-GOP.)

In 1981 almost three-fourths of Pakistan's population lived in the rural areas (71.7%) even if we accept the cut-off point between rural and urban as a settlement of 5,000. (Figure 1 and Appendix Table 1)

This aggregate figure however understates the rural population at the province level. Baluchistan and Northwest Frontier have a rural population of 85% and Punjab has a rural population of 72.5%. Sind province lowers the aggregate figure because it is the most urbanised province with 43.4% population in settlements of 5,000 and above<sup>1</sup>.

In the past 20 years, the rural population has decreased by less than 6%. By the year 2000 we can still expect the majority of Pakistanis to continue to live in the rural areas. Consequently in so far as population distribution is an indicator, the need and demand for housing is and will continue to be significant in the rural areas relative to urban areas.

The evidence regarding the distribution of the need and demand for housing according to settlement size suggests that much of the need and demand lies in settlements of 10-25,000 population.

The percentage of total population living in settlements of this size was more than for any other settlement size

group below the 100,000 range and only slightly less (by 0.8%) than the percentage residing in settlements of 100,000 to 500,000 (Table 2- Settlements above 500,000 are an exception since these are only 6, of which the metropolitan regions of Karachi and Lahore account for <sup>al</sup> <sup>70%</sup> most of the population)

If we remove the effects of Karachi and Lahore from the settlement size group of 100,000 plus, it is likely that settlements 10,000-25,000 <sup>other size group between 1961-71. On the</sup> grew faster than any other hand settlements <10,000, i.e. from 5,000-10,000,<sup>2</sup> lost population over the same period (growth rate-0.3% per annum- Appendix Table 3)

In sum, we can say that, using population growth as the main indicator, the most pressure on housing was felt in the rural areas and particularly in settlements between 10,000-25,000 and less than 5,000.

## 2. The Magnitudes and Spatial Incidence of Housing Shortages.<sup>3</sup>

The concept of a housing shortage is fraught with difficulties when we use it to assess need and demand at the macro-level. Housing need and demand can vary dramatically with such factors as household tastes, personal conception of adequate space and attitudes regarding whether a newly married child should remain within the family household. Climate, built environment, privacy norms etc., can also affect how much of housing activities such as receiving guests, cooking etc. is done outside the sheltered space, thus reducing need for

housing construction. When comparing rural and urban conditions these factors become even more relevant since lifestyles, density of built environment, etc. can be substantially different.

To partially address the above reservations 'housing shortage'<sup>is</sup> derived from a comparison of 'what was' and therefore what people were used to, relative to what is the case now. This is preferable to some arbitrary standard whether set by a personal notion of acceptability or that of a government bureaucrat or even of an esteemed international agency such as the U.N. The basic indicator for housing shortage used here is 'habitation density' i.e. number of persons per housing unit. A bench mark date of 1960 is taken and the objective is to examine whether, to what extent and where habitation density is getting worse in Pakistan with specific comparison of rural and urban conditions. The housing shortage is then defined rather modestly as the number of units required to at least return people to the densities they were used to 20 years ago. Using the simplest indicator of aggregate housing shortage, that is population versus housing growth, we see that between 1960 and 1973 the former grew by 3.6% while the latter grew by only 2.7%. Habitation densities therefore increased from 5.5 persons per unit to 6.22 persons per unit. (Zaki, '80 p.218) Extrapolating at a lower population growth (3% per annum) and the

same dwelling construction rate, in 1980 densities would have reduced only slightly to 6.1 persons per unit in 1973. The density levels were lower in the rural areas than in the urban areas (6.12 versus 6.39) although by province Punjab and Baluchistan had higher rural densities relative to urban. (Tables 4 and 5)<sup>7</sup>.

Two considerations need to be examined with regard to this indicator of persons per unit. Firstly the measure of persons per unit may exaggerate densities if space per unit has in fact increased. Densities according to space i.e. persons per m<sup>2</sup> of dwelling space, is not presently available. However the figures on the number of persons per room also shows a decline in conditions between 1960 and 1973 (from 3.3 persons per room to 4.5 persons per room-Table 6) This is the case although average number of rooms per unit had improved from 1.7 to 2.

Secondly, if the increased densities result from increases in household size rather than number of households, habitation density may suggest a need for more space in each housing unit rather than the need for constructing separate additional units. Indeed household size has increased from 5.5 persons to 6.4 persons, but household formation rates have also increased. That is, an increasing number of groups of persons (many presumably married with children) with separate eating arrangements, are being forced to share

the same dwelling unit rather than be able to construct, buy, or rent separately. Urban household formation rates are significantly higher than rural, although in <sup>North West Frontier Province -</sup> NWFP and Baluchistan rural rates are higher, (Table 7) Here again if the impact of Karachi and Lahore on the aggregate figures were discounted it may be that the differences between urban and rural in the provinces of Punjab and Sind would not be so marked or indeed show worse conditions in the rural areas. This discounting would apply to most cases where, in these 2 provinces, conditions are shown to be worse in the urban sector.

Perhaps most instructive for our purposes is to consider where the most number of units would need to be constructed if the aim was simply to not expect more people to live per unit than was the case in 1960. With this modest aim, 1.56 million housing units would have needed to be constructed in 1973, 85% of which would have to be in the rural areas and 63% in rural Punjab alone. Extrapolating to 1980, total units registered rises to almost 3 million with 84% rural and 60% in rural Punjab. Substantially greater number of units would also need to be constructed in rural Sind and NWFP than in the urban areas of those provinces. It is only in Baluchistan province that urban housing shortages, thus defined, are slightly higher. (Table 8)

CONCLUSION

Population trends indicate that a significant majority of the country will continue to live in the rural areas for the plannable future (up to year 2000). Thus the rural areas will continue to require substantial economic and social services with corresponding need for shelter construction to house these services.

Housing shortages as defined by population compared to housing growth, and habitation densities (persons per unit) also indicate that the greatest need for dwelling construction lies in the rural areas.

FOOTNOTES

1. Population Census organisation, G.O.P. (1980) Housing and Population Census of Pakistan, 1980-81. Provisional Tables. Census Bulletin 1. Islamabad.
2. Although the census table does not specify that it does not include settlements less than 5,000 I am assuming this to be the case because according to the census the rural population (i.e. less than 5,000) has continued to grow. Furthermore no national census has been carried out for settlements less than 5,000 population.
3. Aggregate, national data related to rural-urban differentiations in housing conditions take settlements of 5,000 as their cut off. So we have to follow this differentiation but we can nevertheless keep in mind how the population growth figures mentioned in the last section would alter the picture if we considered settlements up to 25000 as part of the rural areas.
4. The UN has a "tolerable overcrowding" level of 1.4-2.0 persons per room. In Pakistan the habitation density level is 3 persons per room.
5. This definition assumes that space preferences remained static over the 20 years. Such qualitative aspects of attitudes to housing including those mentioned earlier, may be better dealt with at the case-study level.
6. There may be valid reservations about accepting habitation density as a definition of housing shortage. It is also

questionable whether it is valid to use the same densities as a bench mark for both urban and rural areas. It would be preferable to use the densities pertaining to each area in 1960.

However given that this section attempts only to set out a rough 'orders of magnitude' comparison between rural and urban housing needs, the definition of persons per unit is adequate. Secondly, although it would be more accurate to use the different density figures pertaining in rural and urban areas in 1960 (for comparisons with their respective areas in 1973 and 1980) it is doubtful if this change would reverse or even significantly reduce the much higher rural figures obtained by using an average density.

7. Tables 4-8 are from Zaki (1980)

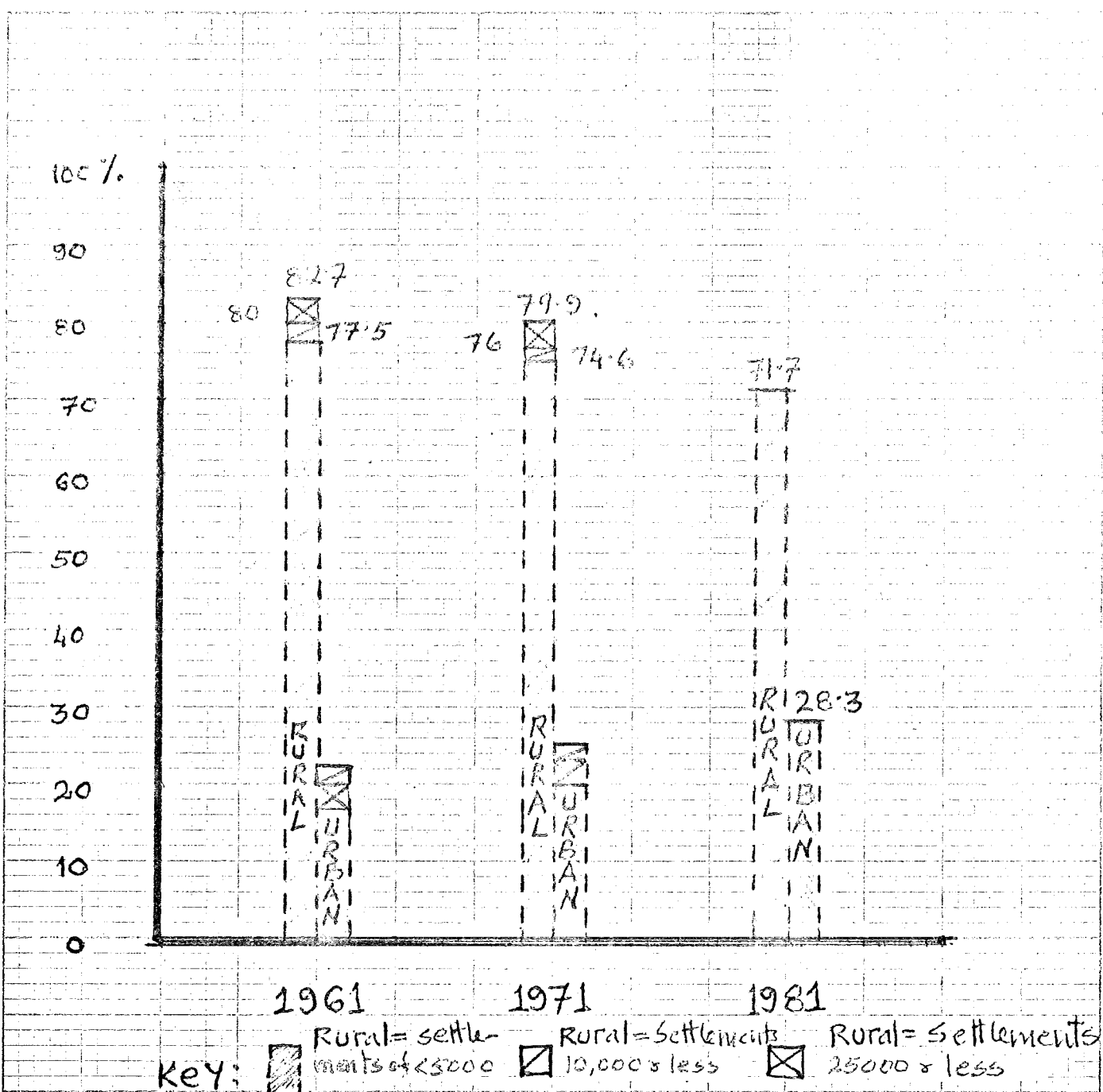


Fig 1 - PAKISTAN POPULATION DISTRIBUTION

Source: - Population Census Organisation, GOP (1981) Census Bulletin #1, Table 1

- US Dept. of Commerce, Census Bureau (1980) Country Demographic Profile PAKISTAN, (Table 21) citing Pak. Census Organisation.

TABLE 1  
PROVISIONAL POPULATION BY PROVINCES -- 1981 CENSUS

Area	Population (in thousands)		Percentage change in population (1972-81)	Sex-ratio (Males per hundred Females)		Proportion 1981 Census	Density per sq. KM	Urban population as percent- age of total population
	September 1972	March 1981		1972	1981			
1	2	3	4	5	6	7	8	9
Pakistan	65,309	83,782	28.28	114	111	100	105	28.28
N.W.F.P.	8,388	10,885	29.77	108	108	12.99	146	15.23
F.A.T.A.	2,491	2,175	(-12.68)	103	108	2.60	80	-
Punjab	37,610	47,116	25.28	116	111	56.24	229	27.53
Sind	14,156	18,966	33.98	115	110	22.63	134	43.37
Baluchistan	2,429	4,305	77.23	113	112	5.14	12	15.61
Islamabad	235	335	42.55	124	119	0.40	369	60.20

Table 3 RATE OF GROWTH OF URBAN POPULATION  
BY SIZE GROUP, 1961, 1972

Size Group	1961		1972		Growth Rate Percent p.a. 1961-1972
	Total Number of Urban Areas	Total Urban Population	Total Number of Urban Areas	Total Urban Population	
< 10,000	184	1,033,031	167	1,000,427	-0.3
10,000-24,999	86	1,289,552	152	2,308,992	5.5✓
25,000-49,999	31	1,139,741	52	1,818,813	4.3
50,000-99,999	12	876,113	18	1,231,306	3.1
≥ 100,000	11	5,275,337	21	10,185,070	6.2
Total	324	9,613,774	410	16,544,608	5.1

Source: 1) Census of Pakistan, Vol. 3, West Pakistan Population, 1961.

2) Census of Pakistan, 1972.

Table 4

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

Country/ Province	Habitation Density Level <sup>a</sup>			
	Urban		Rural	
	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

Table 5

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

(Population and Housing figures in thousands)

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.

Table 6  
*Percentage Distribution of Housing Units by the Average Number  
 of Persons per room, Pakistan and Provinces: 1960 and 1973*

Country/ Province	Housing Units with								Average Number of Persons per Room	
	One Person		Two Persons		Three to Four Persons		Five & more Persons		1960	1973
	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].

Table 7

*Percentage Change in Total Households in Rural and Urban  
Areas of Pakistan and Provinces, 1960-72*

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

Source: [15:17].

Notes: (i) Federally Administered Tribal Areas (FATA) and Capital Area of Islamabad are excluded from the 1961 calculations.  
(ii) Figures in parentheses represent average household sizes.

Table 8

*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

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