



# Multidimensional Poverty Index Report 2019-20





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## Message by Minister

It is with great pride that I present the second Multidimensional Poverty Index (MPI) Report 2019-20, a pivotal document that offers a comprehensive analysis of geographical deprivations in Pakistan through a multidimensional lens. This report is a testament to our ongoing commitment to addressing poverty in all its forms and ensuring that no citizen is left behind.

The MPI provides a nuanced understanding of poverty, going beyond income measures to include various deprivations in health, education, and living standards. By adopting this holistic approach, we are better equipped to identify the specific needs of our population and tailor our policies accordingly. In addition, by focusing on multidimensional poverty, we are taking significant steps towards fulfilling our national and international commitments to sustainable and inclusive development.

The findings of this report reveal critical insights into the state of poverty across Pakistan. Notably, over the years, the MPI reduced in rural areas but increased in urban areas. Provincial variations have reduced, nevertheless, there is a need for urgent targeted interventions address the unique challenges faced by different regions and communities. As a result, we have started an equity-based initiative in the 20 poorest districts of Pakistan, 11 belong to Balochistan, 5 to Sindh, 3 to Khyber Pakhtunkhwa, and 1 to Punjab.

I extend my heartfelt gratitude to the Poverty Committee, the provincial members of the committee, and our esteemed partners, including the OPHI and UNICEF, for their invaluable contributions to this report. Their collaboration and expertise have been crucial in providing a detailed and accurate portrayal of poverty in Pakistan.

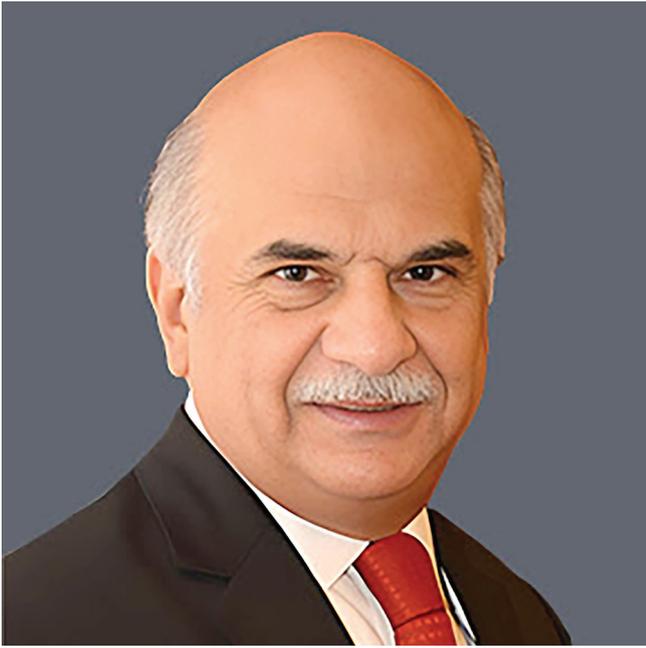
As we move forward, the insights from the MPI Report 2019-20 will serve as a critical guide in shaping our poverty alleviation strategies. Our mission is to create a Pakistan where every individual, regardless of their socio-economic background, has the opportunity to lead a dignified and fulfilling life. This report is not just a reflection of our current state but a beacon for our future endeavours.

Although, data was collected in 2020, but due to problems in the data and re-estimation the report was delayed. However, the numbers are still valid since we will have new estimates by 2026-27. Together, we can address the multifaceted nature of poverty and ensure that development is inclusive, equitable, and sustainable. Let us continue to work collaboratively towards a Pakistan where prosperity is shared by all.

**Prof Ahsan Iqbal Chaudhary**

Federal Minister

Ministry of Planning Development and Special Initiatives



## Message by Deputy Chairman

As we traverse the landscape of sustainable development, the essence of eradicating poverty in all its forms and dimensions stands as a paramount goal. The Multi-dimensional Poverty Report is a comprehensive assessment of poverty, transcending traditional monetary measurements and encompassing a spectrum of dimensions affecting human well-being. The report meticulously examines and delves into the various facets that constitute deprivation, illuminating crucial insights and pathways toward a more inclusive and equitable society.

This report serves as a pivotal milestone in our collective journey towards achieving the Sustainable Development Goals (SDGs). Its findings and analyses pave the way for informed policy decisions, targeted interventions, and collaborative efforts aimed at alleviating multi-dimensional poverty at its core. Through rigorous research, data-driven assessments, and an unwavering commitment to addressing societal disparities, the team has crafted a document that not only elucidates the complexities of poverty but also fosters a deeper understanding of the challenges ahead.

I extend my heartfelt gratitude to the dedicated team behind this report whose relentless dedication and expertise have culminated in this invaluable resource. Their commitment to advancing the agenda of sustainable development through research and analysis is commendable. This report is more than a publication; it signifies our shared commitment to ensuring no one is left behind. Its insights will undoubtedly serve as a compass guiding our efforts towards building a more resilient, inclusive, and prosperous future for all.

I encourage all stakeholders, policymakers, academia, civil society organizations, and individuals passionate about eradicating poverty to engage with this report, harness its insights, and join hands in our collective pursuit of a more just and equitable world.

**Dr. Mohammad Jahanzeb Khan**

Deputy Chairman, Planning Commission



## Message by Secretary

The Multi-Dimensional Poverty Report comprehensively assesses the various dimensions and complexities of poverty prevalent in Pakistan. It meticulously examines not only the monetary aspects but also delves into the social, health, and educational facets, providing a holistic view of poverty's nuanced nature. This report stands as a testament to our unwavering commitment to eradicating poverty and fostering sustainable development in our nation.

The findings encapsulated within this report stem from rigorous research, extensive data analysis, and collaborative efforts involving stakeholders from diverse sectors. It serves as a roadmap, guiding our collective endeavours towards targeted interventions and policies aimed at uplifting marginalized communities and ensuring no one is left behind on our journey towards prosperity. This landmark publication stands as a testament to our collective dedication to the Sustainable Development Goals (SDGs) and the overarching vision of a more equitable and inclusive society. We believe that through informed insights, strategic planning, and concerted action, we can create meaningful change and empower every individual to live a life of dignity and opportunity.

**Mr. Awais Manzur Sumra**

Secretary

Ministry of Planning Development and Special Initiatives



## Message by OPHI

It has been a privilege to work on Pakistan's updated national Multidimensional Poverty Index (national MPI) in collaboration with the Poverty Estimation Committee, Provincial members and the SDGs section, and the Planning Commission, with the support of the United Nations Children's Fund (UNICEF) Pakistan.

This report presents the first update of Pakistan's national MPI based on the Pakistan Social and Living Standards Measurement Survey (PSLM) 2019-20. Pakistan's official national MPI, which was first launched in 2016 using data 2004/5 to 2014/15, gives a comprehensive picture of multidimensional poverty aligned with the 2030 Agenda for Sustainable Development, is reported as SDG indicator 1.2.2, and complements Pakistan's national monetary poverty data.

This MPI report sheds light on the multiple deprivations in health education and living standards experienced by the poor – nationally, by province and district as well as age cohort. It finds that three out of ten people in 2019-20 are multidimensionally poor (30.5%), that each poor person is deprived in nearly half of the possible deprivations simultaneously (48%). The level of multidimensional poverty varies greatly across the four provinces, 28 divisions and 127 districts. For example, across districts, the multidimensional poverty rate varies from 2.6% in Islamabad to 95.1% in Sherani. Such poverty is predominantly rural: 87.5% of poor people in Pakistan (60 million out of the 69 million poor people) live in rural areas, signaling the attention required to these areas. Deprivations in school attendance and women's education, energy, housing and services are key priorities cutting across all most regions.

This report also tracks changes in multidimensional poverty over time from 2014/15 to 2019/20, using a harmonized dataset, and finds that the incidence of poverty nationally dropped by 3.2 percentage points in that five year period, and that there were significant reductions in all provinces except Sindh. The fastest reduction occurred in Balochistan – a pro-poor result. While 2019-20 data do not reflect important subsequent events including the pandemic and flooding, they do provide very detailed information at the district level that can still guide policy.

In recent years Pakistan used the results of the national MPI in the fight against poverty. It is our hope that this first update of Pakistan's MPI will support public action to eradicate poverty in all its dimensions, guiding the allocation of resources, coordinating policy and prioritising strategic and coherent multisectoral interventions that accelerate impact.

I would like to thank the Poverty Estimation Committee team for their dedication and hard work while computing the MPI and drafting this report and especially M Ali Kemal for his patient and excellent leadership, as well as the team of UNICEF Pakistan. I would also like to thank Dr Rizwan ul Haq, who led the work of the OPHI team. It has been a pleasure to work with this entire team and we look forward to seeing how this evidence is used for policy going forward.

### **Professor Sabina Alkire**

Director,  
Oxford Poverty and Human Development Initiative (OPHI)



## Message by UNICEF

UNICEF is immensely proud to launch Pakistan's second Multidimensional Poverty Index (MPI) Report in partnership with the Ministry of Planning, Development & Special Initiatives.

Since the first report in 2014 by Alkire and Santos, in collaboration with UNDP, the MPI Report has come to be recognized globally as a key index for measuring poverty. It covers the multiple practical deprivations that are faced by people living in poverty and provides specific guidance to governments and other stakeholders to address these issues.

The report is important to UNICEF's work as it provides critical insights into the multiple dimensions of poverty that affect children's lives, including access to education, healthcare, and living standards. UNICEF is therefore able to use the MPI to tailor interventions to address the specific needs of children, ensuring they receive adequate support and opportunities to survive, thrive and reach their full potential. UNICEF hopes to see the estimation of poverty for children included in future iterations of the MPI Report to ensure an understanding of the specific challenges faced by children.

The index has been used a crucial measurement in the 2030 Sustainable Development Goals (SDGs), namely Goal Area 1: To End poverty in all its forms everywhere and Reduce inequalities. As such, the index represents a core indicator for all governments committed to achieving these goals.

Globally, the reduction in poverty since 2015 has been both uneven and insufficient to meet the SDG targets. According to the United Nations Statistics Division, if current trends continue, 575 million people globally will still be living in extreme poverty by 2030, and only one third of countries will have halved their national poverty levels.

In a local reflection of global trends, Pakistan overall is not on track to meet target 1.2 of the SDGs – to cut the incidence of the multidimensional poverty by half from 2015 to 2030. However, in a positive sign, Punjab is on track, and Balochistan and Khyber Pakhtunkhwa have made significant strides in reducing poverty.

Our hope is that this report will provide both guidance and motivation to reduce poverty in Pakistan, and be used by a wide range of stakeholders, including the Government of Pakistan, non-governmental and inter-governmental organizations, professionals, activists and students.

**Abdullah A. Fadil**

UNICEF Representative, Pakistan



## Message by Head of Poverty Committee

As Chair of the Poverty Estimation Committee, I am pleased to present this comprehensive report aimed at evaluating and addressing the multi-dimensional aspects of poverty within the country. This report stands as a crucial milestone in our commitment towards achieving the Sustainable Development Goals (SDGs) by comprehensively understanding and tackling poverty in all its dimensions.

The report presents a meticulous analysis of various dimensions of poverty, encompassing not only income-based measures but also crucial socio-economic factors that influence the quality of life and well-being of individuals and communities across Pakistan. It identifies key areas of concern, highlights disparities, and offers actionable insights to inform policy-making and targeted interventions.

The collaborative efforts of the team have culminated in a document that serves as a valuable resource for policymakers, development practitioners, and all those committed to eradicating poverty and fostering inclusive growth and development.

This report signifies our collective commitment to leave no one behind and underscores the importance of a holistic approach towards poverty alleviation. It will serve as a guiding tool to shape policies and interventions that address the multi-faceted nature of poverty and contribute to building a more equitable and prosperous society for all.

**Dr. Aliya H. Khan**

Head,  
Poverty Estimation Committee



## Foreword

It is indeed pleasure to unveil Multidimensional Poverty Index estimates for the year 2019-20. The first report unwraps MPI estimates from 2004-05 till 2014-15. In the second report same methodology is adopted, though with minor changes in selection of PSLM indicators.

MPI is district wise estimates that provides an opportunity to select deprived districts and well off districts and overtime improvement in it. It provides an opportunity to review the policies that if they are impacting the overall MPI and its dimensions.

A tangible decline in MPI to 30.5 percent (including FATA) shows efforts that aimed at socio economic uplifting the marginalized and vulnerable areas out of deprivation. The only worrisome component is increase in urban MPI, though rural MPI is declining at significant rate, though rural MPI is still higher than urban MPI.

It is pivotal to address the increase in urban MPI. Academia and Think tanks may examine the determinants of MPI, especially changes in MPI with all those macro and micro factors which are not included in the MPI estimation.

Thanks to the poverty committee, provincial members of the committee, UNICEF and OPHI for giving technical inputs. We would appreciate UNICEF's support in editing, designing and printing the report.

**M. Ali Kemal**

Chief SDGs

Ministry of Planning Development and Special Initiatives





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## Abbreviations

<b>(A)</b>	Intensity of Poverty
<b>(H)</b>	Incidence of Poverty
<b>CBN</b>	Cost of Basic Needs
<b>FATA</b>	Federally Administered Tribal Areas
<b>GDP</b>	Gross Domestic Product
<b>KPK</b>	Khyber Pakhtunkhwa
<b>MPI</b>	Multidimensional Poverty Index
<b>MDG</b>	Millennium Development Goals
<b>NGOs</b>	Non-Governmental Organizations
<b>PPP</b>	Purchasing Power Parity
<b>PSLM</b>	Pakistan Social and Living Standards Measurement
<b>SDGs</b>	Sustainable Development Goals
<b>UNDP</b>	United Nations Development Program
<b>UNICEF</b>	United Nations Children's Fund



# Executive Summary

## Introduction

The main goal of the Sustainable Development Goals (SDGs), “End poverty in all its forms, everywhere,” recognises the importance of the Multidimensional Poverty Index (MPI) alongside other measures. In Pakistan, the performance of the social sector does not match with the income growth of the country, measured by GDP<sup>1</sup> growth, which makes the MPI particularly relevant.

A multidimensional analysis of poverty recognises the diversity of people’s needs and can enable a better understanding of how best to support people to escape – or not fall into – poverty. The basis for a multidimensional lens can be found in the capability approach to human development, as articulated by Amartya Sen. Capabilities are defined as “the various combinations of functioning (beings and doings) that the person can achieve”, with poverty being understood as the absence of freedoms necessary to achieve capabilities that are fundamentally valuable. This conceptualisation of poverty is reinforced by the legal frameworks, obligations and moral values associated with fundamental human rights.

The current report produces the latest MPI estimates based on Pakistan Social and Living Standards Measurement (PSLM) 2019-20 data.

## Methodology

### Measurement Design

The unit of identification refers to the entity identified as poor or non-poor – usually the individual or the household. In the case of Pakistan’s MPI, the unit of identification is the household. Information on the members of a household is considered together, all of whom receive the same deprivation score. This acknowledges intra-household sharing and support. The unit of analysis in which results are reported and analysed is the individual. Pakistan’s MPI consists of three dimensions – education, health, and living standards – and 14 indicators all of which reflect the country’s context. Changes in the PSLM 2019-20 necessitated changes in two indicators used in the previous MPI for Pakistan.

The weights used in this report assign 1/3 of the MPI’s total weight to each of the three core dimensions: education, health, and living standards. Within education, different indicators are normally weighted equally with some adjustments to this nested weighting structure, which are explained as follows. Years of schooling is weighted at 1/6 (16.67%). The other 50% of the education domain focuses on schooling, giving 3/4 of the weight directly to child school attendance at 1/8 (12.5%), and the remaining weight to the quality of that schooling, assessed by the indicator of educational quality at 1/24 (4.17%). Health indicators are assigned equal weights of 11.11%. Within the dimension of living standards, the indicators of water, sanitation, electricity, cooking fuel, assets, and land and livestock are each weighted at 1/21 (4.76%), while walls and overcrowding are weighted at 1/42 (2.38%) each because both represent different aspects of the housing component of living standards. Overall, the weights add up to 100%.

### Alkire-Foster Methodology

Sabina Alkire and James Foster’s 2011 methodology for measuring multidimensional poverty identifies the extent of poverty by considering the intensity of deprivations which the poor suffer from (A), as well as the percentage of the population who are identified as poor (H). Mathematically, the MPI combines two aspects of poverty ( $MPI = H \times A$ ). 1) Incidence of poverty (H): the percentage of people who are identified as multidimensionally poor, or the poverty headcount. 2) Intensity of poverty (A): the average percentage of dimensions in which poor people are deprived.

Within the adjusted headcount ratio methodology, a person is categorised as poor according to the MPI

<sup>1</sup> Gross Domestic Product (GDP)

(“MPI poor”) in two steps. First, they are categorised as deprived or non-deprived in each indicator, by considering whether their achievements exceeded a deprivation cut-off. In the second step, a poverty cut-off is used (denoted as “k” in this study), i.e. 33.3%. This threshold is used to identify a person as *multi-dimensionally* poor.). All MPI poor individuals are then aggregated to calculate (H). With respect to the calculation of the intensity of poverty (denoted as A in the formula above), the weighted deprivation scores of all individuals categorised as *multi-dimensionally* poor in a country’s population are aggregated and then averaged.

There are two notable features of the MPI. First, it can be expressed as a product of two components: the share of the population who are multi-dimensionally poor, or the multidimensional headcount ratio (H), and the average deprivation scores among the poor, or the intensity of poverty (A). A second notable feature of the MPI is that, if the entire population is divided into m mutually exclusive and collectively exhaustive groups, the overall MPI can be expressed as a weighted average of the MPI values of m subgroups, where weights represent their respective population shares.

The poverty cut-off, in our estimates has been determined to be one-third of the indicators. The number of indicators considered is 14, and a person who is deprived in at least one-third of these weighted indicators is considered multidimensionally poor. A person may be considered intensely poor if they are deprived in at least 50% of the indicators.

## Data

The data used in this report is drawn from the PSLM survey. The PSLM surveys are designed to provide social and economic indicators at both the provincial and district levels. The focal population of these surveys comprises populations in all urban and rural areas of Pakistan’s four provinces, as well as the capital, Islamabad, and excluding military restricted areas. The sample size for the PSLM surveys at the district level is approximately 195,000 households. A two-stage stratified sample design was adopted in these surveys.

Some adjustments were required in the 2019-20 survey due to changes to district boundaries or districts that could not be sampled. Additionally, some changes were necessary in the education and health indicators due to changes in the questions and data quality issues.

## Main Results

This chapter presents the levels of deprivation and MPI results using data from the 2019-20 PSLM survey. It is important to note that the results represent poverty levels just before and at the onset of the COVID-19 pandemic.

### National MPI 2019-20 Key Results

The headcount ratio (H) of multidimensional poverty is 30.5%. Since this estimate is based on a sample, it contains a margin of error. Thus, the data also reflects a 95% confidence interval. The intensity of poverty (A), which reflects the share of deprivations each poor person experiences on average – their average deprivation score - is 48.0%. That is, each poor person is, on average, deprived in almost half of the weighted indicators. Since the MPI is the product of (H) multiplied by (A), it yields a value of 0.146. This means that multidimensionally poor people in Pakistan experience 14.6% of the total deprivations that would be experienced if all people were deprived in all indicators.

70% of poor people have deprivation scores of less than 50%, whereas only 6% have a deprivation score greater than 70%. Around 30% of the population is poor and lives in a household deprived of years of schooling – as 30.5% of the population are poor that means that almost all poor people are deprived because either a male, or a female, or both aged 10 and above have not completed 5 years of schooling. High deprivations are also present in cooking fuel, assets, and education quality. Indicators in the health dimension are relatively lower, while deprivation in electricity tends to be the lowest.

Uncensored headcount ratios represent the proportion of people who are deprived for each of the MPI's indicators, irrespective of their poverty status. These are calculated without applying the second cut-off criterion used to categorise an individual as multidimensional poor, i.e. whether he/she is deprived in one-third of the weighted indicators. More than half of the population in Pakistan are deprived in cooking fuel (53.9%) and gendered years of schooling (52.2%). Around one-third of the population is deprived in education quality, land and livestock and assets. Less than 10% of the population is deprived of electricity (3.9%), assisted delivery (5.6%) and ante-natal care (8.6%).

### **National MPI by Rural and Urban Areas**

Poverty in rural areas is much higher than in urban areas – affecting 40.9% in rural areas as compared to 10.5% in urban areas. Although the intensity of deprivation is higher, overall, in rural Pakistan, this discrepancy is not nearly as great as the difference in the poverty headcount between rural and urban areas. Given that 87.5% of poor people live in rural areas, these should be a clear priority for poverty reduction programmes.

Recall that the MPI is the sum of all deprivations of all poor people. This is important for policy because reducing any deprivation of any poor person will reduce the MPI. When considering the weighted percentage contribution of each indicator, it must be borne in mind that the weights assigned to most of the health and education indicators are higher than those assigned to the indicators concerning living standards. Also, urbanites are coded as non-deprived in land and livestock, hence they have relatively higher contributions from other indicators. While the three dimensions are equally weighted, their contributions to the MPI are not equal in the data. Education is clearly the greatest contributor to multidimensional poverty in both urban and rural areas – contributing over 50% to MPI overall, followed by living standards and health. At the indicator level, the greatest contribution, in both urban and rural areas, arises from deprivations in years of schooling and child school attendance. Rural areas have additional deprivations in cooking fuel, sanitation, and immunization as compared to urban areas.

The results suggest that there should be a clear integrated strategy to reduce poverty for both urban and rural areas, with a focus on education. In rural areas, poverty reduction efforts should focus on replacing solid cooking fuel with clean energy; improving sanitation facilities; housing; assets; and land and livestock.

### **National MPI by Provinces**

Multidimensional poverty is highest in Balochistan, reaching 60.2%; followed by Sindh and Khyber Pakhtunkhwa (KPK), at about 40%; and is lowest in Punjab, at 19%. In all four provinces, poverty in rural areas is significantly higher than in urban centres.

At the provincial level, the education dimension again proves to be the main contributor to MPI for all the provinces of Pakistan, with a contribution of around 50%. The contribution of the education dimension is 55% in Punjab while for Balochistan it is 48%. Within the education dimension, (gendered) years of schooling has the highest contribution among the indicators for all provinces. Its contribution is highest in Punjab (35.7%), whereas for other provinces the contribution varies from 32% to 32.6%. The contribution of school attendance is the lowest in Balochistan as compared to other provinces (11.4% as compared to 13.4%). In Balochistan and Sindh, the share of sanitation and immunization are higher compared to other provinces, while the share of cooking fuel is relatively higher in KPK and Punjab. For KPK the contribution of antenatal care is relatively higher as compared to other provinces.

Child schooling remains a recommended focus area for poverty reduction efforts. Moreover, the provision of clean cooking fuel seems to be a priority area all across Pakistan. For Balochistan and Sindh, immunization programmes for children need to be included in the list of the priority areas to reduce multidimensional poverty.

## National MPI by Divisions

Poverty levels across the 28 divisions vary significantly in Pakistan, ranging from 0.018 in Rawalpindi division to 0.489 in Mirpur Khas division. In terms of the incidence of MPI, more than 78% of people are poor in Mirpur Khas but only 4% in Rawalpindi.

Overall, the results follow the same trend which we observe for the provinces – Balochistan is the poorest followed by Sindh while among the least poor divisions, the majority are from Punjab province followed by KPK. Four of the five poorest divisions belong to Balochistan while five of the poorest ten divisions are from Sindh. There is also great disparity in Sindh: the Karachi division is also in Sindh, and it is among the five least poor divisions in Pakistan.

We observe some regularities, whereby the least poor divisions had a similar indicator composition, and the poorest divisions were also similar to each other. We, however, find that some indicator priorities vary between divisions with very similar poverty levels.

In total, there are 69 million poor people in Pakistan. Punjab is the most populated province in the country while Balochistan is the least and the divisions in each of these provinces follow this pattern. Among all the poor in Pakistan, more than 50% reside in the top eight divisions. Four out of these eight divisions are from Punjab; three are from Sindh; one is from KPK; and none are from Balochistan. The poorest division in Pakistan in terms of the number of poor people is D.G. Khan where around 6.2 million people are poor, followed by Hyderabad (around 5.9 million) and Bahawalpur (more than 5 million).

## National MPI by District

A total of 127 districts were covered by the 2019-20 survey. The range of levels of poverty across Pakistan could not be wider. District poverty levels range from 2.6% in Islamabad to 95.1% in Sherani, making visible the incredible disparity between areas. Note however that due to smaller sample sizes, the confidence intervals are quite large for most of the poorest districts in Pakistan. The ten poorest districts belong to Balochistan and Sindh, while the least poor districts mainly belong to Punjab, especially districts from north and centre of the province. The situation in Balochistan is very grave as the least poor districts in the province are Gawadar with around 32% poor people followed by Quetta, the provincial capital, with around 42% poor people. The newly merged districts in KPK province, previously known as the Federally Administered Tribal Areas (FATA), show significant variation in the incidence of poverty, ranging from 87.4% in Bajaur to 55.4% in Kurram.

The patterns observed at the division level can be seen at the district level as well; education, especially years of schooling, proved to be the main contributor across all districts. The relative contributions of the 'health and living standards' dimension increased for the poorest districts.

## Changes in Multidimensional Poverty Over Time

Both data sets were harmonized to accurately determine the changes over time. The analysis uses the same geographic areas and indicator definitions as the PSLM 2014-15 data set to ensure synchronization. The harmonised MPI – which exactly matches the specifications in PSLM 2014-15 – is a bit lower (0.141 instead of 0.146) as is the national headcount ratio (29.6% instead of 30.5%).

## Changes in the Multidimensional Poverty Index and its Components Over Time

It is evident that MPI, (H) and (A) significantly declined by a modest amount over five years. The MPI reduced from 0.162 to 0.141 (0.021), while the headcount ratio (H) fell by 3.2 percentage points, from 32.8% to 29.6%. Intensity (A) fell by 1.6 percentage points – from 49.4% to 47.8%. The MPI, Incidence (H) and Intensity (A) all showed a statistically significant decline with a 1% level of significance. Similar trends are observed across provinces, i.e., decreasing MPI, (H), and (A), with the exception of MPI and (H) in Sindh. We note also that Balochistan was the poorest province and had the fastest absolute

reduction – a positive finding. KPK was next then Punjab. However, Sindh, which was less poor than KPK in 2014, had no significant reduction in MPI and is now the 2nd poorest province.

SDG target 1.2 aims to cut the incidence of the MPI by half within 15 years, from 2015 to 2030. To achieve this aim, the incidence would need to fall from 32.8% in 2014-15 to 16.4% in 2029-30. And the MPI value would need to fall from 0.162 to 0.081. The national reductions are not on track to halve poverty in 15 years by either MPI, (A), or (H) values, with the exception of Punjab. However, looking at MPI values, both KPK and Balochistan, as well as Punjab, are on track to halve their values in 15 years. This is because the MPI considers a reduction of intensity among the poor in addition to a reduction in incidence.

In rural areas, all three components of the MPI experienced statistically significant reductions (at one percent level of significance). On the other hand, in urban areas the MPI values and incidence had no statistically significant change and appear clearly to not have declined, whereas intensity declined by 1.5%. The urban trends must be interpreted alongside the population share, which increased from 34.9% to 37%, driven by migration; the migration of poor households to urban areas can impact poverty patterns. A statistically significant decline in the MPI, incidence and intensity are observed in the rural areas for Balochistan, Punjab and KPK provinces. In Sindh, MPI declined but it is not statistically significant, and neither is the increase in incidence. On a positive note, the reduction in poverty intensity in Sindh is statistically significant. In urban areas, results are similar for Balochistan and KPK in that all values are statistically insignificant at one, five and ten percent levels of significance although by point estimates MPI and incidence declined while intensity increased (all insignificantly). An insignificant increase in MPI and incidence is observed in Punjab, but the decrease in intensity is statistically significant. Statistically significant increases in the MPI, incidence and intensity are observed in Sindh. In terms of population shares, the patterns nationally are by and large mirrored in the provinces.

### **Changes in National Censored Headcount Ratios**

Censored headcount ratios measure the percentage of people who are both multidimensionally poor and who are deprived in each indicator. Generally, trends indicate that censored headcount ratios have significantly declined over time in 11 indicators, including in relation to sanitation, overcrowding, antenatal care, clean energy, solid cooking fuel use, immunisation and years of schooling (which reflects improvements in gender equity as well). Two indicators, water and land & livestock, had no significant change, and educational quality deprivations increased. In terms of education quality, deprivations for children aged 4-16 increased visibly and significantly.

In the rural areas, there is a stark increase in the education quality deprivations, along with a slight increase in land and livestock deprivations among poor people. It is true that education quality has shown an enormous deterioration in the number of poor people in urban areas deprived in the indicator. However there have also been significant increases in deprivations related to school attendance and years of schooling.

### **Changes in National Uncensored Headcount Ratios**

Uncensored headcount ratios represent the proportion of people who are deprived in all of the MPI's indicators, irrespective of whether they are multidimensionally poor or not. Improvements are evident in most of the indicators over time. Overcrowding, sanitation and cooking fuel are the indicators that have the greatest absolute reduction in terms of uncensored headcount ratios. On the other hand, education quality, years of schooling, and land and livestock show an increase in the proportion of people deprived in these indicators. As seen above, there were reductions in these indicators among the poor – which is a positive development – but there are significant increases in deprivations among the non-poor.

### Changes in MPI Over Time in Divisions and Districts

Out of 28 divisions, 23 have experienced a decline in MPI, while the decline is significant for 13 divisions. Karachi is the only division in Pakistan that has observed a significant increase in MPI value. Sibi had the biggest significant decline followed by D.I. Khan, Nasirabad, and Larkana. In Punjab, apart from Lahore and D.G. Khan all divisions have shown a significant reduction in MPI values, while in KPK and Sindh, only one division each has shown a significant decline. Overall, the trend partly favours the poor regions.

Changes over time analysis is possible for 110 districts. In total 33 districts in Pakistan showed a significant decline in MPI (an additional 54 had an insignificant decrease), while a significant increase may be observed in 6. D.G. Khan is the only district where MPI neither increased nor decreased. Between 2014-15 and 2019-20 of the 33 districts with a significant decrease in the MPI, 13 were in Punjab, 10 were in Balochistan, seven were in KPK, and three were in Sindh.

### Changes in Incidence Over Time in Divisions and Districts

Only 10 divisions have a significant decline in the poverty rate or incidence of multidimensional poverty. Results for the incidence of poverty at the division level in Pakistan are largely the same as we observed for the MPI. However, unlike MPI, there is no significant reduction in incidence for Larkana and Nasirabad. Karachi is the only division with a significant increase in incidence. In Punjab all divisions except DG Khan and Lahore have a significant decrease while for other provinces, the results are more mixed.

Among the districts, 83 have shown a decline in the incidence of poverty of which 28 are statistically significant (13 from Punjab, seven from Balochistan, six from KPK, and two from Sindh). For 27 districts there was an increase in the incidence of the MPI. between 2014-15 and 2019-20, which was significant for only 4 districts - two each from Sindh (Karachi and Shaheed Benazirabad) and Balochistan (Khuzdar and Kalat).

### Changes Over Time in Number of Poor People

In Pakistan, the number of poor people has decreased by 3.6 million between 2014-15 and 2019-20. In terms of changes in the number of poor people at the provincial level in Pakistan, in Punjab the number of poor people has reduced by 5.2 million, whereas in other provinces, the population of poor people has increased. The highest increase in number of poor people (0.69 million) was in Balochistan, followed by Sindh (0.48 million) and KPK (0.36 million) during the reference period. In Punjab the poor population has decreased in all but one division, while for KPK three divisions have experienced a decrease in the number of poor people. For both Sindh and Balochistan, the number of poor people decreased in two divisions in each province.

### Conclusions

This report serves two primary purposes. First, it provides a detailed snapshot of the situation around multidimensional poverty in Pakistan. Second, it is a policy tool that should be used for monitoring to support sustainable poverty reduction in the long run by ensuring the accurate targeting of vulnerable groups, and by guiding budget allocations. The overall objective is to meet SDG target 1.2, which requires the reduction of poverty in all its dimensions by at least by half by 2030.

Our hope therefore is that students, journalists, and civil servants will use the data from this MPI report to develop participatory action plans in which poor people are empowered to escape poverty, and sustainable solutions are implemented. Naturally, the underlying hope is that, using the evidence and data on poverty in Pakistan, with commitment and dedication, poverty reduction will accelerate so that the next update of the MPI shows even larger reductions.

# Chapter 1



## Chapter 1 Introduction

The main goal of the Sustainable Development Goals (SDGs), “End poverty in all its forms, everywhere,” recognises the importance of the Multidimensional Poverty Index (MPI) alongside poverty indicators such as those based on national definitions and extreme poverty ( $\$(PPP^2)$  2.15/Day). In Pakistan, the performance of the social sector does not match with the income growth of the country, measured by GDP<sup>3</sup> growth. Therefore, the MPI estimates are pertinent for long term.

Multidimensional poverty, which was estimated for the first time in 2014-15 in Pakistan, encompasses a variety of indicators which relate to the deprivations experienced by poor people in their daily lives – such as poor health, lack of education, and inadequate living standards. There has been a downwards trend among the three components and the overall index since 2004-05. This data started a new debate on poverty that arises from a misperception about poverty measures. The fact that Pakistan’s MPI and its incidence is higher than the Cost of Basic Needs (CBN) based poverty index, and that MPI data are available at the district level, make it superior. Nevertheless, the MPI also supports CBN poverty reduction, because better health, education and productivity are the essential determinants of monetary poverty reduction in the long run. Both measures complement each other, and CBN based poverty estimates remain a core outcome indicator of poverty.

A multidimensional analysis of poverty recognises the diversity of people’s needs – from health outcomes to political freedoms. This approach can enable a better understanding of how best to support people to escape – or not fall into – poverty. It can facilitate better targeting of interventions by enabling them to account for both the variety of deprivations people face as well as long- and short-term needs.

The basis for a multidimensional lens can be found in the capability approach to human development, as articulated by Amartya Sen. Capabilities are defined as “the various combinations of functioning (beings and doings) that the person can achieve”. Poverty is therefore understood as capability deprivations; the absence of freedoms necessary to achieve capabilities that are fundamentally valuable for human dignity. However, not all of the dimensions identified by Sen are incorporated in the MPI.

This conceptualisation of poverty is reinforced by the legal frameworks, obligations and moral values associated with fundamental human rights, which are themselves multidimensional. Human rights encompass the right to a reasonable standard of living, food, housing, health, education, and social security, as well as the right to take part in cultural, civil and political life, including the rights to freedom of association, assembly and expression.

Adopting the capability approach, therefore, not only introduces a range of dimensions that can be targeted by development programmes but also highlights how the delivery of anti-poverty strategies can contribute to the realisation of rights and changes to other dimensions of poverty. The meaningful participation of people living in poverty in the development process can fulfil people’s right to self-determination. Supporting transparent budgetary and other governmental processes is consistent with the freedom to seek, receive and impart information. Development interventions can impact multiple dimensions of poverty – dimensions that should be better understood to maximise their impact for the people being left furthest behind.

The current report produces the latest MPI estimates based on Pakistan Social and Living Standards Measurement (PSLM) 2019-20 data. The estimates cannot be directly compared with the 2014-15 data, in part due to different coverage. In particular, in the 2019-20 data the Federally Administrated Tribal Areas (FATA) and their component districts are presented as part of the province of Khyber Pakhtunkhwa (KPK) with which it merged in 2018; the 2019-20 data also include Kech/Turbat but not some other districts as detailed in Section 1.3. Furthermore, adjustments to two indicators (access to health care and educational quality) were required in computing the recent estimates of MPI and to compare them across time (details in Section 1.3 below). This is essential to compute robust estimates.

2 Purchasing Power Parity (PPP)

3 Gross Domestic Product (GDP)

Chapter 2 contains the main results which show that the current MPI is 30.5%. Chapter 3 contains a harmonised comparison between the MPI estimates of 2014-15 and 2019-20, which shows the continuous declining trend.

## Methodology

The Alkire-Foster (2011) method is used to construct and estimate MPI. This chapter outlines the report's methodology, describes the MPI and its relevant properties, and presents the data used for its derivation. Examples and figures in this chapter are based on PSLM 2019-20 data unless otherwise specified.

### 1.1 Measurement Design

This report is the second national MPI report for Pakistan, whereas the first MPI report was launched in 2016 based on PSLM 2014-15 data. The selection of the dimensions, indicators, deprivation cut-offs and weights of Pakistan's MPI were based on thorough discussions and provincial consultations with government officials, academics, civil society organisations and experts in the field. The report consists of a set of dimensions, indicators, and cut-offs that reflect the government's priorities as expressed in the National Plans, and which can be implemented using the PSLM survey dataset. This section elaborates on the choice of these parameters.

#### 1.1.1 Unit of Identification and Analysis

The unit of identification refers to the entity identified as poor or non-poor – usually the individual or the household. In the case of Pakistan's MPI, the unit of identification is the household. Information on the members of a household is considered together, resulting in the same deprivation score for each member. This approach acknowledges intra-household sharing and support; for example, educated household members reading to others, or multiple members being affected by the severe health conditions of a single household member. In addition, this allows the measure to include indicators that are specific to certain age groups or genders, for instance, school attendance, or antenatal care.

The unit of analysis in which results are reported and analysed is the individual. This means that, for example, the headcount ratio denotes the percentage of people who are identified as poor, rather than the percentage of households identified as poor, thereby valuing each citizen equally.

#### 1.1.2 Dimensions, Indicators and Cut-Offs

Pakistan's MPI consists of three dimensions – education, health, and living standards – and 14 indicators. It builds upon the global MPI, retaining the same three core dimensions. The choice of indicators reflects the country's context and priorities, as well as the data available in the PSLM surveys. In total, 14 indicators are used in this national index, of which 7 indicators are the same as those used in the global MPI.

Ideally the questions used for the official national MPI should not change between survey waves. However, changes in the PSLM 2019-20 necessitated changes in two indicators used in the previous MPI for Pakistan. The former indicator of access to health facilities had to be dropped, and the definition of 'educational quality' was adjusted to improve the accuracy; these are described in Section 1.3 below. Due to changes in these two indicators the 2019-20 results are not directly comparable to those of 2014-15, hence, Chapter 3 presents the strictly harmonised and rigorous analyses of change.

### 1.1.3 Weights

The weights used in this report assign 1/3 of the MPI's total weight to each of the three core dimensions: education, health and living standards. Within education, different indicators are normally weighted equally with some adjustments to this nested weighting structure, which are explained as follows. Years of schooling is weighted at 1/6 (16.67%). The other 50% of the education domain focuses on schooling, giving 3/4 of the weight directly to child school attendance at 1/8 (12.5%), and the remaining weight to the quality of that schooling, assessed by the indicator of educational quality at 1/24 (4.17%). Health indicators are assigned equal weights of 11.11%. Within the dimension of living standards, the indicators of water, sanitation, electricity, cooking fuel, assets, and land and livestock are each weighted at 1/21 (4.76%), while walls and overcrowding are weighted at 1/42 (2.38%) each because both represent different aspects of the housing component of living standards. Overall, the weights add up to 100%.

## 1.2 Alkire-Foster Methodology

The global MPI, developed by Alkire and Santos (2010, 2014) in collaboration with UNDP<sup>4</sup>, first appeared in the 2010 Human Development Report. It represents one particular adaptation of the adjusted headcount ratio ( $M_0$ ) proposed by Alkire and Foster (2011) and elaborated by Alkire, Foster, Seth, Santos, Roche and Ballon (2015). This section outlines the methodology and its relevant properties used in the subsequent sections of this report to understand changes in multidimensional poverty in Pakistan.

1.2.1 The Multidimensional Poverty Index: An Adjusted Headcount Ratio Within the adjusted headcount ratio methodology, a person is categorised as poor according to the MPI ("MPI poor") in two steps. First, they are categorised as deprived or non-deprived in each indicator, by considering whether their achievements exceed a deprivation cut-off. The deprivation cut-off represents the minimum level of achievement someone must show to be considered non-deprived in each MPI indicator. Based on this cut-off, a deprived individual receives a score of 1 while those who are not deprived receive a score of 0. These scores are multiplied by the weights previously assigned to each indicator, and then summed up to calculate the individual's weighted deprivation score across all indicators.

In the second step, a second cut-off is used. This is the poverty cut-off (denoted as "k" in this study), i.e. 33.3%. This threshold is used to identify a person as multi-dimensionally poor. Hence, those individuals whose weighted deprivation scores are equal to or greater than 33.3% will be identified as multi-dimensionally poor. While those whose score does not exceed 33.3% will be identified as non-poor. These cut-off rates are described in more detail below.

All individuals categorised as MPI poor according to the dual cut-off methodology are then aggregated to calculate the poverty headcount ratio (denoted as H in the formula above). With respect to the calculation of the intensity of poverty (denoted as A in the formula above), the weighted deprivation scores of all individuals categorised as multi-dimensionally poor in a country's population are aggregated and then averaged.

Finally, the value of the headcount (H) and intensity (A) of poverty are multiplied to calculate the MPI, as illustrated in the formula above.

4 United Nations Development Programme (UNDP)

**Table 1: Pakistan's National MPI - Indicators, Deprivation Cut-Offs, and Weights**

Dimension	Indicator	Deprivation Cut-off	Weights
Education	Years of schooling	Deprived if no man OR no woman in the household above 10 years of age has completed 5 years of schooling	1/6 = 16.67%
	Child school attendance	Deprived if any school-aged child is not attending school (between 6 and 11 years of age)	1/8 = 12.5%
	Educational quality	Deprived if any child is not going to school because of quality issues (not enough teachers, schools are far away, too costly, no male/female teacher, substandard schools)	1/24 = 4.17%
Health	Immunisation	Deprived if any child under the age of 5 is not fully immunised according to the vaccinations calendar (households with no children under 5 are considered non-deprived)	1/9 = 11.11%
	Antenatal care	Deprived if any woman in the household who has given birth in the last 3 years did not receive antenatal check-ups (households with no woman who has given birth are considered non-deprived)	1/9 = 11.11%
	Assisted delivery	Deprived if any woman in the household has given birth in the last 3 years attended by untrained personnel (family member, friend, traditional birth attendant, etc.) or in an inappropriate facility (home, other) (households with no woman who has given birth are considered non-deprived)	1/9 = 11.11%
Standard of Living	Water	Deprived if the household has no access to an improved source of water according to MDG standards, considering distance (less than a 30-minute return trip): tap water, hand pump, motor pump, protected well, mineral water	1/21 = 4.76%
	Sanitation	Deprived if the household has no access to adequate sanitation according to MDG <sup>5</sup> standards: flush system (sewerage, septic tank and drain), privy seat	1/21 = 4.76%
	Walls	Deprived if the household has unimproved walls (mud, uncooked/mud bricks, wood/bamboo, other)	1/42 = 2.38%
	Overcrowding	Deprived if the household is overcrowded (4 or more people per room)	1/42 = 2.38%
	Electricity	Deprived if the household has no access to electricity	1/21 = 4.76%
	Cooking fuel	Deprived if the household uses solid cooking fuels for cooking (wood, dung cakes, crop residue, coal/charcoal, other)	1/21 = 4.76%
	Assets	Deprived if the household does not have more than two small assets (radio, TV, iron, fan, sewing machine, video cassette player, chair, telephone, watch, air cooler, bicycle) OR no large asset (refrigerator, air conditioner, tractor, computer, motorcycle), AND has no car.	1/21 = 4.76%
	Land and livestock (only for rural areas)	Deprived if the household is deprived in land AND deprived in livestock, that is: a) Deprived in land: the household has less than 2.25 acres of non-irrigated land AND less than 1.125 acres of irrigated land b) Deprived in livestock: the household has less than 2 cattle, fewer than 3 sheep/goats, fewer than 5 chickens AND no animal for transportation (urban households are considered non-deprived)	1/21 = 4.76%

5 Millennium Development Goals (MDG)

Sabina Alkire and James Foster's methodology for measuring multidimensional poverty identifies the extent of poverty by considering the intensity of deprivations which the poor suffer from (A), as well as the percentage of the population who are identified as poor (H). Mathematically, the MPI combines two aspects of poverty:

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

- 1) Incidence of poverty (H): the percentage of people who are identified as multidimensionally poor, or the poverty headcount.
- 2) Intensity of poverty (A): the average percentage of dimensions in which poor people are deprived.

### 1.2.2 Properties of the Multidimensional Poverty Index

This section outlines some of the features of the MPI that are especially useful for policy analysis. The first is that the MPI can be expressed as a product of two components: the share of the population who are multi-dimensionally poor, or the multidimensional headcount ratio (H), and the average deprivation scores among the poor, or the intensity of poverty (A).

This feature of the MPI has interesting policy implications for inter-temporal analysis. All reductions in the MPI occur because some deprivation experienced by a person categorised as 'poor' has been solved. A certain reduction in the MPI may manifest either as a reduction of H (if removing a certain deprivation means that the person is no longer poor) or by reducing A (if removing this deprivation means that the person is still MPI poor but now experiences fewer deprivations). This difference cannot be understood merely by looking at the MPI's overall value. If a reduction in the MPI occurs merely by reducing the number of people who are marginally poor, then H decreases but A may not. On the other hand, if a reduction in the MPI occurs by reducing the deprivation experienced by the poorest of the poor, then A decreases, but H may not.

A second notable feature of the MPI is that, if the entire population is divided into  $m$  mutually exclusive and collectively exhaustive groups, the overall MPI can be expressed as a weighted average of the MPI values of  $m$  subgroups, where weights represent their respective population shares.

This feature, also known as "subgroup decomposability", is useful for understanding the contribution of different subgroups to overall poverty levels.<sup>6</sup> It is essential to note that the contribution of a subgroup to overall poverty depends both on the poverty level of that subgroup and on the subgroup's population share. Relevant population subgroups in Pakistan include populations in rural/urban areas, provinces and districts, as well as demographic groups.

Breaking down poverty in this way allows a closer analysis of multidimensional poverty, one which clearly reveals each indicator's contribution to poverty, as well as the changes in these contributions over time. It identifies the regions and groups which are the poorest and determines whether they have 'caught up' or 'fallen behind' over time.

### 1.2.3 Poverty and Deprivation Cut-Offs

As discussed above, thresholds are used to decide whether a person is multidimensionally poor, using the Alkire-Foster measurement framework. This involves: (a) a deprivation cut-off for each indicator, where a person is considered deprived in each indicator if their score falls below the cut-off; and (b) a cross-indicator cut-off (or poverty cut-off), where a person is identified as poor if the weighted sum of their deprivations meets or exceeds the poverty cut-off.

<sup>6</sup> See Foster, Greer and Thorbecke (1984) for a discussion of this aspect of the MPI.

The poverty cut-off, in our estimates has been determined to be one-third of the indicators. The number of indicators considered is 14, and a person who is deprived in at least one-third of these weighted indicators is considered multidimensionally poor. A person may be considered intensely poor if they are deprived in at least 50% of the indicators. We assess the robustness of Pakistan's MPI in terms of changes in the poverty cut-off and in the weights of indicators (See Appendix-A).

### 1.3 Data

The data used in this report is drawn from the PSLM survey. The PSLM surveys are designed to provide social and economic indicators at both the provincial and district levels.<sup>7</sup> The focal population of these surveys comprises populations in all urban and rural areas of Pakistan's four provinces, as well as the capital, Islamabad, and excluding military restricted areas. The sample size for the PSLM surveys at the district level is approximately 195,000 households. A two-stage stratified sample design was adopted in these surveys.

The PSLM project was initiated in 2004 continued until 2015 as the main source of information for tracking Pakistan's progress on the Millennium Development Goals (MDGs). After the adoption of the Sustainable Development Goals (SDGs) in 2015, the questionnaire was amended and some of the sections were modified. Furthermore, the sampling frame was updated based on the 2017 census of Pakistan and the updated version was used for the PSLM 2019 survey. This led to a five-year gap between the last two waves of the PSLM survey.

Some adjustments are required due to changes to district boundaries or districts that could not be sampled. We address these three issues: boundary changes, districts that were excluded in 2014-15 and districts that were excluded in 2019-20 in the following way:

1. Three districts, Sohbatpur, Shaheed Sikandarabad, and Duki, were created from larger previous districts. These are listed in the 2019-20 results tables but were re-combined manually into the 2014-15 districts (Jafarabad, Kalat, and Loralai) in order to assess trends over time.
2. Furthermore, in 2014-15 the then extent areas of FATA were not included in the PSLM. However, in 2019-20 the data for FATA and its component districts are presented as part of the province of KPK with which it merged in 2018. The comparison over time does not include these districts.
3. Data were not available for Kech/Turbat in 2014-15 but are available in 2019-20, so these data are included in 2019-20 results tables, but not in comparisons over time.
4. Data were not available for Chagai, Jhal Magsi, Musakhel and Zhob districts in 2019-20 (these were available in 2014-15). Hence these are not present in 2019-20 district level results nor in the harmonised trends over time. Divisional and provincial results in both cases are the population-weighted average of the remaining districts.

Furthermore, as detailed above, two indicator changes were necessary in the 2019-20 MPI. First, in the education dimension, the indicator of educational quality had to change due to changes in questions in the recent survey, which made it impossible to construct the indicator included in the previous report. Recall that the education quality indicator assesses the reason that children aged 4 to 16 are not attending school. It covers a wider age range than the school attendance indicator (which covers children aged 11-16). In PSLM 2014-15 there were two sets of questions capturing the quality of education. The first occurred in section C (education status) and second in section J (benefits from services and facilities).

In section J the respondent was asked, for a number of services, "How many times do you use this service usually?" One of the services included in the list was 'school'. In the question it was not clear

<sup>7</sup> More details can be obtained at: <http://www.pbs.gov.pk/content/pakistan-social-and-living-standards-measurement>.

whether the desired response would be based on the respondent's own experience, or on the overall experience of all children in the household. In PSLM 2019-20 the category 'school', was replaced by three categories – primary, middle and high school. The change made it impossible to construct a comparable indicator. We therefore discarded responses from section J in the quality of education indicator in 2019-20.

For PSLM 2014-15, in section C, there were two questions related to the quality of education. The first question stated, "Did (Name) have any problems(s) with educational institution/school?" If the answer was yes, the respondent indicated the type of problems. In PSLM 2019-20, this question was missing. As a consequence, this question could not be used for the quality of education indicator in 2019-20.

In PSLM 2014-15, the second question from section C was, "Why is (Name) not currently attending/ never attended an educational institute?" In PSLM 2019-20, however, two separate questions were included to capture related information. The first question related to those children who had never attended school and asked, "Why didn't (Name) ever attend school/institution?" The second question pertained to those who previously attended but later left school and asked, "Why did (Name) leave school/institution?" The response structure for these two questions was identical to the PSLM 2014-15. The MPI had defined a household to be deprived if any children never attended school or left school because the school was 'too expensive', 'too far away' 'substandard' or had a 'shortage of female/male teachers'. Therefore, only these last questions could be used for the construction of the 'education quality' indicator. The weight of the education quality indicator – 1/24, or 1/8 the total weight of the education dimension – remained unchanged. However, as will be discussed below, deprivations in this indicator increased considerably.

Additionally, the previous national MPI's health dimension included an indicator of access to health facilities. The current MPI is not able to include this indicator due to data quality issues found in the responses owing to the subjective nature of the questions on which the indicator was based. The weight of the health dimension is unchanged in that it still obtains the same one-third of the total weight. However, the weights of the indicators in the health dimension have been reweighted and are now assigned equal weights.

# Chapter 2



## Chapter 2 Main Results

This chapter presents the levels of deprivation and MPI results using data from the 2019-20 PSLM survey. It is important to note that the results represent poverty levels just before and at the onset of the COVID-19 pandemic. Global projections have indicated that poverty levels will have increased due to the effects of the pandemic – with worst case scenario simulations projecting a reversal of poverty levels to what they were almost 10 years ago.<sup>8</sup> The subsequent flooding in Pakistan will also have exacerbated poverty in affected areas.

The chapter begins with an account of the level of multidimensional poverty nationally, followed by its composition by indicator, presented using censored headcount ratios, which focus on deprivations of the poor. Later it presents the uncensored headcount ratios which provide an overview of the spread of deprivations among the entire population irrespective of people's poverty status. Finally, we discuss the contribution of each deprivation to the overall poverty level, indicating key policy focus areas for future poverty-reduction efforts.

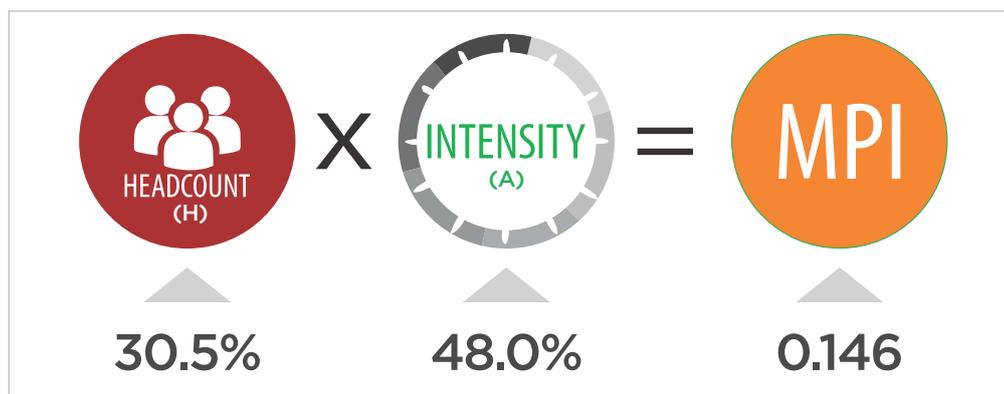
### 2.1 National MPI Key Results

Figure 1 outlines MPI for 2019-20, as well as the value of its components: the proportion of people identified as multi-dimensionally poor (H) and the intensity of poverty (A). As the table shows, the headcount ratio (H) of multidimensional poverty is 30.5%. Since this estimate is based on a sample, it contains a margin of error. Thus, the table also reflects a 95% confidence interval, which may be interpreted as indicating that we are 95% confident that Pakistan's true multidimensional poverty headcount ratio is between 29.6% and 31.4% of the population.

The intensity of poverty (A), which reflects the share of deprivations each poor person experiences on average – their average deprivation score - is 48.0%. That is, each poor person is, on average, deprived in almost half of the weighted indicators.

Since the MPI is the product of (H) multiplied by (A), it yields a value of 0.146. This means that multidimensionally poor people in Pakistan experience 14.6% of the total deprivations that would be experienced if all people were deprived in all indicators.

**Figure 1: Incidence, Intensity and Multidimensional Poverty Index (MPI) – 2019-20**

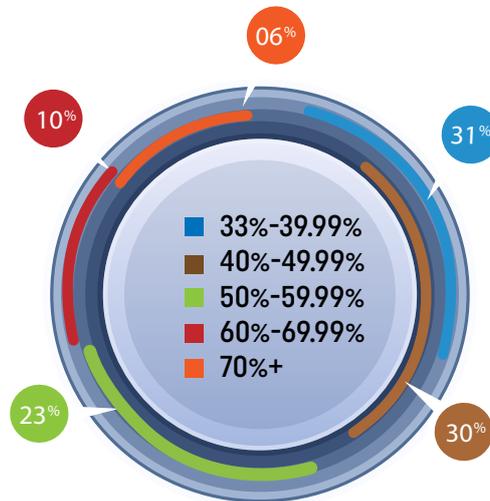


Source: Authors' calculations based on data from the 2019-20 PSLM survey

<sup>8</sup> UNDP and OPHI 2020, 1- Overall, Covid-19 may set progress back 3-10 years.

Figure 2 shows the percentage of poor people who have deprivation scores of different levels. It is clear from the figure that 70% of poor people have deprivation scores of less than 50%, whereas only 6% have a deprivation score greater than 70%.

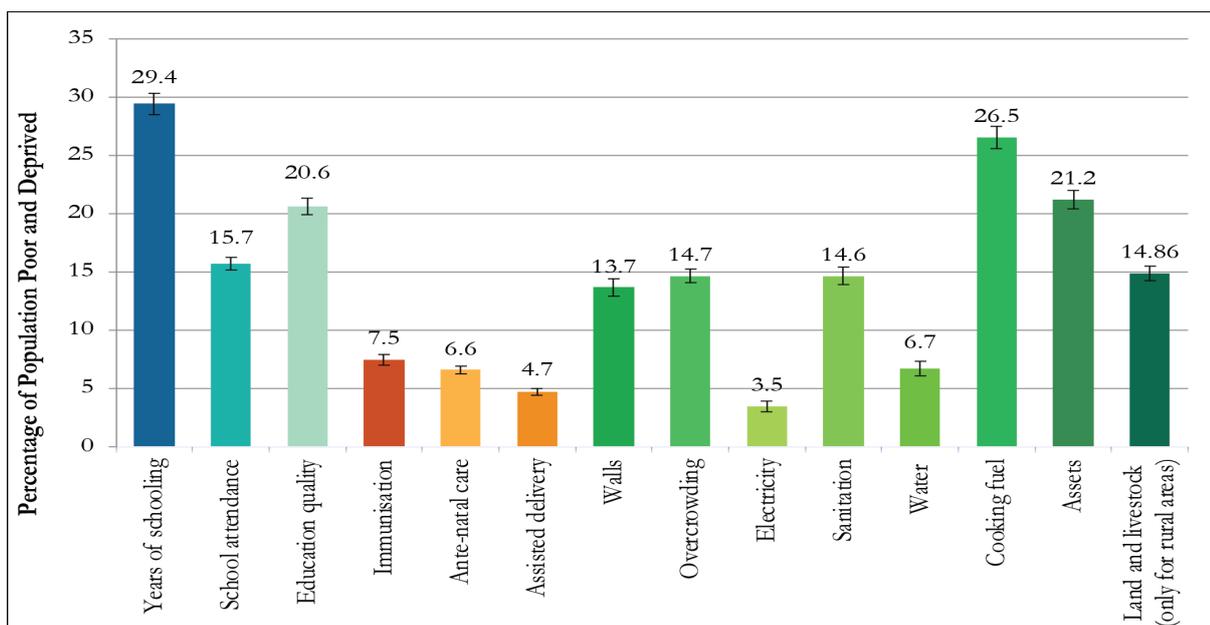
**Figure 2: Intensity Gradient Among the Poor in Pakistan**



Source: Authors' calculations based on data from the 2019-20 PSLM survey

But how are people poor? What deprivations do they experience? Figure 3 shows the censored headcount ratios – the percentage of the population who are poor and deprived in each indicator. Around 30% of the population is poor and lives in a household deprived of years of schooling – as 30.5% of the population are poor that means that almost all poor people are deprived because either a male, or a female, or both aged 10 and above have not completed 5 years of schooling. High deprivations are also present in cooking fuel, assets, and education quality. Indicators in the health dimension are relatively lower, while deprivation in electricity tends to be the lowest.

**Figure 3: Censored Headcount Ratios in Pakistan**

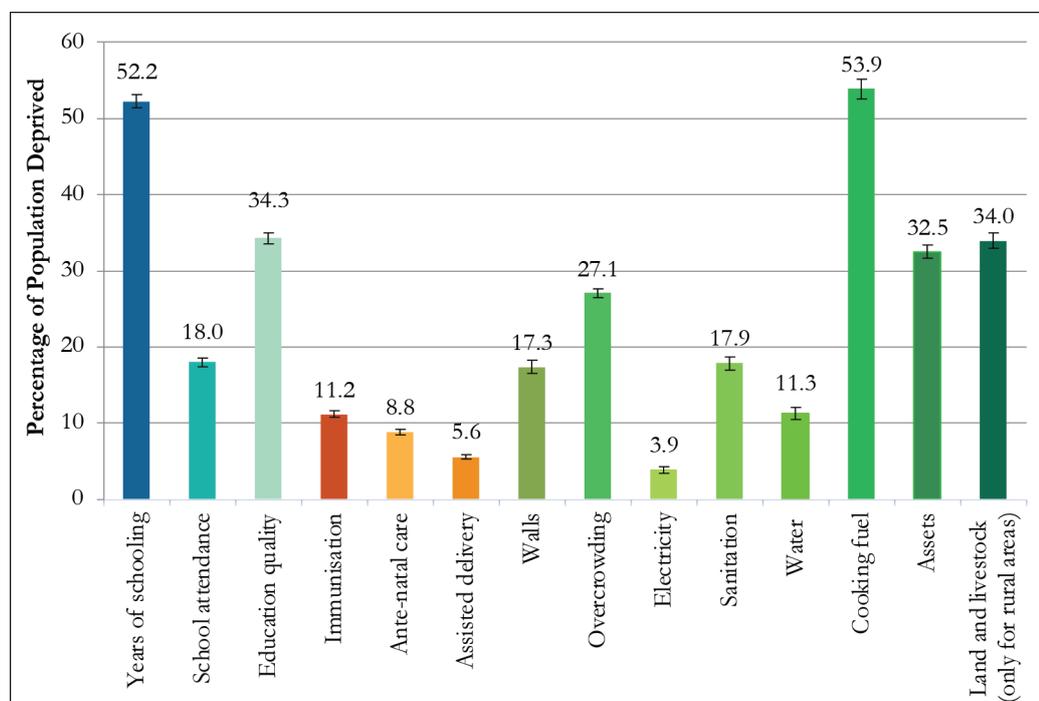


Source: Authors' calculations based on data from the 2019-20 PSLM survey

We next consider deprivations in each indicator that are experienced by both poor and non-poor people. These are reflected in the uncensored headcount ratios, which are presented in Figure 4. Uncensored headcount ratios represent the proportion of people who are deprived for each of the MPI's indicators, irrespective of their poverty status. These are calculated without applying the second cut-off criterion used to categorise an individual as multidimensional poor, i.e. whether he/she is deprived in one-third of the weighted indicators. The results capture the deprivation experiences of the entire population, poor and non-poor. They fail to account for the experience of multidimensional poverty and thus do not provide the necessary information for policy efforts focused for the poor. However, they can be useful to indicate if certain issues plague the population more globally.

More than half of the population in Pakistan are deprived in cooking fuel (53.9%) and years of schooling (52.2%). Around one-third of the population is deprived in education quality, land and livestock and assets. Less than 10% of the population is deprived of electricity (3.9%), assisted delivery (5.6%) and ante-natal care (8.8%).

**Figure 4: Uncensored Headcount Ratios in Pakistan**



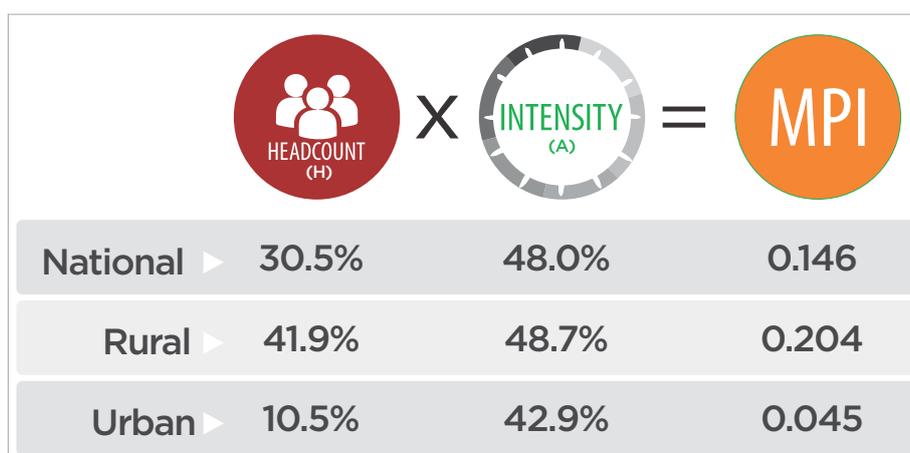
Source: Authors' calculations based on data from the 2019-20 PSLM survey

## 2.2 National MPI by Rural and Urban Areas

Figure 5 presents the headcount ratio (H) and the intensity of poverty (A) for urban and rural areas. Poverty in rural areas is much higher than in urban areas – affecting 41.9% in rural areas as compared to 10.5% in urban areas. Although the intensity of deprivation is higher, overall, in rural Pakistan, this discrepancy is not nearly as great as the difference in the poverty headcount between rural and urban areas. It is worth noting, moreover, that a little less than two-thirds of Pakistan's population of 225 million<sup>9</sup> live in rural areas, while 87.5% of poor people (60 million out of 69 million) live in rural areas suggesting that these areas should be a clear priority for poverty reduction efforts going forward.

<sup>9</sup> Population numbers are based on UN population estimates (UNPD, 2022) and weighted sample of PSLM 2019-20.

**Figure 5: Multidimensional Poverty by Rural/Urban Areas, 2019-20**



*Source: Authors' calculations based on data from the 2019-20 PSLM survey*

To better understand the level of poverty and how it can be reduced, we now analyse the contribution of all 14 indicators to the MPI. The indicators that carry higher weights will have relatively higher contributions given their censored headcount ratios. Recall that the MPI is the sum of all deprivations of all poor people – so it is the weighted sum of all censored headcount ratios. This is important for policy because reducing any deprivation of any poor person will reduce the MPI.

Figure 6 presents the weighted percentage contribution of each indicator to illustrate the composition of multidimensional poverty at the national level, and in rural and urban areas. It must be borne in mind that the weights assigned to most of the health and education indicators are higher than those assigned to the indicators concerning living standards. Also, urbanites are coded as non-deprived in land and livestock, hence they have relatively higher contributions from other indicators.

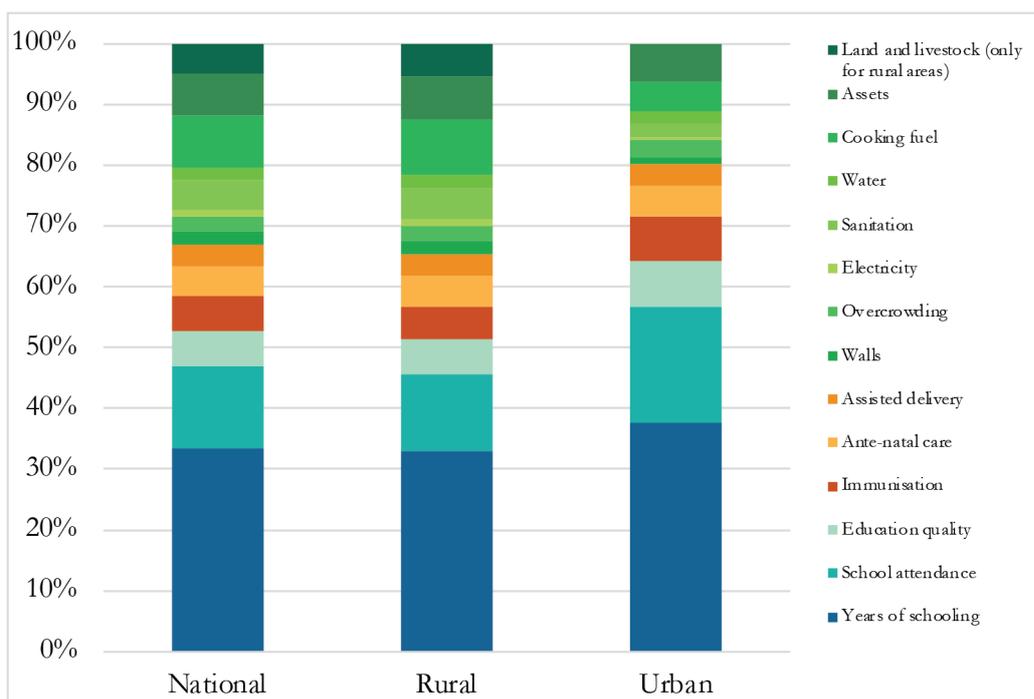
As all three core dimensions (education, health, and living standards) are equally weighted, one might expect their three indicator sets to contribute relatively equally to multidimensional poverty. However, this is not the case.

Figure 7 also reveals different profiles for urban and rural poverty. In terms of dimensions, education is clearly the greatest contributor to multidimensional poverty in both areas – contributing over 50% to MPI overall, followed by living standards and health. The education dimension in urban areas, however, contributes around two-third in the MPI while for rural areas its contribution is around 50%. The living standard dimension contributes around 25% in rural areas as compared to 20% in urban areas.

At the indicator level, the greatest contribution, in both urban and rural areas, arises from deprivations in years of schooling and child school attendance, although the contributions of these indicators are quite high in urban areas as compared to rural areas. Rural areas have additional deprivations in cooking fuel, sanitation, and immunization as compared to urban areas.

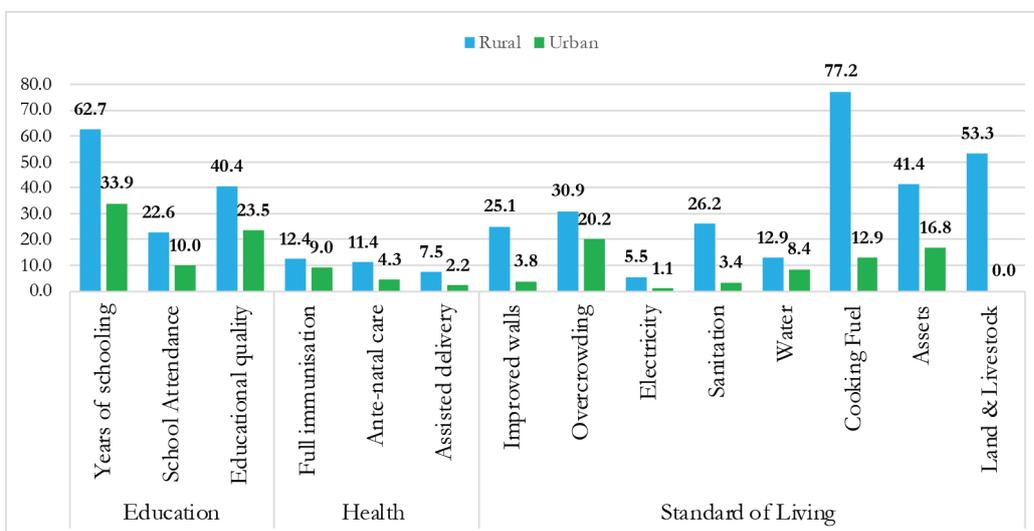
The results suggest that there should be a clear integrated strategy to reduce poverty for both urban and rural areas. Investment in children's education is an essential component to an integrated policy package. This would not only reduce the share of school attendance in the MPI and potentially improve immunisation rates, but it could also, in the short term, reduce the share of years of schooling in the index. Complementary and integrated policies in rural areas should prioritize poverty reduction efforts by focusing on replacing solid cooking fuels with clean energy, improving sanitation facilities, enhancing housing conditions, and increasing access to assets, land, and livestock.

**Figure 6: Percentage Contribution of Each Indicator to MPI by Area**



Source: Authors' calculations based on data from the 2019-20 PSLM survey

**Figure 7: Rural and Urban Uncensored Headcount Ratios\*, 2019-20**



Note: \*Percentage of people who are deprived in each indicator, whether poor or not

Source: Authors' calculations based on the 2019-20 PSLM survey

As this Figure shows, in rural areas the greatest deprivations are found in cooking fuel (77.2%) followed by years of schooling (62.7%), land and livestock (53.3%) and educational quality (40.4%). In urban areas deprivations are highest in terms of years of schooling, followed by education quality, overcrowding, and assets. Hence differentiated policies are essential.

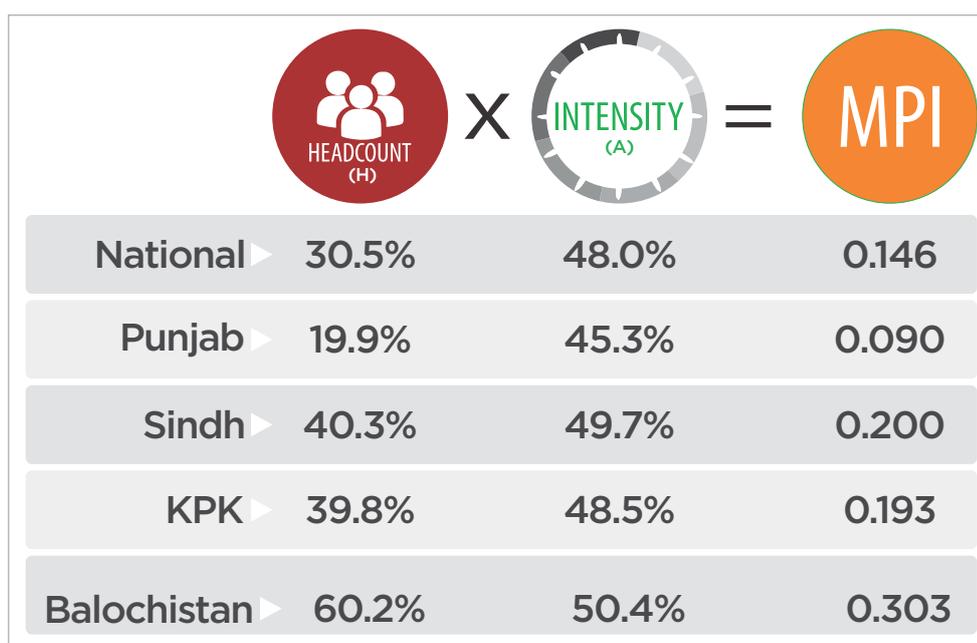
## 2.3 National MPI by Province

Figure 8 presents estimates for the MPI, including (H) and (A), at the provincial level. Multidimensional poverty is highest in Balochistan, reaching 60.2%; followed by Sindh and KPK, at about 40%; and is lowest in Punjab, at 19%. In all four provinces, poverty in rural areas is significantly higher than in urban centres. However, there are stark differences between Sindh and KPK. Poverty in rural areas in Sindh reaches 69.5% - almost the same level as Balochistan at 71.5%. But in KPK, it is only figure says 45.2%. Using the population distribution based on the weighted sample, the majority of the population lives in rural areas in Pakistan, and this is also the case in all the provinces except for Sindh where 53% of the population lives in urban areas, while it is only 16% in KPK. High incidence of poverty in Sindh may be attributed to the fact that more than one-third of the population lives in Karachi where more than 93% of residents live in urban areas.

Figure 12 illustrates the breakdown of multidimensional poverty at the provincial level. Once again, the education dimension proves to be the main contributor to MPI for all the provinces of Pakistan, with a contribution of around 50%. The contribution of the education dimension is 55% in Punjab while for Balochistan it is 48%. Within education dimension, (gendered) years of schooling has the highest contribution among the indicators for all provinces. Its contribution is highest in Punjab (35.7%), whereas for other provinces the contribution varies from 32% to 32.6%. The contribution of school attendance is the lowest in Balochistan as compared to other provinces (11.4% as compared to 13.4%). In Balochistan and Sindh, the share of sanitation and immunization are higher compared to other provinces, while the share of cooking fuel is relatively higher in KPK and Punjab. For KPK, the contribution of antenatal care is relatively higher as compared to other provinces.

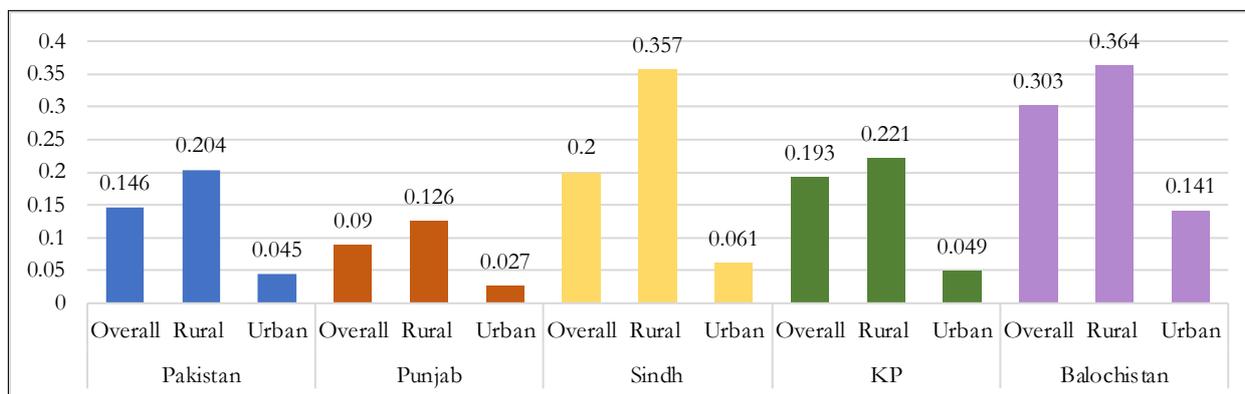
The poverty reduction strategy for provinces should be focused on child schooling through enrolling and securing the attendance of out of school children in schools across all four provinces. Moreover, the provision of clean cooking fuel seems to be a priority area all across Pakistan. For Balochistan and Sindh, immunization programmes for children need to be included in the list of the priority areas to reduce multidimensional poverty.

**Figure 8: Multidimensional Poverty by Province**



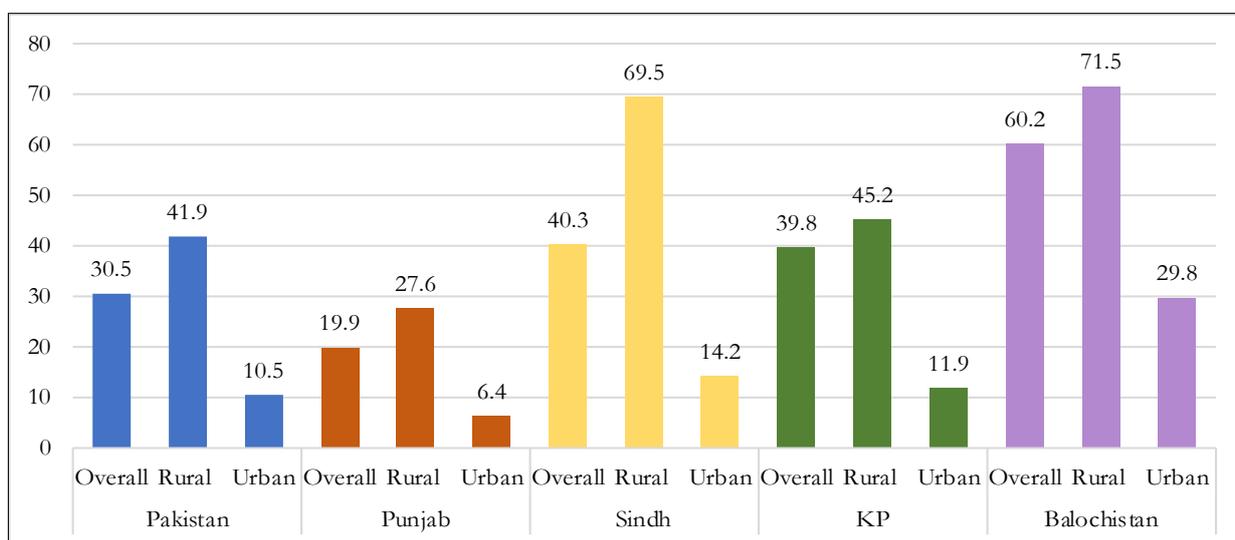
Source: Authors' calculations based on data from the 2019-20 PSLM survey

**Figure 9: MPI by National, Rural/Urban and Provincial Levels, 2019-20**



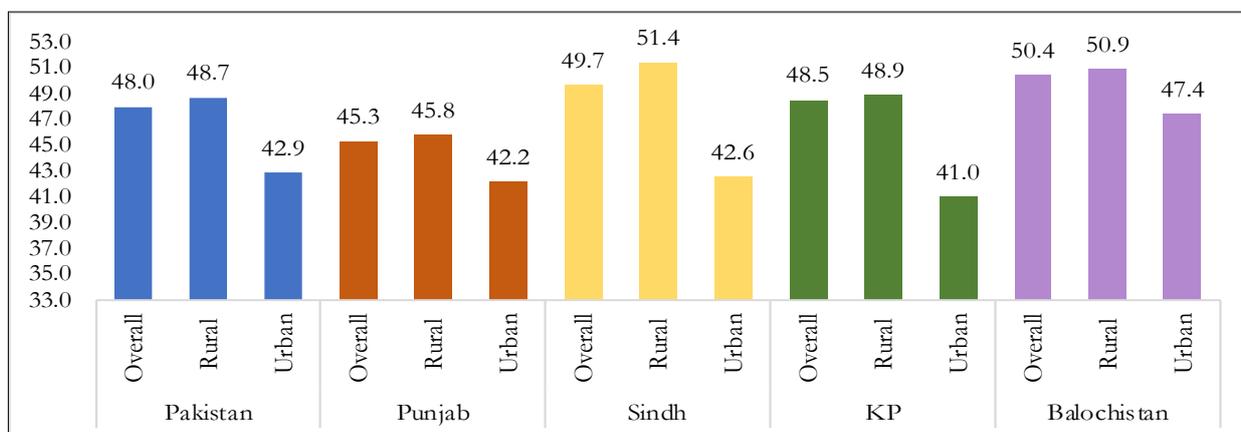
Source: Authors' calculations based on data from the 2019-20 PSLM survey

**Figure 10: Headcount Ratio (H) by National, Rural/Urban and Province, 2019-20**



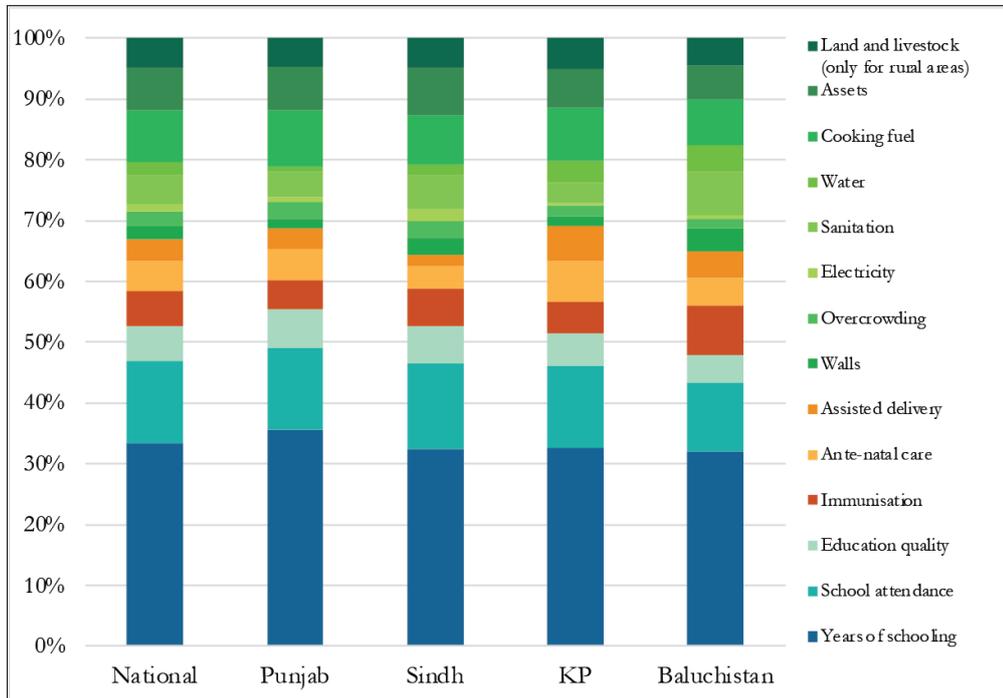
Source: Authors' calculations based on data from the 2019-20 PSLM survey

**Figure 11: Intensity (A) by National, Rural/Urban and Provincial Levels, 2019-20**



Source: Authors' calculations based on data from the 2019-20 PSLM survey

**Figure 12: Percentage Contribution of Indicators by Province**



Source: Authors' calculations based on data from the 2019-20 PSLM survey

## 2.4 National MPI by Division

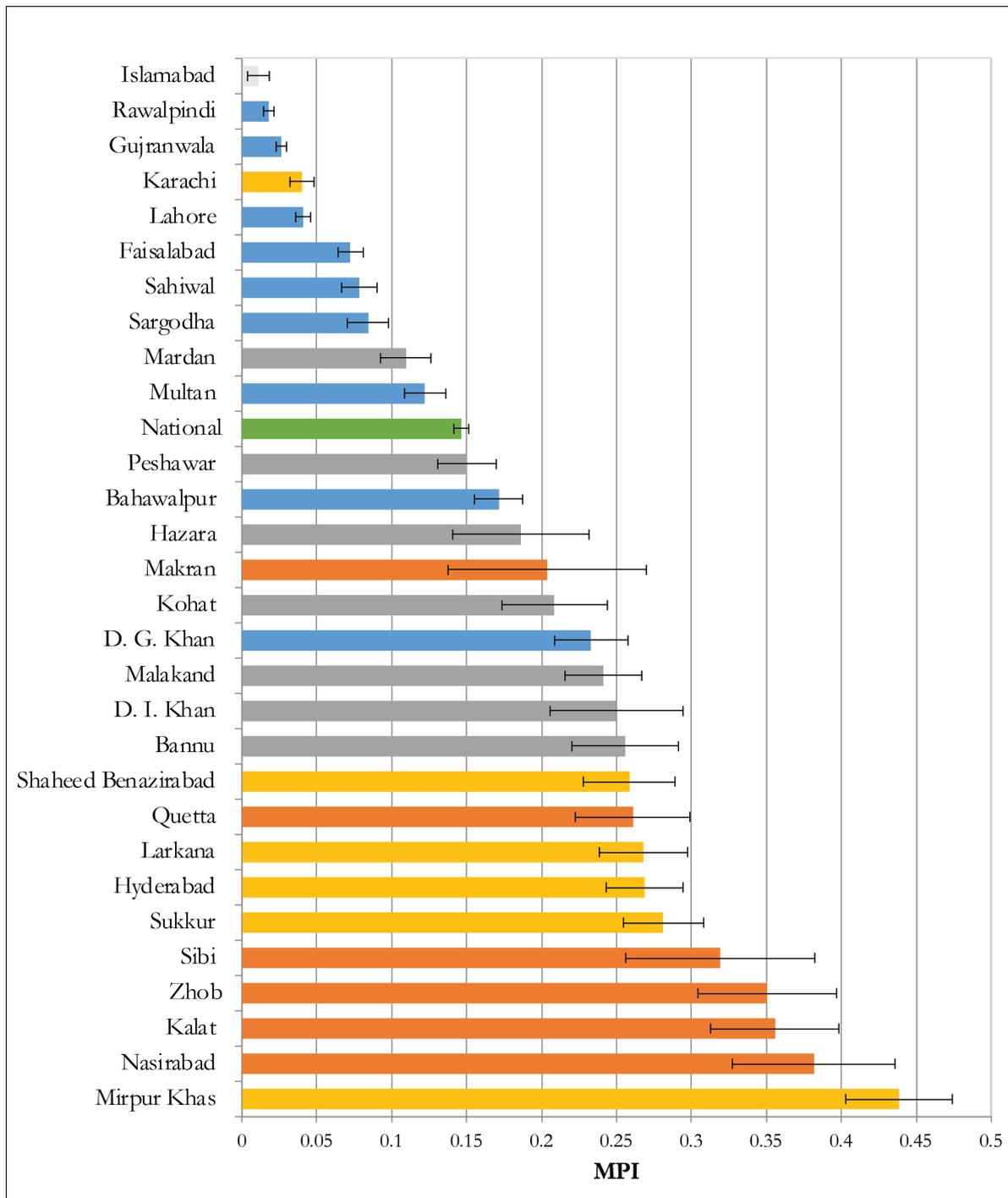
Provinces are further divided into 28 administrative divisions.<sup>10</sup> Analysis at the division level enables us to have an in-depth analysis within the provinces. It is evident from Figure 13 that poverty levels across divisions vary significantly in Pakistan, ranging from 0.018 in Rawalpindi division to 0.489 in Mirpur Khas division. In terms of the incidence of MPI, more than 78% of people are poor in Mirpur Khas but only 4% in Rawalpindi.

Overall, the results follow the same trend which we observe for the provinces – Balochistan is the poorest followed by Sindh while among the least poor divisions, the majority are from Punjab province followed by KPK. Four of the five poorest divisions belong to Balochistan while five of the poorest ten divisions are from Sindh. There is also great disparity in Sindh: the Karachi division is also in Sindh, and it is among the five least poor divisions in Pakistan.

Sampling errors, shown as black stripes in the graph below, reflect uncertainty in the household surveys. The overlap of the black stripes guides us to decide whether the MPIs of any two divisions are significantly different from each other at five percent level of significance. From Figure 13, it is clear that the MPI of Mirpur Khas is not significantly different from that of Nasirabad while its MPI is significantly different from Kalat division. This implies that we cannot say for sure which division in Pakistan is the poorest, because their confidence intervals overlap.

<sup>10</sup> Islamabad is not regarded as a division in Pakistan but is included in this figure for the purpose of comparison.

**Figure 13: Multidimensional Poverty by Divisions**



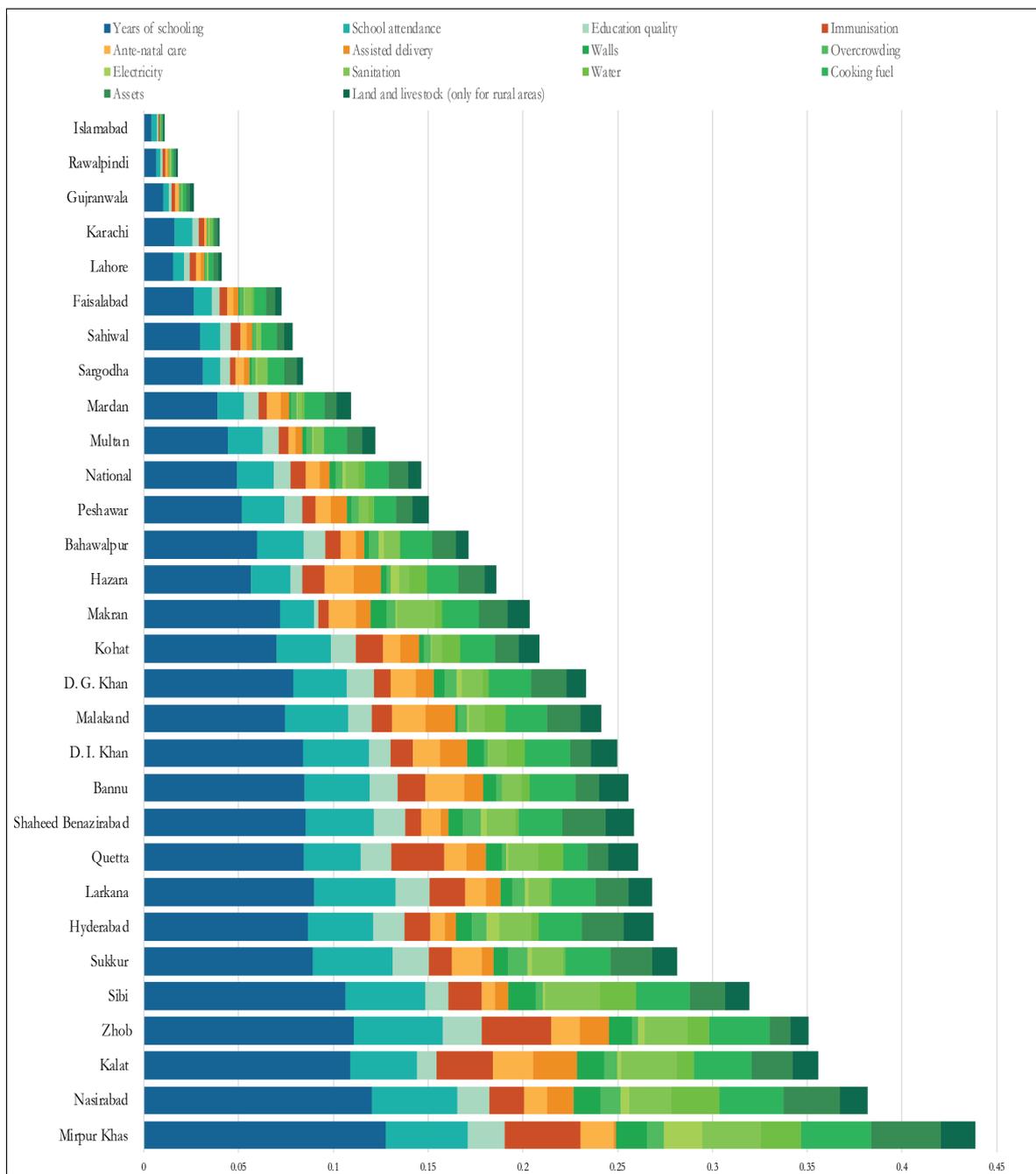
Source: Authors' calculations based on data from the 2019-20 PSLM survey

We present the absolute contribution of indicators to MPI by division in Figure 14 ordered by the level of MPI from least poor to poorest.

We observe some regularities, whereby the least poor divisions had a similar indicator composition, and the poorest divisions were also similar to each other. We, however, find that some indicator priorities vary between divisions with very similar poverty levels. For example, for Karachi, school attendance, education quality and water contribute more to MPI than in Lahore, where ante-natal care; assisted delivery; overcrowding; cooking fuel; and land and livestock contribute more. Among the divisions with moderate levels of MPI (from D. G. Khan to Sukkar in Figure 13), Quetta is distinct in having the largest contribution in immunization and water, while antenatal care proves to be a greater challenge

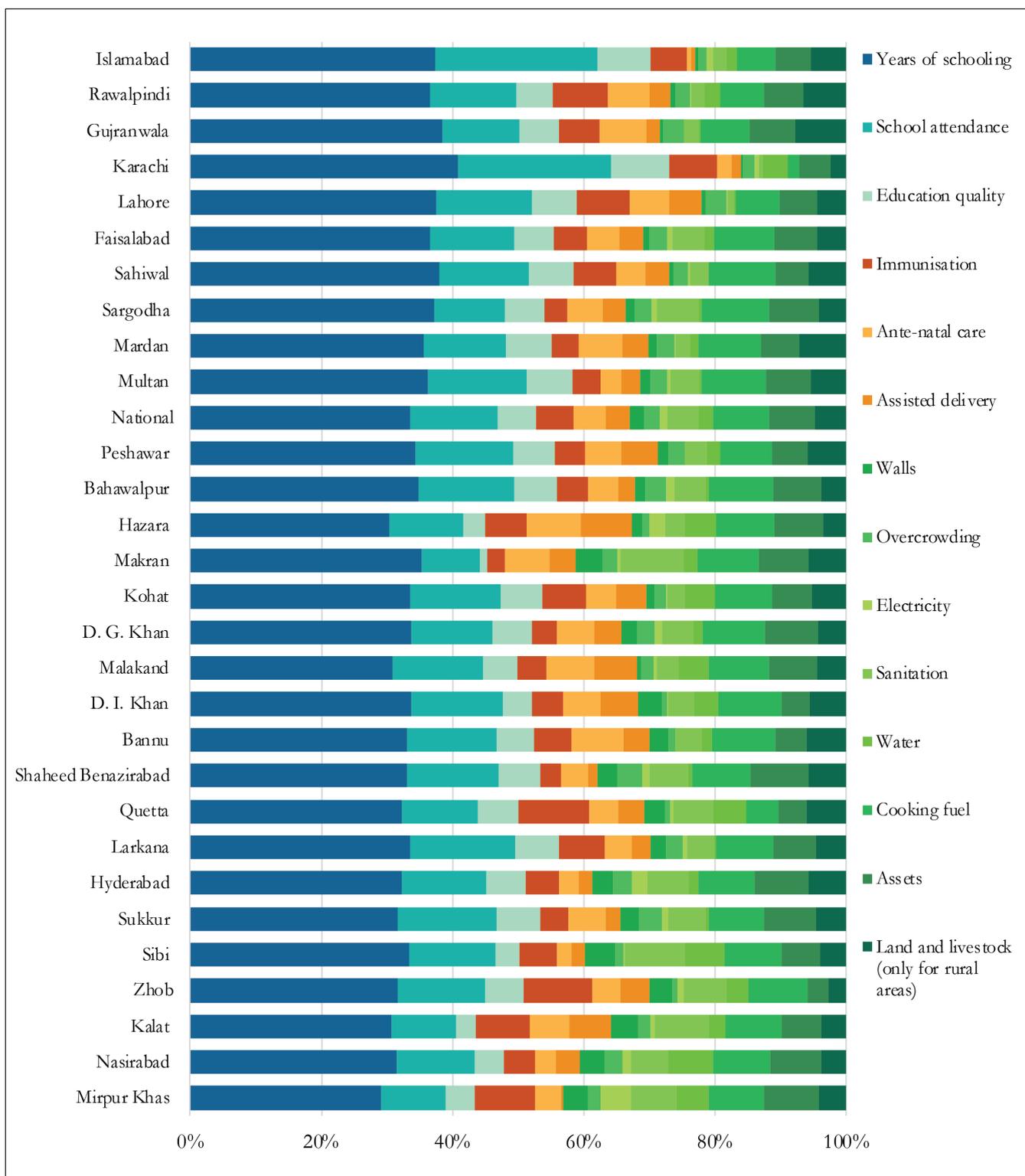
for Bannu and Malakand. Among the five poorest divisions, we see that access to water in Nasirabad and Sibi; immunization and education quality in Zhob; and improved sanitation in Mirpur Khas, Sibi and Kalat each pose much greater challenges in these divisions than others.

**Figure 14: Absolute Contribution of Indicators to MPI by Division**



Source: Authors' calculations based on data from the 2019-20 PSLM survey

**Figure 15: Percentage Contribution of Indicators to MPI by Division**

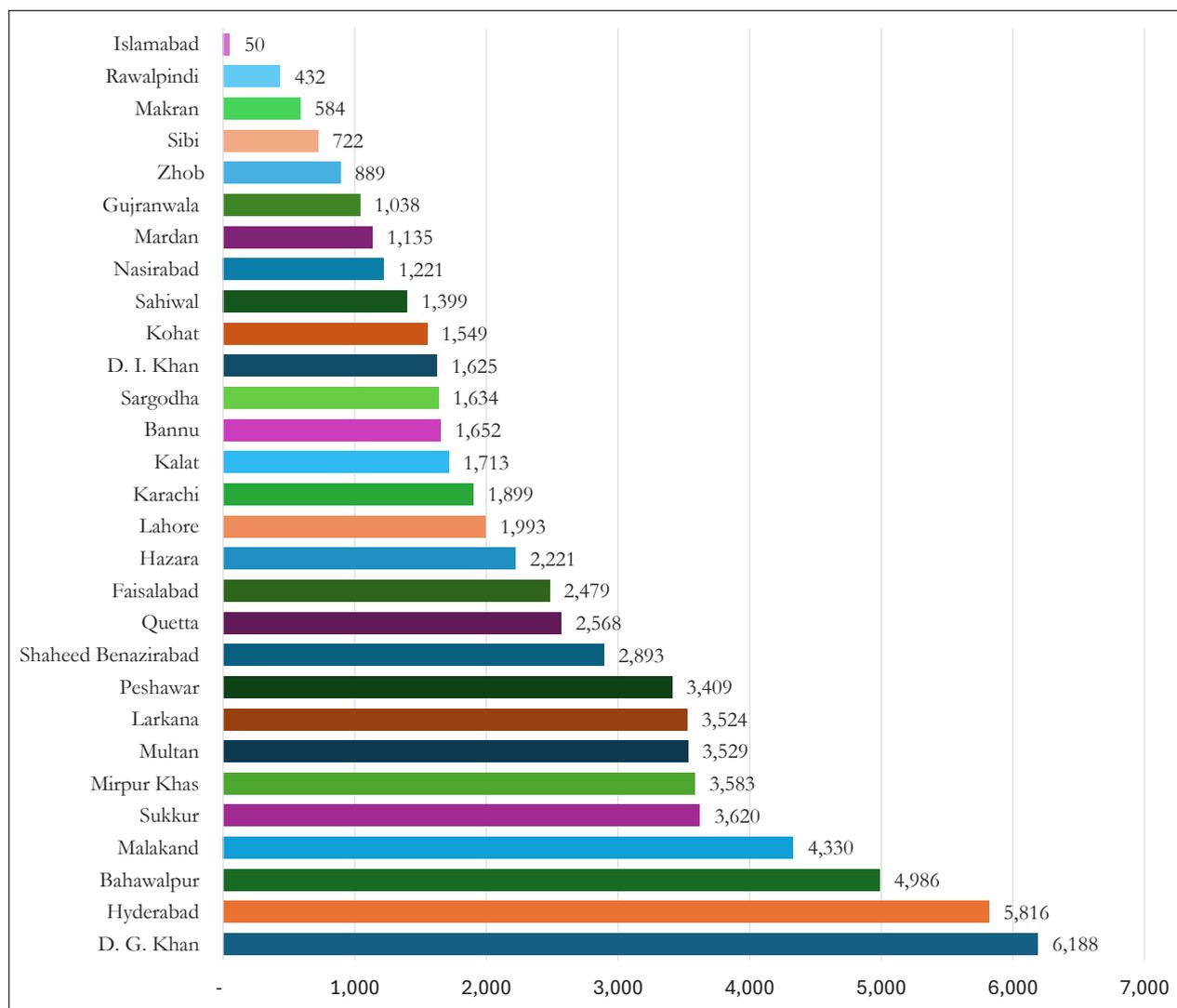


Source: Authors' calculations based on data from the 2019-20 PSLM survey

Apart from level of poverty, it is important to identify how many people are poor for planning purposes to eradicate poverty. In total, there are 69 million poor people in Pakistan. As Punjab is the most populated province in the country while Balochistan is the least, so is the case with the divisions in these provinces. Among all the poor in Pakistan, more than 50% reside in top eight divisions as shown in the Figure 16 -- four out of these eight divisions are from Punjab; three are from Sindh; one from KP; and none from Balochistan. The poorest division in Pakistan in terms of number of poor people is

D.G. Khan where around 6.2 million people are poor, followed by Hyderabad (around 5.9 million) and Bahawalpur (almost 5 million).

**Figure 16: Number of Poor People by Division (000)**



Source: Authors' calculations based on data from the 2019-20 PSLM survey

## 2.5 National MPI by District

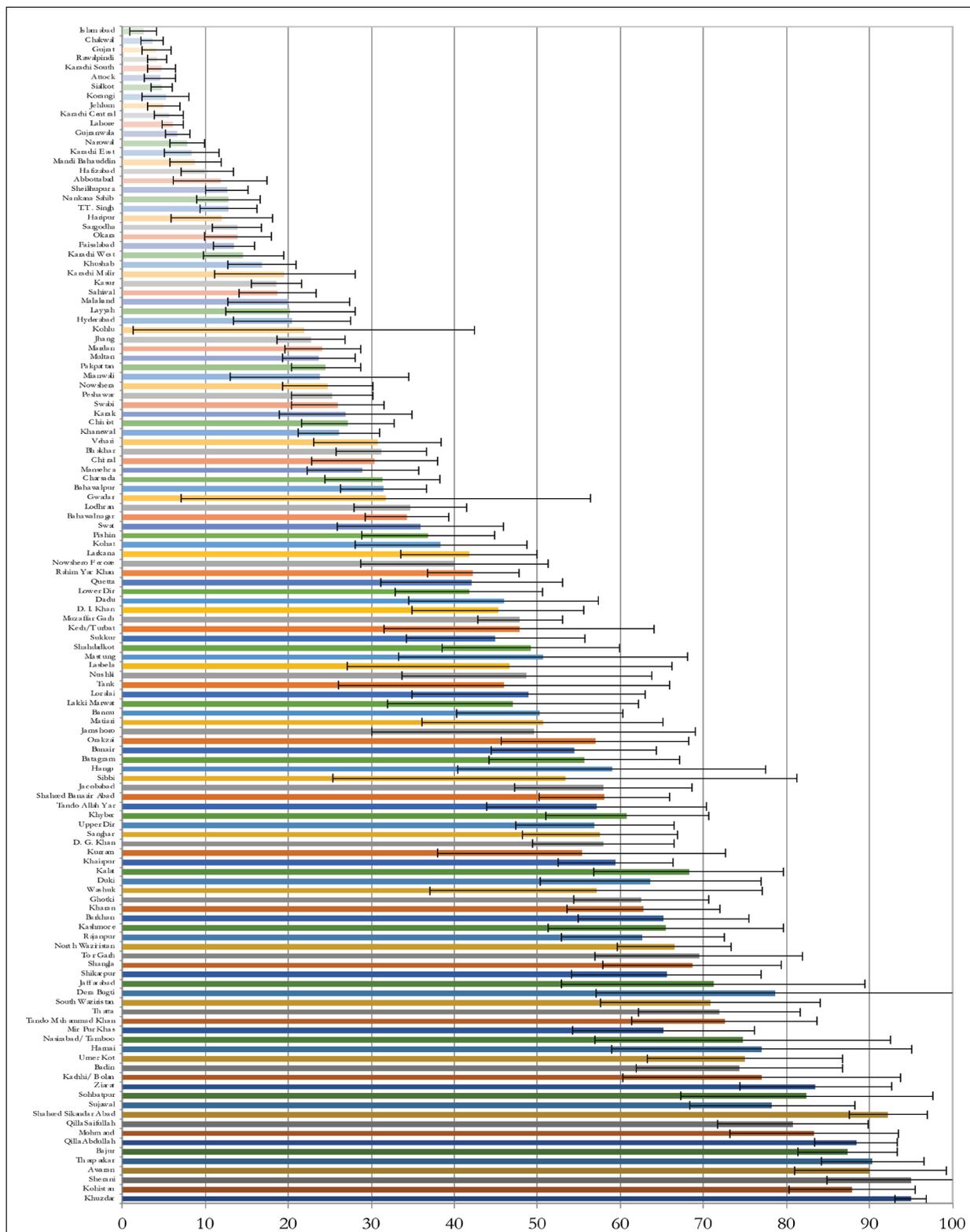
Disaggregating the national MPI of Pakistan by district provides us with in-depth insights about the levels and composition of poverty within divisions in each province. In the PSLM 2019-20 a total of 127 districts were covered.

The range of levels of poverty across Pakistan could not be wider. The incidence of poverty, reflecting a 95% confidence interval among the districts, is presented in Figure 17 ordered such that the district with the highest MPI is at the bottom while the lowest MPI district is at the top.

District poverty levels range from 2.6% in Islamabad to 95.1% in Sherani, making visible the incredible disparity between areas. Note however that due to smaller sample sizes, the confidence intervals are quite large for most of the poorest districts in Pakistan. Hence confidence intervals overlap for many of the poorest districts. A similar finding can be observed for the ten least poor districts, in that the incidence of poverty is not significantly different among them.

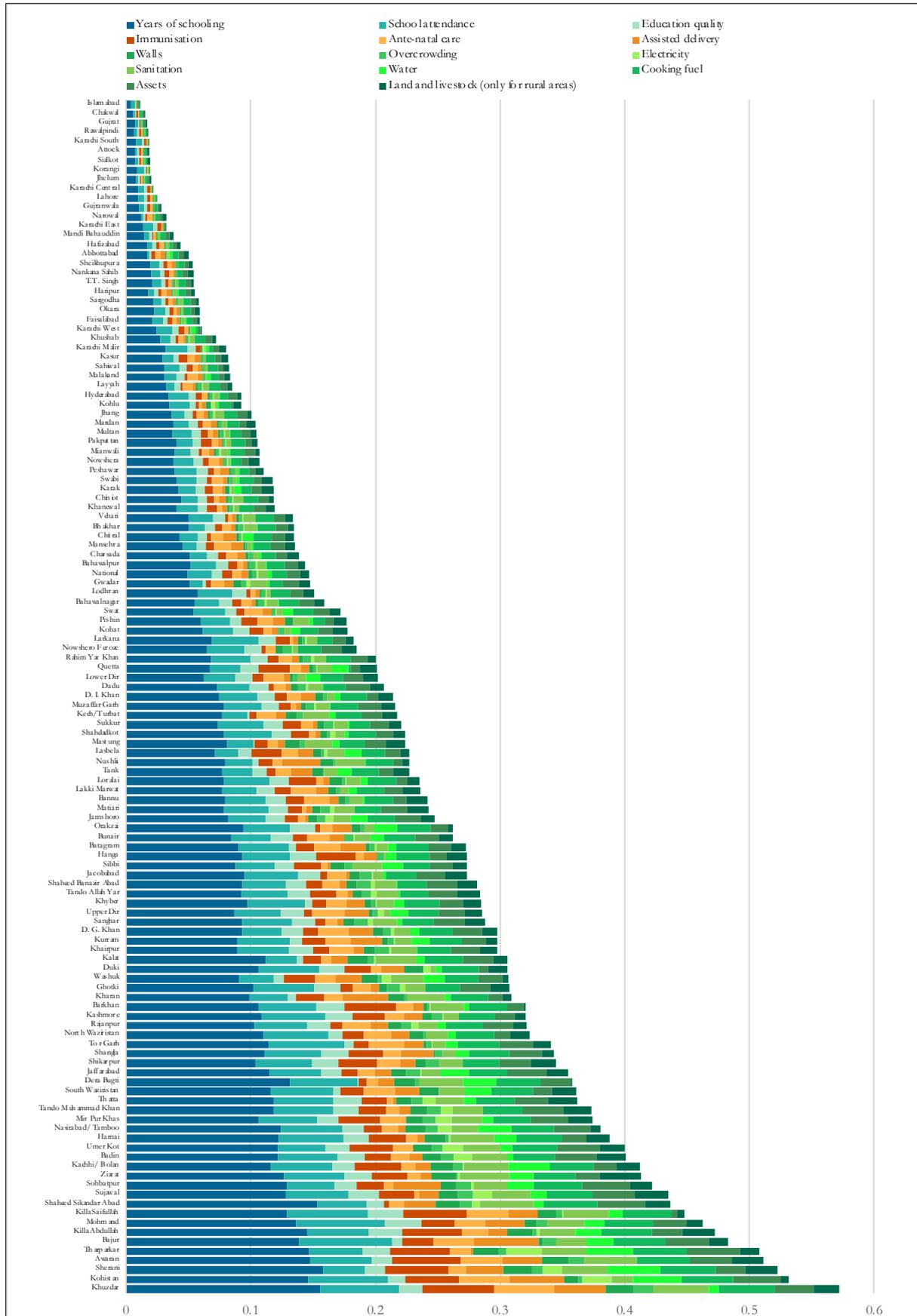
The ten poorest districts belong to Balochistan and Sindh, while least poor districts mainly belong to Punjab, especially districts from north and centre of the province. The situation in Balochistan is very grave as the least poor districts in the province are Gawadar with around 32% poor people followed by Quetta, the provincial capital, with around 42% poor people. The newly merged districts in KPK province, previously known as FATA, show significant variation in the incidence of poverty, ranging from 87.4% in Bajaur to 55.4% in Kurram.

**Figure 17: Incidence of MPI by District (Ranked by MPI)**



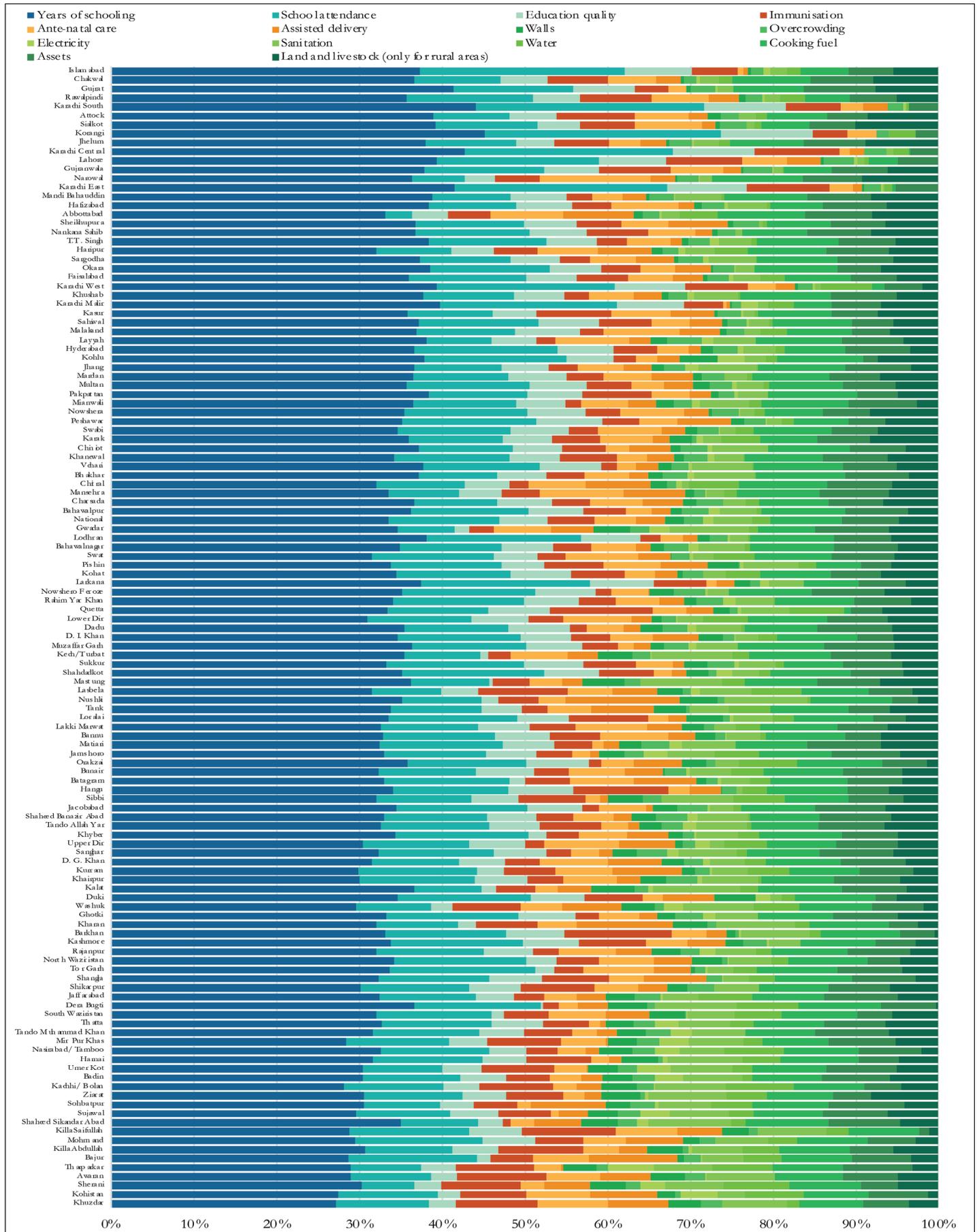
Source: Authors' calculations based on data from the 2019-20 PSLM survey

**Figure 18: Absolute Contribution of Each Indicator to MPI by District**



Source: Authors' calculations based on data from the 2019-20 PSLM survey

Figure 19: Percentage Contribution of Each Indicator to MPI by District



Source: Authors' calculations based on data from the 2019-20 PSLM survey

Figures 18 and 19 display the indicator composition of the MPI at the district level in Pakistan, ranked from the least poor at the top to the poorest at the bottom. A consistent pattern observed across divisions in Pakistan is also evident at the district level: education, particularly years of schooling, emerges as the main contributor across all districts. Interestingly, the contribution of child school attendance is notably high (over 20%) in all districts of Karachi and Islamabad.

For the poorest districts, the relative contributions of the health and living standards dimensions increase. Among the five poorest districts, all with an MPI exceeding 0.500, the health dimension contributes significantly across all indicators, except in Tharparkar. In Tharparkar, living standards—especially electricity—stand out as the most significant contributor compared to the rest of Pakistan. Surprisingly, the health dimension’s contribution in Tharparkar is relatively low, warranting further validation through other data sources.

**Figure 20: National Level GIS District Map Showing MPI Incidence**

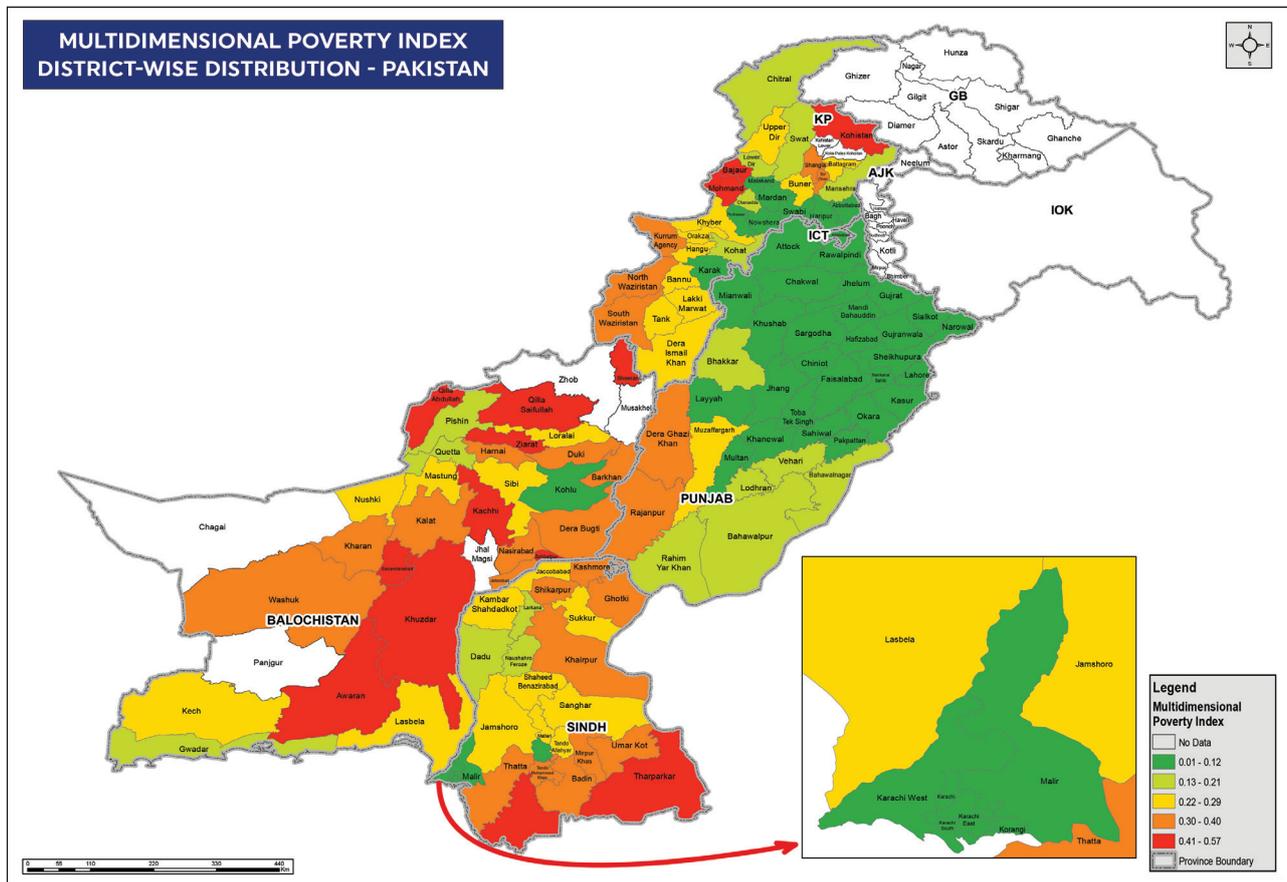
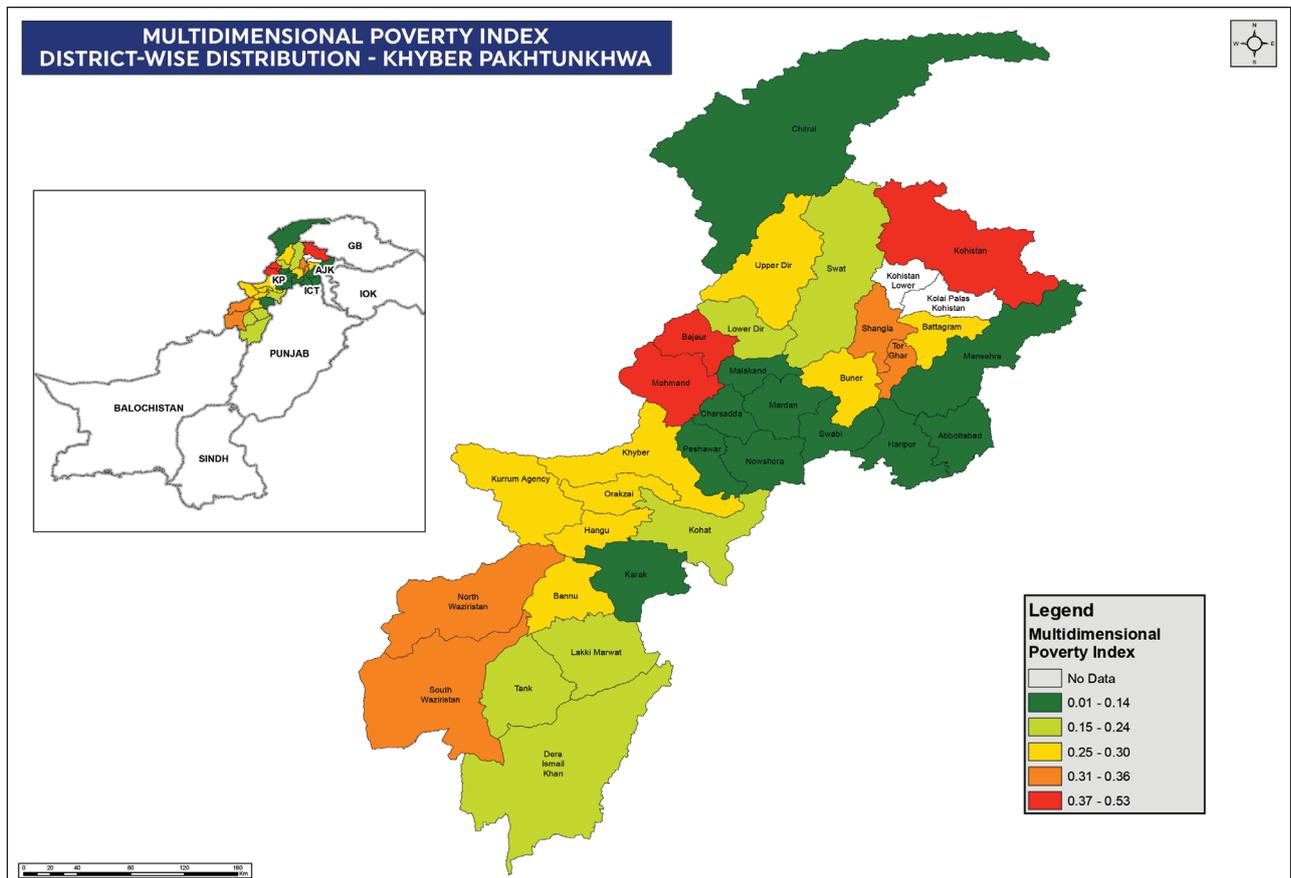
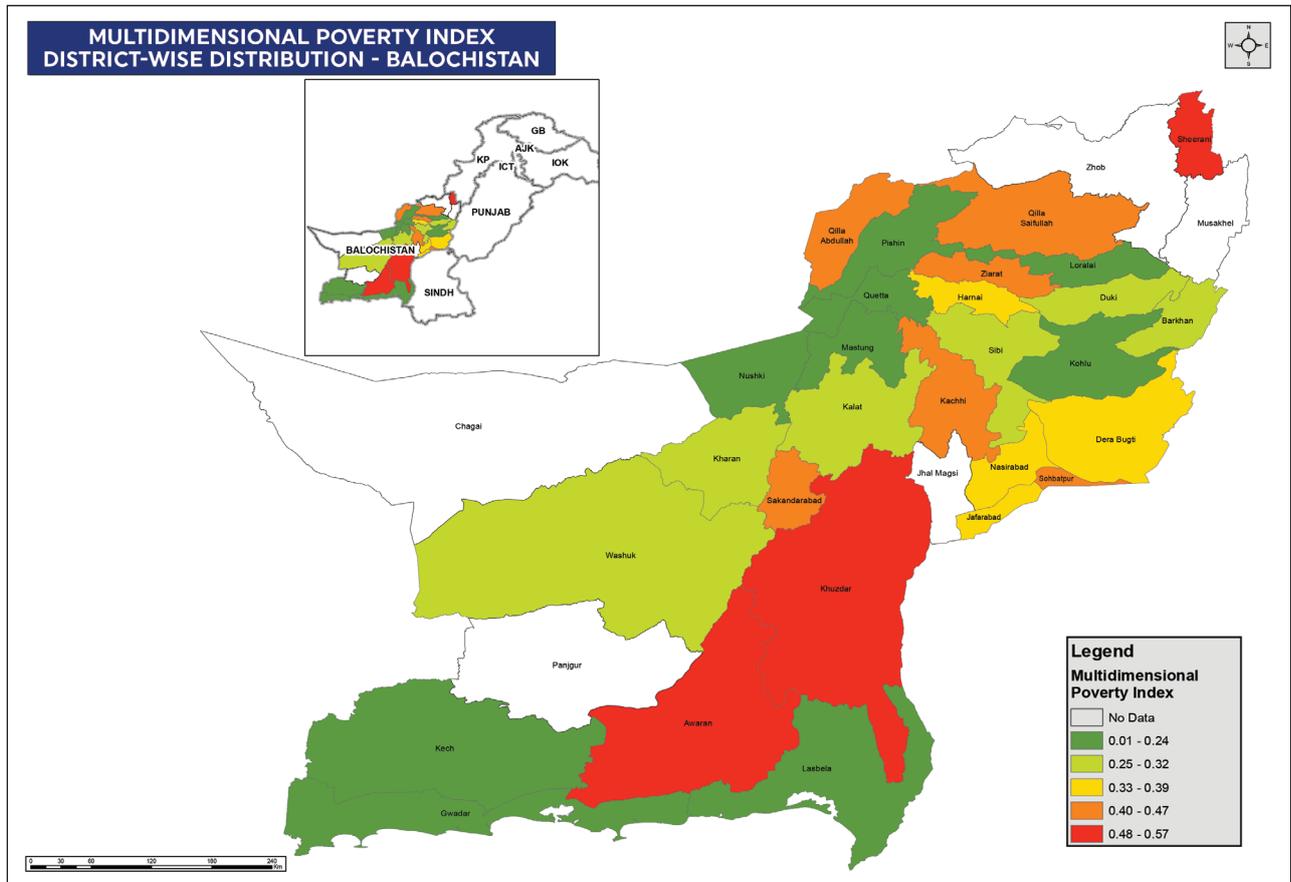
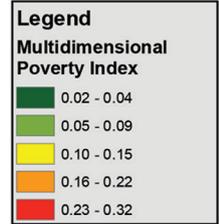
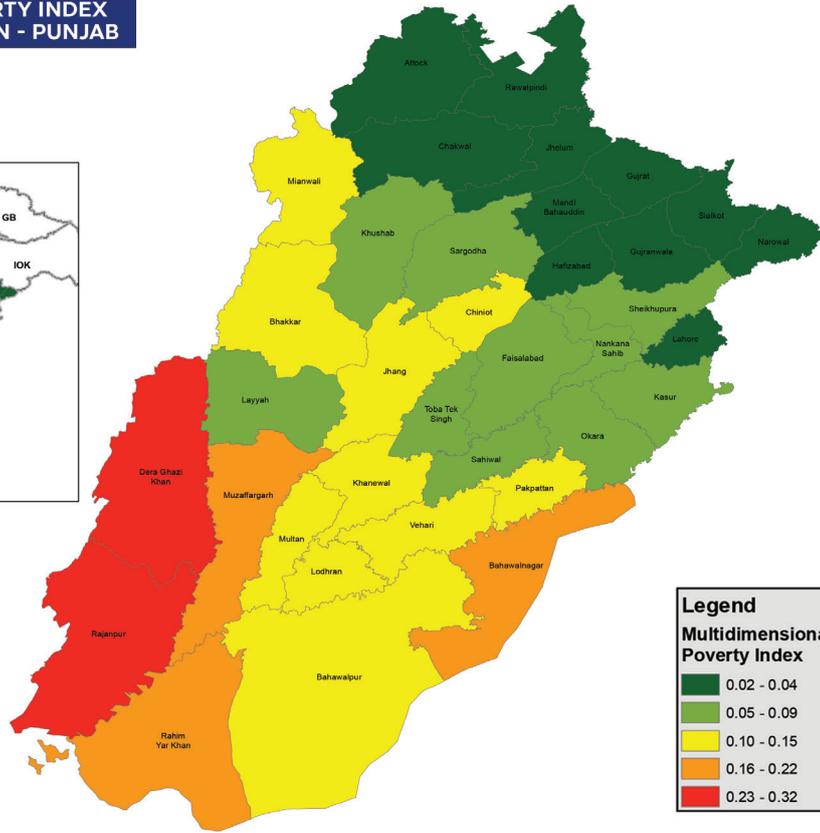
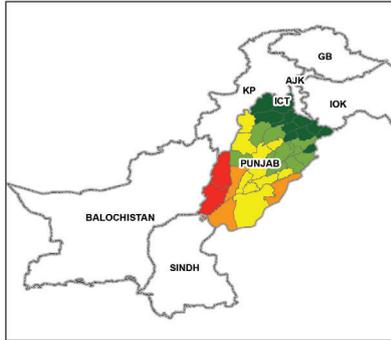


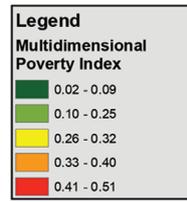
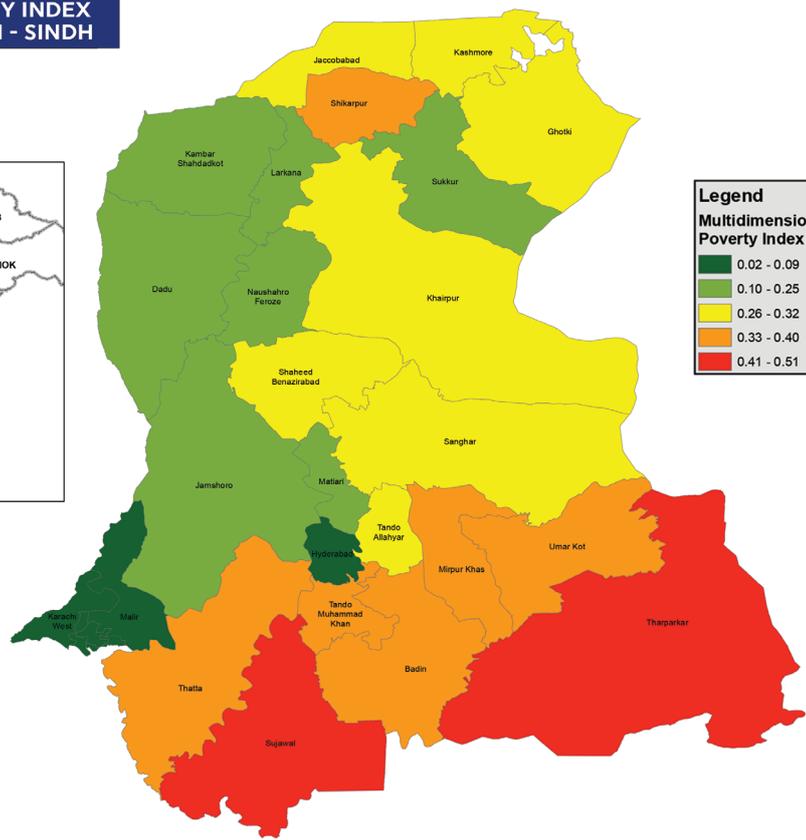
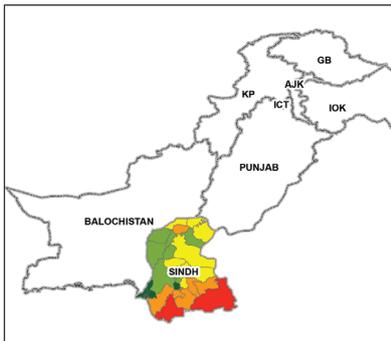
Figure 21: Province Level GIS District Maps showing MPI Incidence



### MULTIDIMENSIONAL POVERTY INDEX DISTRICT-WISE DISTRIBUTION - PUNJAB



### MULTIDIMENSIONAL POVERTY INDEX DISTRICT-WISE DISTRIBUTION - SINDH





# Chapter 3



## Chapter 3 Changes in Multidimensional Poverty Over Time

This chapter examines the evolution of multidimensional poverty in Pakistan between the PSLM 2014-15 and 2019-20 surveys at the national, provincial, divisional, district levels. Both data sets were harmonized to accurately determine the changes over time. The analysis uses the same geographic areas and indicator definitions as the PSLM 2014-15 data set to ensure synchronization.<sup>11</sup> The harmonised MPI – which exactly matches the specifications in PSLM 2014-15 – is a bit lower (0.141 instead of 0.146) as is the national headcount ratio (29.6% instead of 30.5%).

The PSLM 2019-20 specifications are more accurate for policy use going forward, but trends are vital to understanding how poverty has evolved. National as well as sub national in-depth analysis was also carried out to examine the changes in MPI, intensity, and incidence along with changes by indicator for the different areas of Pakistan.

### 3.1 Changes in the Multidimensional Poverty Index and its Components Over Time

Table 2 provides an overview of the change in MPI, incidence (H) and intensity (A) between 2014-15 and 2019-20. It is evident that all three significantly declined by a modest amount over five years. The MPI reduced from 0.162 to 0.141 (0.021), while the headcount ratio (H) fell by 3.2 percentage points, from 32.8% to 29.6%. Intensity (A) fell by 1.6 percentage points – from 49.4% to 47.8%. The MPI, Incidence (H) and Intensity (A) all showed a statistically significant decline with a 1% level of significance.

**Table 2: Change Over Time in (H), (A) and the MPI, 2014-15 to 2019-20**

Cutoff (k=33%)	MPI	Incidence (H)	Intensity (A)
2014-15	0.162	32.8%	49.4%
2019-20	0.141	29.6%	47.8%
Change	-0.021***	-3.2%***	-1.6%***

Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance.

Similar trends are observed across provinces, i.e., decreasing MPI, (H), and (A), with the exception of MPI and (H) in Sindh. The reduction in all three components of the MPI index is statistically significant (at one percent level of significance) in Balochistan, Punjab and KPK, whereas neither the reduction in MPI nor the increase in incidence were significant in Sindh, however, the reduction in intensity in Sindh is statistically significant. We note also that Balochistan was the poorest province and had the fastest absolute reduction – a positive finding. KPK was next then Punjab. However, Sindh, which was less poor than KPK in 2014, had no significant reduction in MPI and is now the 2nd poorest province – a cause for concern.<sup>12</sup>

<sup>11</sup> Please see detailed notes in Section 2.3. In 2018, the Federally Administered Tribal Areas (FATA) were merged in the KPK province as districts. In 2014-15 these areas were not part of the sampling frame of the PSLM survey, but these areas were included in the sampling frame of the PSLM 2019-20 survey. Therefore, for the changes over time analysis, districts belonging to FATA – which was poorer than KPK in 2014-15 according to estimates from a separate dataset reported in the 2016 National MPI Report for Pakistan – are unfortunately not able to be included in this analysis. Other districts that unfortunately do not have data for both periods include Kech/Turbat, Chagai, Jhal Magsi, Musakhel and Zhob.

<sup>12</sup> Trends in all disaggregation must be interpreted alongside any changes in the population shares. In this period, the population of KPK increased and that of Punjab decreased the most – roughly two percentage points in each case – while the population of Balochistan increased and Sindh decreased by roughly one percentage point each.

**Table 3: Changes in Headcount Ratio and MPI Figures Over Time Across Provinces**

Punjab				Pop share
Cut-off (k=33%)	MPI	Incidence (H)	Intensity (A)	
2014-15	0.112	24.6%	45.6%	56.1
2019-20	0.090	19.9%	45.3%	54.2
Change	-0.022***	-4.7%***	-0.3%***	
Sindh				
Cut-off (k=33%)	MPI	Incidence (H)	Intensity (A)	
2014-15	0.209	39.8%	52.5%	25.0
2019-20	0.200	40.3%	49.7%	24.0
Change	-0.009	0.5%	-2.8%***	
KPK				
Cut-off (k=33%)	MPI	Incidence (H)	Intensity (A)	
2014-15	0.205	41.3%	49.5%	13.9
2019-20	0.169	35.4%	47.6%	15.9
Change	-0.036***	-5.9%***	-1.9%***	
Balochistan				
Cut-off (k=33%)	MPI	Incidence (H)	Intensity (A)	
2014-15	0.378	67.5%	56.0%	5.0
2019-20	0.303	60.2%	50.4%	5.8
Change	-0.075***	-7.3%**	-5.6%***	

Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance.

How does one assess the speed of these changes? Recall that the SDG target 1.2 aims to cut the incidence of the MPI by half within 15 years, from 2015 to 2030. To achieve this aim, the incidence would need to fall from 32.8% in 2014-15 to 16.4% in 2029-30. And the MPI value would need to fall from 0.162 to 0.081. Hence if the reduction would be linear in absolute terms (perhaps an over-optimistic assumption), then in the covered period of five years, incidence should have fallen a minimum of 5.5 percentage points – or more if one might expect the initial period to have reduced faster – and MPI by 0.027. Therefore, the national reductions are not on track to halve poverty in 15 years by either MPI, (A), or (H) values, with the exception of Punjab. Punjab reduced its MPI value from 24.6% to 19.9% in five years. If that trend were to continue it would more than halve the MPI value within 15 years. However, looking at MPI values, both KPK and Balochistan, as well as Punjab, are on track to halve their values in 15 years. This is because the MPI considers a reduction of intensity among the poor in

addition to a reduction in incidence. The MPI captures progress among the poorest of the poor, and in a positive development both Balochistan and KPK had strong progress in reducing deprivations among people who were poor and stayed poor.

The MPI, incidence and intensity trends in rural and urban areas are presented in Table 4. In rural areas, all three components of the MPI experienced statistically significant reductions (at one percent level of significance). On the other hand, in urban areas the MPI values and incidence had no statistically significant change and appear clearly to not have declined, whereas intensity declined by 1.6%. The decline in intensity in Urban areas is statistically significant at the one percent level whereas the increase in the MPI values and incidence in urban areas is statistically insignificant. The urban trends must be interpreted alongside the population share, which increased from 34.9% to 37%. This may partly be driven by internal or international migration, or other demographic changes. If poorer rural inhabitants migrated to urban areas for example, then this obviously would slow urban poverty reduction trends.

Overall, neither urban nor rural areas advanced at a pace that would halve MPI values or its incidence in 15 years.

**Table 4: MPI, (H) and (A) Over Time, Urban/Rural Areas, 2014-15 to 2019-20**

	Rural			Urban		
	2014-15	2019-20	Absolute change	2014-15	2019-20	Absolute change
<b>MPI</b>	0.227	0.198	-0.029***	0.042	0.045	0.003
<b>H</b>	45.4%	40.8%	-4.6%***	9.4%	10.4%	1.0%
<b>A</b>	50.0%	48.5%	-1.5%***	44.5%	42.9%	-1.6%***
<b>Population share</b>	65.1	63.0		34.9	37.0	

Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance.

Table 5 and Table 6 present changes over time across rural and urban areas within all provinces. A statistically significant decline in the MPI, incidence and intensity are observed in the rural areas for Balochistan, Punjab and KPK provinces. In Sindh, MPI declined but it is not statistically significant, and neither is the increase in incidence. On a positive note, the reduction in poverty intensity in Sindh is statistically significant.

In urban areas, results are similar for Balochistan and KPK, in that all values are statistically insignificant at one, five and ten percent levels of significance although by point estimates MPI and incidence declined while intensity increased (all insignificantly). An insignificant increase in MPI and incidence is observed in Punjab, but the decrease in intensity is statistically significant. Statistically significant increases in the MPI, incidence and intensity are observed in Sindh.

**Table 5: MPI, (H) and (A) Over Time in Rural Areas by Province, 2014-15 to 2019-20**

		MPI	H	A	Population Share
Punjab	2014-15	0.153	33.4%	45.9%	67.0
	2019-20	0.126	27.6%	45.8%	63.4
	<b>Absolute change</b>	<b>-0.026***</b>	<b>-5.8%***</b>	<b>-0.1%</b>	
	<i>p value</i>	0.000	0.000	0.612	
Sindh	2014-15	0.368	68.8%	53.5%	50.1
	2019-20	0.357	69.5%	51.4%	47.2
	<b>Absolute change</b>	<b>-0.011</b>	<b>0.7%</b>	<b>-2.1%***</b>	
	<i>p value</i>	0.385	0.75	0.000	
KPK	2014-15	0.240	48.1%	49.8%	82.0
	2019-20	0.196	40.8%	48.0%	81.8
	<b>Absolute change</b>	<b>-0.044***</b>	<b>-7.3%***</b>	<b>-1.8%**</b>	
	<i>p value</i>	0.000	0.000	0.011	
Balochistan	2014-15	0.464	80.7%	57.5%	71.5
	2019-20	0.364	71.5%	50.9%	72.9
	<b>Absolute change</b>	<b>-0.100***</b>	<b>-9.2%***</b>	<b>-6.6%***</b>	
	<i>p value</i>	0.000	0.007	0.000	

Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance.

**Table 6: MPI, (H) and (A) Over Time in Urban Areas by Province, 2014-15 to 2019-20**

		MPI	H	A	Population Share
Punjab	2014-15	0.028	6.6%	42.0%	33.0
	2019-20	0.027	6.4%	42.2%	36.6
	<b>Absolute change</b>	<b>-0.001</b>	<b>-0.2%</b>	<b>0.2%</b>	
	<i>p value</i>	0.782	0.752	0.612	
Sindh	2014-15	0.049	10.6%	46.1%	49.9
	2019-20	0.061	14.2%	42.6%	52.8
	<b>Absolute change</b>	<b>0.012*</b>	<b>3.6%**</b>	<b>-3.4%***</b>	
	<i>p value</i>	0.089	0.014	0.000	
KPK	2014-15	0.045	10.3%	43.7%	18.0
	2019-20	0.046	11.1%	41.2%	18.2
	<b>Absolute change</b>	<b>0.001</b>	<b>0.8%</b>	<b>-2.5%**</b>	
	<i>p value</i>	0.923	0.669	0.034	
Balochistan	2014-15	0.160	34.4%	46.7%	28.5
	2019-20	0.141	29.8%	47.4%	27.1
	<b>Absolute change</b>	<b>-0.019</b>	<b>-4.6%</b>	<b>0.7%</b>	
	<i>p value</i>	0.388	0.284	0.647	

Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance.

In terms of population shares, the patterns nationally are by and large mirrored in the provinces, with declines in rural populations and increases in urban populations. The exception is KPK, where population shares in both areas are quite stable over this period.

### 3.2 Changes in National Censored Headcount Ratios<sup>13</sup>

The section elucidates the changes in censored headcount ratios for each indicator. Censored headcount ratios measure the percentage of people who are both multidimensionally poor and who are deprived in each indicator. Figure 22 depicts the percentage of the population for whom the censored headcount ratios change.

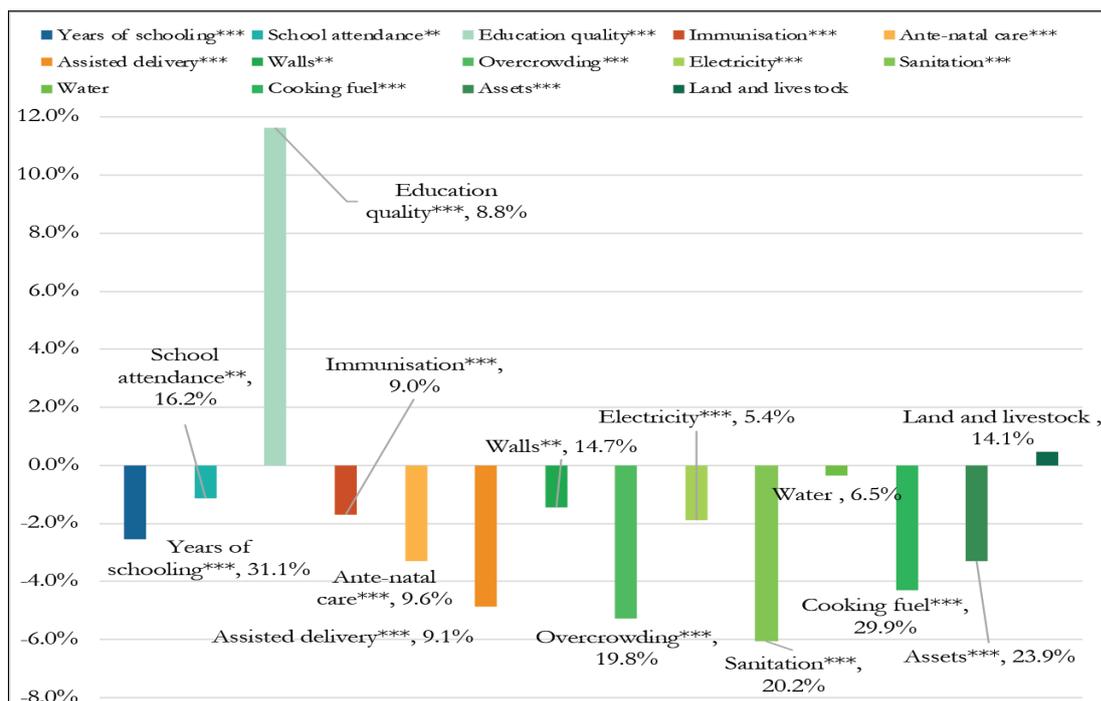
Generally, trends indicate that censored headcount ratios have significantly declined over time in 11 indicators. Reductions were led by sanitation which reduced from 20.2% to 14.6%. Hence 6.1% of the population of Pakistan obtained basic sanitation in this five-year period. Overcrowding also reduced by 5.3% of the population – from 20% to 14.7%. Very positively, the deprivations in antenatal care among poor people reduced by 4.9 percentage points from affecting 11.5% to 6.6% of the population. In terms of clean energy, there were substantial gains as those lacking access to electricity fell from 5.4% to 3.5% while solid cooking fuel use also declined from 30.8% to 26.5%. Children lacking immunisation also progressed; the censored headcount ratio of deprivations declined from 9.2% to 7.5%. In terms of gender, it was encouraging that deprivations in years of schooling declined by 2.6 percentage points, from 23.2% to 20.6%. While the magnitude of the reduction is modest, it does reflect gendered improvements in schooling, as both a male and a female in the household must have completed five years of schooling in order for deprivations to decrease. Two indicators, water and land & livestock, had no significant change, and educational quality deprivations increased. These results show solid if modest improvement, but with large gains evident relative to starting levels of deprivation in sanitation and antenatal care.

In terms of education quality, deprivations for children aged 4-16 increased visibly and significantly. While this is stark, please recall that the educational quality has a very light weight and takes only 1/8 of the weight of the education dimension, while years of schooling and school attendance together weight 7/8. The increase is in part due to a definitional change required by the incomparability between the surveys in 2014-15 and 2019-20 as detailed in Chapter 1. The indicator is based on two sub-questions which are asked to the parents of children who are not attending school. One asks the reason for never attending school (if the child never did), while the other asks the reason for leaving the school (if the child dropped out). If the reasons are related to school being too costly, too far, availability of male/female teachers, and quality of teaching, the child is classified as deprived. In 2019-20 as compared to 2014-15, there was a huge increase in the responses related to children never attending school due to education being too expensive. This rose from 9.4% to 82.5% among households with children out of school. This change led to a significant increase in the deprivation of the education quality indicator. The trend is visible in both urban and rural areas as well as in all four provinces. Note that while the school attendance variable covers children aged 11 to 16, educational quality is assessed for children aged 4 to 16 who are not attending school.

To further investigate the reasons for the increase in the urban poverty numbers, the change in censored headcount ratios is presented for both rural and urban areas (see Figure 23 and Figure 24). In the rural areas, there is a stark increase in the education quality deprivations, along with a slight increase in land and livestock deprivations among poor people. It is true that education quality has shown an enormous deterioration in the number of poor people in urban areas deprived in the indicator. However there have also been significant increases in deprivations related to school attendance and years of schooling. Once again, these may be due to rural-urban migration (two percentage points change in population share), in which households with pre-existing deprivations migrated into urban areas; further analysis is required.

<sup>13</sup> Censored Headcount Ratios are the percent of the population who are poor (because they are deprived in at least one-third of weighted indicators, in this case) and are deprived in that indicator. They can be contrasted with Uncensored Headcount Ratios, which show the percentage of the population who are deprived regardless of whether they are poor – so they include deprivations of non-poor people. Censored headcount ratios are always less than or equal to uncensored headcount ratios.

**Figure 22: Absolute Change in National Censored Headcount Ratios, 2014-15 to 2019-20**

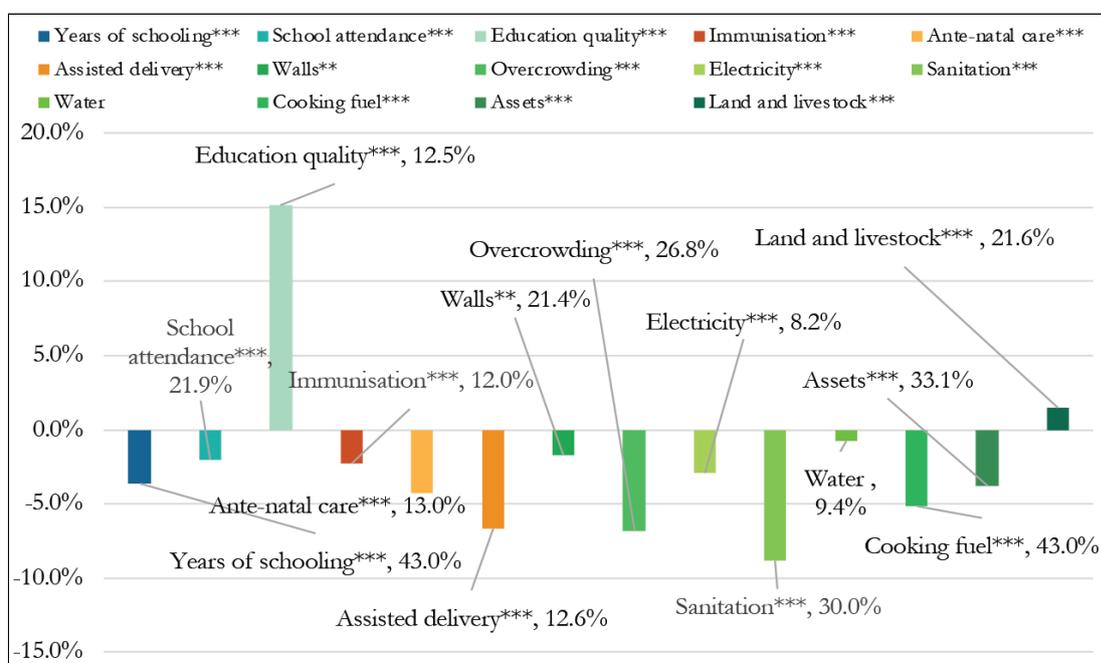


Source: Authors' calculations based on vdata from the PSLM 2014-15 and 2019-20

Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance

Numbers shown after the labels are censored headcount ratios of the indicator in the PSLM 2014-15

**Figure 23: Absolute Change in Rural Censored Headcount Ratios, 2014-15 to 2019-20**

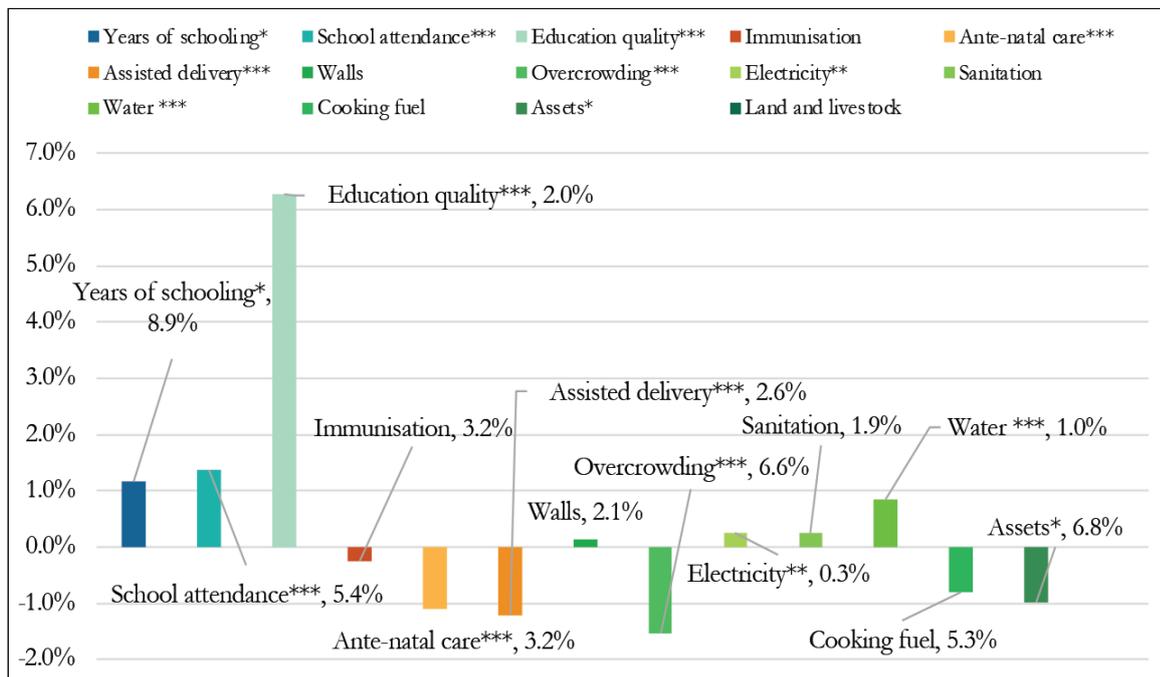


Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance

Numbers shown after the labels are censored headcount ratios of the indicator in 2014-15.

**Figure 24: Absolute Change in Urban Censored Headcount Ratios, 2014-15 to 2019-20**



Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20.

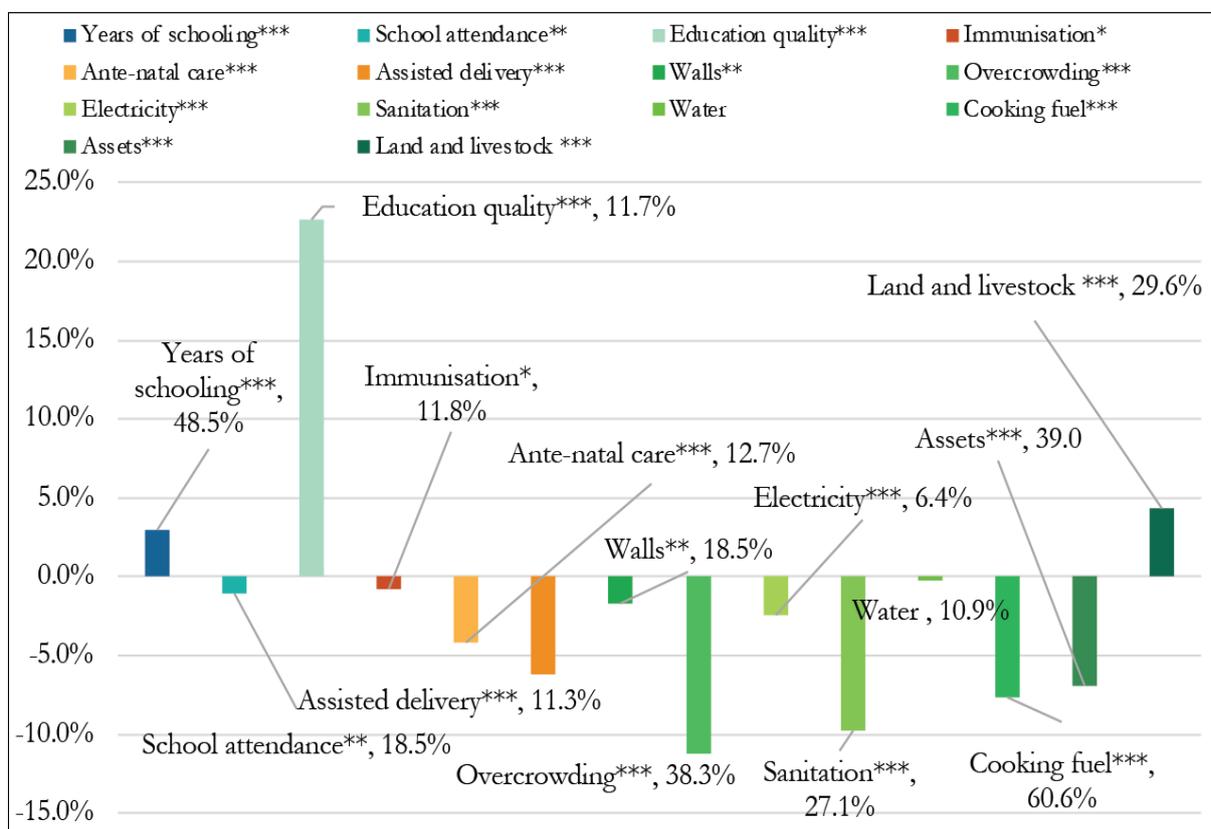
Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance

Numbers shown after the labels are censored headcount ratios of the indicator in the PSM 2014-15.

### 3.3 Changes in National Uncensored Headcount Ratios

Figure 25 represents the proportion of people who are deprived in all of the MPI's indicators, irrespective of whether they are multidimensionally poor or not. As the figure reveals, improvements are evident in most of the indicators over time. Overcrowding, sanitation and cooking fuel are the indicators that have the greatest absolute reduction in terms of uncensored headcount ratios. On the other hand, education quality, years of schooling, and land and livestock show an increase in the proportion of people deprived in these indicators. The rise of deprivations in years of schooling and education quality are particularly concerning; they suggest that among non-poor people, a larger percentage live in households where a child is not attending school due to the poor quality of education or where a male and female aged 10 years and above have not each completed five years of schooling. As seen above, there were reductions in these indicators among the poor – which is a positive development – but there are significant increases in deprivations among the non-poor, which may relate to demographic changes in the population including the splitting of households that leaves older less educated household members behind and in need of additional support.

**Figure 25: Uncensored Headcount Ratios for Pakistan, 2014-15 to 2019-20**



Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

Note: \*\*\* 1% level of significance, \*\* 5% level of significance, and \* 10% level of significance

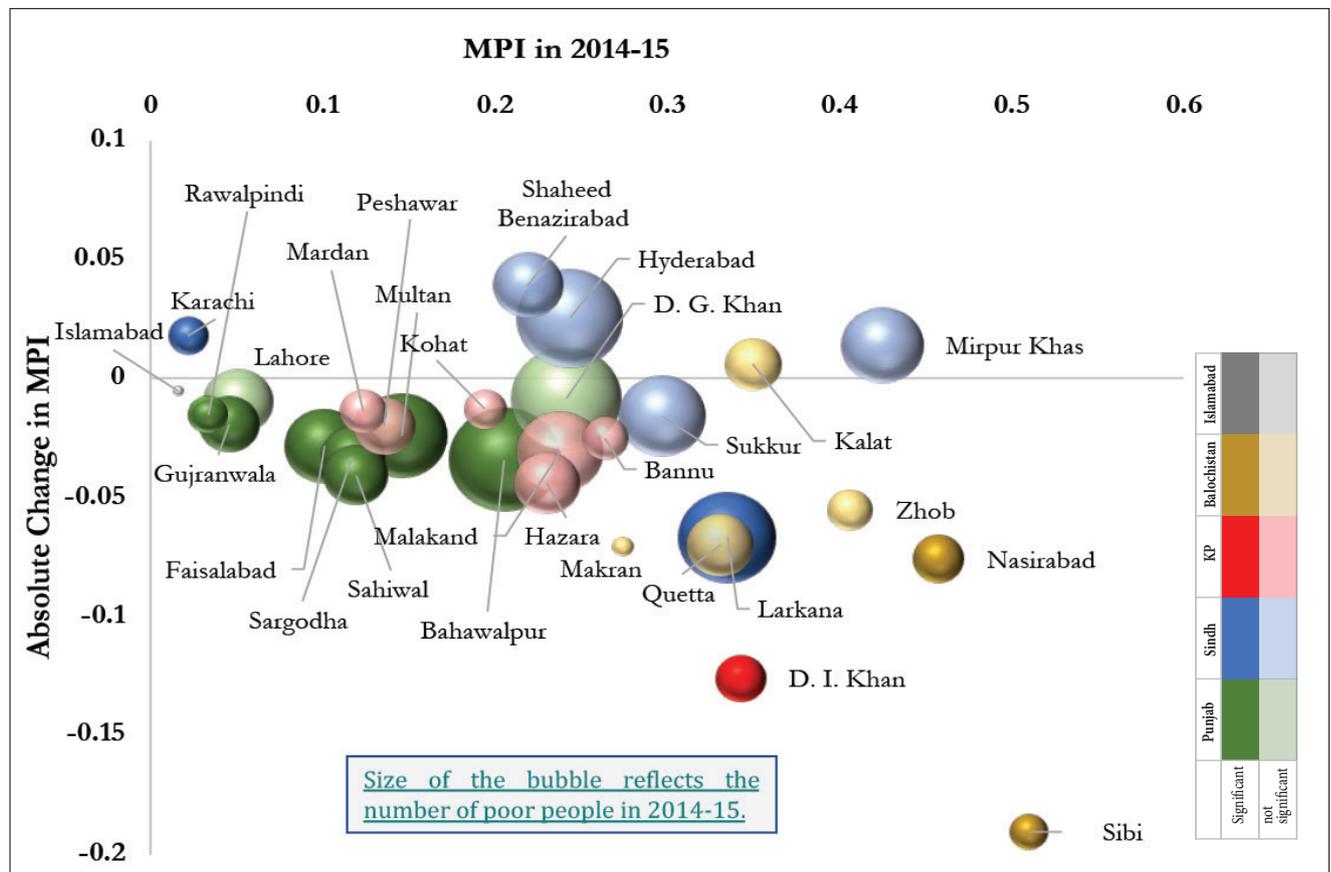
Numbers shown after the labels are uncensored headcount ratios of the indicator in the PSLM 2014-15 survey.

### 3.4 Changes in MPI Over Time in Divisions and Districts

Out of 28 divisions, 23 have experienced a decline in the MPI, while the decline is significant for 13 divisions. Karachi is the only division in Pakistan that has observed a significant increase in MPI value. Sibi had the biggest significant decline followed by D.I. Khan, Nasirabad, and Larkana as shown in the figure below. In Punjab, apart from Lahore and D.G. Khan all divisions have shown a significant reduction in MPI values, while in KPK and Sindh, only one division each has shown a significant decline.

What is evident from Figure 26 is that overall, the trend partly favours the poor. regions with significant reductions are in stronger colours while pale divisions have no significant change. We see that Sibi, which was the poorest division, had the fastest reduction followed by D.I. Khan. Nasirabad, the 2nd poorest reduced MPI more slowly than D.I. Khan but still did well, while Larkana had the 4th fastest reduction. However very poor divisions like Mirpur Khas in Sindh and Kalat in Balochistan had no significant reduction at all.

Figure 26: Change Over Time in MPI Among Divisions in Pakistan



Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

### Changes Over Time in Districts

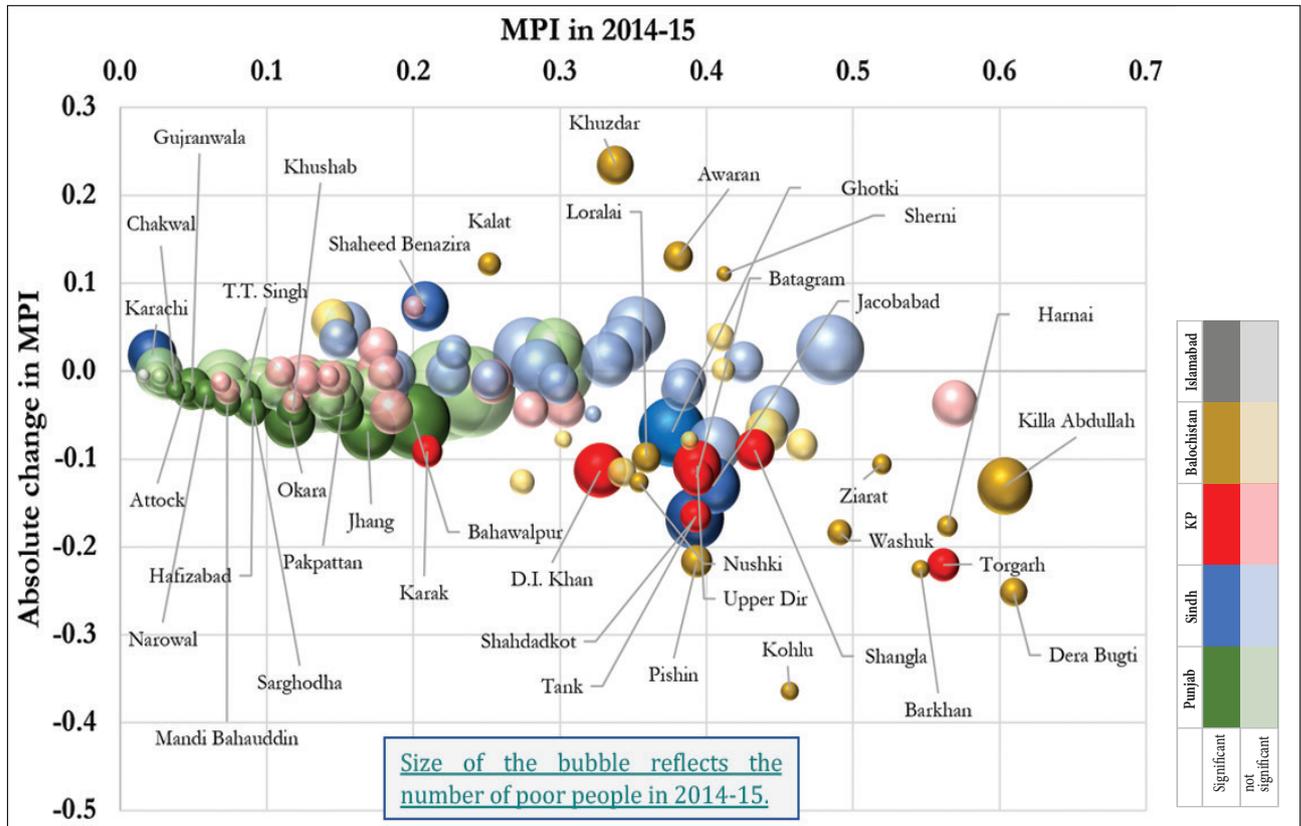
Changes over time analysis is possible for 110 districts. Those districts which were not covered in either of the two surveys due to security reasons and were part of the sampling frame were left out in the changes over time analysis<sup>14</sup>. Three newly constructed districts, Sohbatpur, Shaheed Sikandarabad, and Duki, were part of other districts during the PSLM 2014-15 survey. These districts have been merged back into their parent districts in 2019-20 and the results are compared accordingly.<sup>15</sup> We, however, included these districts while comparing the national, provincial and divisional level estimates for both surveys.

In total 33 districts in Pakistan showed a significant decline in the MPI (an additional 54 had an insignificant decrease), while a significant increase may be observed in 6 (Figure 27 portrays districts with a significant change in a stronger colour). D.G. Khan is the only district where MPI neither increased nor decreased. Between 2014-15 and 2019-20 of the 33 districts with a significant decrease in the MPI, 13 were in Punjab, 10 were in Balochistan, seven were in KPK, and three were in Sindh as shown in Figure 27. Unfortunately, six districts have a significant increase in the MPI – four from Balochistan and two from Sindh, including Karachi.

<sup>14</sup> Please see detailed notes in Chapter 3. Kech/Turbat was not covered in 2014 but is part of the PSLM 2019-20 survey; Chagai, Jhal Magsi, Musakhel and Zhob are not part of the 2019 survey while these districts were enumerated in the previous survey. The harmonized sample drops these districts as well as those pertaining to FATA.

<sup>15</sup> Changes over time analysis is carried out based on the number of districts in the PSLM 2014-15 survey. At the time of the recent PSLM survey three new districts were formed by splitting three 2014-15 districts. We compared newly the constructed districts by merging them with their parent districts to compare the results. New districts are Sohbatpur (previously part of Jaffarabad); Shaheed Sikandarabad (parent district was Kalat); and Duki (cropped from Lorail).

Figure 27: Change Over Time in the MPI Among Districts in Pakistan



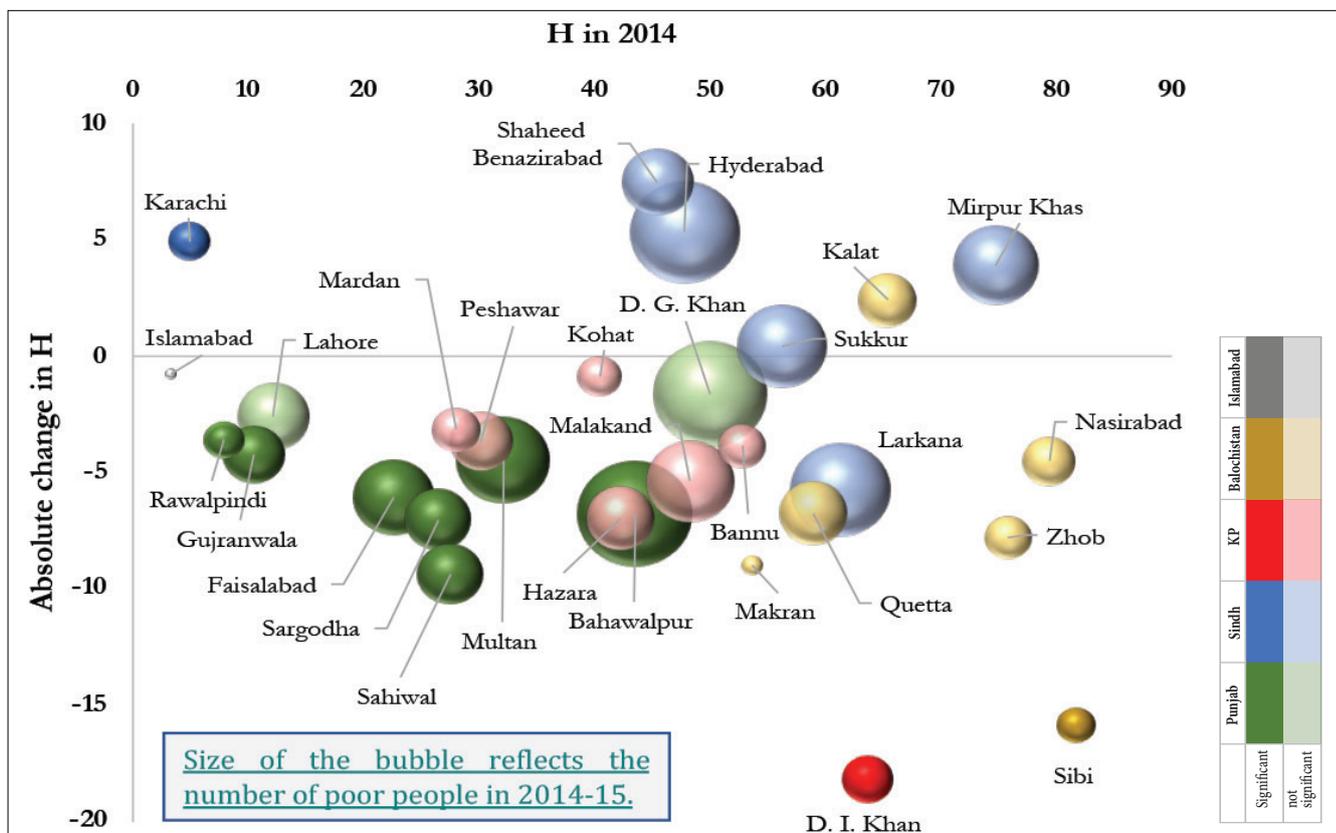
Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

### 3.5 Changes in Incidence Over Time in Divisions and Districts

#### Changes Over Time in Divisions

Only 10 divisions have a significant decline in the poverty rate or incidence of multidimensional poverty between 2014-15 and 2019-20 in Pakistan as depicted in Figure 28. Results for the incidence of poverty at the division level in Pakistan are largely the same as we observed for the MPI – D.I. Khan has shown the greatest decrease followed by Sibi. However, unlike MPI, there is no significant reduction in incidence for Larkana and Nasirabad. Karachi is the only division with a significant increase in incidence. In Punjab all divisions except D. G. Khan and Lahore have a significant decrease while for other provinces, the results are more mixed.

Figure 28: Change Over Time in Incidence of Poverty (H) Among Divisions in Pakistan

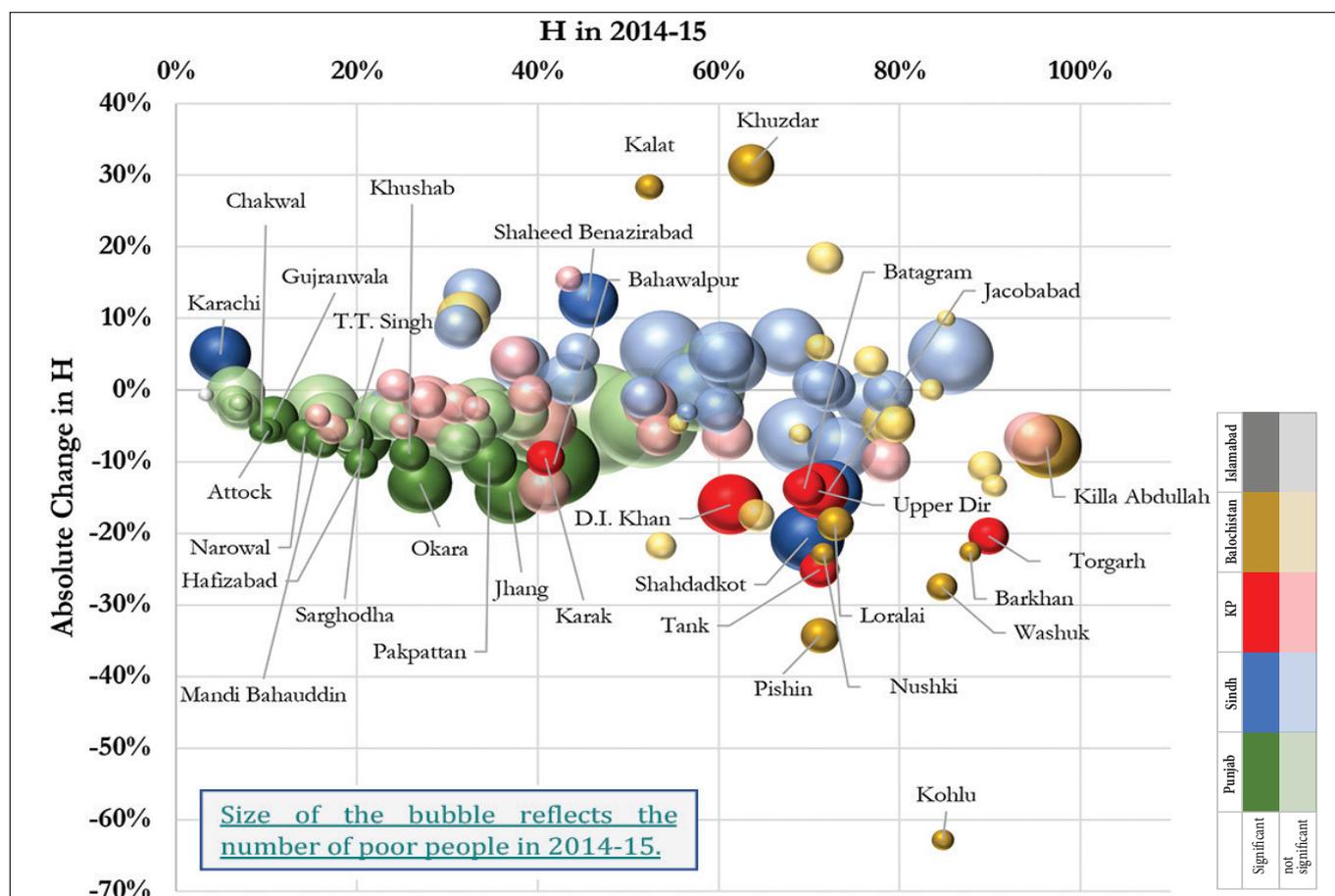


Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

**Changes Over Time in Districts**

Among the districts, 83 have shown a decline in the incidence of poverty of which 28 are statistically significant (13 from Punjab, seven from Balochistan, six from KPK, and two from Sindh) as shown in Figure 29. For 27 districts there was an increase in the incidence of the MPI between 2014-15 and 2019-20, which was significant for only 4 districts - two each from Sindh (Karachi and Shaheed Benazirabad) and Balochistan (Khuzdar and Kalat). In terms of the magnitude, the incidence of poverty declined the most in Kohlu, but since the number of observations are very small (only 540 in Kohlu) the margin of error is large in the recent survey, the result should be cross checked with other data sources.

**Figure 29: Change Over Time in Incidence of Poverty (H) Among Districts in Pakistan**



Source: Authors' calculations based on data from the PSLM 2014-15 and 2019-20

Other notable districts in terms of declining poverty are the poor districts in Balochistan and Sindh where more than 60% people were MPI poor in 2014-15.

### 3.6 Changes Over Time in Number of Poor People

In Pakistan, the number of poor people has decreased by 3.6 million between 2014-15 and 2019-20.

In terms of changes in the number of poor people at the provincial level in Pakistan, in Punjab the number of poor people has reduced by 5.2 million,<sup>16</sup> whereas in other provinces, the population of poor people has increased. The highest increase in number of poor people (0.69 million) was in Balochistan, followed by Sindh (0.48 million) and KPK (0.36 million) during the reference period.

In Punjab the poor population has decreased in all but one division, while for KPK three divisions have experienced a decrease in the number of poor people. For both Sindh and Balochistan, the number of poor people decreased in two divisions in each province. In terms of the magnitude of change across the divisions, around 1.1 million more poor people live in Karachi division as compared to those who lived there in 2014-15. This increase may be attributed to the migration of poor people from other parts of Pakistan to Karachi as noted by Ishfaq et al (2016), who wrote that Karachi, as the largest city of Pakistan, attracts many migrants with low and uncertain incomes. The data also shows an increase of more than 3 million people in Karachi during this period. Shaheed Benazirabad, Peshawar, Makran,

<sup>16</sup> These numbers are computed from the retained sample of the PSLM dataset, scaled to the population of Pakistan, which is estimated using population numbers based on UN population estimates (UNPD, 2022) and weighted samples of PSLM 2014-15 and 2019-20.

and Quetta are the other divisions with an increase of more than a quarter million poor people over this period. In Peshawar, Quetta and Makran the increase in the number of poor people may be attributed to migration as the total population has increased while the incidence of poverty has decreased. In Shaheed Benazirabad, however, the increase in poor people can be attributed to an increase of 7.5 percentage points in the incidence of poverty.

The largest number of poor people left poverty in Larkana division where 1.3 million fewer poor people were found in 2019-20 as compared to 2014-15. However, the decline in incidence in Larkana division was only 6 percentage points, while there is a decrease of around 1.5 million people in the division. Bahawalpur division, situated in the Southern Punjab, also witnessed a decline of more than a million poor people during the period of interest.

# Chapter 4



## Chapter 4 Conclusions

This report serves two primary purposes. First, it provides a detailed snapshot of the situation around multidimensional poverty in Pakistan. Second, it is a policy tool that should be used for monitoring to support sustainable poverty reduction in the long run by ensuring the accurate targeting of vulnerable groups and by guiding budget allocations. The overall objective is to meet SDG target 1.2, which requires the reduction of poverty in all its dimensions.

In Pakistan 30.5% of people are multidimensional poor, with an intensity of 48.0%. The MPI has a value of 0.146. This means that multidimensional poor people in Pakistan experience 14.6% of the total deprivations that would be experienced if all people were deprived in all indicators. MPI in rural areas is significantly higher than in urban areas. Out of 225 million Pakistanis, 69 million are MPI poor, and 61 million live in rural areas<sup>17</sup> of the country.

Provincial results show a stark difference between the provinces. More than 60% of people in Balochistan are poor, while in Punjab this number is less than 20%. Around 40% of the population in Sindh and KPK is MPI poor.

Provinces are further divided into divisions in Pakistan. We observe tremendous differences in terms of poverty levels among the divisions. Mirpur Khas division has more than 78% of people experiencing multidimensional poverty as compared to only 4% in Rawalpindi division. Overall, for divisions, the results follow the same trend that we observe for the provinces – divisions in Balochistan are the poorest followed by those in Sindh; among the least poor divisions, the majority are from Punjab followed by KPK. Four of the five poorest divisions belong to Balochistan while five of the poorest ten divisions are from Sindh.

Apart from the level of poverty, it is important to identify how many people are poor for planning purposes. In total, there are 69 million poor people in Pakistan. Punjab is the most populous province in the country and Balochistan is the least and this pattern holds true at the division level as well. Among all the poor in Pakistan, more than 50% reside in eight divisions, four of which are from Punjab, three are from Sindh, one is from KPK, and none are from Balochistan. In terms of the number of poor people, D G Khan hosts more than 6 million poor, followed by Hyderabad (5.8million) and Bahawalpur (4.9 million).

The ten poorest districts belong to Balochistan and Sindh, while the least poor districts mainly belong to Punjab, especially districts from the north and centre of the province. The situation in Balochistan is very grave as in the least poor district in the province, Gawadar, 32% of people are poor; this is followed by the provincial capital of Quetta where 42% of people are living in multidimensional poverty. The newly merged districts in KPK province, previously known as FATA, show significant variation in the incidence of poverty, ranging from 87.4% in Bajaur to 55.4% in Kurram.

In Pakistan the main contributor to poverty is years of schooling and child school attendance. The combined contribution of these two indicators is around 47%. Other indicators with a sizeable contribution are cooking fuel, assets, education quality, assisted delivery and antenatal care. Although years of schooling and child school attendance is proved to be the main contributor in Pakistan across the divisions, the priority indicators vary between divisions with similar poverty levels. Among the poorest divisions, access to water is a big challenge in Nasirabad and Sibi; in Zhob its immunization and education quality; and sanitation in Mirpur Khas, Sibi and Kalat.

As with divisions, across districts education, especially years of schooling, proved to be the main contributor to the MPI. The contribution of child school attendance is found to be quite high (more than 20%) in all districts of Karachi and Islamabad. The relative contributions of the 'health and living standard' dimension increased in the poorest districts. Among the five poorest districts – Khuzdar,

<sup>17</sup> Two third of the population lives in the rural areas.

Kohistan, Sherani, Awaran, and Tharparkar – with an MPI of more than 0.500 – contributions of all three indicators of the health dimension are quite high as compared to the other parts of Pakistan with the exception of Tharparkar, where the living standards indicators, especially electricity, are even more problematic.

In terms of changes over time, all three components of the MPI significantly declined by a modest amount over five years. The MPI reduced from 0.162 to 0.141 (0.021), while (H) fell by 3.2 percentage points, from 32.8% to 29.6%. (A) fell by 1.6 percentage points – from 49.4% to 47.8%. Among the provinces, Balochistan was the poorest province and had the fastest absolute reduction followed by KPK and Punjab. However, Sindh, which was less poor than KPK in 2014, had no significant reduction in MPI and (H), and is now the 2nd poorest province – a cause for concern.

At a national level, the pace of poverty reduction from 2014-15 to 2019-20 is not sufficient for Pakistan to be on track to halve poverty in 15 years by either the MPI or (H). Looking at the MPI, both KPK and Balochistan, as well as Punjab, are on track to halve MPI in 15 years. This is because MPI considers a reduction in intensity among the poor in addition to a reduction in incidence. MPI captures progress among the poorest of the poor, and in a positive development both Balochistan and KPK made strong progress in reducing deprivations among people who were poor and stayed poor, so each carried fewer deprivations in the later period. However, this is not the case for the provincial trends of incidence, with the exception of Punjab. Punjab reduced (H) from 24.6% to 19.9% in five years. If that trend were to continue Punjab would more than halve incidence (H) within 15 years.

Overall, neither urban nor rural areas improved at a pace that would halve the MPI or its incidence in 15 years. In rural areas, all three components of the MPI experienced statistically significant reductions (at one percent level of significance). In urban areas the MPI and (H) had no statistically significant change and appear not to have declined, whereas intensity declined by 1.5%. The urban trends must be interpreted alongside the population share, which increased from 34.9% to 37%. This may partly be driven by internal or international migration, or other demographic changes. If poorer rural inhabitants migrated to urban areas for example, then this obviously would slow urban poverty reduction trends.

Among the divisions, the overall trend favours the poor. Out of 28 divisions, 23 experienced a decline in the MPI, and the decline is significant for 13 divisions. Karachi is the only division in Pakistan that has observed a significant increase in the MPI. In Punjab, apart from Lahore and D. G. Khan all divisions have shown a significant reduction in the MPI, while in KPK and Sindh, only one division each has shown a significant decline. Sibi had the fastest significant decline followed by D.I. Khan, Nasirabad, and Larkana. Results for the incidence of poverty at the division level in Pakistan are largely the same as we observed for the MPI – D.I. Khan has shown the greatest decrease followed by Sibi. Only 10 divisions have shown a significant decline in Incidence. Karachi is the only division with a significant increase in incidence.

Among the districts, out of 110 districts for which changes over time analysis was possible, 33 have showed a significant decline in MPI while a significant increase may be observed in 6. Unfortunately, six districts have experienced a significant increase in the MPI – four from Balochistan and two from Sindh, including Karachi. In terms of (H), 83 districts have shown a decline, of which 28 are statistically significant (13 from Punjab, seven from Balochistan, six from KPK, and two from Sindh). Four districts, however, have shown significant increases in (H) – two each from Sindh (Karachi and Shaheed Benazirabad) and Balochistan (Khuzdar and Kalat).

In terms of censored and uncensored headcount ratios, 11 out of 14 indicators have shown significant decline. Education quality, which carries only one-eighth the weight of the education dimension, is the only indicator with a significant and visible increase between the surveys in 2014-15 and 2019-20.

In the current report, two indicators used in the previous report to compute MPI were adjusted. The indicator of access to health facilities was not included due to data quality issues affecting the questions on which the indicator was based. The indicator of education quality had to be modified due to changes

in questions included in the PSLM 2019-20 survey. There were additional changes in the coverage of districts. Because of these, the present results cannot be compared with the previous MPI report. To transparently document comparable trends, the above-mentioned changes over time analysis is included in this report and shows precisely how poverty reduced between 2014-15 and 2019-20. The changes over time results are based on a harmonized sample (dropping districts that were not present in both years). Chapter 2 presents the best estimates for 2019-20 on the largest set of districts and should be used for policy development going forward.

Indeed, the central motivation of estimating MPI and sharing the results is to spark public action – by national, provincial and local governments, by the private sector, Non-Governmental Organisations (NGOs), and local citizens. The work of reducing multidimensional poverty – especially in the wake of tragic recent events such as the flooding – will need to be shared among different groups. Our hope is that this report will be drawn upon to shape such responses.

The MPI results have clearly identified vulnerable groups, their levels of MPI and the incidence of poverty by province, division and district. One can identify the set of poorest regions and ensure that poverty reduction activities are prioritised in them. In this way MPI data can and should be used to target activities in the poorest places. Certain indicator topics can also be analysed. For example, all health indicators have proven to be worse off in the poorest districts, namely, Khuzdar, Kohistan, Sherani, Awaran, and Tharparkar. Deprivations in education have proved to be the main contributor to the MPI across all districts.

This report has also profiled the provinces, divisions, and districts in which the highest number of poor people live. For example, of the 69 million poor people in total who live in Pakistan, around 20 million poor people live in just four divisions: D G Khan, Hyderabad, Bahawalpur, and Malakand. Information about the number and distribution of poor people is also necessary for budgeting, as well as planning and programme design.

For each area – district, division or province – the indicator composition of poverty is shown and discussed. This information is vital because patterns vary across districts, and high-impact interventions will be most cost effective when they respond to the actual profiles of deprivations. Recall that if any deprivation of any poor person is solved, MPI will always go down. Our hope therefore is that students, journalists, and civil servants will use the data from this MPI report to develop participatory action plans in which poor people are empowered to escape poverty, and sustainable solutions are implemented. Naturally, the underlying hope is that, using the evidence and data on poverty in Pakistan, with commitment and dedication, poverty reduction will accelerate so that the next update of the MPI shows even larger reductions.

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# Appendix



## Appendix-A: Robustness analysis

We carry out the Robustness analysis to ensure that the MPI results are not sensitive to the k cut-off and to examine to what extent the results are convergent in terms of the MPI. The district rankings of MPI in Pakistan were compared with alternative specifications considering the standard errors. For example, if one district is significantly poorer than the other district at a given k cut-off and it holds true for the other k cut-offs, then the pairwise comparisons for these districts are considered robust. For the national MPI we used three poverty cut-offs – 20%, 33% and 40%, and observed that more than 87% of statistically significant district rankings are identical taking the k cut-off of 33% as the baseline specification.

**Table A1. Pairwise comparisons (PWC) of the MPI using k cut-offs of 20%, 33% and 40%**

Number of districts	Possible comparisons	PWC consistent across all specifications	PWC significant by the k cut-off of 33% and consistent across all specifications
126	7,875	6,818/7,875= 86.6%	5,526/5,915=93.4%

Source: Authors' calculations based on data from the 2019-20 PSLM survey

Considering the standard errors, the pairwise comparisons for national MPI at the district level show that the rankings are robust.

## Appendix-B: Redundancy analysis

We carried out the Redundancy analysis between the MPI indicators. The measure of redundancy,  $R^0$ , provides the association of deprivations for two indicators at a time. The  $R^0$  is the proportion of people deprived in both indicators, as a percentage of those deprived in the indicator having the lower uncensored headcount ratio. The results of the redundancy analysis are presented in the following table.

**Table B1: Redundancy test results for the MPI indicators**

	Years of schooling	School attendance	Education quality	Immunisation	Ante-natal care	Assisted delivery	Walls	Overcrowding	Electricity	Sanitation	Water	Cooking fuel	Assets	Land and livestock (only for rural areas)
Years of schooling														
School attendance	0.839													
Education quality	0.738	0.884												
Immunisation	0.682	0.293	0.506											
Ante-natal care	0.72	0.296	0.491	0.317										
Assisted delivery	0.798	0.337	0.497	0.341	0.472									
Walls	0.878	0.391	0.557	0.319	0.314	0.364								
Overcrowding	0.678	0.477	0.542	0.392	0.441	0.455	0.441							
Electricity	0.904	0.44	0.586	0.276	0.177	0.109	0.709	0.486						
Sanitation	0.886	0.401	0.564	0.334	0.335	0.385	0.605	0.459	0.719					
Water	0.693	0.296	0.443	0.202	0.183	0.233	0.371	0.285	0.385	0.376				
Cooking fuel	0.721	0.777	0.693	0.644	0.761	0.835	0.924	0.694	0.927	0.935	0.669			
Assets	0.813	0.581	0.502	0.462	0.52	0.556	0.708	0.542	0.884	0.725	0.521	0.812		
Land and livestock (only for rural areas)	0.609	0.386	0.381	0.37	0.43	0.407	0.474	0.416	0.438	0.436	0.363	0.686	0.455	
Uncensored Headcount ratio	0.522	0.18	0.343	0.112	0.088	0.056	0.173	0.271	0.039	0.179	0.113	0.539	0.325	0.34

Source: Authors' calculations based on data from the 2019-20 PSLM survey

### Appendix-C: Multidimensional Poverty by National, Rural/Urban and Province

Area	MPI			Incidence (H, %)			Intensity (A, %)			Population Share (%)	Number of Poor (thousand)
	Value	Confidence Interval (95%)		Value	Confidence Interval (95%)		Value	Confidence Interval (95%)			
National	<b>0.146</b>	0.141	0.151	<b>30.5</b>	29.6	31.4	<b>48.0</b>	47.7	48.3	100.0	68,679
Rural	<b>0.204</b>	0.198	0.210	<b>41.9</b>	40.7	43.0	<b>48.7</b>	48.4	49.1	63.7	60,088
Urban	<b>0.045</b>	0.041	0.049	<b>10.5</b>	9.7	11.3	<b>42.9</b>	42.3	43.5	36.3	8,591
Punjab <sup>18</sup>	<b>0.090</b>	0.085	0.095	<b>19.9</b>	18.9	20.9	<b>45.3</b>	44.9	45.8	53.0	23,726
Sindh	<b>0.200</b>	0.189	0.212	<b>40.3</b>	38.1	42.5	<b>49.7</b>	49.2	50.3	23.5	21,335
KPK	<b>0.193</b>	0.180	0.205	<b>39.8</b>	37.6	41.9	<b>48.5</b>	47.7	49.4	17.8	15,921
Balochistan	<b>0.303</b>	0.282	0.325	<b>60.2</b>	56.3	64.0	<b>50.4</b>	49.6	51.2	5.7	7,697

Source: Authors' calculations based on data from the 2019-20 PSLM survey

<sup>18</sup> Although Islamabad is the capital territory and is not part of any province, the PSLM data includes it in Punjab.

## Appendix-D: Multidimensional Poverty by District

District	MPI		Incidence (H, %)		Intensity(A, %)		Population Share (%)	Number of Poor (Thousands)				
	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)						
National	0.146	0.141	0.151	0.151	30.5	29.6	31.4	48.0	47.7	48.3	100.0	69,973
<b>KHYBER PAKHTUNKHWA</b>												
Abbottabad	0.05054	0.02612	0.07496	0.07496	11.7992	6.20445	17.394	42.8305	41.3661	44.2949	0.7013274	190
Bajaur	0.48292	0.42556	0.54029	0.54029	87.3876	81.4156	93.3597	55.262	51.7992	58.7248	0.4936879	990
Bannu	0.24144	0.1884	0.29447	0.29447	50.3359	40.312	60.3597	47.9653	46.4181	49.5124	0.6457033	746
Batagram	0.2722	0.21083	0.33358	0.33358	55.6899	44.2254	67.1544	48.878	46.3025	51.4536	0.2516868	322
Bunair	0.26225	0.21102	0.31349	0.31349	54.4137	44.5032	64.3242	48.1963	46.4922	49.9003	0.3880423	485
Charsada	0.13836	0.10632	0.1704	0.1704	31.3236	24.4321	38.2151	44.1714	42.9315	45.4113	0.8148617	586
Chitral	0.13493	0.09606	0.17379	0.17379	30.3879	22.7977	37.9781	44.4018	41.6383	47.1653	0.2111619	147
D. I. Khan	0.21405	0.15931	0.26879	0.26879	45.2602	34.9547	55.5656	47.2937	44.6738	49.9135	0.8834748	918
Hangu	0.27308	0.17938	0.36678	0.36678	58.9668	40.4277	77.506	46.3106	44.748	47.8731	0.2337717	316
Haripur	0.05522	0.02476	0.08568	0.08568	12.0078	5.89324	18.1223	45.9849	40.6338	51.336	0.5308839	146
Karak	0.11815	0.08142	0.15487	0.15487	26.9227	18.9342	34.9111	43.8838	42.4623	45.3053	0.3011164	186
Khyber	0.28446	0.21991	0.34901	0.34901	60.8192	51.0606	70.5778	46.7715	43.3397	50.2033	0.4519668	631
Kohat	0.17763	0.12694	0.22831	0.22831	38.3885	27.9933	48.7836	46.2712	44.5362	48.0063	0.6219484	548
Kohistan	0.53187	0.43962	0.62413	0.62413	87.8897	80.2876	95.4917	60.5161	54.105	66.9272	0.4864666	981

District	MPI		Incidence (H, %)		Intensity (A, %)		Population Share (%)	Number of Poor (Thousands)				
	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)						
Kurram	0.29753	0.18509	0.40996	0.40996	55.3548	38.0333	72.6763	53.7488	48.3047	59.1929	0.2680469	341
Lakki Marwat	0.2358	0.15574	0.31585	0.31585	47.0087	31.9095	62.108	50.1607	48.6843	51.6372	0.4772032	515
Lower Dir	0.20172	0.15384	0.2496	0.2496	41.8006	32.9423	50.6588	48.2577	46.4028	50.1126	0.6730927	646
Malakand	0.0832	0.05421	0.11219	0.11219	20.0628	12.6954	27.4302	41.469	38.2337	44.7043	0.317616	146
Mansehra	0.13553	0.10101	0.17006	0.17006	28.9862	22.2355	35.7369	46.7584	44.4587	49.058	0.7453578	496
Mardan	0.1041	0.08235	0.12585	0.12585	24.1411	19.5378	28.7444	43.1226	41.8484	44.3967	1.196506	663
Mohmand	0.46241	0.37522	0.54961	0.54961	83.3151	73.1721	93.458	55.5019	50.646	60.3578	0.2409567	461
North Waziristan	0.32343	0.28706	0.35981	0.35981	66.5025	59.6413	73.3638	48.6346	47.4978	49.7715	0.2769468	423
Nowshera	0.10727	0.08239	0.13215	0.13215	24.752	19.3603	30.1438	43.3371	42.0213	44.653	0.7127803	405
Orakzai	0.26215	0.20576	0.31855	0.31855	56.9454	45.6941	68.1967	46.0356	44.2064	47.8648	0.1431881	187
Peshawar	0.11054	0.08802	0.13307	0.13307	25.3255	20.3889	30.2621	43.6494	42.4265	44.8724	2.392721	1,391
Shangla	0.34317	0.28242	0.40391	0.40391	68.629	57.9189	79.339	50.0033	48.201	51.8056	0.3291443	518
South Waziristan	0.36127	0.27522	0.44732	0.44732	70.8477	57.5669	84.1286	50.9928	47.2188	54.7669	0.3229248	525
Swabi	0.11727	0.08956	0.14498	0.14498	25.9464	20.3418	31.5509	45.1974	42.9375	47.4574	0.8293992	494
Swat	0.17221	0.11829	0.22613	0.22613	35.937	25.9392	45.9348	47.9195	45.2771	50.5618	1.15371	951
Tank	0.22737	0.11331	0.34143	0.34143	46.0314	26.0708	65.9919	49.3944	44.8175	53.9712	0.2017165	213
Tor Garh	0.34094	0.26747	0.41441	0.41441	69.447	56.9761	81.9178	49.0936	45.0758	53.1114	0.0804237	128
Upper Dir	0.28577	0.22944	0.3421	0.3421	56.9242	47.3421	66.5063	50.2027	47.6476	52.7578	0.4040478	528

District	MPI		Incidence (H, %)		Intensity(A, %)		Population Share (%)	Number of Poor (Thousands)		
	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)				
<b>PUNJAB</b>										
Attock	0.01874	0.01046	4.53535	2.61589	6.45482	41.315	39.7271	42.9029	0.7374412	77
Bahawalnagar	0.1589	0.13415	34.3017	29.2595	39.3438	46.3229	45.2703	47.3755	1.557532	1,226
Bahawalpur	0.14343	0.11823	31.4351	26.2893	36.5809	45.6275	44.5186	46.7363	1.947439	1,405
Bhakhar	0.13492	0.11045	31.2297	25.7707	36.6887	43.2014	42.108	44.2949	0.7142729	512
Chakwal	0.01542	0.00921	3.61052	2.25806	4.96299	42.7127	39.3305	46.095	0.6276937	52
Chiniot	0.11866	0.09356	27.2099	21.6146	32.8052	43.6089	42.6448	44.573	0.7038071	439
D. G. Khan	0.29735	0.24514	57.9691	49.4609	66.4773	51.295	48.8743	53.7157	1.459846	1,942
Faisalabad	0.05948	0.04809	13.4914	11.0406	15.9423	44.0892	42.9606	45.2178	3.804859	1,178
Gujranwala	0.02836	0.02172	6.63151	5.1654	8.09761	42.7705	40.9579	44.5832	2.206535	336
Gujrat	0.01664	0.00963	4.13023	2.44421	5.81625	40.2765	38.0902	42.4627	1.091667	103
Hafizabad	0.04361	0.02979	10.1829	7.027	13.3387	42.8275	41.3321	44.3228	0.4411039	103
Islamabad	0.01098	0.00393	2.55241	0.96113	4.14369	43.0282	39.6828	46.3736	0.8688865	51
Jhelum	0.02041	0.01203	5.01688	3.04	6.99376	40.6793	38.8188	42.5398	0.5327089	61
Jhang	0.10031	0.08139	22.7194	18.6204	26.8184	44.1535	43.2095	45.0974	1.219971	636
Kasur	0.08202	0.06774	18.5524	15.5133	21.5916	44.2085	42.8514	45.5655	1.43786	612
Khanewal	0.11893	0.09394	26.1079	21.193	31.0229	45.5548	43.9501	47.1595	1.481362	888

District	MPI		Incidence (H, %)		Intensity (A, %)		Population Share (%)	Number of Poor (Thousands)				
	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)						
Khushab	0.07249	0.05416	0.09082	0.09082	16.8554	12.7171	20.9936	43.0081	41.5522	44.464	0.5690787	220
Lahore	0.02527	0.01927	0.03127	0.03127	6.08273	4.75412	7.41133	41.5419	39.8395	43.2442	5.53676	773
Layyah	0.08513	0.0506	0.11966	0.11966	20.2406	12.4381	28.0432	42.0591	40.2553	43.8629	0.9841776	457
Lodhran	0.15053	0.11884	0.18223	0.18223	34.655	27.8481	41.4618	43.4376	42.1544	44.7208	0.7382408	587
Mandi Bahauddin	0.03766	0.02418	0.05115	0.05115	8.81309	5.74281	11.8834	42.7362	40.9017	44.5706	0.6903239	140
Mianwali	0.10664	0.05038	0.1629	0.1629	23.7493	13.0346	34.464	44.9034	40.6091	49.1976	0.6784059	370
Multan	0.10472	0.08419	0.12525	0.12525	23.6424	19.2565	28.0283	44.294	43.2424	45.3455	1.962461	1,065
Muzaffar Garh	0.21578	0.19108	0.24048	0.24048	47.8831	42.7754	52.9908	45.0637	44.1158	46.0116	2.210598	2,429
Nankana Sahib	0.05415	0.03633	0.07197	0.07197	12.7818	8.96044	16.6032	42.3654	39.8443	44.8865	0.5727044	168
Narowal	0.03217	0.02324	0.0411	0.0411	7.77421	5.70603	9.8424	41.3827	39.6374	43.128	0.8887637	159
Okara	0.05891	0.04144	0.07637	0.07637	13.8943	9.86686	17.9217	42.3959	40.7745	44.0172	1.413217	451
Pakpattan	0.10581	0.08749	0.12413	0.12413	24.5475	20.3565	28.7385	43.104	42.1571	44.0509	0.8493681	478
Rahim Yar Khan	0.20041	0.17194	0.22888	0.22888	42.2488	36.7491	47.7485	47.4357	46.3029	48.5685	2.526359	2,449
Rajanpur	0.3212	0.26072	0.38167	0.38167	62.683	52.8737	72.4923	51.2417	48.4914	53.9919	1.025873	1,476
Rawalpindi	0.01798	0.01271	0.02324	0.02324	4.22301	3.05481	5.39122	42.5671	40.9591	44.1751	2.577166	250
Sahiwal	0.08236	0.06091	0.10381	0.10381	18.6653	14.0296	23.301	44.1235	42.888	45.359	1.157372	496
Sargodha	0.05872	0.04553	0.0719	0.0719	13.8299	10.8394	16.8204	42.4557	41.509	43.4024	1.773142	563

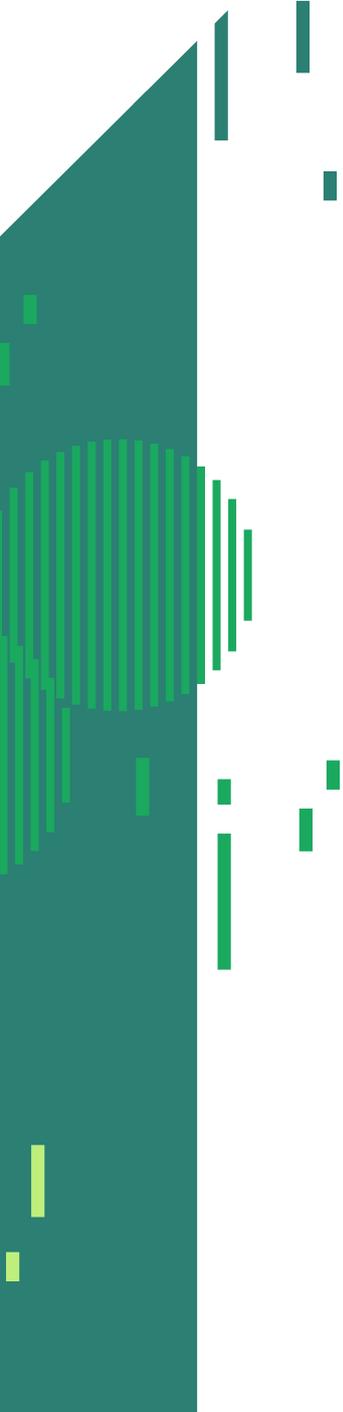
District	MPI		Incidence (H, %)		Intensity(A, %)		Population Share (%)	Number of Poor (Thousands)				
	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)						
Sheikhupura	0.05361	0.04151	0.06572	0.06572	12.6104	10.0345	15.1864	42.5155	41.0226	44.0083	1.648355	477
Sialkot	0.019	0.0138	0.02421	0.02421	4.76541	3.46996	6.06086	39.8789	38.4693	41.2885	1.982146	217
T.T. Singh	0.05438	0.03885	0.06991	0.06991	12.7817	9.35831	16.2052	42.5446	41.0097	44.0796	0.9268002	272
Vehari	0.13382	0.0985	0.16915	0.16915	30.7387	23.0329	38.4444	43.5357	42.5231	44.5483	1.497355	1,056
<b>SINDH</b>												
Badin	0.40083	0.32582	0.47584	0.47584	74.2947	61.8612	86.7282	53.9517	51.9247	55.9787	0.9260895	1,579
Dadu	0.20664	0.14919	0.26409	0.26409	45.9628	34.5544	57.3713	44.9585	42.8298	47.0871	0.808983	853
Ghotki	0.30728	0.26356	0.351	0.351	62.4949	54.3279	70.6618	49.1683	47.6952	50.6415	0.8099326	1,162
Hyderabad	0.09246	0.05849	0.12644	0.12644	20.4835	13.4417	27.5254	45.1406	42.9888	47.2925	1.110895	522
Jacobabad	0.27364	0.21897	0.32831	0.32831	57.9338	47.2217	68.6459	47.2329	45.9249	48.541	0.3448845	459
Jamshoro	0.24762	0.1423	0.35294	0.35294	49.5473	30.104	68.9907	49.976	47.3431	52.609	0.2600324	296
Karachi Central	0.02192	0.01465	0.02919	0.02919	5.61985	3.82523	7.41446	39.0102	37.1959	40.8246	1.632176	210
Karachi East	0.03267	0.01941	0.04593	0.04593	8.32585	5.02409	11.6276	39.2422	37.8348	40.6497	1.482396	283
Karachi Malir	0.08047	0.04196	0.11898	0.11898	19.5624	11.0773	28.0475	41.1337	37.8865	44.381	1.073338	482
Karachi South	0.01807	0.01123	0.02492	0.02492	4.78426	3.1019	6.46661	37.7763	34.0527	41.4999	0.9472412	104
Karachi West	0.06114	0.03933	0.08295	0.08295	14.6018	9.79688	19.4066	41.8708	39.5165	44.2252	2.072357	694
Kashmore	0.32065	0.23999	0.4013	0.4013	65.4814	51.3275	79.6354	48.9674	46.4223	51.5125	0.5217456	784
Khairpur	0.29775	0.25834	0.33715	0.33715	59.4229	52.506	66.3398	50.1064	48.7223	51.4904	1.320616	1,801

District	MPI		Incidence (H, %)		Intensity (A, %)		Population Share (%)	Number of Poor (Thousands)				
	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)	Value	Confidence Interval (95%)						
Korangi	0.01929	0.00874	0.02984	0.02984	5.22684	2.39281	8.06086	36.904	35.4609	38.3471	1.338993	161
Larkana	0.18283	0.14114	0.22452	0.22452	41.7657	33.5993	49.9322	43.7753	41.3611	46.1895	0.5867859	562
Matiali	0.2426	0.16459	0.32062	0.32062	50.6415	36.1532	65.1298	47.9064	45.0439	50.7689	0.3282496	381
Mir Pur Khas	0.37412	0.30507	0.44317	0.44317	65.2338	54.2785	76.1891	57.3502	55.2429	59.4576	0.6186528	926
Nowshero Feroze	0.1851	0.12794	0.24226	0.24226	40.0015	28.7189	51.2841	46.2733	44.1447	48.4019	0.6542789	601
Sanghar	0.28807	0.23571	0.34043	0.34043	57.5684	48.2539	66.8829	50.0393	48.1399	51.9387	1.084563	1,433
Shahdadkot	0.22395	0.17128	0.27663	0.27663	49.1808	38.5297	59.8319	45.5364	43.9897	47.0832	0.6913306	780
Shaheed Benazir Abad	0.28156	0.24033	0.32279	0.32279	58.0686	50.1856	65.9516	48.4869	47.0474	49.9265	0.6856908	914
Shikarpur	0.34493	0.27736	0.41251	0.41251	65.548	54.1452	76.9508	52.6231	49.7958	55.4505	0.6683266	1,005
Sujawal	0.43464	0.36237	0.50691	0.50691	78.2913	68.315	88.2677	55.5159	52.2387	58.7931	0.3823738	687
Sukkur	0.22072	0.16071	0.28073	0.28073	44.9367	34.1624	55.711	49.1175	46.2281	52.007	0.7034894	725
Tando Allah Yar	0.28416	0.21434	0.35398	0.35398	57.1672	43.9652	70.3692	49.7066	47.4825	51.9308	0.3348864	439
Tando Muhammad Khan	0.37346	0.31032	0.4366	0.4366	72.528	61.3282	83.7278	51.492	49.6231	53.3608	0.3185621	530
Tharparikar	0.50828	0.46295	0.5536	0.5536	90.3874	84.2306	96.5443	56.233	54.3299	58.1361	0.8703725	1,805
Thatta	0.36191	0.30206	0.42176	0.42176	71.9075	62.1067	81.7082	50.3304	48.0703	52.5905	0.3865087	638
Umer Kot	0.39974	0.32685	0.47263	0.47263	75.0266	63.2606	86.7927	53.2796	50.5935	55.9656	0.5337895	919

District	MPI		Incidence (H, %)		Intensity (A, %)		Population Share (%)	Number of Poor (Thousands)			
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<b>BALUCHISTAN</b>											
Awaran	0.51104	0.44481	0.57726	0.44481	90.0973	80.9502	99.2445	54.7427	58.6982	0.0539057	111
Barkhan	0.32051	0.26513	0.37589	0.26513	65.1634	54.8969	75.43	47.7525	50.6188	0.1286691	192
Dera Bugti	0.35772	0.25994	0.45551	0.25994	78.6522	57.0021	100.302	42.7692	48.194	0.1441881	260
Duki	0.30621	0.20954	0.40288	0.20954	63.6456	50.3776	76.9135	42.1163	54.1074	0.0856962	125
Gwadar	0.14776	0.03167	0.26384	0.03167	31.7852	7.14956	56.4208	43.2403	49.732	0.1150503	84
Harnai	0.38743	0.28222	0.49265	0.28222	77.0395	58.9521	95.1269	46.9243	53.6564	0.04957	88
Jaffarabad	0.35494	0.2534	0.45649	0.2534	71.1797	52.9445	89.415	47.5509	52.1803	0.2649828	433
Kachhi/ Bolan	0.41225	0.31036	0.51415	0.31036	77.0132	60.2437	93.7826	49.3797	57.6811	0.1121612	198
Kalat	0.30603	0.24249	0.36957	0.24249	68.2417	56.8532	79.6302	41.5512	48.1394	0.0786749	123
Kech/Turbat	0.21756	0.13682	0.29829	0.13682	47.8098	31.5389	64.0806	43.4041	47.6058	0.4657572	511
Kharan	0.30895	0.25292	0.36497	0.25292	62.8125	53.5995	72.0254	46.7231	51.6477	0.0974031	140
Khuzdar	0.57196	0.54469	0.59924	0.54469	94.9734	93.0556	96.8912	58.2125	62.2344	0.2642092	576
Kohlu	0.09259	0.00757	0.17761	0.00757	21.9025	1.32329	42.4817	39.4022	45.1443	0.0383459	19
Lasbela	0.22687	0.11409	0.33964	0.11409	46.6246	27.1107	66.1385	42.438	54.8782	0.3106118	332
Loralai	0.23513	0.16341	0.30686	0.16341	48.9455	34.9327	62.9582	46.5826	49.4966	0.1566796	176
Mastung	0.22405	0.14501	0.30308	0.14501	50.7215	33.2917	68.1514	42.3584	45.9853	0.1505569	175

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<b>BALUCHISTAN</b>											
Nasirabad/ Tamboo	0.38049	0.26912	0.49185	74.7663	56.9897	92.5429	50.89	47.7975	53.9825	0.2483892	426
Nushki	0.22705	0.14958	0.30452	48.6959	33.6389	63.7529	46.6256	44.1549	49.0963	0.0860506	96
Pishin	0.17653	0.13338	0.21967	36.8686	28.8648	44.8724	47.8801	45.8484	49.9118	0.363834	308
Qilla Abdullah	0.47263	0.42495	0.52032	88.409	83.4196	93.3984	53.4598	50.0187	56.9009	0.5044332	1,023
Qilla Saifullah	0.44775	0.38362	0.51189	80.7612	71.7266	89.7958	55.4418	52.2586	58.6251	0.1346116	249
Quetta	0.20132	0.14672	0.25592	42.1061	31.1415	53.0706	47.8123	45.9835	49.6411	1.230539	1,189
Shaheed Sikandar Abad	0.43671	0.39533	0.47809	92.2168	87.5043	96.9293	47.3568	44.3596	50.3541	0.0846152	179
Sherani	0.52224	0.43752	0.60696	95.0693	84.8166	105.322	54.9324	51.8157	58.049	0.0744649	162
Sibbi	0.27335	0.12442	0.42228	53.347	25.3963	81.2977	51.2406	48.2584	54.2228	0.1721816	211
Sohbatpur	0.42167	0.32794	0.5154	82.4231	67.2215	97.6246	51.1587	48.4295	53.8879	0.0988591	187
Washuk	0.30706	0.19096	0.42316	57.1265	37.1012	77.1517	53.7505	50.5472	56.9538	0.0824961	108
Ziarat	0.4132	0.34765	0.47874	83.5254	74.3881	92.6626	49.4694	44.7861	54.1528	0.081977	157





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