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Socio-economic Status of Transferred and Non-transferred Urban Slums: A Case Study from Faisalabad

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1. INTRODUTCTION

The rapid urbanisation has become a burning challenge across the developing countries of the world for the last four decades. The population pressure on the cities has caused many problems like environmental pollution, sanitation, education, health, traffic level and housing etc. In this context, housing is one of the most important issues related to urbanisation. Slums are reflected as the carbuncle in cities and looked extemporaneously and arbitrarily [Shafqaat, *et al.* (2013). The share of world urban population was 32 percent in 1950, it rose up to 39 percent in 1980 and 48 percent in 2000, which reflects that 3 out of 10 people were living in cities in 1950. In 2011, about half of the world population was living in the big cities and at the end of the third decade of this century; that make up the formation as 6 out of 10 people [World Bank (1999)]. Pakistan's town populace is fixed to become identical to its rural population in the year 2030. This needs for an effective urban planning instrument to confirm universal distribution of simple municipal amenities, regulator of the spread of slums, reducing of effluence and the control of crime and political might [Khan, *et al.* (2012)].

"The earth has urbanised even faster than originally predicted by the Club of Rome in its notoriously Malthusian 1972 report, Limits of Growth. In 1950 there were 86 cities in the world with a population over one million; today there are 400, and by 2015, there will be at least 550. Cities, indeed, have absorbed nearly two-thirds of the global population explosion since 1950 and are currently growing by a million babies and migrants each week. The present urban population (3.2 billion) is larger than the total population of the world in 1960. The global countryside, meanwhile, has reached its maximum population (3.2 billion) and will begin to shrink after 2020. As a result, cities will account for all future world population growth, which is expected to peak at about 10 billion in 2050" [Davis (2004)]. Cities indeed have observed nearly two-third of the global population explosion and are currently growing by a million babies and migrants each week across the world [UN Population Division (2002)], whereas, the situation is even more

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dangerous in the developing countries. Alike rest of the developing countries, the share of urban population was 17.8 percent in 1951 which rose to 28.3 percent in 1981 and 32.5 percent during 1998 in Pakistan [Population Census Organisation (2001)]. Such higher urbanisation trends arise mainly because of inadequate employments avenues and low quality of life.People belonging to low income group are unable to build appropriate shelter for themselves in the big cities. Resultantly, they are forced to establish squatter settlements and these squatter settlements are called urban slums. Poverty, illiteracy, unemployment, poor health facilities, poor sanitation and non-availability of clean drinking water facilities are the common characteristics of the inhabitants of urban slums.

The concept of "Slums" was firstly defined in Vaux's1812 (vocabulary of the English language) where it is synonymous with 'racket' or 'criminal trade'. According to Encyclopedia of Britannica, Slum is defined as "a residential area that is physically and socially deteriorated and where satisfactory family life is impossible. Thus, bad housing is major index of slum conditions which includes bad dwellings, improperly heated rooms, absence of family privacy and no space for recreational facilities [Britannica (2010)].

The root cause of emergence of urban slums is poverty as poor cannot afford to have a reasonable house to live and they settle themselves in open spaces of city, which leads to the emergence of urban slums. Slums show the worst of urban poverty and inequality [Mustafa (2007)]. The other major cause is the rapidly increasing population. Growing number of people rush to the slums of the city create urban crises [Akhtar (2009)]. Most of the migrants coming from rural areas are poor, and hence the urban areas remain numerically dominated by the poor. The migrants have originated largely from the economically depressed areas of the country [Sarwar and Rahman (2004)].

Urban poor face serious problems due to population pressure, deterioration in the physical environment and quality of life [Sribas and Samita (2013)]. Housing conditions have deteriorated in urban centers because of population explosion and rural urban migration [Siddique (2007)]. People residing in the slums are poor. The worse socio-economic conditions do not allow them to live a healthy life. They do not have access to sanitation. They are unable to get safe water supply [Naveed and Anwar (2014)]. Unemployment rate is very high in such areas [Ali (2010)]. Housing facilities in the planned schemes are too expensive to be availed. Therefore low income government employees as well as the laborers have no choice except urban slums for the affordable accommodation [Qadeer (1983)].

Slums do not have proper drainage. The streets are narrow and unpaved. Slums dwellers have to face water stagnation in rainy season. This makes the environment of that area very unhygienic. Such environment causes a number of diseases [Daziuban, *et al. (*2006)]. Urban Slums are characterised by poor living conditions, inadequate, social services coupled with high level of diseases [Agyaro-odure (2009); Baloch and Mustafa (2012)]. There is need to take steps to improve the physical condition of dwelling places like basic amenities of toilets, proper drainage, sewerage system and water supply [Sufaira (2013)].

The poor slum dwellers face many problems including health at top. Women are unable to get proper treatment during pregnancy. So mortality rate is very high in such areas [Awashti and Agarwal (2003)]. Slums improvement programs should be started in

Pakistan through local councils [Hina (1999)]. There are both transferred and non-transferred slums in Pakistan. The socio-economic conditions of transferred slums are better than those of non-transferred [Bhatti (2001)].

The study in hand is a pioneering effort to make comparison of socio-economic conditions of inhabitants of non-transferred slums and those of transferred slums in Faisalabad. To materialise the primal objectives of the research, the study firstly, explores the socio-economic profile of Katchi Abadis' inhabitants on the basis of specific set of indicators i.e. health, community participation, educational attainment, income level, demographic features, employment status, housing status and sewerage system. Secondly, it examines the socio-economic conditions of slums of Faisalabad. Thirdly, the study in hand investigates the difference in socio-economic conditions of different kind of slums and also suggests some policy recommendations to curb out the problem of slum dwellers and its spread in Faisalabad.

2. METHODOLOGY

2.1. Sampling

The following section briefly discusses the target population of Faisalabad, sampling frame and technique. Furthermore, selection of sample urban units and respondent is also presented, followed by data analysis tools and techniques adopted in the study.

2.1.1. *Target Population*

Total number of slums in Faisalabad are 106, while the information available regarding dwelling units is 104, thus, the universe consisted of 104 Katchi Abadis (slums) of Faisalabad.

2.1.2. *Sampling Frame*

A list of 104 Katchi Abadis of Faisalabad was received from the Directorate of Katchi Abadis, Government of the Punjab. This list was used as a sampling frame.

2.1.3. *Sampling Technique*

In order to take the representative sample, stratified random sampling technique was adopted. From the list of Katchi Abadis it was found that number of dwelling units varied from 42 to 2851. It was assured that the Katchi Abadis differ on following basis:

- Educational facilities available within the area.
- Involvement of NGO's.
- Area of the Katchi Abadi.
- Medical facilities available.

Majority of the Katchi Abadis (33) have number of dwelling units below 80, followed by 32, covered in the stratum of 81-200 units. There were only five numbers of Katchi Abadis which come in the stratum where there dwelling units number were above 1000.

Table 1

Category of Dwelling Units

Stratum	No of Dwelling Units	No. of K/A
1	Below 80	33
2	81-200	32
3	201-350	16
4	351-500	11
5	501-1000	7
6	Above 1000	5

Source: Researcher's own calculations.

2.1.4. *Selection of Sample Urban Slums*

The samples of Katchi Abadis were selected on the basis of variability of dwelling units in different Katchi Abadis. Following proportional allocation method was used [Parel, *et al.* (1973)

$$n = \frac{N.\sum N_h S_h^2}{\frac{N^2 d^2}{Z^2} + \sum N_h S_h^2}$$

Where:

N = Total number of Katchi Abadis (104).
N_h = Total numbers of Katchi Abadis in "h" Stratum.
d = (Sampling error acceptable for study). Due to resource and time constraint 0.1 error was accepted at Abadis level.
Z = Confidence level = 95 percent.

$$n \cong 15$$

(For detail see Appendix A-1).

Proportional allocation method was used to obtain Sample from each stratum:

$$n_i = \frac{N_h}{N} \times n$$

(For detail see Appendix A-2).

Almost all selected slums are located near road, small and medium enterprises factory areas. Most of the slums are generally build in low-lying, unhygienic, and environmentally poor areas. These are the rejected areas where there is no civic facilities available/ Even no electricity because these are mostly government abandon land, initially inhabitant settled there in tents and kacha houses and latterly after giving bribes to local municipal administrative authorities make their houses pacca (concretes. The local political parties and influence people also support than. In some cases even they encourage the immigrants to settle down. Latterly, they registered their vote in local area and also use than to grasp government land. Shafqaat (2013) also revealed that transportation positions, zones which are already settled and small scale and cottage manufacturing play an important part in the formation of slums in Faisalabad.

2.1.5. *Selection of Sample Respondents*

After Selection of Sample Katchi Abadis, the sample size of respondents was found. This was done on the basis of variability in Income. For this purpose a pre-survey was conducted from 36 households in six strata. Proportional allocation method was adopted to determine the sample size of the respondent which was 213. (For detail see Appendix A-3).

This over all sample size was proportionally distributed in different strata (For detail see Appendix A-4).

2.2. Data Analysis

Quantification of different qualitative variables, Cross tabulation, methods of vital statistics, percentiles and test of significance (Independent sample T-test) statistical tools were used for data analysis.

3. ANALYSIS OF DATA AND INTERPRETATION OF RESULTS

The summary of results of four variables (Education, Health, Income and Housing) is given as follows:

3.1. Education

Education is one of the basic parameters to evaluate the socio-economic conditions of people. To find the literacy rate generally accepted definition of literacy rate was used. According to this definition, a person who can read and write a single line of Urdu is literate. The overall literacy rate is calculated 65.91 percent. Only 0.18 percent people hold master degrees or above. This shows that slums dwellers have very low trend towards higher education. The literacy rate is higher among males (70.04 percent) than those of females (60.93 percent). Literacy rate is found to be comparatively higher in the slums which are notified, regularised and close to the city centre (Mai De Jhugi, Partab Nagar, Fire Brigade, Malik Pura, Muslim High School, Tariq Abad) and low in those which are not regularised and situated away from the city centre (Bishan Singh Wala, Gharib Abad, Pull Tariq Abad, Girga Ghar, Railway Phatak, Malkhanwala, old water works and Madan Pura) while it is moderate in those which have been regularised and found at moderate distance from the city center (Chowk Choudhry Floor mills, Bahadar Singh Wala and Manawala sq. no.80). For detail see Appendix A-5.

3.1.2. *Field of Education*

The percentage of general Education, Engineering, Health, Law, Agriculture, Commerce and Computer was calculated 92.23 percent, 0.62 percent, 0.99 percent, 0.00 percent, 0.49 percent, 2.22 percent and 0.62 percent respectively. This shows that people residing in slums have low inclination towards higher and professional education.

3.1.3. *Reason for not Attending the School*

The major reason for not attending the school is poverty. In 93 percent of the cases, children are not going to school due to financial reasons. So to increase the literacy rate, there is need of income generation activities in such area.

3.2. Health Profile

Slums badly affect the health conditions of their dwellers due to lack of health services, basic infrastructure, and poor sanitation and environment condition [Yusuf (2007)]. In Manila and Philippines, children living in slums were found to be nine times more victims of tuberculosis (TB) than children living in other areas [Fry, et al. (2002)]. Overcrowding in slums is the major cause of psychological stress [Sundari (2003)]. Attack rate of ARI (Acute respiratory infections) and ADD (Acute diarrheal diseases) was estimated 14.6 percent and 7.73 percent respectively in under 5 year children of Gokaepari settlements of Delhi. These diseases were attributed to lack of sanitation and lack of portable water for drinking [Gupta, *et al.* (2007). Crude birth rate, infant mortality rate and incidence of disability were used as parameters to find health profile in current study.

3.2.1. *Crude Birth*

Crude birth rate indicates the number of live births occurring during the year, per 1000 population estimated at midyear[1]. This rate is higher in poorer and non-transferred slums (51.02, 38.10, 36.36,34.48 and 32.89 in Old Water Works GM Abad, Fire Brigade K.A, Bishan Singh Sala, Pull Tariq Abad Girga Ghar and Madan Pura respectively) while it is lower in transferred and settled slums (18.69, 15.27 and 9.62 in Chowk Choudary Floor Mills, Mai Di Jhugi and Pertab Nagar respectively) than the national level (For detail see Appendix A-6).

3.2.2. *Infant Mortality*

Infant mortality is the number of infants dying before reaching one year of age, per 1000 of live birth in a given year. The infant mortality was calculated 111.11 which is much higher than national level.[2] (For detail see Appendix A-7).

There are many other studies which show high infant mortality in slum areas. Gupta and Pandey (2007) found that 97.0 percent of the deliveries were conducted in institutions like nursing home and hospitals etc., in case of new urban colonies of East Delhi, while it was only 29.0 percent for the slum dwellers of same locality. Gupta, *et al.* (2007) found that the level of care during the deliveries was very low among the mothers of slums areas. About 68 percent of the deliveries were carried out in the houses, without a skilled nurse, mid wife or doctor in such areas as compared to 21 percent and 7 percent deliveries in rural and urban areas respectively. Kimani, *et al*. (2007) reported that prevalence of diarrheal diseases among the children of people residing in slums of Nairobi was 32 percent while in rural areas it was 17 percent. Similarly, Gupta (2007) showed that in eastern Delhi, the prevalence of diarrheal diseases (per 1000) were highest among children of slum residents (25.1) and least among those residing in new urban colonies (2.2). This difference was due to poor unhygienic living conditions in the slums areas.

[1]Crude birth (per 1000 people) in Pakistan was last measured at 27.28 in 2010 according to world development Indicators.

[2]infant mortality rate (per 1000 of live births) in Pakistan was last measured at 69.70 in according to world development indicators.

3.2.3. *Incidence of Disability*

Out of disabled people 45.45 percent were found to be crippled which is dangerous. (For detail see Appendix A-8).

3.3. Income

Average household income is found in Partab Nagar (Rs 9822.5) followed by Chowk Choudhry Floor Mills (Rs 9615), Fire Brigade (Rs 9500), Bahadar Singh Wala (Rs 9317.5), Muslim High School Tariq Abad (Rs 9285), Old water works G.M Abad (Rs 9035.5), Malkhanwala (Rs. 9037.5), MadanP ura (9027.5), Gharib Abad (Rs 8702), Manawala Sq. no. 80 (Rs 8685), Malik Pura (Rs 8671.5), Railway Phatak no.8 (Rs 8667.5), Pull Tariq Abad Girga Ghar (Rs 8565) and Bishan Singh Wala at the bottom with income Rs. 7400 per household. Low average income shows that majority of population is living below poverty line. (For detail see Appendix A-9).

3.4. Housing Status

The information related the housing conditions such as number of rooms, wall and roof material and source of drinking water have been covered under this aspect. Due to poverty, the slum dwellers could not afford a proper piece of land and usually selected a neglected area or vacant plots and developed slums there. Most of the slum dwellers were found to have katcha houses, where wood was used as a supporting material. In the similar manner, the houses of people residing in Coimbatore area of Tamilnadu were made up of similar kind of material with more than 43.4 percent people living in katcha houses [Sundari (2003)].

3.4.1. *Number of Rooms*

Is an important parameter to measure the socio-economic conditions of inhabitants of slum-dwellers. More than 23 percent of the households from selected slums are living in a single room dwelling unit followed by 42.25 percent in two rooms, 18.78 percent in three rooms. (For detail see Appendix A-10).

Similar to this study, the single and two room accommodation was very common among the slum dwellers of Coimbatore of Tamilnadu [Sundari (2003)] and Aligarh city of Uttar Pradesh [Rahman (2008)]. In another study conducted by Ray (2002) in Calcutta, it was found that about 96 percent of slum dwellers had single room accommodation.

3.4.2. *Wall and Roof Material*

About 87 percent of the walls have been constructed with the help of baked bricks while 13 percent with unbaked bricks. Similarly, it has also been calculated that majority of roofs have been constructed by cement and iron sheets but significance use of wood/bamboo (36.60 percent) reflects that socio-economic conditions of the slum-dwellers are worse. (For detail see Appendix A-11).

3.4.3. *Source of Drinking Water*

The drinking water of Faisalabad is not clean. It was estimated that about 65.75 percent of the slum-dwellers are using the water from motor pumps. That is why;

hepatitis is very common in these slums. These results are consistent with WHO (2008), which narrates that poor water quality is one of the basic causes of morbidly and mortality worldwide. Growing number of poor people who lack basic needs, such as access to clean water are more victims to the diseases driven by malnourishment and air, water and soil pollutants [Pimentel (2007)]. The slums dwellers of Nairobi city use sewerage water, rain water and water from broken pipes for various purposes such as drinking and washing etc. [Amuyunzu and Taffa (2004)]. Afsar (1999) found that urban slums dwellers in Bangladesh were deprived of water supply to their homes and the average time to collect the water from a common stand pipe or well was 30minutes per trip and at least two trips were needed to collect the bucket of drinking water. Further Osamanu (2007) found that most of the urban poor of Tmale city of Ghana collected water from the sources located in distance. In another study, the water supply to the 128 migrants in Tirupur slums was found to be of poor quality and unfit for human consumption [Sundari (2003)]. In similar way, the quality of drinking water was found substandard in the slums of Tamilnadu [Sundari 2003) and Delhi, Karswara, *et al.* (2005)].

3.5. Hypothesis

Whether socio-economic conditions of inhabitants of non-transferred slums are different than those of transferred slums.

Table 2

Group Statistics of Non-Transferred V/s Transferred Katchi Abadis

	Group Statistics					
	TNT	N	Mean	Std. Deviation	Std. Error Mean	P value when Equal Variance Assumed
Housing Status	Transferred	14	2.79	1.051	.281	.353
	Not Transferred	19	1.84	.958	.220	
Educational Attainment	Transferred	14	3.21	2.359	.631	.072
	Not Transferred	19	3.47	2.816	.646	
Household Income	Transferred	14	9822.5	.267	.071	.000
	Not Transferred	19	8685	.513	.118	

3.5.1. *Housing Status*

The p-value of housing status is P=0.014 which is less than$\propto = 5\ percent = 0.05$ (level of significance). This shows there is significance difference between housing status of transferred and non-transferred slums. Mean reflects that housing status of transferred slum is better than that of non-transferred slum.

3.5.2. *Education Attainment*

The P-value of education attainment is P = 0.776 which is greater than $\propto$ = 5 percent = 0.05 (level of significance). This shows, there is no significance difference between the educational attainment of the two slums.

3.5.3. *Household Income*

P = 0.003<$\propto = 5\ percent = 0.05$ (level of significance) which shows there is significance difference between the household income of transferred and non-transferred slums. Mean reflects that household income of transferred slum is better than non-transferred slum.

4. CONCLUSION AND RECOMMENDATION

4.1. Conclusion

The rapid urbanisation during last four decades has given birth to urban slums. The poor slum dwellers face worse socio-economic conditions. The streets are unpaved and there is poor system of sanitation and drainage. Although, literacy rate was found reasonable yet the trend towards higher education is almost equal to nothing. The reason behind it is when the children grow in age; they are forced to do physical work as source of earning. There is high birth and infant mortality rate. The housing status is poor. Most of the people live in a single room house. Majority of the houses have no separate kitchens and toilets. About half of the slum population lives in unpaved houses. A large number of the population is deprived of clean drinking water which has given birth to infectious diseases. The majority of slum residents has very low income and is living below the poverty line. It was found that property rights of some slums have been transferred to the people residing there. These are called transferred urban slums while still there are some slums whose property rights have not been transferred to dwellers living there. These are called non-transferred slums. The socio-economic conditions in transferred slums were found better than those in non-transferred.

4.2. Recommendations

(i) Urban planning should be focused to cater the increasing pressure of urbanisation. Steps should be taken to improve the physical conditions of slums. The basic infrastructure should be upgraded.

(ii) Government should take steps to provide basic health facilities and clean drinking water. High infant and maternal death can be substantially reduce by providing basic sanitation facilities in these areas.

(iii) The property rights should be given to those whom these rights have not been given so far but steps should be taken to stop the emergence of new slums.

(iv) Government should lay stress on women development. A strategy should be made for establishing the proper marketing network for the sale of good produced by them.

(v) Keeping in view Oringi Pilot Project model, community participation based development programs should be launched to improve the physical conditions of these poor areas.

(vi) NGO's should play their role to improve the socio-economic conditions of these most deprived areas in cities.

APPENDIX

Table A-1

Selection of Sample Katchi Abadi on the Basic Of Variation in Number of Household

Stratum	Mean	S.D	$S_h^2 N_h$	N_h	$N_h \times S_h^2$
1	58.75758	14.01122	0.056862	33	1.876456
2	131.0625	31.88076	0.05917	32	1.893435
3	276.6875	39.0405	0.019882	16	0.318114
4	427.3636	42.34447	0.009817	11	0.107992
5	725.4286	132.0151	0.033123	7	0.231858
6	1857.4	812.2831	0.191257	5	0.926255
					5.35411

Table A-2

Selected Katchi Abadis

Sr. No.	Selected Katchi Abadis	No of Dwelling Units
1	Bishan Singh Wala	42
2	Chowk Choudhry Floor mills	56
3	Muslim High School, Tariq Abad	58
4	Gharib Abad	66
5	Madan Pura 279/R.B	78
6	Bahadar Singh Wala	97
7	Malik Pura	133
8	Old Water Works	116
9	Manawala Sq. 80	180
10	Malkhanwala	256
11	Railway Phatak No. 8	288
12	Pull Tariq Abad, Girga Ghar	408
13	Fire Brigade	443
14	Partab Nagar	638
15	Mai Di Jhugi (Bilal Gunj)	2851

Source: Researcher's own calculations.

Table A-3

Selection of Sample Size on the Basis of Variation per Capita Income

Stratum	Mean	S.D	$S_h^2 N_h$	N_h	$N_h \times S_h^2$
1	1810	809.1971	0.199872	2135	426.7267
2	1433.333	615.042	0.181726	3703	671.8205
3	1556.333	581.0393	0.139382	4648	647.8475
4	2126.667	772.1118	0.131814	5957	785.216
5	1299.767	285.6644	0.048348	4466	215.9222
6	1320	319.9375	0.058747	19957	1166.888
	Total				**3914**

36 Households were interviewed in 6 strata to estimate the variation in socio-economic condition of households.

Table A-4

Selection of Sample Respondents

Sr. No.	Name of Selected Katchi Abadi	Distribution of Sample
1	Bishan Singh Wala	10
2	Chowk Choudhry floor mill	13
3	Muslim High school Tariq Abad	14
4	Gharib Abad	15
5	Madan Pura	18
6	Bahadar Sing Wala	11
7	Old Water works	13
8	Malik Pura	14
9	Manawala Sq.80	19
10	Malkhanwala	13
11	Railway Phatak No. 8	15
12	Pull Tariq Abad Girga Ghar	13
13	Fire brigade	15
14	Partab Nagar	14
15	Mai Di Jhugi	14

Source: Researcher's own calculations.

Table A-5

Literacy Rate

Stratum	Colony	Literacy Rate	Literacy Rate (Male)	Literacy Rate (Female)
1.	Bishan Singh Wala	23.26%	36.84%	12.50%
	Chowk Choudhry Floor Mills	65.91%	73.47%	56.41%
	Muslim High School, Tariq Abad	81.33%	89.19%	73.68%
	Gharib Abad	48.05%	48.89%	46.88%
	Madan Pura	50.77%	46.48%	55.93%
	Sub Total	**56.17%**	**59.28%**	**52.60%**
2.	Bahadar Singh Wala	77.05%	81.82%	71.43%
	Old Water Works (GM Abad)	51.43%	52.94%	50.00%
	Malik Pura	82.93%	89.80%	72.73%
	Mananwala Sq. No. 80	69.72%	76.92%	59.09%
	Sub Total	**70.50%**	**76.80%**	**62.41%**
3.	Malkhana Wala	59.42%	59.52%	59.26%
	Railway Phatak No. 8	46.43%	52.17%	39.47%
	Sub Total	**52.29%**	**55.68%**	**47.69%**
4.	Pull Tariq Abad Girga Ghar	54.17%	63.41%	41.94%
	Fire Brigade K.A	88.37%	86.67%	90.24%
	Sub Total	**72.78%**	**75.58%**	**69.44%**
5.	Partab Nagar	**80.95%**	**90.24%**	**72.09%**
6.	Mai Di Jhugi (Bilal Gung)	**88.89%**	**90.74%**	**86.67%**
	Overall Literacy Rate	**65.91%**	**70.04%**	**60.93%**

Source: Researcher's own calculations.

Table A-6

Crude Birth Rate

Colony	Less Than One Year	Total Population	CBR/1000
Bishan Singh Wala	2	55	36.36
Chowk Choudhry Floor Mills	2	107	18.69
Muslim High School, Tariq Abad	2	94	21.28
Gharib Abad	2	94	21.28
Madan Pura	5	152	32.89
Sub Total	**13**	**502**	**25.90**
Bahadar Singh Wala	0	92	0.00
Old Water Works (GM Abad)	5	98	51.02
Malik Pura	3	111	27.03
Mananwala Sq. No. 80	4	131	30.53
Sub Total	**12**	**432**	**27.78**
MalkhanaWala	0	89	0.00
Railway Phatak No. 8	4	140	28.57
Sub Total	4	229	17.47
Pull Tariq Abad Girga Ghar	3	87	34.48
Fire Brigade K.A	4	105	38.10
Sub Total	**7**	**192**	**36.46**
Partab Nagar	1	104	9.62
Mai Di Jhugi (Bilal Gung)	2	131	15.27
Total	**39**	**1590**	**24.53**

Source: Researcher's own calculations.

Table A-7

Infant Mortality Rate

Particulars	Less Than One Year Children	No. of Infant	Birth in Last 12 Months	Infant Mortality Rate / 1000
Male	26	3	29	103.44
Female	22	3	25	120
Total	**48**	**6**	**54**	**111.11**

Source: Researcher's own calculations.

Table A-8

Incidence of Disability

Particulars	Male	Female	Total	% of Total Disables
Blindness	0	1	1	9.09%
Deaf/Mute	0	0	0	0.00%
Crippled	3	2	5	45.45%
Madness	1	0	1	9.09%
Mentally Retarded	2	0	2	18.18%
More Than 1 Disability	1	0	1	9.09%
Other	1	0	1	9.09%
Total	**8**	**3**	**11**	**100.00%**

Source: Researcher's own calculations.

Table A-9

Average Income of Household

Stratum	Colony	Average Income
1	Bishan Singh Wala	7400
	Chowk Choudhry Floor Mills	9615
	Muslim High School, Tariq Abad	9285
	Gharib Abad	8702
	MadanPura	9027.5
2	Bahadar Singh Wala	9317.5
	Old Water Works (GM Abad)	9037.5
	Malik Pura	8671.5
	Mananwala Sq. No. 80	8685
3	MalkhanaWala	9037.5
	Railway Phatak No. 8	8667.5
4	Pull Tariq Abad Girga Ghar	8565
	Fire Brigade K.A	9500
5	Partab Nagar	9822.5
6	Mai Di Jhugi (Bilal Gung)	9500
	Overall Average	9220

Source: Researcher's own calculations.

Table A-10

Number of Rooms

Stratum	Colony	One	Two	Three	Four	Five	Six	> Six
1.	Bishan Singh Wala	7	2	0	1	0	0	0
	ChowkChoudhry Floor Mills	0	11	2	0	0	0	0
	Muslim High School	2	3	5	4	0	0	0
	Gharib Abad	6	7	1		1	0	0
	MadanPura	6	8	1	2	1	0	0
	Sub Total	**21**	**31**	**9**	**7**	**2**	**0**	**0**
2.	Bahadar Singh Wala	1	4	4	0	0	0	2
	Old Water	2	7	3	1	0	0	0
	Malik Pura	3	6	2	3	0	0	0
	Mananwala Sq. No. 80	8	8	1	2	0	0	0
	Sub Total	**14**	**25**	**10**	**6**	**0**	**0**	**2**
3.	MalkhanaWala	3	6	2	2	0	0	0
	Railway Phatak No. 8	2	7	3	0	2	1	0
	Sub Total	**5**	**13**	**5**	**2**	**2**	**1**	**0**
4.	Pull Tariq Abad	6	6	1	1	0	0	0
	Fire Brigade K.A	0	5	7	2	1	0	0
	Sub Total	**6**	**11**	**8**	**3**	**1**	**0**	**0**
5.	Partab Nagar	0	8	2	3	1	0	0
6.	Mai Di Jhugi	4	2	6	1	2	0	0
	G. Total	**50**	**90**	**40**	**22**	**8**	**1**	**2**
	% of G. Total	**23.47%**	**42.25%**	**18.78%**	**10.33%**	**3.76%**	**0.47%**	**0.94%**

Source: Researcher's own calculations.

Table A-11

Wall and Roof Material

Wall Material	% of Total Sample Houses	Roof Material	% of Total Sample Houses
Baked Bricks	86.90%	Lantern (RCC/RBC)	10.80%
Unbaked Bricks	13.10%	Cement / Iron Sheet	48.40%
Wood/Bamboo	0	Wood/Bamboo	36.60%
Other	0	Other	4.20%

Source: Researcher's own calculations.

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