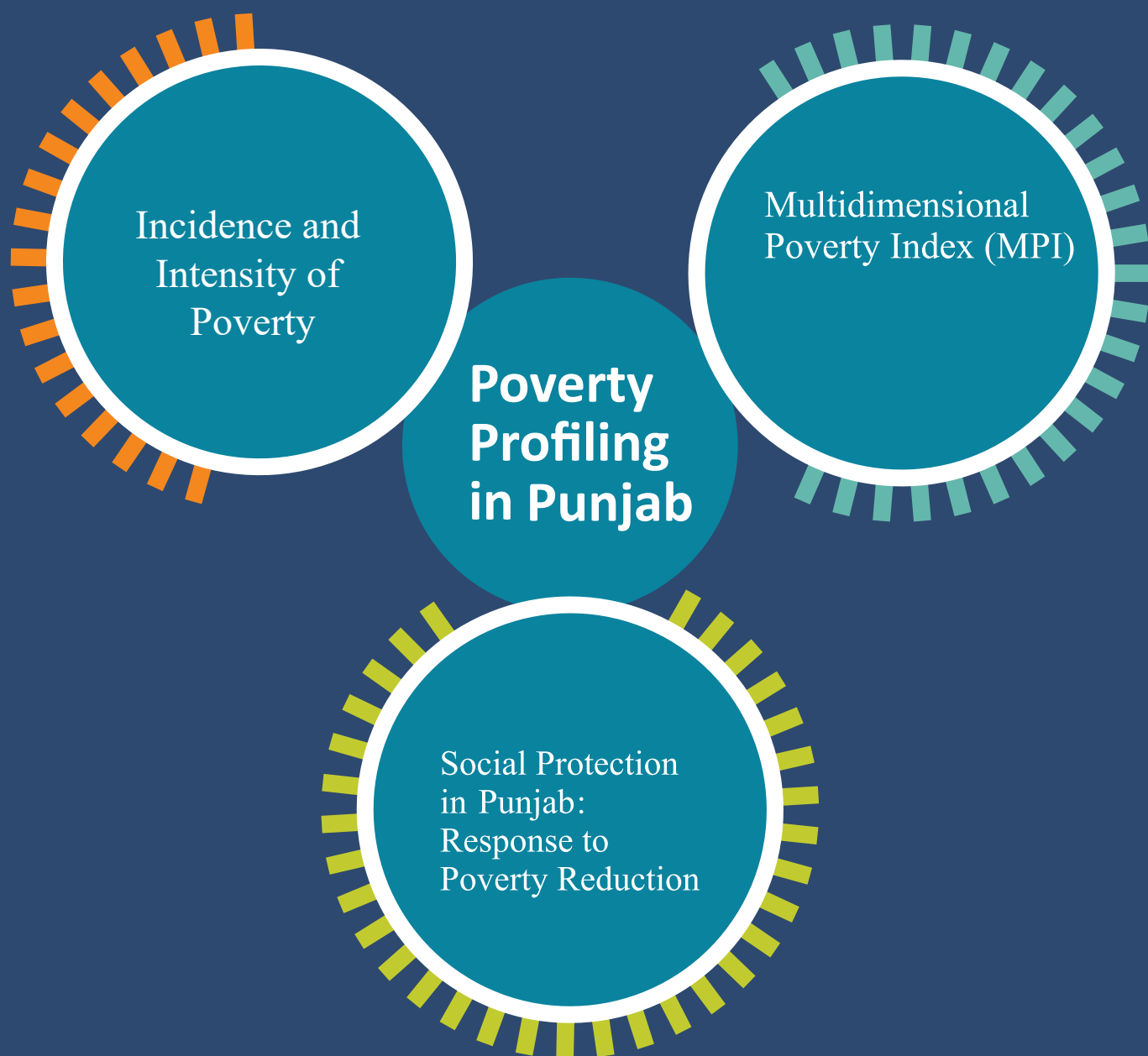


CHAPTER 2

Poverty Profiling in Punjab





Poverty Profiling in Punjab

2.0 Introduction

Despite the progress made in poverty reduction at world level, developing countries are still suffering from substantial inequities and are struggling to move forward since the global crisis of 2008. Poverty alleviation therefore was one of the primary concerns in the MDGs to ensure economic development. The same goals of equitable income creation and poverty reduction have now been incorporated in the Sustainable Development Goals (SDGs). The idea of quantifying poverty in terms of basic needs, well-being and relative deprivation has been used by economists/policy makers to gauge how resources are unequally distributed among various sections of the society. These different perspectives of assessing poverty have affected the adoption of national and international policies. Concentrated wealth has a huge impact on both the growth trajectory and development outcomes in a country. Therefore, to tackle poverty there is a need to design strategies that promote not only growth of resources in the economy but also equitable distribution of those resources in deprived regions to help them exit the vicious cycle of poverty. To achieve this, it is fundamental to analyze regions where poverty is prevalent. Eradication of poverty as a whole, not only requires economic growth but also the expansion of education facilities, provision of health facilities and implementation of social justice across rural and urban regions which serve as a powerful catalyst to our goal.

The main objectives of analyzing poverty in Punjab are:

- To identify the areas where major segments of the population are deprived in terms of 'basic needs';
- To identify how income distribution patterns have changed overtime and analyze poverty trends over a specific period of time;
- To highlight the dimensions of poverty that are more prevalent in certain regions, and;
- To propose policies for equitable distribution of resources by taking into account the more deprived regions.

Poverty definitions and methods of measurements have important policy implications. Although, defining poverty on a broader perspective has been debated, yet almost all the definitions of poverty take into account the income and consumption patterns. In addition to measuring poverty in terms of income, possession of assets and availability of basic facilities can also be used as a reliable measure. This approach takes into account the status of a person in terms of deprivation of basic facilities and assets such as possession of land, number of rooms in house, availability of toilet facility and other non-expensive assets. Another perspective has been presented by Amartya Sen to gauge poverty of an individual which uses human capabilities and skills as a measure to see if an individual can earn a reasonable income for sustaining a certain standard of living. To get a holistic picture, poverty is also defined by aggregating all of the above measures to assess the deprivation status of an individual. The literature provides no single definition of poverty. The in-depth analysis of poverty requires acknowledgement of social, cultural and historical contexts. Poverty needs to be understood at the most disaggregated level for effective policy implementation.

Historically, Punjab has been criticized for following an inequitable investment and expenditure approach in the province resulting in the southern areas of the province being deprived relative to central and northern regions. The present government has now taken an even more conscious step to reduce these gaps between the districts, such that the province is able to meet its inclusive growth targets. Even the Provincial Finance Commission (PFC) after the establishment of new local governments allowed for relative deprivation before making financial allocations to districts. This chapter uses the MPI approach to analyze the poverty profile in Punjab and the district level disparities that exist. The aim is to provide the government with a set of analysis to inform future investments and expenditures.

2.1 Multidimensional Poverty Index (MPI)

Income or consumption based measurement of poverty allows analysis in a single dimension thus, by design it is narrow in scope because deprivation or well-being is not always linked to income. This unidimensional analysis is useful in the sense that it provides valuable information to identify the percentage of people living beyond a certain threshold necessary to maintain a minimum standard of living. However, analyzing poverty through a broader lens implies that lack of education, appropriate health facilities and assets, are all major deprivations that define poverty. A single indicator such as income or consumption does not uniquely capture the role of multiple factors that contribute towards poverty,

especially for a large complex economy such as Punjab. Hence, the need of using a multidimensional approach for calculating poverty that captures monetary as well as non-monetary dimensions becomes more meaningful.

Multidimensional Poverty Index (MPI) allows including indicators from domains such as health, education, and living conditions (standard of living) thus, helping to broaden the understanding of factors contributing towards poverty. Moreover, this approach also provides room to analyze the distribution of resources across groups of population and different geographic regions of a country. The report has used the PSLM data to construct MPI. The detailed methodology of the construction of MPI has been provided in Annexure 1.

In order to have a detailed understanding of the distribution of poverty in Pakistan, multidimensional poverty is a suitable measure as it extends over the several domains of well-being of a household. Over the years, Pakistan Social and Living Measurement (PSLM) surveys have been carried out covering multiple dimensions of the standard of living. Moreover, these surveys have been made district representative by extending them geographically over different areas of Pakistan. Since our analysis involves the understanding of poverty in more than one dimension for rural as well as urban regions of Pakistan, it will be suitable to use PSLM surveys for constructing MPI.

2.1.1 Data source and Computation of MPI

The MPI data has been taken from a report on “Multidimensional Poverty in Pakistan” which was developed by the Ministry of Planning, Development & Reform in collaboration with the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP), Pakistan. MPI has been developed for the national comparison and hence, the data from PSLM surveys, HIES micro-data and MICS has been used by the authors of the above mentioned report. The data set used from PSLM provides opportunity for policy makers and researchers for cross validation of poverty incidence across different provinces of Pakistan. Since, it was the most reliable and latest available calculation available on poverty, the PER 2017 has used its figures to highlight the situation of MPI in Punjab. Three broad categories including health, education and standard of living have been taken. Table 1 shows the weightages of each indicator taken in account of MPI.

Table 1: Dimensions along with indicators and weights

Dimensions	Indicators	Weightages
Education	Years of Schooling	1/6 = 16.67%
	Child school attendance	1/8 =12.5%
	School quality	1/24 = 4.17%
Health	Access to health facilities/clinics/Basic Health Units (BHU)	1/6= 16.67
	Immunization	1/18=5.56%
	Ante-natal care	1/18=5.56%
	Assisted delivery	1/18=5.56%
	Water	1/18=5.56%
Standard of Living	Sanitation	1/21=4.76%
	Walls	1/21=4.76%
	Overcrowding	1/42=2.38%
	Electricity	1/21=4.76%
	Cooking Fuels	1/21=4.76%
	Assets	1/21=4.76%
	Land and Livestock (only for rural Areas)	1/21=4.76%

Source: Planning Commission, Government of Pakistan

The report employed Alkire and Foster’s methodology (2007) for measuring multidimensional poverty. Assigning weights to various dimensions is another crucial step in the construction of MPI. In the analysis, weights have been assigned in accordance with the above mentioned methodology. The technique identifies the severity of poverty by using (H) and intensity of poverty (A). Mathematically, the index for multidimensional poverty can be calculated by using the formula below:

$$\text{MPI}=\text{H}\times\text{A}$$

2.2 Overall Poverty Profiling in the Punjab

2.2.1 Historical Perspective

The last national level poverty profiling was done by the Ministry of Planning, Development & Reform in collaboration with the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP), Pakistan in 2016. This report in liaison with the Government of Pakistan developed Multidimensional Poverty Index (MPI) using Alkire & Foster methodology and is committed to eliminate poverty. The results showed that the poverty rates in Punjab have historically been lower or close to the national average and stand at 31 percent. The highest MPI rates were seen in FATA (73 percent) and Balochistan (71 percent). None of the ten districts of Pakistan with lowest MPI has any of the districts of Punjab (for details, see, Planning Commission 2016). This is the first ever published official report on the subject of MPI by the Government of Pakistan. The last two poverty estimates, based on the 2004-05 and 2005-06 household surveys, suggest that in the face of high growth, poverty in Punjab has followed a declining trend from both periods. However, there is evidence of strong 'clustering' around the poverty line, suggesting that a large proportion of the population is most vulnerable to small income shocks.

Table 2: Multidimensional Poverty Index (MPI) at National and Provincial level

		2004-05	2006-07	2008-09	2010-11	2012-13	2014-15
National	Overall	0.292	0.281	0.26	0.228	0.207	0.197
	Rural	0.379	0.38	0.349	0.312	0.288	0.281
	Urban	0.112	0.088	0.078	0.054	0.043	0.04
Punjab	Overall	0.254	0.239	0.219	0.188	0.168	0.152
	Rural	0.325	0.318	0.292	0.256	0.23	0.214
	Urban	0.089	0.072	0.059	0.041	0.036	0.026
Sindh	Overall	0.317	0.302	0.28	0.252	0.236	0.231
	Rural	0.509	0.515	0.458	0.422	0.41	0.415
	Urban	0.13	0.088	0.092	0.06	0.046	0.046
KPK	Overall	0.35	0.35	0.321	0.28	0.249	0.25
	Rural	0.392	0.391	0.365	0.323	0.292	0.295
	Urban	0.141	0.151	0.1	0.074	0.041	0.042
Balochistan	Overall	0.478	0.471	0.459	0.415	0.404	0.394
	Rural	0.538	0.558	0.54	0.499	0.494	0.482
	Urban	0.231	0.203	0.191	0.154	0.128	0.172

Source: Planning Commission, Government of Pakistan

Table 2 provides an overview of how the overall MPI has changed over the decade. It is evident that multidimensional poverty has significantly declined between 2004 and 2015 with Punjab experiencing statistically significant reductions in its overall MPI from 0.254 to 0.152. Both rural and urban poverty in Punjab faced a downward trend from 0.325 to 0.214 and 0.089 to 0.026 respectively. MPI of Punjab is the closest to the national average in comparison to all the other provinces. There are multiple factors that can be responsible for the differences in the poverty rates between the provinces. The distribution of natural resources, law and order situation, political situation, occurrence of any natural disaster and weather conditions can be regarded as the main determinants that can contribute towards fluctuation of poverty numbers across the four provinces. Another key determinant is the public policy and public sector spending carried out by the Government of Punjab which enabled Punjab to sustain its position. However, an analysis of provincial level spending comparison is beyond the remit of this report.

2.2.2 Profiling of Poverty in Punjab using MPI

2.2.2.1 Incidence of Poverty

MPI is calculated by taking a combination of Incidence (H) of poverty and Intensity of (A) of poverty. The incidence (H) of poverty depicts the total percentage of people who are multi-dimensionally poor, or in other words belong to the headcount of poverty. The key results of poverty estimated using incidence (H) of poverty are reported below. Results have been split into two sections. The first section represents national and provincial headcount poverty i.e. incidence (H) of poverty with respect to the poverty line provided. The second section, discusses the provincial headcount in which proportion of population living at the incidence of poverty is shown for the province of Punjab.

Table 3 provides estimates of headcount poverty with respect to the official poverty line. Twenty-four percent of the

urban population has been identified as poor according to this threshold during the time period 2006-2007. However, headcount poverty reduced significantly to 9.4 percent over the period of seven years; a change of 15 percent. This change is phenomenal. Rural poverty has also reduced by 16 percent during the same period. Overall, the headcount poverty in Pakistan during 2006-2007 was 52.5 percent which has now reduced to 38.4 percent; showing a change of 14 percent.

Table 3: Incidence of poverty for the years 2006-07 and 2014-15 (Pakistan)

	2006-07	2014-15
Region	Incidence (H) of poverty (%)	Incidence (H) of poverty (%)
Urban	24.0	9.4
Rural	70.3	54.6
Pakistan	52.5	38.4

Source: Planning Commission, Government of Pakistan

Table 4 provides Punjab's headcount poverty, using methodology given in the Planning Commission, Government of Pakistan report for the time 2006-2007 and 2014-2015 to draw rural urban comparisons. Table 4 highlights that over this period in Punjab; the decrease in poverty was 7.6 percent. Moreover, in Punjab urban poverty is now much lower than rural poverty (urban poverty reduced from 16.1 percent to 9.4 percent and rural poverty reduced from 61.0 percent to 54.6 percent). However, the improvements in the figures of poverty incidence could have been even better if performance of the agriculture sector had been stronger and commodity prices had remained stable. Table 5 depicts changes over the years from 2004-05 to 2014-15 on the account of incidence of poverty at the district level.

Table 4: Incidence of poverty for the years 2006-07 and 2014-15 (Punjab)

	2006-07	2014-15	
Region	Incidence (H) of poverty (percent)	Incidence (H) of poverty (percent)	Change
Urban	16.1	9.4	-6.7
Rural	61.0	54.6	-6.4
Punjab	46.4	38.8	-7.6

Source: Planning Commission, Government of Pakistan

Table 5: District wise Incidence of Poverty from 2004-05 to 2014-15 (In percent)

Districts	2004/05	2008/09	2014/15
Attock	43	32	9.9
Bahawalnagar	60.6	60.4	50.1
Bahawalpur	65.1	60.7	53
Bhakkar	74.4	71.6	51.7
Chakwal	22.4	22	12.9
Chiniot	-	-	42.1
D.G. Khan	75.3	78.6	63.7
Faisalabad	35.9	28.5	19.4
Gujranwala	32.3	20.1	14
Gujrat	28.2	22.3	18.4
Hafizabad	57.2	37.3	32.3
Jhang	71.7	62.5	41.6
Jhelum	31.8	8.3	8.5
Kasur	48.1	44.4	21.9
Khanewal	63.1	59.1	39.9
Khushab	56.9	57.8	40.4
Lahore	15.9	10.3	4.3
Layyah	65.9	61.8	45.6
Lodhran	75.5	62.4	46.8
Mandi Bahauddin	52.4	37.7	31.5
Mianwali	63.8	55.9	46.9
Multan	55.9	52.1	35.7
Muzaffargarh	79.4	73.2	64.8
Nankana Sahib	-	38.6	24.6
Narowal	50.6	53.9	26.6
Okara	64.1	53.5	39.5
Pakpattan	68.9	64	42.6
Rahim Yar Khan	69.8	64.5	56.8
Rajanpur	77.1	87.3	64.4
Rawalpindi	23.9	11.6	7.5
Sahiwal	54.8	53.2	30.8
Sargodha	53.2	52.2	35.4
Sheikhupura	38.3	30.6	21.4
Sialkot	34.4	28	14
T.T. Singh	56.5	42.1	23.8
Vehari	55.3	49.8	41.9

Source: Planning Commission, Government of Pakistan

2.2.2.2 Depth of Poverty (Intensity)

Depth of poverty or intensity can be defined as the average weighted sum of all the deprivations faced by the proportion of population below the poverty line. Observing the intensity allows differentiation between two different groups of a given population that are facing deprivation in different dimensions. Any group with a higher value of intensity is considered more deprived, as compared to the group with a lower value of intensity. In line with previous discussion, the intensity of poverty in both the rural and urban areas has decreased during the period considered at the national level (see table 6). For the case of Punjab, the results depict that the intensity of poverty in both the rural and urban areas has also decreased from 2008-09 to 2014-15. The changes in intensity of poverty are much higher than that observed at the national level. A change of 2.2 percentage points is observed from 2008-09 to 2014-15 in the case of overall improvement in intensity figures of Punjab.

Table 6: Intensity of Poverty (A) estimates for Pakistan and Punjab

Regions	2008-09(%)	2014-15(%)	Changes
Pakistan	52.6	50.9	-1.7%
Rural	53.6	51.6	-2%
Urban	45.2	43.1	-2.1%
Punjab	50.6	48.4	-2.2%
Rural	51.3	48.9	-2.4%
Urban	44.3	41.8	-2.5%

Source: Planning Commission, Government of Pakistan.

2.2.3 Key Findings from MPI

2.2.3.1 Analysis of MPI at National and District Level

At the national level, MPI dropped by 24.23 percentage points in absolute terms from 2008-09 to 2014-2015. Rural poverty has decreased over the period by 48.71 percentage points in absolute terms. The urban poverty has decreased by 19.48 percentage points (See Table 7). Rural population has historically been more deprived in terms of basic needs as they lack access to the living conditions that are more easily available to the urban population. The results, show significant improvement in terms of poverty rates which are earnest to the efforts by Government of the Punjab.

Table 7: Multidimensional Poverty Index (MPI) by National and Urban/Rural comparisons

Region	2008-09	2014-2015	Percentage change
National	0.260	0.197	-24.23
Urban	0.349	0.281	-19.48
Rural	0.078	0.040	-48.717

Source: Planning Commission, Government of Pakistan

Table 8, below provides the rural and urban calculations on MPI in Punjab for 2008-09 and 2014-15. The MPI for rural areas has improved by 26.7 percent, while that of urban areas has improved by 55.9 percent. This suggests that both at the urban and rural level, the province of Punjab has shown substantial improvement on the indicators of poverty.

Table 8: Multidimensional Poverty Index (MPI) in Punjab 2008-09 and 2014-15

Years	2008-09		2014-15		Percentage Change	
Province	Rural	Urban	Rural	Urban	Rural	Urban
Punjab	0.292	0.059	0.214	0.026	-26.7	-55.9

Source: Planning Commission, Government of Pakistan

Table 9 shows the ten poorest districts of Punjab which have the highest poverty headcount changes for the years 2008-09 and 2014-15 along with the percentage change in poverty over the period. The results show disparities across Punjab in response to MPI. The districts with highest MPI are Rajanpur and D.G. Khan with numbers 0.517 and 0.471 respectively in 2008-09, while Muzaffargarh also had a MPI of 0.471 in 2008-09 matching with D.G. Khan, in comparison to other districts of Punjab. In inclusion to above, the three top districts in Punjab with highest MPI reported are Rajanpur, D. G. Khan and Muzaffargarh, however, with much lower figures that are 0.371, 0.351 and 0.326 respectively in 2014-15 as compared to 2008-09. It is commendable that these districts have improved substantially on the MPI. The most prominent changes are shown in Jhang, Bhakkar and Muzaffargarh (37.7 percent, 31.45 percent and 30.78 percent respectively from 2008-09 to 2014-15).

Table 9: Bottom 10 Districts in Punjab Ranked by MPI (2008-09 & 2014-15)

District	MPI		Percentage change
	2008-09	2014-15	
Rajanpur	0.517	0.371	-28.23
D.G. Khan	0.471	0.351	-25.47
Muzaffargarh	0.471	0.326	-30.78
Bhawalpur	0.328	0.273	-16.76
Bhawalnagar	0.303	0.244	-19.47
Rahim Yar Khan	0.358	0.289	-19.27
Jhang	0.315	0.196	-37.77
Bhakkar	0.372	0.255	-31.45
Lodhran	0.320	0.230	-28.12
Vehari	0.237	0.200	-15.61

Source: Planning Commission, Government of Pakistan

The details of MPI, incidence (H) and intensity (A) of poverty for each district for the year 2014-15 are provided in table 10. The top districts that have least MPI are Lahore (0.017), Rawalpindi (0.032) and Jhelum (0.032), whereas, the highest MPI is observed in Rajanpur (0.357), D.G. Khan (0.351) and Muzaffargarh (0.338) in 2014-15. The highest intensity of Poverty (A) is observed in Rajanpur (55.4 percent), D.G. Khan (55.20 percent) and Muzaffargarh (52.10 percent) for the year of 2014-15. The highest incidence of poverty (H) is observed for Muzaffargarh (64.80 percent), Rajanpur (64.40 percent) and D.G. Khan (63.70 percent).

Table 10: Constituents of District wise Multidimensional Poverty Index (MPI) 2014-15

Districts of Punjab	MPI	Incidence (H)	Intensity (A)
Attock	0.041	9.9%	41.1%
Bahawalnagar	0.244	50.1%	48.7%
Bahawalpur	0.273	53.0%	51.5%
Bhakkar	0.255	51.7%	49.3%
Chakwal	0.056	12.9%	43.6%
Chiniot	0.199	42.1%	47.4%
D.G. Khan	0.351	63.7%	55.1%
Faisalabad	0.086	19.4%	44.5%
Gujranwala	0.064	14.0%	45.6%
Gujrat	0.078	18.4%	42.1%
Hafizabad	0.152	32.3%	47.0%
Jhang	0.196	41.6%	47.2%
Jhelum	0.035	8.5%	40.7%
Kasur	0.095	21.9%	43.6%
Khanewal	0.189	39.9%	47.4%
Khushab	0.2	40.4%	49.7%
Lahore	0.017	4.3%	38.8%
Layyah	0.214	45.6%	46.9%
Lodhran	0.23	46.8%	49.2%
Mandi Bahauddin	0.147	31.5%	46.7%
Mianwali	0.239	46.9%	50.8%
Multan	0.173	35.7%	48.5%
Muzaffargarh	0.338	64.80%	52.1%
Nankana Sahib	0.11	24.6%	44.6%
Narowal	0.118	26.6%	44.3%
Okara	0.185	39.5%	47.0%
Pakpattan	0.189	42.6%	44.4%
Rahim Yar Khan	0.289	56.8%	50.8%
Rajanpur	0.357	64.4%	55.4%
Rawalpindi	0.032	7.5%	43.0%
Sahiwal	0.14	30.8%	45.6%
Sargodha	0.166	35.4%	46.8%
Sheikhupura	0.093	21.4%	43.5%
Sialkot	0.059	14.0%	41.8%
T.T. Singh	0.107	23.8%	45.0%
Vehari	0.2	41.9%	47.6%

Source: Planning Commission, Government of Pakistan

The maps below (Figures 1,2 and 3) depict where Punjab stands on the MPI at a disaggregated level. The number of districts experiencing the highest MPI declined from 6 to 3 between 2004-05 and 2014-15. At the district level in Punjab, Rajanpur, D. G. Khan and Muzaffargarh continue to be the districts with the highest MPI. The changing colors of the maps reflect how trends of poverty in various districts have evolved over the years.

Figure 1: Multidimensional poverty Index (2004-05) Figure 2: Multidimensional poverty Index (2008-09)

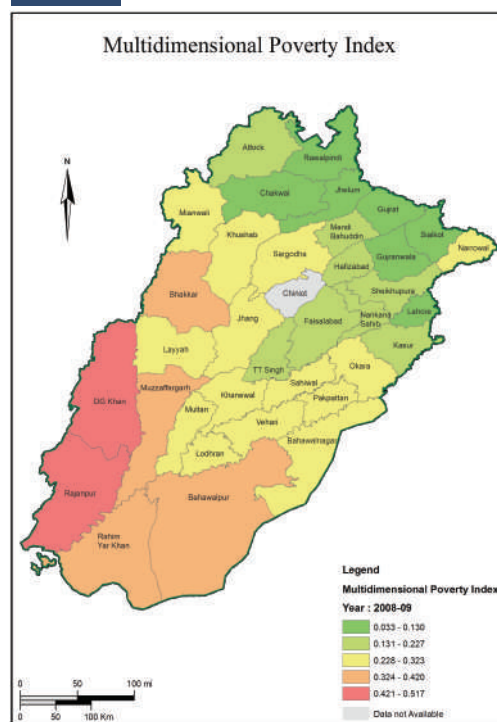
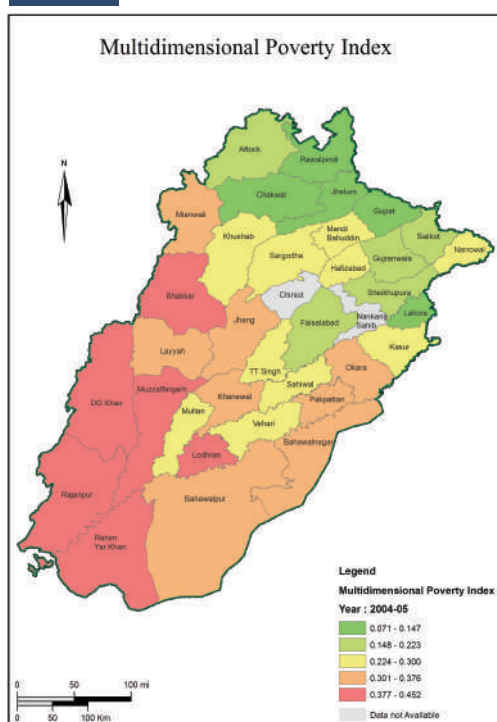
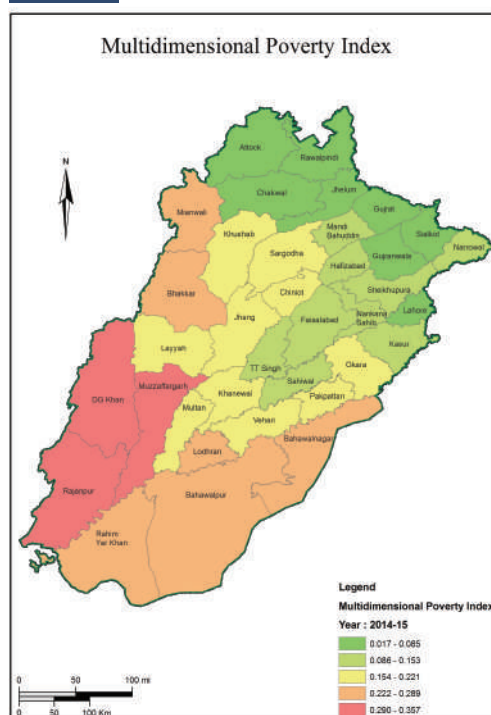


Figure 3: Multidimensional poverty Index (2014-15)



Source: Planning Commission, Government of Pakistan

The maps below (Figures 4,5 and 6) depict where districts of Punjab stand on the headcount poverty (H) constituent of the MPI. Headcount poverty is depicted between ranges 15.9% - 28.2% and 69.81% – 79.4% with the latter interval representing a higher incidence. The number of districts experiencing the highest incidence declined from 6 to 5 between 2004-05 and 2014-15. At the district level in Punjab, Ranjanpur, D. G. Khan and Muzaffargarh also continue to be the districts with the highest headcount poverty. The changing colors of the maps reflect how trends of poverty in various districts have evolved over the years.

Figure 4: Poverty Incidence Punjab, 2004-05

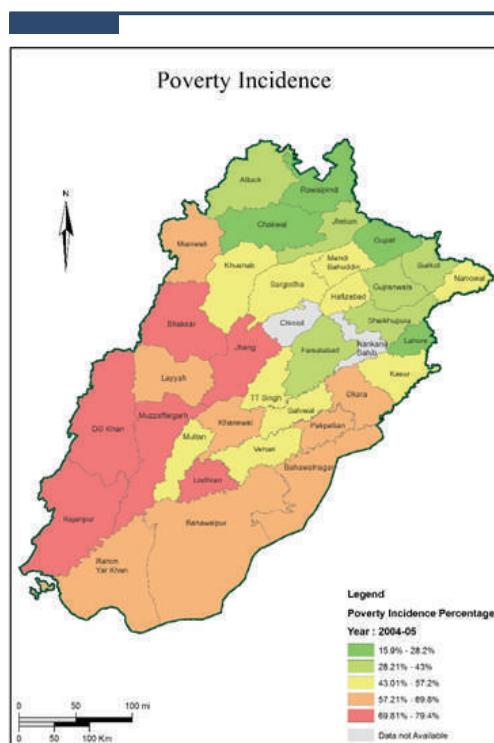


Figure 5: Poverty Incidence Punjab, 2008-09

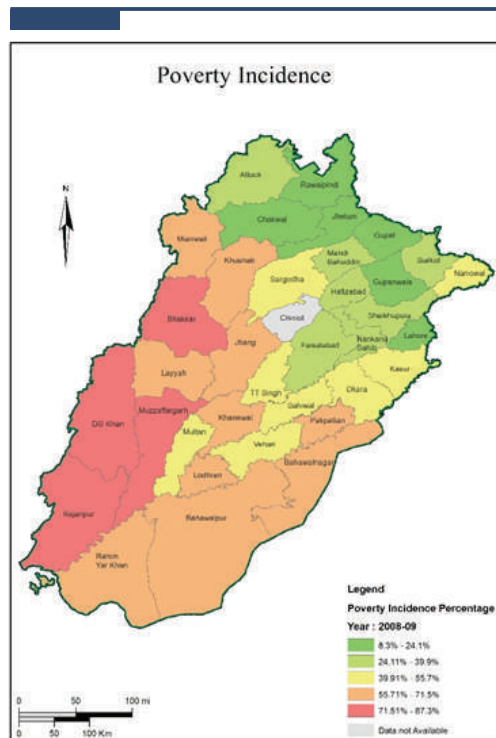
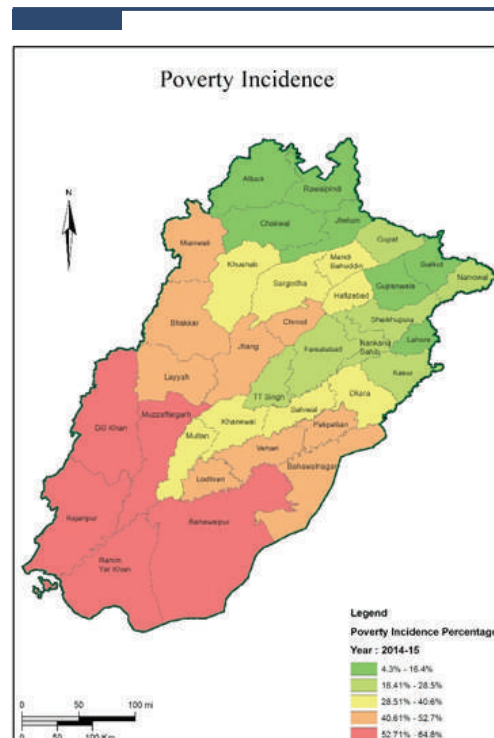


Figure 6: Poverty Incidence Punjab, 2014-15



Source: Planning Commission, Government of Pakistan

A comparison of Figure 7 (2004-05), Figure 8 (2008-09) Figure 9 (2014-15) suggests that the absolute dispersion of deprivation in terms of intensity of poverty has squeezed in all districts of Punjab, thus, suggesting improvements in inequity and poverty rates in Punjab. Note that the light shaded areas in figures 7, 8 and 9 represent those districts that perform better in terms of intensity of poverty, whereas, darker shaded areas depict those districts that have higher intensity of poverty.

Figure 7: Poverty Intensity (2004-05)

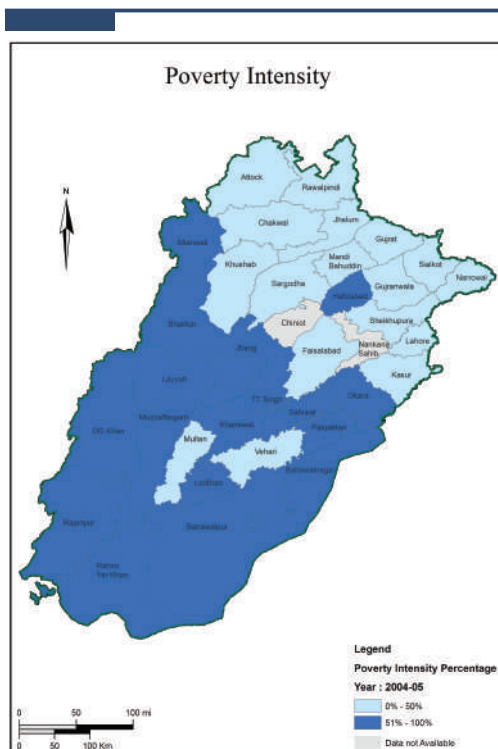
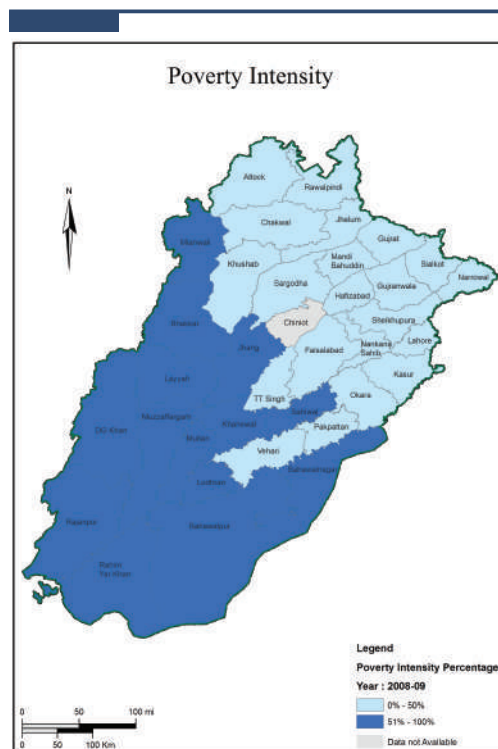
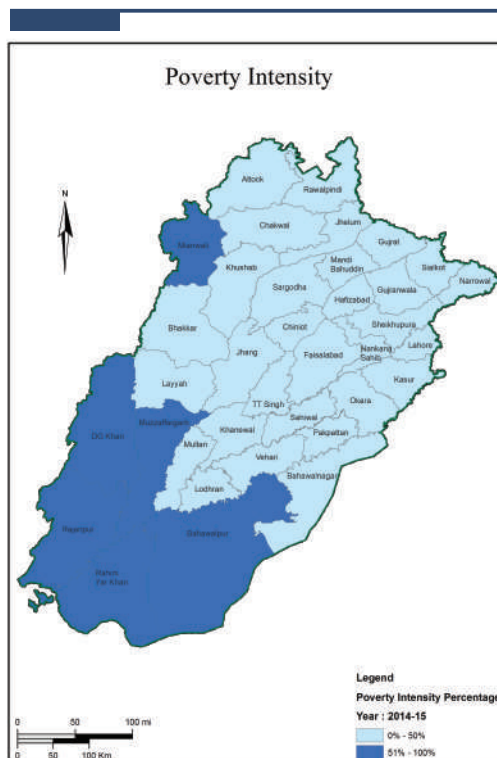


Figure 8: Poverty Intensity (2008-09)



Source: Planning Commission, Government of Pakistan

Figure 9: Poverty Intensity (2014-15)



Source: Planning Commission, Government of Pakistan

More than half of the total population of this country is concentrated in the province of Punjab. Urban poverty, in Punjab tends to be lower as compared to the rural poverty, both in terms of the depth as well as incidence. The northern and central Punjab experience low levels of poverty as compared to the southern Punjab. The Government of the Punjab, understanding the need of times, is ambitiously making further efforts to reduce poverty gap between the high and low poverty districts of Punjab.

The Government of Punjab is also considering if shifting a portion of infrastructure development and spending from central regions to South, will further ease the lives of the people. It can be deemed that the value for money and gains to be made by spending a billion on infrastructure improvement (for example in Rajanpur) will be much larger than spending the same in Lahore. Moreover, the social protection programmes are being more focused on the sensitivity of the selection of the poverty line and a high degree of clustering around it. Furthermore, the selection mechanism done on the band value rather than a line can further improve the efficiency and coverage of social protection programmes.

2.3 Social Protection in Punjab: Response to Poverty Reduction

Social protection is an increasingly important approach to reducing vulnerability and chronic poverty. According to the Punjab Social Protection Authority Act 2015, Social Protection is defined as ‘all public and private initiatives that provide income or consumption transfers to the poor, protect the vulnerable against livelihood risks, and enhance the social status and rights of the marginalized with the overall objective of reducing the economic and social vulnerability of ‘poor, vulnerable and marginalized groups’. The poor refer to individuals or households, who live below the poverty line as may be determined by the Punjab Social Protection Authority.

As discussed in the sections above, a sizable portion of Punjab’s population either lives in extreme poverty or is vulnerable to falling into the poverty trap, particularly due to any natural or idiosyncratic shock. Additionally, administration arrangements were inadequate, implementation, monitoring and evaluation capacity was also very weak. Consequently, these programs had little impact on addressing the issues of poverty and vulnerability. The sector also faced fragmentation of various federal and provincial level initiatives due to an absence of a platform or a credible system, which could support their consolidation.

The women and men face different risks and vulnerabilities; some specific to their gender and others are exacerbated by gender inequalities and discrimination. The design and implementation of social protection programs fails to address such gender-related constraints, including barriers to women’s economic advancement. Despite strong evidence of the different ways in which men and women experience poverty and vulnerability, there has been little attention to the role of gender in the implementation and effectiveness of social protection programs.

According to the most recent Social Protection Index (SPI), compiled by the ADB in 2010, the social protection provision for men was significantly higher than that of women. Only 10.1 percent of social protection expenditure in Pakistan was targeted at women. Women find low coverage in generic worker clusters, and in the broader support programs as these interventions are designed for the formal economy where women are a small minority. However, Benazir Income Support Program (BISP) (discussed below) had a focus on both poverty and women.

Women working from their homes make a significant contribution to the national economy, including export earnings but often their work is undervalued, and they are denied form of legal protection, including a minimum wage guarantee or social security benefits. These home-based women workers have nothing to fall back on in times of eventualities such as unemployment, sickness, accidents, child birth and family events such as marriages or deaths, widowhood, and old age.

Recently, Pakistan has seen an upsurge in social protection interventions, which suggests that the state is becoming increasingly committed to providing social protection as a direct means of targeting poverty. The Benazir Income Support Program (BISP), which is enshrined in the country’s law, has become a landmark reform geared towards poverty reduction and provision of social safety. The size of BISP makes it the largest social protection scheme in the country’s history. Moreover, it also works in conjunction with other safety nets such as the Pakistan Bait-ul-Maal and the Zakat Fund, as well as other provincial programs. In fact, the BISP is the largest cash transfer program in South Asia.

2.3.1 Social Protection Financing in Punjab

In the post-devolution era, the Government of Punjab has launched several initiatives, some in conjunction with BISP, to widen the coverage of social protection in the country's largest province. Almost PKR 9.6 billion were earmarked for social protection expenditure in Punjab in the 2015-16 annual budget¹. The main programs (discussed in detail below) include:

- Allocation of PKR 1 billion for cash transfers to disabled elderly individuals under Punjab Social Protection Authority;
- Health insurance scheme for poor families at a cost of PKR 2 billion;
- Provision of PKR 2 billion to 'Akhawat' / for interest free loans under 'Khud Rozgar' / Self Employment Scheme'. The total allocation is now PKR 10 billion. However, total loaning due to revolving nature of the fund is in the region of PKR 30 billion with over 1,450,000 beneficiaries;
- Distribution of 50,000 vehicles under 'Apna Rozgar Scheme' through a transparent process;
- Allocation of 6,400 flats for lower income families under Ashiana-e-Iqbal scheme in Lahore;
- DFID-assisted Punjab Economic Opportunities Program (PEOP);
- IFAD-assisted Southern Punjab Poverty Alleviation Project (SPPAP);
- Establishment of child protection institutes in Dera Ghazi Khan, Bahawalnagar and Sahiwal;
- A 120 bed maternity and child health center for laborers in Faisalabad, and;
- A 50-bed social security hospital in Jhang.

2.3.2 Punjab Social Protection Authority (PSPA)

The provincial government has established the Punjab Social Protection Authority (PSPA) in 2014, followed by the PSPA ordinance in 2015. PSPA launched its first project of PKR 2 billion for the rehabilitation of disabled persons by issuing them monthly stipends through the Khidmat Card in 2014 to help the marginalized start their own small businesses to make them self-reliant². PSPA is intended to coordinate all social protection efforts in Punjab and ensure their effective implementation.

It also aims to provide a comprehensive and gender-equitable social protection system to the poor and vulnerable in the province and deal with ancillary matters³. PSPA plans to launch different schemes to provide conditional or unconditional cash subsidy to destitute and poor (e.g. the Khidmat card that has already been issued to the vulnerable). This would be followed by cash transfers, which would be added to previous unconditional subsidies. Moreover, a mechanism for conditional cash grants will also be devised to link the subsidy with registration of all family members, immunization, and enrolment in schools etc. An amount of PKR 1 billion was allocated for such efforts in the development program for 2015-16.

2.3.3 Key Initiatives and targeting

Health Insurance Scheme: The Prime Minister's National Health Program, in collaboration with Provincial Governments is effective in 15 districts of Pakistan in the first phase and will be expanded to 23 districts in the second phase⁴. This scheme has been launched to improve the health indicators in the country. The program is completely funded by the government without any donor support. Rs. 2.0 billion has been allocated by the Government of the Punjab for various initiatives taken in the realms of health insurance scheme. In inclusion to above, Rs. 108.6 billion is allocated in addition for this sector's various initiatives. Moreover, the Government of Punjab is making diligent efforts in providing public health facilities to its

¹<http://www.pndpunjab.gov.pk/system/files/Citizens%20budget%202015-16-%20English.pdf>

²For details, see PSPA official website; <http://pspa.punjab.gov.pk/>.

³Social Protection Ordinance, 2015.

⁴The information is provided <http://www.pmhealthprogram.gov.pk>.

people and has provided Rs. 25 billion alone for clean drinking water project (Punjab Saaf Pani Program).

A social mobilization campaign would also be launched to ensure registration of all deserving people under the scheme. So far, almost 6,500 families have received their health cards according to BISP. People earning less than daily wage of PKR 200, falls under the scheme. The Punjab Health Commission will authorize health facilities that will provide services against the insurance. According to the scheme a person would receive emergency treatment free of charge and would be charged if he were admitted.

Punjab Economic Opportunities Program: The Punjab Economic Opportunities Program (PEOP) was a flagship program of the Government of Punjab being implemented in partnership with the Department for International Development, Government of UK (DFID). The aim of the program is to create inclusive growth and alleviate poverty in Punjab's high poverty districts. The program has been launched in the Southern Punjab districts of Bahawalnagar, Bahawalpur, Lodhran and Muzaffargarh. PEOP's two main components include: (i) increasing employability and earnings of low income, poor and vulnerable families by augmenting their skills-base through vocational training and (ii) increasing the access and returns to livestock income for the poor people.

Punjab Skills Development Fund: The vocational training and skills component of PEOP is being implemented by the Punjab Skills Development Fund (PSDF), a not-for-profit company set up by the Government of Punjab in collaboration with DFID. PSDF has been created to increase the access of low income, poor and vulnerable members of society to vocational training and skills acquisition programs with an aim to achieve the following outcomes at the household level:

- Increase income earning potential
- Increase access to employment opportunities and employability
- Increase participation of women and other marginalized groups in the labor market

PSDF is running a large number of skills training programmes across different sectors and districts with eventual target of creating employment and earnings for the deprived.

Social Welfare and Bait-ul-Maal Department: Pakistan's Bait-ul-Maal program mobilizes government funds and combines cash transfers and food subsidies. The department is responsible for coordinating and ensuring responsive social protection services to the communities in general, the poor and vulnerable in particular, by mobilizing partnerships and developing organizational capacities. The female victims of violence including domestic violence, physical and psychological abuse, rape cases, vanni and sawara cases, forced marriage and emotional and economical abuse etc. are admitted in shelter homes.

According to Planning and Development Department Punjab, the revised budget estimates for social welfare Dev. & Bait ul Mal is Rs. 2,362.487 million. SWD is committed to work to achieve its goal of a welfare state by empowering the people with social and economic opportunities. It benefits the marginalized segments of society by generating institutional care services along with healthy life opportunities. The achievements made in the fiscal year 2016-17 by SWD and Bait-ul-Mal includes Saikot's Qasar-e-Behood, Remodelling of existing Shelter Homes (Dar-ul-Amans) in thirty-six districts of Punjab, Vehari's building of Industrial Home and construction of Shelter Homes in 5 districts of Punjab (Phase-III). It is commendable that in the Annual development Plan (2016-17), a total allocation of Rs. 584 million was kept for 29 new and on-going schemes, from which 90 percent of the allocation has been utilized during the FY 2016-17 alone.

Zakat and Usher Department: Zakat and Ushr Department was established under the Zakat and Ushr Ordinance in 1980. According to the Zakat and Usher department, a total amount of Rs. 4038.687 million and Rs. 4272.796 million was received by the Punjab Zakat and Usher Department from the Federal Pool; during the fiscal years 2016-17 and 2017-18, respectively. The department provides financial assistance particularly to orphans, widows, handicapped and disabled persons who are eligible to receive Zakat under Islamic Law under different heads.

The department remained on concurrent list (until 2010) until it was devolved as a result of 18th Amendment. Zakat funds are collected by the Government and are disbursed among the provinces in accordance with the decision of the Council of Common Interests. Selection of mustehqeen (poor who deserve Zakat) is the sole prerogative of Local Zakat

Committees under the Zakat Law. Selection /targeting of needy and poor persons are carried out through local Zakat committees constituted in each ward, deh and Mohallah. The relevant committees pick the poorest of the poor for provision of Zakat funds through a consultative process, as the local notables are well aware of the poor and needy people in their respective localities. Moreover, Zakat and Usher department has initially taken an appreciable step to ensure transparency of zakat fund which is helping in reaching to the needy in a more transparent way than before. Zakat and Usher department has introduced branchless banking by adopting the Biometric Verification System (BVS). BVS guarantees not only data keeping but also ensures stricter checks in the disbursement mechanism.

Benazir Income Support Program (BISP): Various cash programs are being implemented to provide social protection to the vulnerable sections of the society. Perhaps the most significant initiative to enhance social protection provision for women has been the BISP a double pronged scheme that envisages poverty reduction and at the same time aims at fostering women's empowerment.

In waseela-e-taleem program cycle, each child has received a cash transfer of Rs.750 per quarter upon admission to this programme. The program was extended to 27 new districts in January 2015 upon its successful launch in Pakistan. Currently, it is operational in 50 districts across the country. In Punjab, 10 districts are being covered under this programme including Rahim Yar Khan, Khushab, Sialkot, Rawalpindi, Narowal, Bahawalpur, Bahawalnagar, Rajanpur, Jhang and Muzaffargarh.

BISP goes much further than simply providing economic stipends to women. The scheme builds capacity and links women with a number of important supportive measures relating to education and employment for themselves or their offspring. An example is BISP; which has also rolled out the Co-responsibility Cash Transfers (CCT) program, linking cash transfers to primary school education, which is being implemented in 32 districts in all provinces and regions. After a successful pilot study in 5 districts, the enrolment process is currently underway in 24 districts. Till date around 2.1 million children have been successfully enrolled from 2012 to June 2018. The government has unanimously passed the Benazir Income Support Program Act 2010 setting BISP as the sole Social Safety Net Organization operating at the national level and establishing it as an autonomous organization.

It opens the way for other opportunities – development schemes, voting rights, contesting elections, etc. Moreover, women now operate biometric cards and have been introduced to other technologies. Additionally, under the Program the costs of one child's education from each BISP household is fully covered; there is a credit scheme for entrepreneurial undertakings backed by training in enterprise management and guidance. Also, there is a health insurance scheme. The BISP has improved gender outcomes by providing cash transfers to poor women.

Khidmat Card: The Punjab government has initiated the Khidmat Card scheme, under which the disabled and deserving men will be offered a monthly monetary assistance of PKR 1,200 each across the province to be paid every 3 months (Rs.3,600 per month)⁶. This amount has been further revised with a monthly allowance of Rs.1500/- per month, which is to be paid quarterly (making 4500 by every quarter). The Punjab government is using BISP's registration data for issuing Khidmat Cards among special persons after the community development department takes the data from respective district and regional offices. Computerized National Identity Cards (CNICs) holders whose data with the National Database and Registration Authority describes them as 'disabled' would be entitled to the monetary allowance. CNIC holders not marked would have to pass through an attestation process before being issued with medical certificates for which special medical boards would be constituted in each tehsil headquarters hospital.

The program covers all disabilities including lower limb disability, mental disability, visual disability, upper limb disability, speech disability and hearing disability with a percentage share of 40.5 percent, 17.4 percent, 15.7 percent, 11.5 percent, 9.9 percent and 5.0 percent⁷, respectively. The target group includes the poorest households of Punjab that have a PMT cut-off score of 20 (previously was 16.17); which makes a large segment of people who are deprived and fall into the poverty score of Benazir Income Support Program (BISP). The Government of Punjab has benefited these disabled people by helping them in enrolment mechanism, providing them a free transport service to 150 established tehsil level Khidmat card centers, by the assistance of the Bank of Punjab.

Self-Employment Scheme: The Chief Minister's Self Employment Scheme, operational since 2011, aims to control unemployment in Punjab by providing loans, in collaboration with Akhuwat, up to PKR 50,000. The government has been able to provide interest free loans of PKR 30 billion to approximately 1,450,000 people so far. Technical Education and Vocational Training Authority (TEVTA) has also disbursed similar loans of PKR 600 million to its skilled graduates. The Punjab Government is now expanding the scope of these loans to specifically target the young skilled graduates in the province.

⁶The information is provided at official website of PSPA; http://pspa.punjab.gov.pk/khidmat_card

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Annexure

Annex 1: Methodology of MPI

Targeting of poverty alleviation has been an important policy question in most developing countries. The concept of poverty being multidimensional has been under debate, and many major economists believe that monetary value alone cannot conclusively determine poverty numbers and there should be some multidimensional approach that should fully incorporate other non-monetary dimensions of a household as well. Due to the unidimensional nature of the crude monetary based poverty measures (simple head count ratio and income gap ratio), Amartya Sen (1976) criticized these measures regarding them as insensitive to the re-distribution of incomes. Moreover, according to Atkinson (1982), Kolm (1977) and Tsui (1992), the more sophisticated measure of well-being is the one which incorporates both monetary and non-monetary dimensions.

Defining poverty in multiple dimensions, Ravallion (1996) discussed that the indicators of well-being that should be taken into account while calculating poverty numbers must include real expenditure, non-income indicators including access to market goods, indicators of intra-household status and indicators of personal characteristics including those of health, that might pose a hindrance on the person's ability to earn. Viewing poverty from this perspective does not merely mean deprivation of monetary assets but a lack of fundamentals, necessary to maintain an optimal standard of living. Moreover, monetary measures do not incorporate the inter-related nature of various dimensions such as health and education that may affect the well-being of a household. Poverty alleviation policies require the overview of structure of poverty arising through various dimensions in order to lay down strategies to allocate resources efficiently. In this context, it is important to include all such dimensions while measuring poverty.

In an attempt to analyse the potential domains affecting poverty alleviation in Pakistan, a lot of research has been done. A report by the Asian Development Bank (2009) reveals that poverty has been proved to be alleviated by tapping the non-monetary dimensions of a household i.e. by lowering the family size (number of persons per room), lowering the dependency ratio, improving education and health, higher household participation rate and greater access of household to markets especially in remote areas. Pakistan's official poverty line has been set up in 1998 using HIES data and has been adjusted for inflation using consumer price index (CPI). Consumer Price Index (CPI) has been calculated using Family Budget Survey (2007), which ignores the rural markets covering only urban markets. As highlighted in the report on Material Well-Being of Pakistan (2015), CPI fails to adjust the 1998 poverty line in a way that it does not estimate rural poverty properly.

M.1.1. Measurement of MPI

In order to estimate MPI, method employed by Foster and Alkaire (2007) has been used. The approach of MPI enables us to take into account multiple dimensions of a household and reduces all the dimensions in such a way that it provides a single poverty number for each household. For the calculation of the poverty index there are two

major steps:

Step I: This step involves the identification of poor.

Step II: This step involves aggregation which gives an idea about overall deprivation status of household in multiple dimensions.

Mathematical explanation of the calculation of MPI is explained in the section below.

Mathematical Explanation

The method adopted by Alkaire and Foster includes the selection of dual cut off points. The mechanism of two cut off points is as follows:

First cut off; deprivation in terms of particular indicator

With respect to different dimensions, indicators are assigned different weights depending on the total number of indicators in that dimension. In the first step, for each indicator the appropriate cut off points are selected, and the deprivation status of the household is established accordingly. The household is categorized to be deprived and non-deprived depending on the household's status in terms of that indicator and cut off. Deprivations of household calculated through the first cut off are then aggregated.

Mathematically, let for any dimension d , the indicator's deprivation cut off is denoted as ' K_i '. The person i is considered to be deprived if person's achievement with respect to the indicator ' Z_i ' is below the cut-off, i.e.

$$Z_i < K_i$$

While defining cut offs for deprivations, most of these are based on international standards or current policies prevailing in the country. In some cases, deprivation status is established by analysing the culturally accepted standards.

Defining weights for indicators:

Once the cut off has been defined, weights are allocated for each of the indicators with respect to the dimension. Let ' d ' denote dimensions that have been used to construct the MPI. Three broad dimensions i.e. education, health, lifestyle and assets have been used in order to construct MPI. Since the total number of dimensions is three in our analysis, a weight of $1/3$ is assigned to each of the dimensions. In this way, all three dimensions are equally weighed in the construction of MPI.

Each indicator within a dimension is also equally weighed. For instance, if there are six indicators in any of the dimensions, each indicator will receive weight of $1/24$ ($1/4 \div 6$). In this way, all the indicators in the construction of MPI are equally weighed.

For each indicator i , the weight W_i is assigned such that the following equality is satisfied:

$$\sum_{i=1}^n W_i = 1$$

Where, n is the total number of indicators.

Second cut off; identifying the poor

After the identification of deprivation status with respect to first cut off, overall deprivation score is calculated for each unit of analysis. Deprivation score, being weighted sum of the number of deprivations of the individual, lies in between 0 and 1. Deprivation score is directly proportional to the number of the deprivations of unit of analysis; it increases as the number of the individual deprivations increase and vice versa. If a person has deprivation score of 0 then this implies that the individual is not deprived in any of the component indicator. On the other hand, deprivation score of 1 results when a person is deprived in terms of all indicators. Deprivation score, being the aggregate of all the individual component indicators along with their respective weights, can be calculated using the following equation:

$$Z = \sum_{i=1}^n W_i Z_i$$

$$Z = W_1 Z_1 + W_2 Z_2 + \dots + W_n Z_n$$

Where, ' Z ' is the deprivation score of an individual. Deprivation status in terms of component indicator is established as follows:

$Z_i = 1$; if a person is deprived in terms of ' i 'th indicator

$Z_i = 0$; if a person is not deprived in terms of ' i 'th indicator

Subject to the following condition

$$Z_i < K_i$$

Where, ' K_i ' is the first cut-off as defined earlier.

The weight attached to the indicator is W_i , where the assumption, for n indicators.

Second cut off point acts as a poverty line and is functional upon the aggregate deprivation as follows:

If the household's aggregate deprivation score is more than the second cut off (serving the function of poverty line), the household is considered to be poor in terms of multiple dimensions. On the contrary, if the household's aggregate deprivation score is less than the second cut off, the household is considered to be non-poor.

According to Alkaire and Foster (2008), the second cut off can be formally known as the ‘poverty cut off’. For the national poverty analysis, the poverty cut off that has been adopted in most of the literature is 0.4. Let ‘t’ denote the poverty cut off which can be defined as the minimum of the aggregate deprivations that a person must have in order to be regarded as poor. If the deprivation score of an individual is greater than or equal to the poverty cut off, the person is described as poor. In multidimensional poverty measurement, deprivation scores less than the poverty cut off are censored. So, if the deprivation score is less than the poverty cut off and acquires any value (zero or non-zero), it is censored in such a way that it is replaced by ‘0’. Mathematically,

$$\begin{aligned} &\text{if } Z \geq t; \text{ a person is considered to be poor} \\ &\text{if } Z < t; \text{ a person is considered to be non poor} \end{aligned}$$

Also,

$$\begin{aligned} &\text{if } Z \geq t \Rightarrow Z_i(t) = Z_i \text{ (deprivation score of poor)} \\ &\text{if } Z < t \Rightarrow Z_i(t) = 0 \text{ (deprivation score of non poor)} \end{aligned}$$

Computation of MPI

For the final computation of the MPI, we calculate the proportion of people who experience deprivations in multiple dimensions in a given population and the intensity of all such deprivations. Formally, the first component is known as ‘Headcount Ratio’, whereas the second component is called ‘Intensity’. Mathematically, these components are:

Headcount Ratio = H =

where,

q is the number of people in a given population who are poor n is the total population.

And

$$\text{Intensity of Poverty} = A = \frac{\sum_{i=1}^n Z_i(t)}{q}$$

where,

A; Average deprivation score of all the multidimensional poor people in a given population

sum of censored deprivation score of n individuals

$$\sum_{i=1}^n Z_i(t);$$

q; number of multidimensionally poor people

Finally, MPI is the product of headcount ratio H and A, i.e.

$$\text{MPI} = H \times A.$$

