## RURAL-URBAN DISPARITIES IN KHYBER PAKHTUNKHWA PAKISTAN

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### **ABSTARCT**

The present study was conducted to investigate the social and demographic analysis of urban-rural disparities in Khyber Pakhtunkhwa, Pakistan during 2010. Multi-stage random sampling method was used for selection of sample size by taking 1320 and 720 respondents from the urban and rural areas of the province respectively. Chi-square test was used for ascertaining the association between the attributes while a test for proportion difference was applied to identify the significant disparities. The results revealed significant (P < 0.05) association of rural-urban disparities with educational level, materials used for construction of houses and sanitation. Also, significant (P < 0.05) differences between the proportions of rural and urban areas regarding different social and demographic characteristics were observed. Significant rural-urban disparity was recorded in almost all the studied factors like roads, water supply, sanitation, gas connectivity, garbage disposal, education, health services, agriculture, materials used in the houses and type of latrine. The results demonstrate significant differences between urban-rural areas of the province.

Key Words: Demography, social amenities, rural-urban disparity, multi-stage sampling, Khyber Pakhtunkhwa.

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# INTRODUCTION

The diversity of specific policies and programmes of any government plays a vital role in the development of rural and urban areas (UN, 2001). The implementation of improved management and servicing for the growth of urban and rural areas of Pakistan needs greater attention. Owing to the larger presence and role of state institutions, the state must take the lead role in bridging the rural urban disparity. Historically rural areas lag far behind their urban counterparts on multiple indicators of social and economic well being. Conscious efforts are employed in developing countries to bring up the service delivery in rural areas at par with urban areas. This is not to say that urban areas are at a higher level of development always. However, there is anecdotal evidence on the lag between urban and rural areas.

According to Government of Pakistan, 67% of the total population resides in rural areas (GoP, 2007). The surge for urbanization got impetus in the 1990s, owing to multiple factors resulting in stressing the urban infrastructure. Parts of the reasons for urbanization are the declining landholdings, big family sizes and ensuing unemployment and lack of non-farm incomes. However this discussion is out of scope for the current paper. Our focus will be service delivery and demographic disparities in KP, Pakistan.

Agriculture, the backbone of rural economies, has contributed significantly to Pakistan's economic growth. However the share dropped down to 22% of the GDP in 2009 (GoP, 2010). This downfall can be attributed to multiple factors, particularly the accelerated growth rate of services and manufacturing sectors. The services sector, including banking, telecommunications and oil/gas constitute more than half of the Pakistan's GDP (Pakistan Economic Survey, 2009-10).

The development of rural areas is the core concern of the economic development of a country like Pakistan. Pakistan's Poverty Alleviation Strategy Papers (PRSP-II 2009) focuses on rural development as a central goal in alleviating poverty, ensuring food security and social justice. The PRSP focuses on both agriculture and non farm income opportunities. The development of rural areas doesn't mean only the agricultural growth but it also consider socio-economic conditions of the rural population by raising their incomes and provision of essential facilities like clean drinking water and sewerage, better housing, health and education services, road infrastructures and power communication for participating in cultural and political activities (Israr *et al.*, 2009).

Note: Unless otherwise specified, the data used in this research is from Social Audit of Local Governance and Delivery of Public Service in Pakistan, 2009/10. A nation -wide survey conducted by Devolution Trust for Community Empowerment (DTCE), supported by UNDP, Pakistan.

## MATERIAL AND METHODS

# Universe of the Study and Sampling Procedure

The present study was conducted in the Khyber Pakhtunkhwa province for measuring the rural-urban disparities regarding different social and demographic characteristics. A multistage sampling approach (Cochran, 1977) was adapted for selection of different rural-urban sites of the province. In the first stage, the province was divided into three regions i.e. Northern Region which consist of 10 districts with 35% of the total province population, Central Region which has 7 districts with 45% of the province population, and Southern Region having 7 districts with 20% of the total population of the province. In the second stage, four districts one each from central and southern regions, and two from northern region were selected randomly. In the third stage, 17 union councils (UCs) were selected by selecting 6 UCs from northern region, 7 UCs from central region and 4 UCs from southern region according to the percentage size of the population in the selected regions of the province. In the next stage, 120 households were randomly selected from each union council by taking 720 and 1320 households from urban and rural areas respectively Table I. It is important to mention that the sampling methodology adopted in the national survey of Pakistan Social and Living Standard Measurement Survey (PSLMS) and Labor Force Survey by Federal Bureau of Statistics, Pakistan (GoP 2009) was used in the present study. To obtain the reliable estimates of the sampled households, 5% margin of error and 95% confidence level was considered in their selection.

### Data Collection

The data was collected through a pre-designed household questionnaire which comprises of several sections covering all the relevant information needed to obtain the required objectives of the study. While collecting the data, three different teams containing 11 members each i.e. one supervisor and 10 enumerators were constituted. The data was collected through enumerators and supervisors were responsible to look after the team and to facilitate them in the whole process. The data collection teams were trained for 2 days on the questionnaire and field ethics and management.

Table I Distribution of sample respondents in rural-irban areas of Khyber Pakhtunkhwa

| District         | Union Council | Urban/Rural <sup>+</sup> | Sample size |
|------------------|---------------|--------------------------|-------------|
| Datagram         | Biari         | R                        | 120         |
| Batagram         | Kuza Banda    | R                        | 120         |
|                  | Qazipur       | R                        | 120         |
| Haripur          | Bakka         | R                        | 120         |
|                  | Dheendah      | R                        | 120         |
|                  | Haripur South | U                        | 120         |
|                  | Dewala        | R                        | 120         |
| Dono Iomoil Whom | Muryali       | R                        | 120         |
| Dera Ismail Khan | Kulachi Town  | U                        | 120         |
|                  | Kot Jai       | R                        | 120         |
|                  | Gul Bahar     | U                        | 120         |
|                  | Hayatabad-II  | U                        | 120         |
|                  | Wazir Bagh    | U                        | 120         |
| Peshawar         | Nauthia       | U                        | 120         |
|                  | Jogani        | R                        | 120         |
|                  | Sarband       | R                        | 120         |
|                  | Urmur Miana   | R                        | 120         |

Note: R and U shows rural and urban area respectively

## Data Analysis

The collected data is presented as counts and percentages for both the urban and rural areas. To test the association between the urban-rural disparities in regard to different factors, a Chi-square test with 5% level of probability is employed. The Chi-square test, for convenience, is expressed as:

$$\chi^{2} = \sum_{i=1}^{r} \sum_{j=1}^{c} \frac{(o_{ij} - s_{ij})^{2}}{s_{ij}}$$
 (1)

Which under null hypothesis follow a Chi-square distribution with (r-1)(c-1) degrees of freedom. In equation (1),  $O_{ij}$  and  $\varepsilon_{ij}$  are the observed and expected frequencies of cell in the i<sup>th</sup> row and j<sup>th</sup> column respectively.

Under null hypothesis for each pair of the tested attributes, it was assumed that there is no significant association between the two variables, i.e. the two variables are independent. In order to decide about the statistical association between the urban-rural disparities in regard to different factors, a 5% level of probability was used.

To test the difference between proportion of urban and rural areas regarding different variable/attributes of interest, a Z-test (Standard normal variate) was applied, which can be written as:

$$Z = \frac{(\hat{\varphi}_1 - \hat{\varphi}_2)}{\sqrt{(\frac{\hat{\varphi}_1 \hat{\varphi}_1}{n_1}) + (\frac{\hat{\varphi}_2 \hat{\varphi}_2}{n_2})}}$$
(2)

Where  $\hat{p}_1 = (1 - \hat{q}_1)$  and  $\hat{p}_2 = (1 - \hat{q}_2)$  are the sample proportion of rural and urban areas respectively. In this case, under the null hypothesis it was hypothesized that there is no significant difference between the proportions of urban and rural areas of KP. The hypothesis was declared as significant if any of the P-value of a z-statistics is less than or equal to 5% level of significance, otherwise it was considered as non-significant.

### RESULTS AND DISCUSSION

# Distribution of Respondents in the Study Area

Table II and III indicates the distribution and total percentage of the male and female respondents participated in the study. It is evident from a high percentage of male respondents in rural areas that males are more dominant in rural life, both as bread earners for the family and lead in the social lives of the areas. It is usually the men folk who are decision makers at both the household and communal level.

Table II Gender distribution in selected Union Councils of rural areas of Khyber Pakhtunkhwa

| Union Council (Rural) | Se        | ex       |
|-----------------------|-----------|----------|
|                       | Male      | Female   |
| Urmur miana           | 103       | 17       |
| Biari                 | 120       | -        |
| Kuza Banda            | 119       | 1        |
| Qazipur               | 87        | 33       |
| Bakka                 | 86        | 34       |
| Dheendah              | 72        | 48       |
| Dewala                | 120       | -        |
| Muryali               | 120       | -        |
| Kot Jai               | 120       | -        |
| Jogani                | 102       | 18       |
| Sarband               | 100       | 20       |
| Total                 | 1149 (87) | 171 (13) |

Note:\*the values in parentheses are the percentages.

Women usually look after their homes and rarely involve in wage earning activities. Similarly, the percentage of male respondents in the urban area is also higher as compared to the female. However, the percentage of female respondents in urban area is almost 2.5-fold in rural area suggesting relative freedom and ease of access for the women of the areas.

Table III Gender ratio in selected Union Councils of urban areas of Khyber Pakhtunkhwa

| Union Council (Urban) | Se       | ex       |
|-----------------------|----------|----------|
|                       | Male     | Female   |
| Haripur South         | 63       | 57       |
| Kulachi Town          | 120      | -        |
| Gulbahar              | 83       | 37       |
| Hayatabad-II          | 87       | 33       |
| Wazir Bagh            | 70       | 50       |
| Nauthia               | 67       | 53       |
| Total                 | 490 (68) | 230 (32) |

# Educational Level of the Respondents

Educational level is an important factor which has a positive impact on human behavior (Hassan 1991) for defining the rural-urban disparity, which is given in (Table IV). There is a significant difference between the

proportions of rural-urban disparity (male Vs male, female Vs female, and both sexes i.e. total of urban Vs total of rural) as provided in (Table V). It is apparent that there exist significant (p<0.05) difference between the proportion of illiterate males, females and both sexes in both rural and urban areas. It suggests that the number of illiterates is significantly more in rural areas as compared to urban centers. The result shows that there is no significant (P > 0.05) difference between the proportion of male respondents of rural-urban areas for primary, middle and matric level education. Similarly, there is no significant difference in the proportion of female's primary and middle education between the two areas but significantly greater numbers of females in the educational level of matric in the urban area were recorded as compared to the rural area. However, the same non-significant difference for middle and matric was observed for the both gender. In case of primary education the proportion difference was significant. The percent number of males, females and both sexes having intermediate education in the rural area are significantly lower as compared to the urban area. The same trend was also observed in the graduation level but the proportions for female were found not-significantly different in the two areas.

Table IV Educational disparity in selected Rural-Urban area of Khyber Pakhtunkhwa

| Education level     | •           | Rural    | •          | Urban      |           |            |  |
|---------------------|-------------|----------|------------|------------|-----------|------------|--|
|                     | Male        | Female   | Total      | Male       | Female    | Total      |  |
| No formal education | 369 (27.95) | 84(6.36) | 453(34.32) | 79(10.97)  | 79(10.97) | 158(21.94) |  |
| Primary             | 116 (8.79)  | 28(2.12) | 144(10.91) | 41(5.69)   | 29(4.03)  | 60(8.33)   |  |
| Middle              | 177(13.41)  | 11(0.83) | 188(14.24) | 68(9.44)   | 24(3.33)  | 92(12.78)  |  |
| Matric              | 263(19.92)  | 25(1.89) | 288(21.82) | 113(15.69) | 40(5.56)  | 153(21.25) |  |
| Intermediate        | 103(7.80)   | 6(0.45)  | 109(8.26)  | 67(9.31)   | 31(4.31)  | 98(13.61)  |  |
| Graduation          | 55(4.80)    | 13(0.98) | 68(5.15)   | 64(8.89)   | 13(1.81)  | 77(10.69)  |  |
| Post Graduation     | 43(3.26)    | 2(0.15)  | 45(3.41)   | 39(5.42)   | 7(0.97)   | 46(6.39)   |  |
| Technical diploma   | 4(0.30)     | -        | 4(0.30)    | 5(0.69)    | _         | 5(0.69)    |  |
| Professional*       | 6(0.45)     | -        | 6(0.45)    | 7(0.97)    | 4(0.56)   | 11(1.53)   |  |
| Religious           | 7(0.53)     | 2(0.15)  | 9(0.68)    | 1(0.14)    | 2(0.28)   | 3(0.42)    |  |
| Null++              | 6(0.45)     | -        | 6(0.45)    | 6(0.83)    | 1(0.14)   | 7(0.97)    |  |
| Grand Total         | 1149        | 171      | 1320       | 490        | 230       | 720        |  |

Note: \*indicates professional education i.e. medical, engineering, and lawyers etc; ++shows no response (Null + 11); Chi-square = 260.68 (P-value = 0.000) for rural area; Chi-square = 121.89 (P-value = 0.000) for urban area; Chi-square = 383.73 (P-value = 0.000) for overall (urban and rural) data;

In addition, the ratio of postgraduate in urban area was significantly higher as compared to rural in all the three categories (male, female and both). Moreover, no significant difference in the proportion of rural-urban peoples regarding technical education was found, in males, females and both the sexes. The results also depict that the percentage of professionals (males and females) in urban area were significantly more than the rural area. It also reveals that religious education was not common (lower and non-significant) in both urban and rural areas of Khyber Pakhtunkhwa. The Chi-square values (260.68) for rural area, indicating significant (P-value = 0.000) association between the educational level and gender. Similar trend was also recorded for urban areas. These results suggest that a marginal increase in education infrastructure and quality will result in higher education outcomes and favorable perception of people towards education.

Table V Gender based literacy proportion of rural and urban areas of Khyber Pakhtunkhwa

| Level of Education |           | Male    |         |           | Female  |         | Both Se   | x (Male and | l Female) |
|--------------------|-----------|---------|---------|-----------|---------|---------|-----------|-------------|-----------|
| Level of Education | Pop. Diff | Z-ratio | P-value | Pop. Diff | Z-ratio | P-value | Pop. Diff | Z-ratio     | P-value   |
| Illiterate         | 0.16      | 7.41    | 0.000   | 0.15      | 2.99    | 0.001   | 0.12      | 6.12        | 0.000     |
| Primary            | 0.02      | 1.13    | 0.129   | 0.04      | 1.05    | 0.146   | 0.03      | 1.92        | 0.027     |
| Middle             | 0.02      | 0.81    | 0.208   | -0.04     | -1.45   | 0.074   | 0.01      | 0.93        | 0.176     |
| Matric             | 0.00      | -0.08   | 0.468   | -0.03     | -0.75   | 0.022   | 0.01      | 0.30        | 0.382     |
| Intermediate       | -0.05     | -2.67   | 0.004   | -0.10     | -3.75   | 0.000   | -0.05     | -3.60       | 0.000     |
| Graduation         | -0.08     | -5.02   | 0.000   | 0.02      | 0.77    | 0.221   | -0.06     | -4.26       | 0.000     |
| Post Graduation    | -0.04     | -3.14   | 0.000   | -0.02     | -1.34   | 0.090   | -0.03     | -2.87       | 0.002     |
| Technical diploma  | -0.01     | -1.38   | 0.084   | 0.00      | 0.00    | -       | 0.00      | -1.14       | 0.127     |
| Professional*      | -0.01     | -1.57   | 0.058   | -0.02     | -2.02   | 0.022   | -0.01     | -2.18       | 0.015     |
| Religious          | 0.00      | 1.32    | 0.093   | 0.00      | 0.29    | 0.386   | 0.00      | 0.80        | 0.468     |
| Null++             | -0.01     | -1.30   | 0.097   | 0.00      | -1.00   | 0.159   | -0.01     | -1.26       | 0.104     |

Note:\*indicates professional education i.e. medical, engineering and lawyers etc; ++shows no response (Null + 11).

### **Roof Construction Materials**

Another important indictor used worldwide for measuring rural-urban disparities is the construction material of the house. Instead of looking at various dimensions like the walls, number of rooms, kitchen structure, and building material, this study utilizes as simple variable of roof construction. Different materials used in the construction of roof of urban/rural houses are displayed in (Table VI). It is evident that majority of the houses in rural areas are constructed from cement/iron rods followed by mud, TR, wood and iron. Very less number of the respondents in rural area reported to live in the jhugi /tents (Jhugi is local term for any construction primarily made from dried leaves, branches and mud). On the other hand, almost similar trend can be seen in the urban area. But the percentage of cement/ iron rods used in the urban areas is significantly (P<0.05) higher than that of rural area. The negative proportion difference suggests that most of the people residing in the urban area are constructing their houses from cement/ iron rods while rural dwellers cannot afford to use such materials. Similarly, the trend of making houses from mud in rural area is significantly (P<0.05) higher as compared to the urban area. Also it was observed that utilization of wood in the rural area in the construction of their houses is significantly larger (8.81%) than the urban area (4.86%), suggesting that rural people have easy access to wood. In addition, the significant (P<0.05) Chi-square test shows that there exist a significant association between the materials used and that of the urban-rural disparity.

Table VI Materials used in roof construction of houses in urban and rural areas of Khyber Pakhtunkhwa

| Materials of floor | Rural      | Urban      | Prop. Diff. <sup>+</sup> | Z-ratio      | P-value |
|--------------------|------------|------------|--------------------------|--------------|---------|
| Cement/saria       | 504(38.18) | 527(73.19) | -0.3501                  | -16.48**     | 0.00    |
| TR                 | 251(19.02) | 60(8.33)   | 0.1068                   | 7.16**       | 0.00    |
| Iron               | 101(7.65)  | -          | 0.0765                   | $10.46^{**}$ | 0.00    |
| Mud                | 349(26.44) | 94(13.06)  | 0.1338                   | 7.66**       | 0.00    |
| Jugi/tent          | 1(0.08)    | -          | 0.0008                   | 1.00         | 0.158   |
| Wood               | 108(8.18)  | 35(4.86)   | 0.0332                   | 3.02**       | 0.001   |
| Null               | 6(0.45)    | 4(0.56)    | -0.0010                  | -0.30        | 0.382   |
| Total              | 1320       | 720        | -                        |              |         |

Note:+shows the proportion difference of rural and urban areas i.e. (rural-urban); Chi-square = 958.19 (P-value = 0.000)

# Sanitation

Sanitation is another important socioeconomic indicator of wellbeing. In this connection, latrines were used as proxy for sanitation. While there is a strong preference for flush latrines inside the houses in both urban and rural areas, these latrines remains an expensive affair for people who have mud kitchens. Table VII shows that majority of the people in both urban and rural areas are using latrine inside their houses, and there is a significant (P<0.05) difference between their proportions. It also indicates that almost 97% of the urban and 84% of rural are taking the facility of inside house latrine. The remaining, 3% and 16% in the respective urban and rural areas are using either public latrines or open fields. Also a higher and significant (P<0.05) proportion of rural people are using fields as latrine. The Chi-square value (38.01) with P-value =0.000 suggests that there is a highly significant association between the type/facility of latrine and that of urban-rural areas. It further suggests that there are greater and significant disparities between the urban and rural areas of KP regarding the type of latrine. It could be one of the most important factors responsible for disparity between urban and rural people.

Table VII Type of latrine used in urban-rural houses of Khyber Pakhtunkhwa

| Type of latrine   | Rural       | Urban      | Prop. Diff. <sup>+</sup> | Z-ratio | P-value |
|-------------------|-------------|------------|--------------------------|---------|---------|
| Inside the house  | 1113(84.32) | 689(96.69) | -0.11376                 | -9.0678 | 0.000   |
| Outside the house | 57(4.32)    | 9(1.25)    | 0.030682                 | 4.4082  | 0.000   |
| Fields            | 141(10.68)  | 17(2.36)   | 0.083207                 | 8.1475  | 0.000   |
| Null              | 9(0.68)     | 5(0.69)    | -0.00013                 | -0.0329 |         |
| Total             | 1320        | 720        |                          | -       |         |

Note: +shows the proportion difference of rural and urban areas i.e. (rural-urban); Chi-square = 38.01 (P-value = 0.000).

## Satisfaction Level of Key Amenities

The nature of this study was to find the magnitude of the perceptions in rural-urban area of the province. The frequency distribution and percentages of satisfaction levels for different facilities in urban area Table VIII, rural area Table IX and the statistical significance of the difference between the proportions of different issues/amenities in the rural-urban area Table X are subsequently given.

The frequency distribution and percentages of the levels of satisfaction for different facilities in urban area are displayed in (Table VIII). It is evident that majority of the respondents showed satisfaction on the availability of roads, water supply, education and communication. In case of education, 10.97 % showed their concern about the non availability of the said facility, while 13.33 % were neither satisfied nor unsatisfied. Maximum numbers of the people were not satisfied from sanitation, garbage, electricity, gas availability and health services. In addition, 21.55, 16.81 and 14.17 % of the respondent were of the opinion that garbage, gas and health services respectively are not available. Moreover, large number of the peoples showed their concern about the non-availability of agriculture and transport facilities. However, only a fraction of the total respondents were satisfied from agriculture and transportation. Table IX indicates the result (counts and percentages) regarding the levels of satisfaction for key social services in rural area. The results reveal that most of the sampled respondents were satisfied from the availability of water supply (50.76%), education (45.68%) and communication (46.29%). In case of water supply, education and communication 10.15, 6.52 and 31.21 percent of the respondent respectively showed their concern about the non availability of these facilities. Majority of the respondents were not satisfied with roads (61.52%), water sanitation (62.80%), electricity (53.86%) and health services (46.67%). In addition, 13.94 percent of the respondents were of the opinion that health services are not available. Moreover, maximum number of the peoples showed their concern about the non-availability of garbage facility, gas, transportation and agriculture facilities. However, only a fraction of the total respondents were satisfied from garbage facility, gas, transportation and agriculture facilities.

Table VIII Frequency distribution of satisfaction levels with respect to key amenities in urban Khyber Pakhtunkhwa

| Issues               | Satisfied  | Not satisfied | Neither<br>Satisfied nor<br>Not satisfied | Facility not available | Don't know | Null    |
|----------------------|------------|---------------|---|------------------------|------------|---------|
| Roads                | 343(47.64) | 307(42.64)    | 50(6.94)                                  | 2(0.28)                | 15(2.08)   | 3(0.42) |
| Water Sanitation     | 253(35.14) | 415(57.64)    | 29(4.03)                                  | 7(0.97)                | 13(0.81)   | 3(0.42) |
| Water supply         | 428(59.44) | 213(29.58)    | 69(9.58)                                  | 1(0.14)                | 5(0.69)    | 4(0.56) |
| Garbage facility     | 184(25.56) | 321(44.58)    | 54(7.50)                                  | 153(21.55)             | 5(0.69)    | 3(0.42) |
| Electricity          | 236(25.56) | 378(52.50)    | 88(12.22)                                 | 7(0.97)                | 7(0.97)    | 4(0.56) |
| Gas                  | 170(23.61) | 375(52.08)    | 41(5.69)                                  | 121(16.81)             | 9(1.25)    | 4(0.56) |
| Health services      | 208(28.89) | 260(36.11)    | 96(13.33)                                 | 102(14.17)             | 50(6.94)   | 4(0.56) |
| Education            | 306(42.50) | 178(24.72)    | 96(13.33)                                 | 79(10.97)              | 58(8.06)   | 3(0.42) |
| Transportation       | 84(11.67)  | 173(24.03)    | 39(5.42)                                  | 347(48.19)             | 74(10.28)  | 3(0.42) |
| Agriculture facility | 24(3.33)   | 144(20.00)    | 33(4.58)                                  | 334(46.39)             | 177(24.58) | 8(1.11) |
| Communication        | 434(60.38) | 56(7.78)      | 28(3.89)                                  | 159(22.08)             | 39(5.42)   | 4(0.56) |

To compare the rural-urban disparities, only two categories of the satisfaction level were considered i.e. satisfied (S) and not satisfied (NS) and the test of proportion difference was applied for their significance Table X. It is evident that there exist significant (P < 0.05) differences between the proportions of rural and urban facilities, for those who were satisfied except education and agriculture facilities (P > 0.05). In addition, the negative sign of the proportion difference indicates that the number of satisfied respondent were significantly more in the urban area as compared to rural areas. Similarly, in case of the non satisfied group, a significant (P < 0.05) difference between the proportion of urban and rural area regarding all the facilities were recorded except water supply and electricity which were found non-significant (P > 0.05). In addition, the percentage of non satisfaction level in rural area was greater as compared to urban area in terms of roads, water sanitation, health services, education and communication. In case of garbage facility, gas, transportation and agriculture facilities the percentage of non-satisfied urban people was significantly (P < 0.05) higher than rural people.

Table IX Frequency distribution of satisfaction levels with respect to key amenities in rural Khyber Pakhtunkhwa

| Issues               | Satisfied  | Not satisfied | Neither       | Facility not | Don't know | Null     |
|----------------------|------------|---------------|---------------|--------------|------------|----------|
|                      |            |               | Satisfied nor | available    |            |          |
|                      |            |               | Not satisfied |              |            |          |
| Roads                | 351(26.59) | 812(61.52)    | 100(7.58)     | 41(3.11)     | 6(0.45)    | 10(0.76) |
| Water Sanitation     | 292(22.12) | 829(62.80)    | 69(5.23)      | 107(8.11)    | 12(0.91)   | 11(0.89) |
| Water supply         | 670(50.76) | 408(30.91)    | 93(7.05)      | 134(10.15)   | 4(0.30)    | 7(0.53)  |
| Garbage facility     | 36(2.73)   | 293(22.20)    | 34(2.58)      | 947(71.74)   | 0(0.00)    | 10(0.76) |
| Electricity          | 380(28.79) | 711(53.86)    | 193(14.62)    | 26(1.97)     | 0(0.00)    | 10(0.76) |
| Gas                  | 250(18.94) | 95(7.20)      | 41(3.11)      | 922(69.85)   | 1(0.08)    | 11(.83)  |
| Health services      | 326(24.70) | 616(46.67)    | 167(12.65)    | 184(13.94)   | 17(1.29)   | 10(0.76) |
| Education            | 603(45.68) | 476(36.06)    | 126(9.55)     | 86(6.52)     | 19(1.44)   | 10(0.76) |
| Transportation       | 35(2.65)   | 83(6.29)      | 30(2.27)      | 1133(85.83)  | 30(2.27)   | 9(0.68)  |
| Agriculture facility | 37(2.80)   | 173(13.11)    | 57(4.32)      | 968(73.33)   | 66(5.00)   | 10(0.76) |
| Communication        | 611(46.29) | 146(11.06)    | 91(6.89)      | 412(31.21)   | 51(3.86)   | 9(0.68)  |

These results indicate that there exists significant urban-rural disparities in key basic facilities availed by the people of Khyber Pakhtunkhwa province.

Prop. Diff. (NS) Prop. Diff. (S) Z-ratio P-value **Z-ratio** P-value Issue  $8.29^{*}$ Roads -0.21-9.47° 0.000 0.19 0.000-6.16\*\* 2.27 Water Sanitation -0.130.000 0.05 0.012 -3.79\*\* Water supply -0.09 0.000 0.01 0.62 0.268 -13.54\*\* -10.28\*\* -0.230.000 Garbage facility 0.000 -0.22Electricity -0.04 -1.86\* 0.01 0.59 0.278 0.031 -22.52\* -0.05 -2.44\* Gas 0.007 -0.450.000 Health services -0.04  $-2.03^*$ 0.021 0.11 4.68\* 0.000 5.45\*\* **Education** 0.03 1.39 0.082 0.11 0.000 -7.07\*\* -10.27\*\* Transportation -0.09 0.000 0.000 -0.18Agriculture facility -0.01-0.66 0.255 -0.07-3.93\* 0.000 -0.14-6.13° 0.0000.03  $2.49^{*}$ 0.006 Communication

Table X Difference between proportion of rural and urban area regarding different issues for satisfaction (S) and not satisfaction (NS) categories

Source: Calculated by Authors

## CONCLUSION AND RECOMENDATIONS

The following conclusions can be drawn from the results of the present study:

- i. There is no significant difference between the educational level of the urban and rural people up to matric and middle level education in males and females respectively. However, there is a significant difference between the proportions of urban-rural areas regarding education level beyond matric till post graduation. Also the professional education was significantly higher in the urban area than rural one.
- ii. In terms of house construction, significantly higher percentage of urban people use cement/iron rods as compared to rural population. While, rural people mostly use mud for construction of houses.
- iii. Both the urban and rural people prefer to make latrine inside the houses but only a fraction of urban people prefer fields or outside latrine.
- iv. Roads, water sanitation, health services, education and communication are the main sources of dissatisfaction in rural areas as compared to sanitation, garbage, electricity, gas availability and health services in urban areas. This suggests a marked difference of opinion and availability of basic amenities in both locations. While in urban areas the focus is on the so called secondary needs of sanitation and gas availability for example, the rural areas in contrast have no gas connectivity or a structured system of garbage disposal.

Based on the findings, this study presents the following recommendations for the government of KP for the uplift of rural population.

- a. Increased focus is required on key human development indicators of health and education. Particularly the gender dimension of education from middle upwards requires a concerted policy response.
- b. To improve the inclusiveness of rural populace, the basic infrastructure including regular electricity, gas connectivity, and access to safe drinking water is required to enable them in engaging in productive activities.
- c. It is important to phase out the disparities in an organized and structured manner to lessen the deprivation of rural population and to provide them with opportunities. The rural economy holds the promise as the ultimate engine of growth for the country.

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<sup>\*\*</sup> Significant at (P<0.01), \* significant at (P<0.05); + and ++ indicates the difference between proportion for satisfied and not-satisfied of rural-urban peoples, respectively.