Measuring Who is & Who is not Poor in Azad Jammu & Kashmir using CBN Approach

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Abstract

This paper estimated the absolute poverty rate in case of the state of Azad Jammu & Kashmir (AJ&K) Pakistan. The absolute poverty was measured adopting Cost of Basic Needs (CBN) approach. The study utilized Household Integrated Economics Survey of Pakistan 2018-19 data to measure absolute poverty in AJ&K. The study found that AJ&K had a low rate 12.65 percent absolute poverty at provincial level. The regional analysis of the state revealed that rural poverty is higher in AJ&K compared to urban counterpart. Moreover, gender comparisons revealed that the male head had a higher rate of poverty compared to the female counterpart. The study also measured the income distribution inequality curve - Lorenz curve and the Gini coefficient. Similar to absolute poverty at provincial level, AJ&K had a lower level of income distribution inequality suggested that income is more equitably distributed over the population in the state compared to rest of the region of the country. The analysis of poverty bands indicated that 0.06 percent households were extremely poor, 2.75 percent were ultra-poor, 9.84 percent were poor and 18.63 percent were vulnerable to poverty, suggested that there is chance of 18 percent of the population to slip into poverty. Based on these finding, we propose that there should be targeted social programs specifically for rural AJ&K and income support through generating employment opportunities. The study contributes to a deeper understanding of the poverty in AJ&K and informed evidence based strategies for poverty reduction and promoting sustainable development.

Keywords: : Cost of Basic Needs, Poverty, AJ&K

Introduction

Poverty is a state of deprivation that keeps the individuals from reaching their full potential and achieving quality life. It is characterized by the insufficiency of the resources to satisfy essential needs. To enhance the collective well-being of the nation, poverty reduction is inevitable milestone. Currently, the nations around the globe perusing seventeen Sustainable Development Goals (SDGs) to achieve collective well-being for human and non-human race. The goals classified the factors, indicators, and determinants of welfare in three main pillars i.e., economic, social, environmental, and governance dimensions. Poverty corresponds to economic dimension of the SDGs. The current study seeks to address the "SDGs 1- No Poverty, indicator 1.2.1 Proportion of population living below the national poverty line" with a specific focus on the Azad Jammu & Kashmir (AJ&K) region of Pakistan.

Traditionally, poverty was primarily viewed as a monetary phenomenon, characterized by insufficient income or resources to meet basic needs (Atkinson, 1987; Laderchi, 2000; Alkire, 2002). However, in modern era, the poverty estimation has expanded to encompass a multidimensional perspective (Alkire & Foster, 2011), which measures both the count of deprived individuals and the severity of poverty across various socioeconomic and demographic factors. Other methodologies from income or consumption point such as Foster-Greer-Thorbecke (1984) approach and the Cost of Basic Needs (CBN) approach. These approaches offer valuable insights into poverty measurement allows for measuring absolute poverty rates, particularly counting the proportion of poor household given consumption aggregates and poverty lines derived from household expenditure on essential goods and services in CBN and measuring

severity and vulnerability of the household towards poverty in FGT (Jamal 2019).

The Cost of Basic Needs method remains the most popular level measurement of poverty among practitioners and theorists. The cost of what is called a survival bundle, comprised of food and non-food items, is estimated during this process. The Composed Bundle Method has its advantages in estimating poverty, but it must be triangulated with others in order to further deepen the context of poverty (Jamal 2021). In using this method well, it is possible for policymakers to address some of the pertinent questions on poverty alleviation.

The CBN approach focuses on determining the minimum cost required to meet basic food requirements for a healthy diet. The minimum cost is termed as the poverty line that is the cost of purchasing essential food and non-food items. This approach calculates the total cost of a specific basket of food items that meet nutritional needs. It identifies the income level at which individuals can afford this basket, defining the poverty line accordingly. However, it may not capture the overall living conditions of households because of its limited definition. It is important to note that some variations of the CBN approach may consider non-food expenses to a certain extent. For instance, some researchers (Chen & Ravallion, 2004, World Bank Estimates) might include essential non-food items like clothing or fuel in the basic needs basket, especially in regions where these items are crucial for survival, particularly during harsh weather conditions. On the other hand, the FGT approach is more complex to calculate and interpret compared to the CBN approach. It requires detailed income or expenditure data.

Jamal (2002) utilized household integrated economics survey data for the years 1987-88, 1996-97 and 1998-98 to address the challenges in the methodologies of poverty estimation in the case of Pakistan. The study re-emphasized (Jamal, 2021) the need for standardized approach to ensure comparability and reliability of poverty measurements. In summary, while the CBN approach offers a straightforward measurement of poverty through the lens of basic food needs, the FGT approach provides a more comprehensive framework for understanding poverty's incidence, depth, and severity. Each has its own applications, strengths, and limitations, making them suitable for different contexts in poverty assessment and policy formulation. (see Foster, Greer & Thorbecke, 2010).

The significance of our study is manifolds that is it contributed to the vacant part of the existing poverty literature in AJ&K's context. The study aimed at estimate absolute poverty rate, poverty gap index and income distribution inequality for AJ&K through the application of CBN approach while using Household Integrated Economic Survey (HIES) 2018-19, aligning with the normative minimum well-being threshold. Secondly, the decision of choosing CBN approach for our region is simplicity implication including ease of interpretation. The expenditure based approaches remained a significant part of research on poverty in Pakistan, studies such as Ahmad (2002), Jamal (2002; 2017; 2021). A study by Hameed et. al., (2016) analysed the effect of community development programs on multidimensional poverty in AJ&K, drawing on a sample of 560 respondents from four districts using the FGT approach. Moreover, according to the Multiple Indicator Cluster Survey 2020-2021 Survey Finding Report
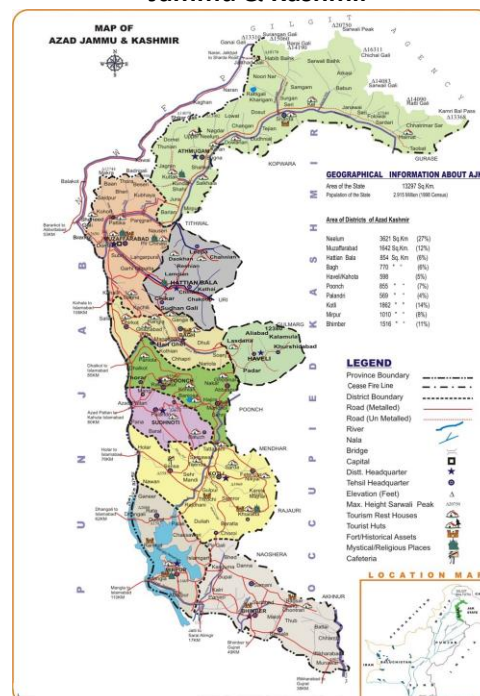
(P&DD, 2021), AJ&K has a head count of 17.4%, estimated through applying methodology of multidimensional poverty index (MPI) (Alkaire & Foster, 2011). National Social Economic Registry- BISP accounted for 13.11% of the population in the second quartile of registered population as MPI poor to provide them the income support. It is important to note that there is a relative scarcity of research on absolute poverty estimation in AJ&K, making this study a timely and valuable contribution to the field.

Study Area

Azad Jammu & Kashmir (AJ&K) commonly known as Azad Kashmir, is a self-governed jurisdiction administered by Pakistan and capital of AJ&K (Muzaffarabad) is located about 138 km (86 mi) northeast of Islamabad, the capital of Pakistan. The territory shares its border with Gilgit-Baltistan, together with which it is referred to by the United Nations and other international organizations as "Pakistan Administered Kashmir." The territory also borders Pakistan's Punjab province to the south and Khyber Pakhtunkhwa province to the west. To the east, Azad Kashmir is separated from the State of Jammu and Kashmir by the Line of Control (LoC), the de-facto border between India and Pakistan. Azad Jammu and Kashmir, the land renowned for its scenic splendors, has been endowed with rich culture, intellectual advancement, and religious diversity coexisting in an atmosphere of tolerance.

AJ&K has an area of 5,134 square miles (13,297 square kilometers). AJ&K comprises 03 administrative Divisions (Muzaffarabad, Poonch and Mirpur), 10 Districts, 34 Sub-Divisions (Tehsils), 278 Union Councils, and 1,769 Villages/Mouzas. The population of AJ&K is 4.180 million, 82.64% of the population is rural, and 17.36 percent population lives in urban areas (AJ&K At a Glance, 2022). The population annual growth rate of AJ&K is 1.61 percent and density of the population per square km is 319. The literacy rate of AJ&K is 77 percent, Infant Mortality Rate (per 1,000 L.B) is 47, Maternal Mortality Rate (per 100,000 L.B) is 104 and Life expectancy at birth is 67.7 year. The unemployment rate in AJ&K is 10.7 percent. The region has been polio free for the last 21 years. In addition, the region is ahead of the rest of the country, with an

Figure 1: Administrative Map Azad Jammu & Kashmir

Source: Reproduced from Government of AJ&K Website

HDI value of 0.621 as the sub-indices are all higher, especially in education (see table 1 below). AJ&K's economy primarily depends on agriculture, livestock, and remittances. Unemployment is an important indicator to measure economic activity. According to the Labor Force Survey (2018-2019), the overall unemployment rate is

10.7 percent fares a bit on an upper side in LFS 2018-19 than that of the previous survey (10.3 percent) in 2017-18. Similar configuration obtains in the case of males (8.4 percent, 8.8 percent) and females (22.6 percent, 22.9 percent) respectively. By areas, unemployment rate slightly goes up in rural (10.1 percent, 10.9 percent) areas while decline in urban. Employment by Major Industries indicates Community/social & personal services (26.5 percent), construction (17.8 percent) and others category scale down while increase is observed in the remaining categories in LFS 2018-19; Agriculture & allied activities (19.8 percent), wholesale & retail trade (17.9 percent), manufacturing (8.9 percent) and transport/storage & communication (7.4 percent), in comparison with the earlier shares.

Formal Sector employment share increased in LFS 2018-19 as 26.7 percent against 25.9 percent in LFS 2017-18. Similar configuration obtains in case of males (23 percent, 23.8 percent) and females (54.2 percent, 61.4 percent). Area wise formal employment suggests decrease in case of rural (24.9 percent, 24.5 percent) while increase is observed in urban areas (28.5 percent, 33.2 percent) areas. Informal Sector accounts for more than seven-tenth (73.3 percent) of non-agricultural employment, more in rural (75.5 percent than in urban areas (66.8 percent). On the other hand, formal sector activities are concentrated more in urban areas (33.2 percent) than in rural areas (24.5 percent). Females are more numerous in rural formal (53.0 percent) and in urban formal (76.6 percent) while males are more numerous in rural informal (77.5 percent) and in urban informal (72.2 percent). Employment in Informal sector tends to decrease while formal sector scales up during the comparative periods.

Table 1: Human Development Index Pakistan

HDI	Education Index			Health Index	Income Index	HDI	
Provinces/ Regions	Adult Literacy Index	Net Enrolment Index	Education Index	Life Expectancy Index	Per Capita Index	HDI	HDI Status
AJ&K	0.768	0.422	0.653	0.677	0.572	0.621	Medium
Punjab	0.620	0.429	0.556	0.598	0.563	0.572	Medium
Sindh	0.565	0.322	0.484	0.660	0.593	0.574	Medium
KPK	0.497	0.321	0.438	0.701	0.529	0.546	Low
Balochistan	0.375	0.221	0.324	0.631	0.518	0.473	Low
Pakistan	0.574	0.370	0.506	0.648	0.564	0.570	Medium

Source: Data reproduced from Pakistan National Human Development Report 2020

According to UNDP's 2020 National Human Development Report for Pakistan[1], AJ&K is the Pakistan's most developed region (p.62). The HDI score for AJ&K reveals that AJ&K is performing better on health, income and education indicators with 76.8% literacy rate compared to national average of 57.4 %(PSLM/HIES 2018-19), infant mortality rate is 58 deaths for every 1000 live births and is lower than Pakistan's average of 66 deaths. The net enrollment is 42%, income per capita scored 57.2% and life expectancy at birth is 67 years. However, this is not

[1] UNDP 2020, NHDR https://www.undp.org/sites/g/files/zskgke326/files/migration/pk/NHDR-Inequality-2020---low-res.pdf

sufficient and needs to be improved through informed policy decisions.

Azad Government of the State of Jammu and Kashmir adopted a similar approach to Pakistan - to enhance economic growth while improving human well-being through the sustainable development framework. Government of AJ&K has made progress in terms of development, especially on SDGs, it is equally important to bear in mind the challenges that need to be addressed to achieve sustainable development in this region. Some of these are access to basic services (education, health, water, sanitation, social protection, communications and works, power, industries, tourism, information technology), institutional capacities in service delivery, climate change, rapid and unplanned urbanization, youth bulge and unemployment (10.7%, LFS 2018-19), limited social safety nets, lack of reliable data, gender inequality, issues in digital transformation, limited revenue generation capacity and private sector engagement, and natural disasters.

Methodology

The section provides the detail methodology of measuring poverty estimate through CBN approach in AJ&K. The method is extensively drawn from the National Poverty and Inequality Report-NPI[2] (MOPDSI, 2019). The CBN methodology was adopted at national level in 2013-14 and remains valid till now. The key steps in the CBN methodology are as follows;

Defining Basic Needs Basket

Food and non-food components are an essential part of the basic need basked. The basket includes essential food items to meet caloric needs, such as staple grains, legumes, and vegetables to draw poverty line based on the cost of basic food items. This line is called Food Poverty Line (FPL) and estimated through taking the mean spending of household food items. Then in the next step, to meet the minimum well-being standard the non-food components such as clothing, shelter, healthcare, education, and transportation that were also considered essential for maintaining the basic living standard. Lastly, a scaled FPL which includes both food and non-food items is estimated to reflects the total household expense on food and non-food items.

Consumption Aggregate

The aggregate nominal consumption on food and non-food items obtained in previous steps are now converted to same time unit such as weekly, monthly or annual expenditures and forms the aggregate nominal expenditure. Then the geographic and regional differences in the cost of living are estimated, which is termed as spatial price index. Lastly, the total consumption expenditures are adjusted to the variations in age compositions and size of the household to estimate the adult equivalence scale. Collectively, called the consumption aggregate.

The Cost of Living-Poverty line

The poverty line is calculated based on local market prices for each item in the basket. Then the adjustments may be made to account for factors like household size, location, and specific needs (e.g., children, elderly). This will yield a CPI adjusted total expenditures as commonly used in the research and practice (NPI Report). The

[2] *The methodology adopted from NPI Report 2018-19; https://pc.gov.pk/uploads/report/NPI-Report.pdf*

poverty line is set at the minimum per capita consumption level needed to sustain a basic standard of living, including food, shelter, and essential services. Table 2 below presents the poverty lines that were measured through CBN approach. It is evident from the table that in year 2005-2006 the poverty line was PKR 1277.74 which during the next fifteen years reached up to PKR 3250.28. The recently updated CPI adjusted poverty line for Pakistan was estimated at PKR 3757.85 (MOPDSI, 2019).

Table 2: The CBN Based Poverty Line

Year	Poverty Line (Rupees per adult equivalent per month)
2005-06	1277.74
2007-08	1543.51
2010-11	2333.35
2011-12	2600.15
2013-14	3030.32
2015-16	3250.28
2018-19	3757.85

Source: The table is reproduced from National Poverty Report 2018-19, pp.14

Measuring Poverty

The consumption aggregate obtained in the previous steps was spatially deflated. A spatial price index was calculated to adjust for the price over time and across regions. The spatially deflated consumption aggregate categorised against the estimated poverty line to obtain the head count for the number of people in a specific group or population, who are called poor and living below the poverty line. CBN approach has multiple advantages. Firstly, it provides clarity and simplicity as it defines poverty based on specific consumption needs. Secondly, policy relevance i.e., it supports policymakers to identify the specific needs of the poor and regions with high poverty for designing targeting interventions. Lastly, the CBN methodology is a standardized approach i.e., it allows for regional level comparisons of poverty levels across countries and different regions within the countries. However, there can be subjectivity in defining the basic needs basked which may vary across different context. Accurate and reliable data on consumption patterns and commodity prices are prerequisite for precise estimates. Lastly, due to the dynamic natures of poverty, CBN method may not fully address the needs and priorities that are changing over time.

Findings

The current section provided tabulations and sample statistics of Household Integrated Economic Survey data for AJ&K. The data is collected at Pakistan Bureau of Statistics (PBS). Naseem (1973) measured poverty levels of Pakistan using Household Integrated Economics Survey (HIES) data for different years (1963-64, 1966-67, 1968-69 & 1971-72). Amjad & Kemal (1997) used Pakistan Integrated Household Survey (PIHS) and the HIES between 1987-88 and 1992-93 to estimate poverty in the country after accounting for inflation (CPI). Haq & Bhatti (2010) using HIES data set for 1996-97 applied FGT methodology for measuring poverty, the poverty gap and its severity for Pakistan. As cited in Raza et. al., (2023), the Center for Poverty Reduction and Social

Policy Development (2008) also adopted the FGT on HIES and Pakistan Social and Living Standard measurement (PSLM) data for the year 2001-02 to 2005-06 to estimate poverty in Pakistan.

As our study based on the NPI report 2018-19 methodology, the HIES 2018-19 was the most appropriate data for measuring absolute poverty rate in AJ&K, maintaining the comparative eligibility at national level. This would also ensure country specific consistency for regional comparisons and as per socio-demographic and economic compositions of the population. Moreover, according to Afzal, Hersh and Newhouse (2015), the national representative HIES survey was enriched in data of household education, health, employment, asset, quality of housing, and water and sanitation. These dimensions were also suggested in the Millennium Development Goals (MDGs). Given that, SDGs are an extension of the MDGs, the HIES survey can be used to gauge the progress towards the SDGs on the indicators available. The discussion related to HIES survey sample and size is widely available in HIES 2018-19 methodology document published by Pakistan Bureau of Statistics[3].

In a nut shell, HIES has a total of eighteen sections in total including sub sections for section two, three, five nine and section ten. The general section covers the survey information[4]. Section one comprised of household information and employment and income. Section two was related to education measuring literacy, vocational training and formal education. The third section on health covered communicable and non-communicable diseases such as Diarrhoea, Malaria, Hepatitis and Tuberculosis and population immunization levels. The next section included marriages and maternity history. In section five housing characteristics and food insecurity experience scale. Section six comprised of the most important component in poverty estimation i.e., household consumption expenditure. This include both food and non-food items and services that are part of our daily, monthly and annual consumption to maintain at-least a minimum level of well-being defined in terms of a fixed threshold i.e. poverty line. Furthermore, the section seven covers selected durable consumption items, section eight covered transfers received and paid out, in section nine land and real state ownership, asset and liability, loans and credit. The section ten is agricultural sheet about land utilization, crop harvesting, livestock, poultry, forestry etc. The last section is the balance sheet for income and expenditure that is balanced at the time of survey by the enumerators.

Provincial Sample Size

The sample size in case of AJ&K is 1376 households of the total HIES sample of 26185. In NPI 2018-19 the reported sample excluding AJ&K is 24809 (Rural:15936 households and Urban: 8873 households). For AJ&K 979 households from rural area and 397 households from urban area were included in the HIES survey. Finally, the total household in HIES comprised of 26185 households (9270 urban and 16915 rural). Table 3 presents the provincial sample statistics below.

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[3] *The methodology is available on the link:* https://www.pbs.gov.pk/publication/household-integrated-economic-survey-hies-2018-19
[4] *Please see for details; The Manual of Instruction-HIES Pakistan Bureau of Statistics, pp.03*

Table 3: HIES 2018-19 Provincial Sample Size

Province	Frequency (HH individuals)	Percentage
AJ&K	1376	5.3
Balochistan	2327	8.9
KPK	4485	17.1
Punjab	11781	45.0
Sindh	6216	23.7
National	26185	100

Region wise Sample Size

Table 4 below presents the region wise sample size.

Table 4: Regional Sample Size

Province	Urban HHs	Rural HHs
AJ&K	397	979
Balochistan	759	1568
KPK	1450	3035
Punjab	3945	7836
Sindh	2719	3497
National	9270	16915

Absolute Poverty in AJ&K 2018-19

Table 5 presents the estimates of poverty in AJ&K for the 2018-19 period, based on CBN method. The absolute poverty rate in AJ&K is 12.65% is approximately half of the national poverty rate 21.81%. The poverty statistics are given in table 5 below.

Table 5: Poverty Incidence in AJ&K Pakistan

Total HIES Sample	26185	21.81%	Absolute Poverty in Pakistan
AJ&K Sample	1376	12.65%	Absolute Poverty in AJ&K
AJ&K Population	4500000	569250	Poor in AJ&K
Pakistan Population	240000000	51450000	Poor in Pakistan

It is also pertinent to mention that the author had adjusted the household consumption aggregate with Consumer Price Index (2015) to measure the change in absolute level of poverty since 2015. Such an analysis revealed that, overall, there was on average a 4 percent increase in AJ&K absolute poverty with higher incidence in rural poverty compared to urban counterpart in 2018.

Poverty Across Gender

The poverty incidence across gender reveals that in AJ&K, 14.01 percent male and 7.35 percent female population is poor as per HIES 2018-19 reflected in figure 2 below. In AJ&K usually male household member is considered as the head and has the sole responsibility to earn bread and butter for the family. Moreover, the data also revealed that the household headed by women who were married have a low rate of poverty 5.74 percent compared to widower having 12.12 percent poverty.

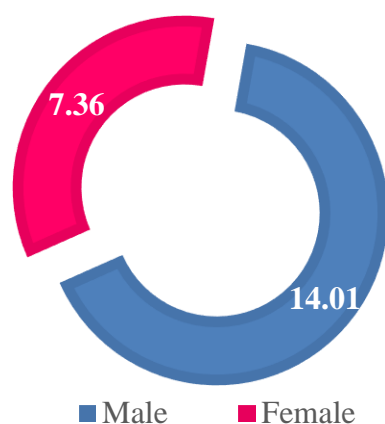**Figure 2: Poverty across Gender**

7.36
14.01

■ Male ■ Female

Figure 3 below revealed that in rural areas there are higher number of male household heads who are poor compared to rural females and urban males. Moreover, the survey also revealed that in urban areas female headed household is non-poor.

Figure 3: Regional Poverty by Sex Composition of Households Head

15.75
8.39
6.59
0

Rural   **Urban**

■ **Male** ■ **Female**
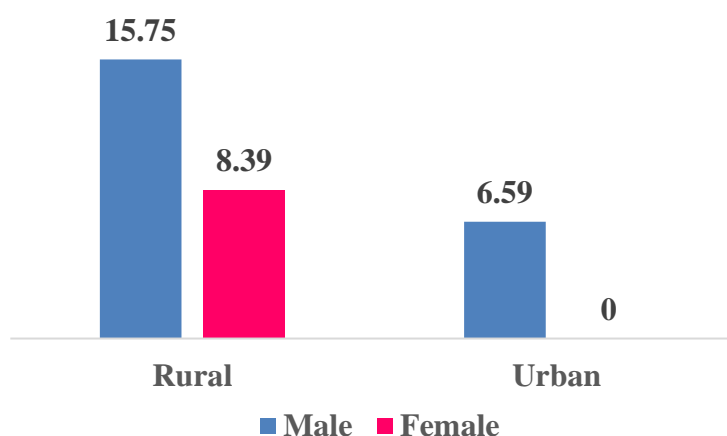
Poverty Across Region

Figure 4 below depicted that there is higher incidence of poverty in rural AJ&K compared to urban counterparts. These results of higher rural poverty were also in line with Jamal (2021).

Figure 4: Urban & Rural Poverty Incidence

5.66
14.15

■ Rural
■ Urban
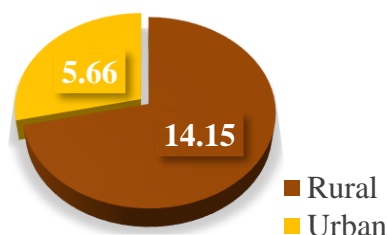
Provincial Comparisons

This section presents the provincial comparison of poverty incidence across provinces in Pakistan. It is evident from figure 5 that Balochistan has highest poverty rate followed by Khyber Paktoonkah (KPK), Sindh, Punjab and AJ&K. The data also

revealed that AJ&K has the lowest rate of absolute poverty compared to rest of the provinces.

Figure 5: Map of Poverty Incidence in Pakistan
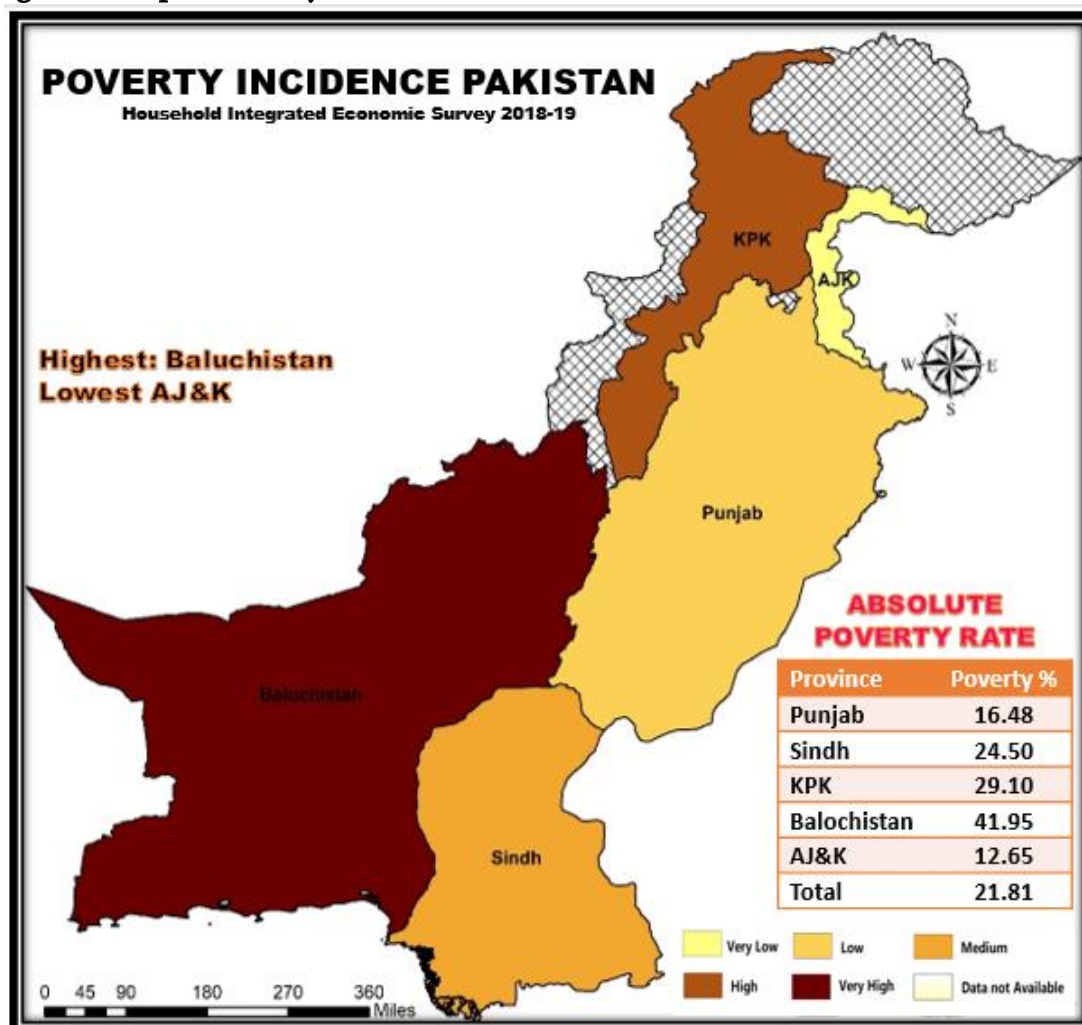
Source: MAP Developed by Author using HIES 2018-19

Bands of Poverty

To assess the extent of poverty and differentiate between various levels of deprivation, such as extreme poverty, vulnerability, and non-poverty, the estimation of poverty bands is a fundamental tool. The bands were taken from NPI report 2018-19 and presented in table 6 below.

Table 6: The Bands of Poverty

Poverty Band	NPI 2018-19 Criteria
Extremely Poor	<50% of Poverty line, i.e. <Rs. 1878.93
Ultra Poor	>50% and <75% of Poverty line, i.e. >Rs. 1878.9 & <Rs. 2818.39
Poor	>75% and <100% of Poverty line, i.e. > Rs. 2818.39 and < Rs. 3757.85
Vulnerable	>100% and <125% of Poverty line, i.e. >Rs. 3757.85 and Rs. 4697.31
Quasi- Non Poor	>125% and <200% of poverty line, i.e. >Rs. 4697.31and <Rs.7515.7
Non-Poor	>200% of Poverty line, i.e. >Rs. 7515.7

Source: The table is reproduced from NPI Report 2018-19, p.23

According to NPI Report 2018-19, the individuals whose per adult equivalent consumption expenditure per month is less than 50 percent of the poverty line i.e., below Rs. 1878.93 were termed as extremely poor compared to the non-poor whose per adult equivalent consumption per month is more Rs. 7515.7 which is almost 200% more of the poverty line[5]. The current study reported the poverty bands and corresponding statistics of AJ&K in the table 7.

Table 7: AJ&K Poverty Bands

Poverty Band	Population %	No. of HH	Mean Expenditures
Extremely Poor	0.06%	01	PKR 1,786.00
Ultra Poor	2.75%	26	PKR 2,450.00
Poor	9.84%	98	PKR 3,380.00
Vulnerable	18.63%	188	PKR 4,270.00
Quasi Non-Poor	47.26%	638	PKR 6,000.00
Non-Poor	21.46%	425	PKR 11,095.00
Total	100%	1376	PKR 7,080.00

Source: Authors own Calculations

Poverty Gap Index (PGI)

AJ&K has a poverty gap index of 0.0154 indicated that, on average, the poor in the population were 1.54 percent below the poverty line. This suggested that, in case of AJ&K people were at a moderately low poverty severity compared to other regions of Pakistan that is Punjab 2.1 percent, Sindh 3.3 percent, KPK 4 percent and Baluchistan 6.5 percent (NPI Report 2018-19, Figure 3, p.20). The rural and urban poverty gap index was also measured. In AJ&K the rural PGI was higher i.e., 15.7 percent rural poor individuals and the urban PGI lower i.e., 14.5 percent urban poor individuals fall under the poverty line. However, there was no substantial difference between rural and urban areas suggested that, on average, the depth of poverty was similar in both regions. One of the possible reason could be the small sample size for the urban poor that might affect the precisions of estimates.

Squared Poverty Gap Index

The mean squared poverty gap was calculated to be 0.00387, suggesting that, on average, the poor population experienced a shortfall of 0.38% relative to the poverty line. This implies that there could be substantial number of poor individuals who were significantly below the line of poverty, as the squared PGI is more sensitive to extreme poverty. Interpreting squared PGI in isolation could be challenging as it is often compared to other time periods, regions or threshold values to gauges the relative severity of poverty which were not available in case of AJ&K.

Gini Coefficient

According to NPI report 2018-19 (p.25), national level Gini coefficient was 0.303 in 2018-19 which decreased from 0.326 in 2015-16. This implies that overall in the country the income inequality was decreasing. Among provinces, Sindh and Punjab had higher income distribution inequality compared to rest of the provinces where as Balochistan and AJ&K had lower level inequality. Table 8 below revealed that in AJ&K

the income distribution was more equitable compared to the national average and rest of the provinces.

Table 8: Gini coefficient

| Province	Gini
National	0.303
Punjab	0.302
Sindh	0.313
KPK	0.271
Balochistan	0.224
AJ&K*	0.229

*Source: Author's Calculation

Lorenz Curve

The Lorenz curve is a graphical representation of the income distribution. Figure 6 below depicted a bowed-out blue curve indicating inequality in income distribution for AJ&K. In case of perfectly equal distribution, it would be a 45 degrees straight diagonal line from origin termed as the equality line.

Figure 6: AJ&K's Lorenz Curve
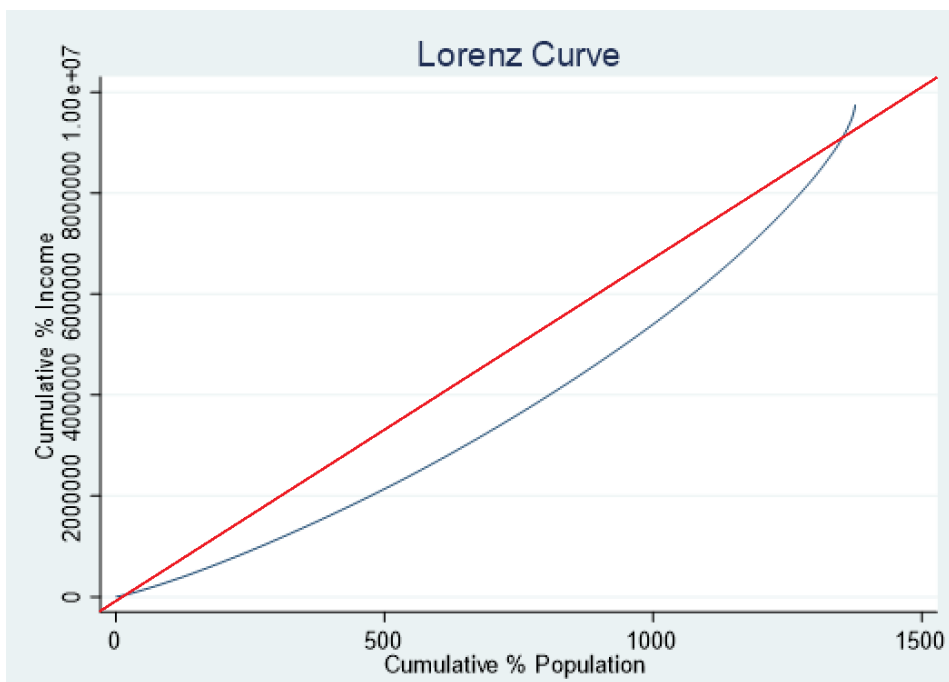
BOX:01 – District Level Deprivations [For Reader's Interest]
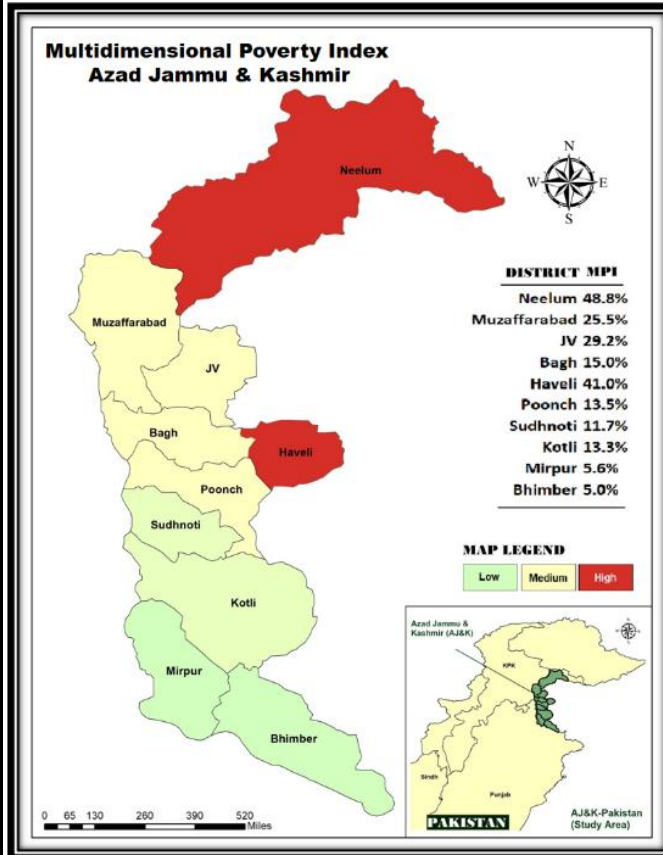
Measuring absolute poverty allows us to count the number of poor's in the country, however recent literature suggested to also consider the intensity of deprivation across population for given indicators. For such analysis, Multidimensional Poverty Index by Alkaire and Foster 2011 was adopted. The data set used for such analysis is Multiple Cluster Indicator Survey (MICS 2020-21) Survey Finding Report. According to the report, district Neelum and Haveli were the most deprived districts followed by Muzaffarabad, Jhelum Valley, Bagh, and Poonch. Districts such as Bhimber, Mirpur, Kotli and Sudhnoti were the least deprived districts.

Source: Map Developed by Author using MICS 2020-21

Conclusion

The research in hand provided an in-depth analysis of poverty in AJ&K using CBN methodology as adopted at National level. The results revealed that the region has a low level of poverty compared to the rest of provinces in Pakistan, however, increased up to four percent since 2015. The lower levels of poverty indicated better socio economic conditions overall. However, difference exists while examining the distribution of poverty across different population groups and regional context. The findings also revealed that rural poverty was higher when compared to urban poverty, drawing attention towards the need for targeted rural development and policies interventions. Male headed households were found to experience high poverty rates compared to female headed counterparts which highlights potential vulnerabilities and structural inequalities that requires further exploration.

It is also pertinent to mention that the poverty gap was not significantly high and suggesting a moderate distance of the poor from the poverty line. This provides the opportunity to develop effective poverty alleviation programs to close the gap. Additionally, the lower Gini coefficient compared to other provinces and national average suggested more equitable income distribution. Furthermore, the classification of the households in to bands of poverty identified 12.65 percent of the population as poor, with 18 percent vulnerable. This vulnerable group is at risk of slipping into poverty and suggesting the importance of preventative measures. Meanwhile, a

significant percentage of households are quasi-non poor and non-poor reflecting a relatively strong economic position for the majority of the population.

The average expenditure of PKR 7,080 further illustrates the region's economic standing, which aligns with the lower poverty rate and inequality levels. These findings highlight the region's relatively favorable economic conditions compared to national benchmarks, while emphasizing areas of concern that require policy attention, such as rural poverty, gender disparities, and the needs of vulnerable populations. AJ&K demonstrates a relatively lower poverty rate compared to other areas of Pakistan. A well-developed road network, coupled with substantial annual development budgets allocated to infrastructure, education, and health, contributes to improved accessibility and quality of life. A robust social security system and effective implementation of social policies provide a safety net for vulnerable populations. The region prioritizes education and skill development and healthcare, with a network of District Headquarters Hospitals (DHQs), Tehsil Headquarters Hospitals (THQs), and Rural Health Centers (RHCs) ensuring access to quality healthcare. The prevalence of organic farming in rural areas promotes healthier diets and reduces reliance on chemical fertilizers and pesticides. Reliable access to clean drinking water, efficient solid waste management, and adequate power supply, particularly through hydroelectric power, further enhance the quality of life. The region's natural beauty and cultural heritage offer significant tourism potential, contributing to economic growth and employment opportunities. While AJ&K has made substantial progress, ongoing development efforts are crucial to address remaining poverty and further elevate the well-being of its residents.

Based on the conclusion above the study recommends

1. The need of policy targeting rural areas of AJ&K for eliminating poverty.
2. District wise Poverty Profiling in AJ&K for targeted interventions.
3. Resource Pooling through Development Partners' coordination for reducing monetary poverty through opening new jobs and projects.

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