

An Analysis of Rural Homelessness in Pakistan†

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1. INTRODUCTION

The concept of developing the country without taking into consideration the development of the rural areas is meaningless. [United Nations (1968)]. More than 70 percent of the population in Pakistan lives in the rural areas. Therefore, there is a need to place greater emphasis on the development of these areas. One sector which needs special attention is housing.

Analysing the housing situation in the rural areas, one has to take into account the structure of agricultural land ownership in the country as well as population growth. This is because rural poverty is intensified by the land tenure system which gives rise to a large number of landless labour households [Irfan and Arif (1988)]. One-third of the rural households, associated with agriculture, have access to a very small segment of cultivated land because of uneven land distribution [Government of Pakistan (1980)]. Besides this, low agricultural productivity is also an impediment to better rural housing. In this situation, the poor rural population, which cannot afford to own houses reside in the shelters provided to them by their respective landlords.

A number of studies by Sandhu (1972); Ashfaq (1974) and Zaki (1981), have analysed housing issues in Pakistan but these studies, contribute towards understanding the housing problems in urban areas only as, they shed no light on the issues of rural housing in Pakistan where more than 70 percent of Pakistan's population live in sub-standard housing facilities. The present study gives an econometric analysis of rural homelessness in Pakistan.

2. DATA SOURCE AND METHODOLOGY

The present study is based on the Housing Census of 1980. For the purpose of comparison the districts of 1980 Housing Census have been merged according to the 1960 Housing Census district boundaries. Rural homelessness is analysed within the framework of the Ordinary Least Square (OLS) method for 46 observations indicating 46 districts.

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3. HOUSING SITUATION IN RURAL AREAS

In Pakistan, rural housing is still mostly traditional, poor in quality and very deficient in the provision of drinking water and sanitary facilities. More than half of the rural population live in one-room dwelling units, approximately with 6 persons per dwelling, (Appendix I). Moreover, one-sixth of the rural population is homeless. One-fifth of the existing rural housing stock needs reconstruction or renovation because these units are more than thirty years old [Government of Pakistan (1984)].

(i) Homeless Population

The Housing Census of 1980 does not provide direct information about the homeless rural population. The estimation procedure is based on the assumption that the inhabitants living in rent-free houses are called homeless although they have shelter which is provided to them by the landowners to reside and cultivate their lands. But this is temporary and inadequate shelter and liable to be vacated without any reason.

The estimates of the homeless population show that about 9 million of the rural inhabitants were homeless in 1980 which constitutes about 16 percent of the total rural population (Appendix I). The percentage of the homeless population was high in the Punjab and NWFP provinces while it was relatively low in Sindh and Balochistan.

(ii) Overcrowded Population

This is 'the proportion of rural population which lives in one-room dwelling units'. These units do not fulfil the minimum requirement due to the large size of the households in the rural areas.

The estimates of the overcrowded population given in Appendix I show that 50.4 percent of the rural population was living in 'one-room' dwelling units with a density of about 6 persons per unit. The overcrowding situation is very alarming in Sindh and Balochistan with a rate of 69.5 percent and 60.8 percent respectively with a density of about 7 persons residing in 'one-room' units. Whereas 45 percent and 44.2 percent rural population of Punjab and NWFP with a density of about 6 persons per housing unit exhibit the overcrowding situation in these provinces.

The result in Appendix I shows that *person per housing unit* increased by 1.7 persons during the period 1960 to 1980. This change is more pronounced in Sindh and Balochistan showing an increase of 2.2 and 2.9 persons respectively.

It is clear from Appendix II that the average number of *persons per room* increased from 3.3 in 1960 to 3.6 in 1980 for rural Pakistan. However, this situation is not comparable with the ideal situation of one room for each person in the household.

(iii) Rooms per Housing Unit

The results in Appendix II show that the *average number of rooms per housing unit* has increased from 1.6 in 1960 to 1.8 in 1980. Almost the same trend in increase has been observed for all the provinces.

Results in Appendix II show a 6 percent decrease in 'one-room' dwelling units for Pakistan and Punjab. A tremendous decrease of 17.4 percent and 11.7 percent has been observed for NWFP and Balochistan. This 6 percent decrease has been offset with a 5 percent increase in dwelling units with two-rooms and three and more rooms. The same trend has been observed at the provincial as well as at the district level.

4. REGRESSION RESULTS

The conditions of rural housing discussed in the preceding sections are subject to empirical investigation and can be explained by examining the various factors that might affect (i) homelessness, (ii) housing density and (iii) room(s) addition in housing units.

(i) Homelessness

Homelessness, one of the major problems of the rural areas has been investigated in Table 1.

The results indicate that the coefficient of LTR is statistically significant with the negative sign. This suggests that a one percent increase in the literacy rate will reduce approximately one-half percent of homeless rural population. Educated rural inhabitants move to urban centres or go abroad for employment which in turn improves their housing.

The coefficient of PWH, persons per household working on their holdings, is found statistically significant with a positive sign which suggests that the work on their holdings does not provide them sufficient additional amount for the improvement or construction of a house due to underemployment in the agricultural sector. Ideally, the coefficient of PWH should have possessed a negative sign because of the fact that an increase in the workers per household, increases the households earnings and availability of more funds would have reduced homelessness. Apparently, this effect is absent in the case of rural Pakistan.

The coefficients for TNH and PLH, are found to be statistically significant at the 1 percent and 5 percent level of significance respectively. The permanent hired workers (pure landless) live with their families in the shelters provided by the landlords (employers) where they work.

Table 1
Regression Results¹

Eq. No.	Dependent Variable	Explanatory Variables						
		C	LTR	PWH	TNH	PLH	\bar{R}^2	F-ratio
1.	HLP	-3.1 (0.7)	-0.49 (3.4)*	6.3 (3.4)*	9.5 (1.7)**	0.0006 (3.9)*	0.50	12.1

Notes: *t*-ratios are given in the parenthesis.

*Denotes significant at 1 percent level.

**Denotes significant at 5 percent level.

HLP = Percent of homeless rural population.

LTR = Literacy ratio.

PWH = Persons per household working on their holdings.

TNH = Proportion of tenant households.²

PLH = Number of pure landless household.³

(ii) Housing Density

The regression results corresponding to housing density (HDEN) are presented in Table 2.

It is clear from Table 2 that the literacy rate has a significant negative impact on housing density. This finding is consistent with the fact that educated persons have better chances of employment compared with illiterates. Furthermore, educated persons are more aware of the benefits of better housing.

Like the literacy rate, migration has a negative impact on housing density. In other words, migration decreases the number of persons per housing unit. These findings are not altogether surprising because of the fact that migration from rural to urban centres is predominantly by adult males. Furthermore, most Pakistani workers working in the Middle East have migrated from the rural areas of the country. Remittances sent by these workers to their kith and kin must have affected the concerned households' living style in the rural areas.

¹We also estimated a regression where 'percent of owned houses' was regressed against explanatory variable and all the variables show a negative association with the dependent variable except literacy ratio, which shows a positive sign.

²A tenant household cultivates the agricultural land which taken from other household(s) against a fixed rent in cash/kind or a share in the produce [Irfan and Arif (1988)].

³The households who neither own the land nor tenants and are recorded as permanently hired workers in agriculture census of 1980. These converted into pure landless households by dividing with 1.6 – the average earners per household [Irfan and Arif (1988)].

Table 2
Regression Results

Eq. No.	Dependent Variable	Explanatory Variables							\bar{R}^2	F-ratio
		C	LTR	OMG	CULR	PWH	FSZ			
2.	HDEN	6.3 (11.5)*	-0.06 (3.3)*	-6.7 (2.3)**	-1.4 (5.1)*	0.57 (3.2)*	0.11 (2.5)**	0.53	11.3	

Notes: *t*-ratios are given in the parenthesis.

*Denotes significant at 1 percent level.

**Denotes significant at 5 percent level.

HDEN = Number of persons per dwelling unit in rural areas.

OMG = Outmigrants (within Pakistan/Rural Population) of the *f*th district.

CULR = Cultivated area per rural inhabitant of the *f*th district.

FSZ = Family size of the rural household and the definition of LTR and PWH are the same as used in Table 1.

The cultivated area per rural inhabitant variable turned out to be statistically significant with a negative sign. This suggests that the increase in the availability of more land for cultivation for the rural population decreases the housing density.

The number of workers per household variable exerts a positive influence on housing density. This indicates that work on their holdings does not provide sufficient additional income for construction of new houses due to the low productivity of agricultural land and the scarcity of available land to each worker in the household.

This situation indicates the fact that to meet population pressure there is a possibility of constructing additional room(s) in the existing housing unit rather than constructing a completely new housing unit.

Family size is found to exert a significant influence on housing density. It is obvious that large family size due to high population growth will influence HDEN which in turn will deteriorate the housing situation.

(iii) Housing Units by Number of Rooms

Table 3 presents the regression results of housing units by number of rooms.

As mentioned earlier more than half of the rural population in Pakistan is living in one-room housing units with 6 persons on average (Appendix I).

The results in Table 3 present interesting facts regarding the factors affecting housing units by the number of rooms. The literacy rate and out-migration within Pakistan have a negative impact on housing units with one room while these factors affect positively housing units with more than one room. This finding suggests that as the literacy rate increases and out-migration takes place, the demand for housing units with one room decreases while the demand for more than one room increases. This is quite consistent with the fact that education enhances the civic sense while out-migration increases income and both these factors in turn increase the demand for housing units with more than one room.

The variable, workers per household working on their holdings is statistically significant and shows a negative sign for one-room dwelling units and positive for housing units with two and more rooms. The income effect appears to be dominant in this case.

The effect of the ratio of irrigated to the total cultivated area on housing units with one room is found to be positive while it affects negatively those housing units which have more than one room. This is an interesting result which suggests that as the ratio of irrigated to total cultivated area increase, farmers will demand more housing units with one room. On the other hand, they will not prefer to demand housing units with more than one room because land use for irrigation is more sacrosanct to farmers than the construction of houses with more than one room.

Table 3

Regression Results

Eq. No.	Dependent Variable	Explanatory Variables							\bar{R}^2	F-ratio
		C	LTR	OMG	PWH	IRR	PRIND			
3.	RM1	103.5 (7.7)*	-0.65 (2.0)**	-140.7 (2.2)*	-12.0 (2.6)*	25.3 (2.9)*	-0.08 (1.5)***	0.34	5.7	
4.	RM2	5.6 (0.8)	0.5 (3.0)*	64.5 (2.0)**	3.8 (1.7)***	-4.9 (1.1)	0.01 (0.4)	0.36	6.1	
5.	RM3	-8.7 (1.1)	0.14 (0.8)	75.0 (2.1)**	8.2 (3.2)*	-20.5 (4.2)*	0.07 (2.3)**	0.34	5.7	

Notes: *t*-ratios are given in the parenthesis

*Denotes significant at 1 percent level.

**Denotes significant at 5 percent level.

***Denotes significant at 10 percent level.

RM1 = Percent of housing units with one room only.

RM2 = Percent of housing units with two rooms only.

RM3 = Percent of housing units with three and more rooms only.

IRR = Irrigated area/total cultivated area.

PRIND = Productivity index of each district and the definitions of LTR, OMG and PWH are the same as used in Tables 1 and 2.

5. CONCLUSIONS AND RECOMMENDATIONS

The overall housing situation in the rural areas remains poor. The only positive trend in rural housing over the past twenty years has been witnessed in the shape of the addition of room(s) in the existing housing units. Homelessness and overcrowding with lack of housing amenities are found to be the main problems of rural housing. The habitation density level has increased from 4.9 persons in the 1960 to 6.6 persons in 1980.

The problems of homelessness, overcrowding, housing density and number of rooms per housing unit are found to be the outcome of higher population growth and rural poverty which are the manifestation of our agrarian structure. These problems cannot be solved in isolation without the positive support of the public sector and without the development of rural infrastructure.

Rural development with an emphasis on compulsory education will solve the problems of illiteracy, underemployment, rural-urban migration and consequently will help in the improvement of rural housing situation.

Estimates of Homeless and Overcrowded Rural Population in Pakistan

Country/ Province	No. of Housing Units with Non-owners	1960		1973		1980		Homeless Population as Percent of Total Population		No. of Housing Units with One Room Only		Persons per Housing Unit		Population Living in One Room Houses		Percent of Total Population
		(000)	1960	1973	1980	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)	(000)		
Pakistan	1377	4.9	5.3	6.6	9042	15.6	4974	5.9	29338	50.4						
Punjab	896	4.9	5.3	6.3	5647	16.9	2812	5.5	15467	45.0						
Sindh	212	4.9	5.2	7.1	1500	13.9	1136	6.6	7494	69.5						
NWFP	213	5.3	5.4	6.9	1471	15.9	704	5.9	4155	44.2						
Balochistan	56	4.7	5.1	7.6	424	11.6	322	6.9	2222	60.8						

Source: Housing Census 1960 and 1980 and HED 1973.

Appendix - II

Housing Density by Different Measures

Country/ Province	Percent Increase/Decrease in Housing Units* with				1960 Housing Census		1980 Housing Census	
	One Room	Two Rooms	Three+ Rooms	Persons per Room	Rooms per Housing Unit	Persons per Room	Rooms per Housing Unit	
	Pakistan	-6.0	5.0	1.0	3.3	1.6	3.6	1.8
Punjab	-5.6	5.8	-0.2	3.2	1.7	3.4	1.9	
Sindh	-1.3	1.9	-0.6	4.8	1.3	4.7	1.5	
NWFP	-17.4	8.6	8.8	3.6	1.6	3.6	1.9	
Balochistan	-11.7	5.7	6.0	4.0	1.3	4.5	1.7	

Source: Housing Census 1960 and 1980.

* (Percent of Housing Units in 1980 - Percent of Housing Units in 1960).

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