Evaluating the Level of Household Poverty: A Case Study of Jhang, Pakistan

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Abstract: Poverty is a multidimensional striking issue that imparts serious impacts on human life and thoughts particularly in developing countries like Pakistan. The major objective of the present study was to identify the level of household poverty in district Jhang of Punjab province with the help of selected socioeconomic indicators (i.e. residents' income, occupation, available facilities, drinking water etc.). The study was based on a field survey conducted in selected vicinities of Jhang city namely Pakkywala, Chundharwana, Daduana, surrounding abodes of general bus stand, Chak Janobi Jhang and Satellite town inhabited mainly by low-income people. The primary data collected through a pre-designed questionnaire from a group of 400 male participants using purposive sampling. The obtained data arranged, coded and analyzed in SPSS 17 software by employing descriptive statistics (frequency, percentages) and inferential statistics (chi-square). Results clear that the majority of the respondents in the study area were living in sub-standard and deprived livelihood. Although residents' knowledge about poverty was sufficient yet most of them were lived in high poverty mainly because of the issues of unemployment and overpopulation. The major source of the drinking water was electric pumps they utilized wood as the main energy source. There was a high deficiency and inadequacy of management in the sewerage system and basic needs i.e. electricity, sanitation, roads, pathways etc. Similarly, health facilities were also scanty and costly as most of the residents were forced to get treatment from private hospitals and clinics. Educational facilities were also limited. Majority of the residents were low-income and engaged in minor works and were settled *kacha* (mud and straw made) houses. Keeping in view the miseries and harsh living of the poor, few suggestions were proposed in order to alleviate poverty in the area and make the environment livable by the provision of the missing facilities and structure (cheap housing, roads, sanitation, safe drinking water etc).

Keywords: Poverty, Household, Socioeconomic Indicators, Economic Condition, Jhang, Punjab.

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1. Introduction

Poverty is a multidimensional global phenomenon, with a higher incidence in less developed countries (Cuaresma et al., 2018; Desmond, M. and B. Western. 2018; Ram, 2020; Santos et al., 2019). Generally, poverty is described at social, budget, and behavioral levels, and as a manmade issue, caused by various reasons, including increasing population, political instability, natural disasters. Poverty can be defined in many ways (Piachaud, 1987). Generally, it means having not enough resources or money that the individual is unable to pay for his basic necessities like bread, cloth and home (Brady, 2019; Reeves et al., 2020; Roesch-Knapp, 2020). It results in a poor level of education and skills, compromised health, ignorance and inability to make a living (Hubacek et al., 2017; Patel et al., 2020).

Global poverty line (1.90 US dollars day[-1], World Bank), poor are individuals, who similarly go down under-recognized poverty line and who subsidize in the labor market (Fleuri, 2006). Srinivas (2002), also mentioned the dimensions of poverty which is owing to unemployment and difficult give and take of money. Poor people become the poverty victim because they have no work. Poverty causes great problems, it enlarges devastation. According to ILO (2010), there are almost 633 million employed people fetching less than 1.25 US dollar per day across the

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globe whose strive hard to overpower their poverty but to no avail.

Poverty is a great threat to prosperity, food security and human rights. Poverty exploits and affects women and men, especially in developing countries (Kimmitt et al., 2020; Tomich et al., 2019). This thing was not because of the shortage of income but it was also the result of having no abilities and the gender base differences presented in both societies and government (Maksimov et al., 2017; Alvaredo and Gasparini. 2015). Poverty elimination is the leading goal among 17 goals in Sustainable Development Goals (SDGs) of United Nations Development Programme (UNDP) outlined in 2015 to eradicate poverty till 2030 (Crouch et al., 2020; Filho et al., 2019; UNDP, 2015; Wang and Zhang, 2020).

Unfortunately, in Pakistan, a significant hike in poverty occurred during the 1990s on account of slow economic growth, surging unemployment, unbalances macro-economic, deprived social security nets, poor governance, and descent in the flow of remittances from overseas Pakistani working force and decay in the quality of governance (Haq and Bhatti, 2002). While the uneven income distribution causes origin to class inequality, poverty, meager human development etc (Yasmeen et al., 2011). Moreover, alongside growth in Pakistan, little attention paid to poverty and other socioeconomic aspects as poverty is also a socioeconomic event (Chaudhry et al., 2009;

Frankenhuis and Nettle. 2020). Socioeconomic disparities are highly prominent in terms of quality of life, in many districts of Sindh and Balochistan provinces because the gap is being enhanced between the provinces as time passed (Huda, 2010; Jamal, 2006).

Being a multidimensional issue, poverty is clear in many paths (Khan et al., 2011). Considering a more rational poverty line (2 USD day^{-1}), a dominant share of 60% of Pakistani people are poor. Around 30% of Pakistani people are living below the poverty line, with an income of PKR 3,030 per adult per month in 2013 which represents to approximately 59 million in sheer terms (Nelson, 2018). Therefore, poverty is intense in Pakistan where poor spent many years of their lives in poverty and the majority of them are living in rural areas (Mumtaz, 2006).

Arif and Khan (2010), conducted a study on rising poverty and its implications for the poor household in Pakistan and impact of poverty on primary school enrolment, health status and housing conditions in Pakistan. The study which based on Pakistan Integrated Households Surveys (PIHS) carried out in 1991-99 found that in the 1990s poverty has adversely affected the poor families of Pakistan particularly. Primary school enrolment has declined, moreover, health and housing conditions have also deteriorated. Now, the persistence of poverty across the country is the main suffering of the economy of Pakistan.
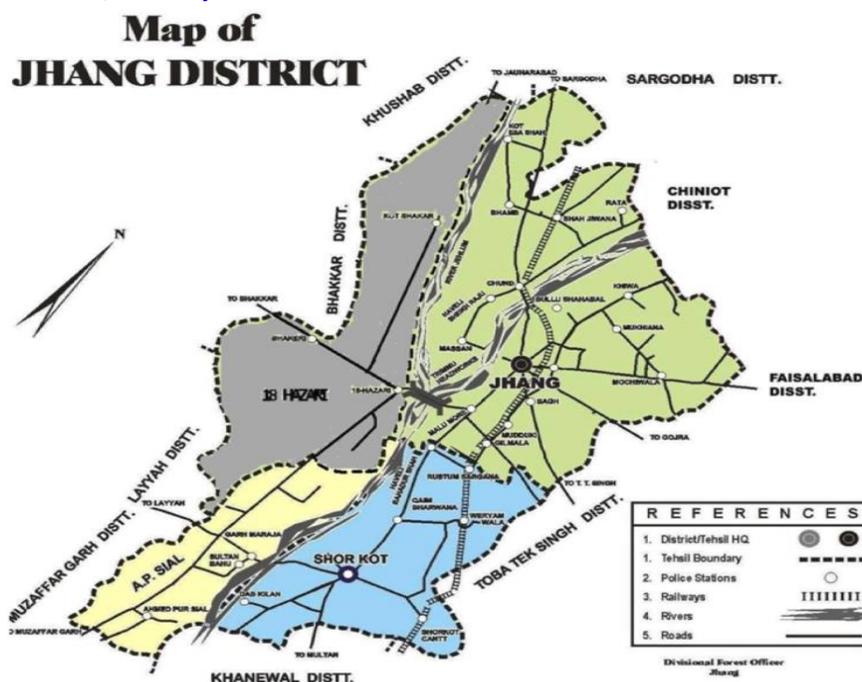

Figure 1. Map of the study area   Source: GoP (2014)

Thus, the current research was conducted to accomplish the objective of identifying the level of household poverty with the help of selected socioeconomic indicators in the District Jhang of Punjab province.

2. Methodology

2.1. Study Area

Jhang is among some of the ancient districts of Punjab, Pakistan that was established in 1849 and the first settlement in the district was approved in 1856. It is located between 30° 55' 57" N latitude to 31° 21' 15" N latitude and 71° 43' 0" E longitude to 72° 35' 15" E longitude with an elevation of 679 feet above sea level. It is bounded by the district Sargodha (northward), Chiniot (northeast-ward), Faisalabad (eastside), Toba Teak Singh (south-east), and Khanewal (south) and Layyah (west) (Fig. 1). Total population of district Jhang was 2.743 million. Jhang district occupies 6,166 Km^2 land and consists of four administrative units (tehsils) namely Jhang, 18 Hazari, Shorkot and Ahmad Pur Sial. There are 84 Union Councils of District Jhang out of which 66 are rural and 18 are urban union councils (GOP, 2017; GoP, 2011).

2.2. Data Collection

Present research is based on primarily a field survey to obtain primary data related to poverty. This study is descriptive quantitative research, based on a field survey, to examine the relationship between the selected socio-economic variables viz. the major cause of the poverty, source of drinking water, source of energy, type of sewerage, available health facilities, type of educational institutions, occupation of the heads, availability of basic needs, transport mediums, housing conditions of poor. Primary data collected through a pre-designed questionnaire using purposive sampling technique from the nearby six sites of Jhang city namely Pakkywala, Chundharwana, Daduana, surrounding abodes of general bus stand, Chak Janobi Jhang and Satellite town. These sites are inhabited by low-income people and majority of them were living below the poverty line. Sample of 400 male participants were selected for data collection regarding availability of resources and poverty level.

2.3. Data Analysis

Subsequent coding, collected data was statistically analyzed using statistical package for social sciences (SPSS) version 17. The relationship between different variables was examined through SPSS. The statistics applied to get results were descriptive statistics (frequency, percentages) and inferential statistics (chi-square).

3. Results and Discussion

3.1. Knowledge and Poverty

Most of the respondents (97.5%) were having knowledge about poverty and only 2.5 percent of the respondents were not havening knowledge about poverty in the study area (Table 1). On a global scale, the extreme poverty is also striking. UNDP (2015) estimated that more than 800 million people were still living on income less than $1.25 day^{-1}. In Pakistan, it is estimated that around 40 percent of persons are living below the poverty line. In way of getting economic growth of the country, poverty is an indeterminate block and has an adverse effect on the pattern of settlement in the slum and rural areas of Pakistan. Pakistan ranked 43rd among the countries, most exposed to poverty (Pakistan Today, 2011). In fact, poverty is a real danger for Pakistan because it exhibits itself in a multifaceted net interlinked with the issues of illiteracy, unequal income distribution, lack of access to amenities, faulty policies and many others (Yasmeen et al., 2011).

3.2. Level and Causes of Poverty

Table 1 indicates the respondent's opinions about the level of poverty in the study area. It shows that 52.5 percent of respondents were of the opinion that the level of poverty is high and 30.5 percent respondent had the point of view that level of poverty is the highest. While 14.5 and 2.5 percent respondents said that levels of poverty are low and lowest respectively.

Table 1. Knowledge, levels and causes of poverty

Residents Knowledge about Poverty		
Knowledge about poverty	**Frequency**	**Percentage**
Yes	390	97.5
No	10	2.5
Level of Poverty		
Poverty Level	**Frequency**	**Percentage**
High	210	52.5
Highest	122	30.5
Low	58	14.5
Lowest	10	2.5
Cause of poverty	**Frequency**	**Percent**
Population explosion	107	26.8
Illiteracy	94	23.5
Unemployment	194	48.5
Settlement	5	1.3

Table 2. Drinking water means, energy sources and sewerage system types

Sources of Drinking Water		
Source	**Frequency**	**Percentage**
Hand pump	119	29.8
Electric pump	265	66.3
Both 1& 2	16	4
Sources of Energy		
Source	**Frequency**	**Percentage**
Natural Gas	146	36.5
Wood	250	62.5
Kerosene Oil	4	1
Type of Sewerage Systems		
Sewerage type	**Frequency**	**Percentage**
Gutter system	122	30.5
Open	263	65.8
Other	15	3.7

Nisar et al. (2013) also found that in Pakistan about 34.6% of households are highly poor. A study conducted in rural vicinities of Mardan district of Khyber Pakhtunkhaw (KPK) to evaluate the benefits of Benazir Income Support Programme (BISP) in poverty alleviation concluded that increase in timely available finance for proper utilization, will make this initiative more effective and will assist to poverty reduction (Khan et al., 2017).

It is important to identify the core reasons of poverty in order to comprehend the situation. Table 1 indicates that the majority of respondents (48.5 percent) had opinions that unemployment is the biggest cause of poverty in the area and 26.8 percent respondents had the opinion that population explosion is a cause of poverty. While 23.5 percent of respondents answered that illiteracy is the main reason of poverty and remaining (1.3 percent) respondents indicated that settlement is the biggest cause of poverty. Nisar et al. (2013) also concluded in a study that male headed households, middle level of education, employment status and woman empowerment are dominantly lessening the chances of poverty. Along with, income disparity among low and high-income households may also contribute to poverty. Moreover, income distribution may effect by income, expenditures and wealth availability of a household (Rajbhandari, 2005). There is a significant relationship between poverty and conflict, poverty may lead to several crises and conflicts (Tollefsen, 2020).

3.3. Sources of Drinking Water and Energy

Table 2 shows the results regarding drinking water of the people, that from what source they get the drinking water. Majority of respondents (66.3%) said that they were getting drinking water from the electric motor pumps, whereas the second-highest number of respondents (29.8%) said that they were using the water gained from hand pumps. While remaining four percent respondents said they were enjoying the water gained from both facilities. Most of the people in Pakistan are using groundwater extracted through electric water pumps, both in urban and rural areas (Mohsin et al., 2019; Safdar et al., 2014; Mohsin et al., 2013), however, the quality of extracted water is rapidly decreasing due to increasing concentration of pollutants, various pathogenic agents and fecal coliform bacteria (Ahmed et al., 2020; Amin et al., 2019; Daud et al., 2017;). Respondents living along with the sewerage canals are much worried due to the seepage of water from the sewerage canal and most vulnerable to befall prey to fatal diseases. Therefore, it is needs to monitor the physiochomical quality of water and takes practical steps to avoid seepage of sewerage into groundwater to save of these insecure poor.

Table 2 indicates the use of energy sources that they were using. About 36.5 percent of respondents were using natural gas, whereas 62.5 percent of respondents were using wood as a main source of energy. Only one percent (1%) of respondents were using kerosene oil as a source of energy. Wood is the major source of fuel in developing countries. Mahmood et al. (1991) inducted that among others, access to drinking water and energy was strongly linked with poverty and inequality within the rural and urban areas.

Table 3. Availabilities of basic needs and facilities

Availability of Basic Needs		
Satisfaction	**Frequency**	**Percentage**
Satisfied	141	35.2
Not Satisfied	259	64.8
Type of Health Facilities		
Health facilities	**Frequency**	**Percentage**
Public Hospitals	111	27.8
Private Hospitals	133	33.3
Clinic	82	20.5
Dispensary	46	11.5
Hakeems/ Quacks	28	7
Types of Educational Institutions		
Institution	**Frequency**	**Percentage**
Primary School	77	19.3
High School	190	47.5
College	108	27
Community School	8	2
University	17	4.2

3.4. Sewerage Facilities

Respondents have various types of sewerage facilities (Table 2). Only 30.5 percent of the respondents used the gutter system, whereas 65.8 percent of the people used the open sewerage system, while 3.7 % of the respondents used other systems. Omer (2002) researched the use of water and sanitation facilities by the poor and found that their uses vary by region, rural or urban vicinity, gender, and ethnicity status of poverty.

3.5. Availability of Basic Needs

Table 3 indicates the satisfaction level of the inhabitants on the availability of basic necessities. Out of 400 respondents, 141 (35.2 percent) responded in the favor of the statement and said that they were satisfied with the available basic needs. Contrarily, roughly half of the respondents (259 respondents, 46.8 percent) were not satisfied with the availability of basic facilities like electricity, roads, sewerage system, safe drinking water and others. In order to improve the livelihood of the poor residents and availing all basic necessities, the role of microfinancing is also notable (Mahmood et al., 2015).

3.6. Availability of Health Facilities

Table 3 indicates that health is the most important and basic need and generally speaking, health care or health facilities are very necessary for everyone. According to the results only 27.8 percent of the population was enjoying the health facilities provided by the public hospitals. Whereas 33.3 percent of population was forced to use the facility of private hospitals and only 20.5 percent people were enjoying the availability of the clinics in their areas. Remaining 11.5 percent people were having the dispensaries and 7 percent people were forced to have other unnamed health facilities like hakeems, quacks and other unskilled and unqualified people to gain health care.

3.7. Educational Facilities

Distribution of educational institutions located in the study area is presented in Table 3, indicating that the majority of respondents have availed a certain level of formal education, rnging from primary school to university. However (19.3%) or high (47.5%) schools for their children education. While 27 percent respondents were privileged of having a college in their locality and two percent have availed community college in their premises whereas a meager share (4.2 percent) was having the access of a university in the area, thus showing the highest of the

educational institution and lowest of the educational institution. Education is an important service and tool to eliminate poverty on a high scale and lack of education is a fundamental factor of acute poverty. In a study, it is found that the highest assimilation of poverty is ascertained within less level of education (Qureshi and Arif, 2001). Another study concluded that multidimensional poverty (MDP) is significantly goes down over time in rural and urban vicinities of many districts of Punjab, particularly in Bahawalpur and Malakand. This betterment is because of notable progress in the provision of education, health and housing facilities to the residents of relevant areas (Saboor et al., 2015). It is manifested that poverty can be eradicated by educating the children of poor households (Nasir et al., 2016).

3.8. Occupation of the People

Table 4 shows the response of the respondents regarding the business/profession of the people in the study area. Table indicates that the majority of the respondents (38 percent) reported that they have their personal business, while 30.8 percent of respondents were engaged in the cottage industry. About 20.5 percent respondents reported that they were landlords and agriculture was their main family occupation. The remaining were government servants in low ranks (9 percent) and transporters (8 percent).

Table 4. People socio-economic conditions

Occupation of People		
Occcupation	**Frequency**	**Percentage**
Personal business	152	38
Landlord	82	20.5
Cottage Industry	123	30.8
Transporter	7	1.8
Govt. servant	36	9
Monthly Income of People (PKR)		
Income	**Frequency**	**Percentage**
1,000-10,000	183	45.8
11,000-20,000	111	27.8
21,000-30,000	59	14.8
31,000-40000	19	4.8
40,000+	28	7
Houses Conditions of People		
Houses conditions	**Frequency**	**Percentage**
Kacha	268	67
Pakka	118	29.5
Semi-pakka	14	3.5
Mode of Transportation of People		
Mode of transportation	**Frequency**	**Percentage**
Motorcycle	135	33.8
Own car	37	9.2
Pedestrian	84	21
Rickshaw	74	18.5
Public transport	70	17.5

Table 5: Relationship between Low-Income and Inadequate land

Low-income is a source of settlement problem	Inadequate land is becoming source of settlement problem				Total
	Strongly agree	Agree	Disagree	Strongly disagree	
Strongly agree	111	71	18	4	204
Agree	53	88	17	13	171
Disagree	7	3	5	2	17
Strongly disagree	1	5	0	2	8
Total	**172**	**167**	**40**	**21**	**400**

Across Pakistan, increasing investment in certain sectors such as education, health care, agriculture, water management and supply, sanitation, civil work can reduce poverty and boost socioeconomic conditions of the poor particularly in rural areas (Ahmed, 2013). It is also found, that in poor households, shopkeepers with fragmenting land remain poor because they have no more choice than those shopkeepers having land because losing land may hinder the efforts of poverty eradication (Mumtaz, 2006).

3.9. Monthly Income of Inhabitants

Table 4 shows the various income classes of respondents. Table clears that majority of 45.8 percent respondents have earned PKR 1,000-10,000 per month and employed in minor works, while 27.8 percent of respondents were earned PKR 11,000-20,000 monthly mainly engaged cotton textiles mills, 14.8 percent were mostly kept their personal business. Remaining 4.8 and 7 percent were serving in the government sector of medium grades and agriculture respectively.

3.10. Housing Conditions

Table 4 elaborates the respondents' response regarding the notion that the poor are living in low standard/mud houses owing to poverty. Mainstream of the respondents i.e. 67 percent were living in mud, straw made houses, while 29.5 percent of respondents were resided in cemented and concrete made houses. Whereas remaining 3.5 percent were living in semi-pakka houses. It is observed that dwellings of the poor households are mostly mud/ straw made and the households living in rural areas are poorer than households residing in urban areas (Saboor et al., 2016).

3.11. Available Transportation Mediums

Transportation is an important facility for connecting people especially for poors of far-flung areas for movement. The respondents were asked about the mode of transportation available to them (Table 4). The maximum number of people used the most common transportation means, the motorcycle (motorbike). Out of 400 people, 135 respondents (33.8 percent) preferred motorbike, the easiest and most widely used local transport. The second-highest number of people (84 people, 21 percent) preferred to move on foot, thus falling in the category of pedestrians. About 9.2% of respondents owned their personal cars for travel. Remaining 18.5% and 17.5% were utilized Rickshaw and public transport for their works and daily movements. It is found that Motorbike is more common and relatively cheap medium of transport for the common man particularly for low-income families (Mohsin, 2014).

3.12. Inferential Statistics

Inferential statistics showed the measurements strengthen the relationship between the hypotheses (null and alternative). Therefore chi-square test was used to measure the hypotheses and to shows the cause and effect relationship and the association between both variables. The Table 5 is based on cross-tabulation in which two variables' (low-income and inadequate land) questions have been tested in order to find out the association between them. The questions of independent variable and dependent variable were tested. Further, low-income and inadequate land is a source of settlement problem in which 111 respondents became strongly agree that was the highest association and association of low-income and land as a source of settlement problem was 1 which is the lowest association.

Table 6. Chi-square of Low-Income and Inadequate land

Category	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	43.879[a]	9	0.3*
Likelihood Ratio	41.61	9	0.6
Linear-by-Linear Association	23.912	1	0.9
N of Valid Cases	400		

*Significant at 95% level of conmfidence

Further, Table 6 of the chi-square test result shows that the value of chi-square is 43.879 (X^2 =43.879), while the degree of frequency is 9 and p is 0.03 which is less than 0.05 (p<0.05 or 95% level of confidence). Thus, P-value explains that there was a significant association between both, independent and dependent variables. The alternative hypothesis was accepted while the null hypothesis was rejected and there was a significant association between the variables.

4. Conclusion

Poverty is a multidimensional phenomenon associated with extreme deprivation of many social and economic amenities. The study conducted in selected areas of district Jhang with the main objective to identify the level of household poverty. On the basis of findings, it is concluded that majority of the respondents in the study area were living in sub-standard and deprived livelihood. Although most of them were aware of the poverty but were lived in a high poverty level, mainly because of unemployment and overpopulation. Most of the residents were used electric pumps as the main source of drinking water and utilized wood as the main energy source. Moreover, there was a high paucity and inadequacy of management in the sewerage system and basic needs i.e. electricity, sanitation, roads, pathways etc. Similarly, health facilities were also scanty and most of the residents were getting treatment from private hospitals and clinics with high expenditures. Educational facilities were also limited and most of the residents were get education at the primary and high school level. Although colleges (pubic and private) exist there, their education charges were beyond the financial reach of respondents. Majority of the residents were low-income and engaged in daily wages minor works to meet their needs. Most of them were residing in mud and straw made houses and used motorbikes as the chief transport medium. Residents living along with the sewerage canals are much worried due to the seepage of water from the sewerage canal and mostly vulnerable to befall prey to fatal diseases.

Therefore, on the basis of findings the following few suggestions were proposed in order to alleviate extreme poverty and promote safe and healthy living; Government should launch cheap and affordable housing schemes in the study area to housed poor, Water filtration plants should be established at different points of the residential areas to get clean drinking water, cemented canals should be constructed to control seepage from the sewerage channels to underground water, an Industrial zone or estate in the district Jhang should be planned as it will be helpful to provide employment opportunities and reduce the poverty, the local government must pay special attention to devise a comprehensive sewerage and sanitation disposal plan to make the healthy livable environment and lastly, all possible measures should be adopted to overcome the residential problems of the residents in the study area.

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