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Geography of Poverty in Pakistan – 2008-09 to 2012-13:
Distribution, Trends and Explanations

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Acronyms

BHU	Basic Health Unit
CPI	Consumer Price Index
DG Khan	Dera Ghazi Khan
DI Khan	Dera Ismail Khan
FATA	Federally Administered Tribal Areas
HIES	Household Income and Expenditure Survey
IRM	Institutional Responsibility Matrix
KP	Khyber Pakhtunkhwah
MDGs	Millennium Development Goals
MICS	Multiple Indicators Cluster Survey
MPI	Multidimensional Poverty Index
OECD	Organization for Economic Cooperation and Development
PDHS	Pakistan Demography and Health Survey
PPAF	Pakistan Poverty Alleviation Fund
PRA	Participatory Rural Appraisals
PSLM	Pakistan Social and Living Standards Measurement
SDGs	Sustainable Development Goals
SDPI	Sustainable Development Policy Institute
UNDP	United Nations Development Programme

Foreward

Pakistan Poverty Alleviation Fund has been promoting access to opportunities and incomes for the poorest and most marginalized communities across the country. PPAF's core values of democratic governance, transparency and accountability, social inclusion and sustainability form the heart of our work. We also critically depend upon robust evidence and reliable knowledge that can enhance our policies and priorities within the vast field of development and poverty alleviation. This realization has led PPAF to increasingly collaborate with actors engaged in producing knowledge that generates insights into the dynamics of poverty and inequality in Pakistan.

PPAF collaborated with the Sustainable Development Policy Institute in 2015 to undertake this study to look into multidimensional poverty in Pakistan at the national, provincial and district levels from 2008-09 to 2012-13. It reports the stark rural-urban, inter-provincial and intra-provincial (district level) inequalities in the levels of poverty. By using four measures of poverty, headcount ratio, extreme poverty, intensity of poverty, and the index of multidimensional poverty, it ranks districts on the MPI, and tracks the change in poverty in these districts over the five years. As districts vary in population density, it also identifies the districts with the largest number of the poor in Pakistan. This report goes beyond ranking the districts on poverty measures, and classifies the districts into five distinct zones of poverty: Extreme Poverty Zone – 1, Extreme Poverty Zone – 2, High Poverty Zone – 1, High Poverty Zone – 2, and Low Poverty Zone. Such a zoning provides a starting point to develop a typology of poverty as a lens to conceptualise regional differences and the clustering of poverty across the country by taking the geographic, economic, social, cultural, political, natural and environmental factors into account.

This report also offers some of the potential explanations underlying the differential distribution of various measures of poverty across districts. These include differences in: population density, governance (access to and quality of public services), industrial agglomeration, natural resource endowment, patterns of migration, gender relations, and natural and manmade disasters. The report makes a strong case for the overall development and poverty reduction policies that need to be prioritised in the districts that have the highest incidence of poverty as well as those that host the largest number of poor.

Coming out of this understanding of poverty are the pathways to tacking poverty through prudent policy measures that would ensure horizontal as well as vertical equality in regions, take people where the opportunities are, and capitalizing on new opportunities. These policy guidelines will benefit the country's poor and the Government of Pakistan, as well as PPAF, in particular, as it strives to contextualize its poverty reduction programme in the country's overall economic and development plans while taking cognizance of regional diversity.

Executive Summary

This report presents the estimates and analysis of multidimensional poverty in Pakistan from 2008-09 to 2012-13 at national, provincial and district levels. By using Pakistan Social and Living Standards Measurement (PSLM) survey, and the Alkire and Foster measure of multidimensional poverty, it estimates poverty by using 27 indicators pertaining to four dimensions of wellbeing, i.e. education, health, living conditions, and assets ownership. The key findings of the report are as follows:

- Over the five years, poverty headcount ratio fell by 5.6 percentage points at national level; from 36.9 per cent in 2008-09 to 31.3 per cent in 2012-13.

- There are tremendous rural-urban disparities in the incidence of poverty. In 2012-13, rural headcount ratio was 42.3 per cent compared to urban headcount ratio of 9.1 per cent. In absolute terms, there has been higher reduction in rural than urban headcount ratio.

- There are also stark inter-provincial differences in the incidence of poverty that persist over time. The highest poverty is found in Balochistan followed by KP and Sindh, whereas the lowest poverty is found in Punjab. In 2012-13, 62.6 per cent population of Balochistan, 39.3 per cent of KP, 37.5 per cent of Sindh, and 24.3 per cent of Punjab was multidimensional poor.

- While only 5.07 per cent of Pakistan's population lives in Balochistan, 10.2 per cent of country's poor lived in Balochistan in 2012-13. In the same year, 17.8 per cent of Pakistan's poor lived in KP and 28.0 per cent in Sindh. With 57.42 per cent population of Pakistan living in Punjab, its contribution to total poverty was 44.5 per cent in 2012-13.

- Given an overall high rural-urban disparity in the headcount ratio, the rural and urban populations within each province experienced poverty differently. The highest rural-urban disparity is seen in Sindh which is increasing over time.

- Over the five years, the highest reduction in headcount ratio of 9.2 percentage points occurred in KP followed by 7.7 percentage points in Balochistan and 5.8 percentage points in Punjab. The lowest reduction in headcount ratio of 1.9 percentage points occurred in Sindh. Rural poverty in Sindh is particularly persistent over time.

- The district level analysis of headcount ratio demonstrates tremendous diversity in the incidence of multidimensional poverty within each province. Districts like Kohlu and Kohistan had almost entire population living below the poverty line in 2012-13.

- Headcount ratio in the bottom quintile of districts ranged from 96.4 to 72.6 per cent in 2012-13. Districts in this quintile include: Kohlu, Kohistan, Torgarh, Panjgur, Sherani, Dera Bugti, Barkhan, Washuk, Qilla Abdulla, Musa Khel, Chaghi, Awaran, Nasirabad, Qilla

Saifullah, Tharprker, Upper Dir, Bolan, Harnai, Jhal Magsi, Badin, Thatta, Umer Kot and Zhob.

- Districts in the 4th quintile had poverty headcount ratio ranging from 71.9 to 50.3 per cent in 2012-13. This quintile consists of the districts, namely Jaffarabad, Shangla, Khuzdar, Loralai, Kashmore, Rajanpur, Tank, Mir Pur Khas, Tando Mohammad Khan, Kharan, Lasbella, Jaccobabad, Pashin, DG Khan, Ketch/Turbat, D I Khan, Kalat, Nawabshah, Tando Allah Yar, Shahdadkot, Lower Dir, Shikarpur and Batagram.

- The geographic concentration of poverty is evident from the fact that out of 56 districts in the bottom two quintiles, 23 are from Balochistan, 11 from Sindh, eight from KP, and two from Punjab. Districts which are largely rural and have low population are the ones with the highest headcount ratio.

- Least poor districts of Pakistan are mainly clustered in the north of Punjab up to Federal Capital and the adjacent districts of KP, and also include the major urban centers in all provinces.

- In Balochistan, districts in north-east and south-west had the highest incidence of poverty. In KP, poverty is highly concentrated in several districts in north and south of the province. In Punjab, poverty is high in the districts in the south. In Sindh, southern districts have the highest headcount ratio followed by most of the districts of the province.

- While the 4th and the 5th quintiles of districts on the headcount ratio have very high incidence of poverty, they are less populated and hence their contribution to overall poverty is low. The quintile of districts that make the highest contribution to the headcount ratio is also identified. These 23 districts, with nearly 30 per cent population of the country, had 44.7 per cent of Pakistan's total poor population in Pakistan. These districts include: Rahim Yar Khan, Bahawalpur, Muzaffargarh, Vehari, DG Khan, Multan, Badin, Khairpur, Thatta, Rajanpur, Tharparker, Khanewal, DI Khan, Mir Pur Khas, Okara, Sanghar, Ghotki, Swat, Kashmore, Umer Kot and Upper Dir.

- Most of the districts with the highest contribution to poverty are in South Punjab and Sindh. 11 districts of three Divisions (Bahawalpur, DG Khan and Multan) had one-quarter of Pakistan's poor in 2012-13.

- The intensity of poverty, the extent of deprivations faced by those living below the poverty line, is also differentially distributed between rural and urban populations, provinces, and districts within each province. Overall, the intensity of poverty is higher amongst population groups with higher headcount ratio.

- The estimates of the cumulative measure of the breadth and depth of poverty, the adjusted headcount ratio/index of multidimensional poverty are also presented in this report at each level.

- The incidence of extreme poverty (see chapter 6) has also been high in Pakistan. At national level, 18.6 per cent population of Pakistan was extreme poor in 2012-13. Rural – urban disparity is also very high. 26.4 per cent rural population was extreme poor compared to three per cent urban population.

- Over the five years, there has been a reduction of 4.2 percentage points in extreme poverty in Pakistan; 5.1 per cent in rural and 2.1 per cent in urban extreme poverty.

- In 2012-13, 46.2 per cent population of Balochistan was extreme poor compared to 26.6 per cent in KP, 24.6 per cent in Sindh and 15.4 per cent in Punjab.

- By considering their respective population, in 2012-13, Balochistan and Sindh made higher contribution to extreme poverty compared to their contribution to poverty headcount ratio. Out of total extreme poor in Pakistan in 2012-13, 12.59 per cent lived in Balochistan, 18.06 percent in KP, 39.5 per cent in Punjab and 30.23 per cent in Sindh.

- There patterns of rural – urban disparities in the incidence of extreme poverty within each province are similar to those in the incidence of poverty headcount ratio.

- Over the five years, the highest reduction in extreme poverty was experienced by KP and Balochistan where extreme poverty dropped by 6.6 and 6.5 percentage points, respectively. Sindh made the lowest progress as extreme poverty dropped by only 1.6 percentage points. Punjab reduced extreme poverty by 4.4 percentage points.

- District level analysis of extreme poverty reproduces the patterns revealed by poverty headcount ratio. High levels of extreme poverty are clustered in Balochistan, north KP and south of Sindh followed by south Punjab and south KP. Low levels of extreme poverty are found mainly in north/central Punjab and Federal and Provincial Capitals.

- Districts with low population and largely rural have very high incidence of extreme poverty, whereas those with high population and urban centers have low incidence of extreme poverty. District level analysis presented in this chapter also shows that districts have experienced different levels and directions of change in extreme poverty over time.

- Quintiles of high extreme poverty and the largest contributing districts to extreme poverty are somewhat similar to the quintiles identified in the chapter on headcount ratio, and which are mentioned above.

- Based on poverty headcount ratios, districts are classified into five zones (quintiles). At the levels of these poverty zones, in 2012-13, Extreme Poverty Zone – 1 had 79.0 per cent population living below poverty, 56.8 per cent in Extreme Poverty Zone – 2; 45.4 per cent in High Poverty Zone – 1, 31.2 per cent in High Poverty Zone – 2, and only 10.5 per cent in the Low Poverty Zone.

This report also identifies some of the factors that potentially explain the tremendous diversity of poverty and extreme poverty across the country. The most important of these factors include:

- Overall low population, low population density, and higher share of rural than urban populations are strongly associated with high poverty at district level.

- Overall the state of governance, access to public services and the quality of public services are weak in the poorest districts. The access to public goods and services appears to be mediated by local power structures that reproduce poverty.

- Industrial agglomeration in Pakistan has resulted in the concentration of industry and the required infrastructure in a few districts where the incidence of poverty is low. The poorest districts lack industries and infrastructure to integrate them into the national economy.
- Natural resource endowment is also associated with higher levels of poverty given the exploitation of these resources does not necessarily protect the interest of local communities.

- The patterns of migration also seem to be associated with the variation in poverty at district level. However, further information about the origins and destinations of migrant workers is required to fully explore the role of domestic and overseas migration in eradicating poverty.

- There is also a strong need to investigate the role of gender relations in explaining differences in the incidence and persistence of poverty across districts and over time.

- The poorest districts of the country are simultaneously characterized with recurring natural disasters, such as cyclones, floods, earthquakes and droughts, and have poor infrastructural capacity to deal with these disasters. Many of the districts in the poorest zones also suffer from endemic violence and active conflict.

The district level analysis presented in this report leads to several recommendations for the policies to eradicate poverty in Pakistan.

- There is a need to prioritize districts with the highest headcount ratios, as well as the ones that host the largest population of poor, not only in the poverty reduction programmes but also in the overall economic development plans. Targeting the districts with the highest headcount ratios can reduce severe horizontal inequalities, whereas, targeting the districts with the greatest contribution to the overall headcount ratio can be an efficient strategy to bring the largest proportion of poor population out of poverty.

- There is a tremendous need to invest in education and healthcare provision. These are particularly low in the poorest districts.

- Regional differences in the incidence of poverty within each province call for devolving public authority from provinces to the Local Governments, accompanied with an equitable allocation of resources from the Federal and Provincial Governments taking poverty levels of the districts into account.

- Improving governance and enhancing the outreach and efficiency of public services is a precondition for eradicating multidimensional poverty. The existing modes of public service delivery seem to be oriented to cater to the needs of high density urban populations. Districts with the highest poverty headcount ratio have sparse population living primarily in rural communities. There is a need to find innovative ways to reach out to these communities. Districts that have the largest population of poor due to their overall high population do not have density problem but service delivery needs to be scaled up and made more efficient and accessible to all particularly the poor.

- Urban poverty, although smaller in magnitude, shows the higher levels of deprivations that urban poor face. There is need to strengthen urban poverty reduction programmes.

- The existing social protection and poverty reduction programme need to be reexamined for their capacity to engage with diversity in poverty and the variable conditions, resources, opportunities and challenges surrounding the lives of the poor across the districts of Pakistan.

- The existing focus of the short term 'emergency relief' in the wake of recurring natural disasters needs to be replaced by a long term development of appropriate infrastructure that can enhance the resilience of the districts prone to natural disasters including floods, landslides, droughts and earthquakes.

- There is also a need to rethink the ownership of and control over natural resources. Local communities and the districts have the first right over their natural resources. They need an appropriate compensation of their resources channeled into economic and development activities elsewhere.

- Large-scale development projects such as China-Pakistan Economic Corridor linking Chinese markets with the Gwadar seaport in Balochistan offers a significant opportunity to improve the infrastructure and economic activities in many of the poorest districts. It can thus be a somewhat equalizing force in the wake of highly unequal landscape of poverty in Pakistan. At the same time, it also has a great potential to further entrench existing inequalities by concentrating these opportunities in already developed and least poor districts. Poverty mapping in this report warns against the concentration of opportunities for economic and social development within a handful of districts.

Chapter 1

Introduction

This report presents the analysis of multidimensional poverty in Pakistan across the first five years of democratic transition from 2008-09 to 2012-13 and its distribution at sub-provincial level. The analysis of multidimensional poverty goes beyond evaluating data on household income or consumption expenditures and describes a complex interplay of multiple dimensions such as education, health, living conditions, and asset ownership. This affords a deeper understanding of how well economic growth translates into human welfare, and how the gains of economic growth, whatever low they might be[1], are distributed across population groups and geographic regions.

This report is presented at a time when development discourse in the country leaves behind the Millennium Development Goals (MDGs) — along with many unfulfilled promises — to embrace the new paradigm offered by the Sustainable Development Goals (SDGs). With the new SDGs, come new ambitions, aspirations and commitments. This transition calls for reflection on the past and a more detailed and in-depth evaluation of poverty over time, both for accurately estimating the extent to which poverty was alleviated under the MDGs, and for assessing the critical challenges lying ahead of SDGs.

At the conjuncture of two global development paradigms, the politics of poverty measurement in Pakistan since the last decade generated an inconclusive debate on many core issues, down to the most basic question of what proportion of the population is living under poverty. The lack of agreeable statistics of poverty, during this time, led to a discourse on poverty that effectively bypassed many fundamental questions about the nature of poverty, its trajectories over time, its distribution across various geographies and social groups, and the factors that lead households and social groups into and out of poverty. Only recently the Government of Pakistan has released poverty statistics using a new poverty line and provided the estimates for the years from 2001-02 to 2013-14. Based on the consumption expenditures, the new poverty line appears to be inclusive than the previous one, which was disputed. The government has claimed that poverty in Pakistan fell from 63.3 per cent in 2001-02 to 29.5 per cent in 2013-14.[2]

Monetary measures of poverty, including the new poverty line, use the Household Income and Expenditure Surveys (HIES), which in Pakistan are representative only at the national and provincial levels. These measures are, therefore, unable to explain the distribution of poverty beyond provincial level thus tend to obscure the differences between and within provinces. The tremendous social and cultural diversity of Pakistani population and the extremely uneven landscape of wealth and poverty among and within provinces, necessitate generating a robust

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[1] Economic growth fluctuated at low levels, from 5 per cent in 2007-08 to 3.7 per cent in 2010-11 and 3.6 in 2012-13 (Economic Survey 2012-13), lower than other South Asian economies during the same period.

[2] As the detailed report of these poverty estimates is not yet available, we are unable to comment on the underlying methodology.

evidence on poverty that can generate a deeper understanding of poverty dynamics and informed public policies so as to ensure a pro-poor distribution of public resources at all levels. A sub-provincial analysis of poverty is particularly important in a country with one province, Punjab, contains more than half of total population of the country, while another, Balochistan, contains more than half of the country's total geographic spread. We argue that a meaningful understanding of poverty and hence an effective poverty reduction strategy requires identifying geographic sites where poverty is concentrated, and persists over time.

This report, in several ways, complements the official estimates of poverty by extending the analysis of poverty from household consumption expenditures to include multiple dimensions of human welfare, and by devolving the level of analysis from provincial to district. By using the cross sectional Pakistan Social and Living Standards Measurement (PSLM) Survey data, representative at the district level, this report presents the estimates of poverty at the national, provincial, and district levels that take into account the spatial dimension of poverty. As a follow-up of an earlier report by Sustainable Development Policy Institute (SDPI), Clustered Deprivation: District Profile of Poverty in Pakistan (Naveed and Ali 2012), this report discusses the trends in poverty over five years from 2008-09 to 2012-13.

In a way, this report contributes to policy debates by identifying the winners and losers of public policies and development paradigms in the past by locating highs and lows of the poverty landscape of Pakistan, offering policy makers an opportunity to simultaneously address poverty and regional inequality. This report identifies the districts with the highest incidence of poverty, and the ones that host the largest poor populations given their population size. It also analyzes the trends in poverty and identifies the districts that have experienced the highest decline in poverty during the five-year period. This analysis helps us find where poverty is concentrated and where it persists over time.

Such a spatial and temporal analysis provides a platform for more systematic inquiry into the factors and conditions associated with inclusive economic growth and poverty reduction, and those associated with the persistence of high levels of deprivations. District level analysis of poverty is of particular relevance when the poverty reduction strategy in Pakistan has increasingly moved towards individual/household focused interventions with a complete disregard for regional conditions, resources, opportunities and constrains surrounding the lives of the poor. By presenting a highly diverse picture of poverty, this report raises questions over the universalism of poverty reduction pogrammes. It is argued that perhaps the nature and composition of poverty and the factors that lead into and out of it are vastly different across the districts of Pakistan, hence the programmes to reduce poverty, should also be diversified.

This report also outlines some of the key demographic, economic, social and natural factors that can potentially explain the tremendous diversity in the breadth and depth of poverty across the districts. In order to begin the explanation of diversity in poverty, districts are classified into five distinct zones of poverty based the headcount ratios. It argues that there are different ways in which people have been poor, remain poor and will continue to be poor unless public policy and intelligent resources are focused upon poverty reproduction taking into account its diversity. This in turn requires deeper understanding of the complexity of

poverty, by exploring the diverse characteristics of the poor across regions, and the factors that lead them into and out of poverty, perhaps by developing a 'typology' of poverty. By reflecting upon the statistical data, it makes the case for inter-disciplinary and mixed method studies for the nuanced understanding of how poverty is reproduced across the country, and over time. In the absence of a 'one size fits all' model, this report suggests that diversity requires diversified analysis leading to diversified responses.

This report is structured into eight chapters. The subsequent Chapter 2 makes the case for adopting a multidimensional framework for measuring poverty, and describes methodology and data. As the methodology adopted offers four measures of poverty, including headcount ratio, intensity of poverty, adjusted headcount ratio, and extreme poverty, the subsequent four chapters (Chapter 3 to Chapter 6) present the estimates on these measures at national, provincial, rural-urban, and district levels for each of the three survey rounds. Chapter 7 decomposes the adjusted headcount ratio to identify the relative share of various dimensions and indicators to poverty at the national, rural-urban, and provincial levels. It also presents the robustness checks for some of the decisions made in estimating poverty. Chapter 8, begins by classifying the districts into five distinct zones of poverty based on their headcount ratio, and aggregates poverty statistics at the zone level. This provides a starting point to explore the factors underlying the diversity in the incidence, nature and dynamics of poverty across the country. By drawing upon the perspectives in social policy analysis, it offers some reflections on the statistics presented in the previous cha3pters making a strong case for interdisciplinary, mixed methods studies to explore the subtler processes in which poverty social class and gender relations are reproduced over time and across generations. It concludes by outlining key policy principles to address poverty in Pakistan while taking into account its diversity and complexity.

Chapter 2

Conceptual Approach, Methodology and Data

The measures of poverty assess the welfare levels of population in an inverse order, particularly of those who fall below a minimum benchmark required to live a decent life. There is an unending debate on what constitutes human welfare and how best to measure it as the search for comprehensive conceptualization and identification of rigorous measure continues. Since this debate is nurtured primarily within the discipline of economics, the measures of human welfare, or lack thereof, have conventionally been reduced to the approximated monetary values in relation to household incomes in the case of industrialized society. Nonetheless, alongside this widely reductionist approach to measure poverty, there has been an uncontested agreement amongst the leading economists that poverty is inherently a complex and multifaceted phenomenon and the lack of goods and services, measured through their monetary values' is merely one of such facets (Deaton and Zaidi 2002; Ravillian 2011). Such realization has always called for an alternative approach to measure poverty while taking into account the multiplicity of deprivations faced by the poor.

Amartiya Sen's capability approach, in the given context, provides foundations for an alternative paradigm for defining and measuring human welfare, poverty and inequality. Extending the notion of human wellbeing beyond its monetary approximation, Sen (1992; 1999) argued that wellbeing should be assessed in terms of fundamental freedoms that people have had reason to value, such as freedom from hunger and illiteracy. Freedom in Sen's perspective is both an end goal of development as well as the key mean to achieve it. Poverty, from this perspective is not merely a deprivation of monetary resources but a lack of several fundamental freedoms, such as freedom from hunger, pre-mature death, illiteracy, poor living conditions, socio-economic marginalization, and destitution, to name but a few. Income or consumption, in this context, is valuable only to the extent they serve as a mean to achieve these valued freedoms. Such a broad conceptualization of human wellbeing requires a broad information base to measure poverty. However, conceptually convincing, taking multidimensionality into account in measuring poverty posed some serious methodological challenges resulting in the continued reliance on monetary based measures of poverty worldwide. Consequently, these monetary measures restrict a comprehensive understanding of poverty on several grounds (Alkire and Santose 2010):

- Such an approach assumes that markets exist for all goods and services without considering that people consume public goods and several non-market goods and services;
- As resources are means for valuable goals, monetary approach assumes various people have similar abilities to convert these resources into these goals ignoring diversity in 'conversion factors';

- Monetary data are often collected at the household levels and the measures based on per-capita or even adult-equivalent per-capita provides no information about the intra household resource distribution.
- Availability of resources only signifies the economic ability to afford certain goods and services without guaranteeing the actual utilization of valuable goods and services.
- Most of the times, monetary data is flawed due to large proportion of missing values and misrepresentations.

Moreover, monetary measures of poverty do not inform about interconnections among different deprivations such as health, nutrition, living conditions, economic status. An effective poverty reduction strategy requires an identification of the population that simultaneously suffers from multiple deprivations particularly when these deprivations can be mutually reinforcing simply making resources available for people to break out of poverty.

The contested nature of poverty reduction experience of Pakistan over the last two decades highlights serious limitations of the consumption expenditure based estimation of poverty which is outlined in Khan et al. (2015). Pakistan's official poverty line was set up using 1998 Household Income and Expenditure Survey (HIES) data. This poverty line had been adjusted with inflation using the Consumer Price Index (CPI). According to Khan et al. report, CPI is based on the Family Budget Survey 2007, which is an old information base and insufficient in the sense that it covers urban markets only. It also underestimates household expenditures on food consumption. Thus CPI remains a flawed measure to adjust the 1998 poverty line and is susceptible to underestimate rural and overall poverty. As in the case of India and Tanzania, slight changes in the list of items on household consumption expenditure surveys can lead to substantial fluctuations in the estimates of poverty. There have been changes in the consumption modules of household surveys over time in Pakistan casting doubts over the reliability and acceptance of poverty estimates by the stakeholders. Khan et al. also report that the trends in poverty using official poverty line are not supported by several other indicators of wellbeing during 1990s-2010 such as the overall economic growth and the incidence of malnutrition and hunger.

Perhaps the strongest case for adopting a multidimensional poverty line is made by the poor themselves documented by a series of qualitative studies. "Between Hope and Despair: Pakistan Participatory Poverty Assessment" asked poor groups across the country about their understanding of poverty, its characteristics and causes, and the resources, relationships and institutions that affected their lives (GoP 2002). The National Report of this study identifies six key aspects of poverty:

- the poor lack access to land, water and natural resources;
- they are highly vulnerable to and not protected from a wide range of economic shocks;
- they lack access to basic services such as health and education;
- they lack employment and wage labour;
- women living under poverty are the most worse-off; and,
- the poor lack access to political power and justice.

It is thus clear that poor themselves have far richer and nuanced understanding of their poverty than conceptualized by the economists and poverty experts and monetary measures are reductionist attempts to capture deprivations faced by the poor.

Lastly, there is a practical advantage in adopting multidimensional framework for estimating poverty in Pakistan, as in many other developing countries, especially if the objective of the study is to look into the distribution of poverty across the country. Consumption and income data are expensive to collect as compared to other living standards measurement surveys. Over the years, the geographic scope of the Pakistan Social and Living Measurement (PSLM) Survey has been extended, making it representative at the district level. As identified by Naveed and Ali (2008-09), Pakistan is a highly unequal society with extremely skewed distribution of poverty across the country. Unless we analyze poverty at the most disaggregated, i.e. district level, we cannot identify the geographic sites where poverty is clustered and persists over time. Adopting a multidimensional framework to measure poverty enabled by the district level PSLM data helps identify the efficient ways to reduce poverty and regional inequalities.

There is thus a strong case to extend the analysis of poverty and deprivation beyond consumption expenditure based measure in Pakistan. There are many merits in adopting a framework, which conceptualizes human welfare and poverty somewhat holistically. Since 2010, UNDP has been using multidimensional poverty measurement for more than 100 countries for its annual Human Development Reports. Based on the analytical merits of this methodological approach, several countries, including Bhutan, Columbia, Mexico, and Philippines have already adopted this measure in setting up the official national poverty line.

In the subsequent section, we illustrate the methodology, which allows us analyzing multiple dimensions of wellbeing while estimating poverty.

Methodology

We adopt Alkire and Foster (2007) measure of poverty which allows for considering as many dimensions of wellbeing as relevant and allowed by data in estimating poverty. This methodological approach also enables us to reduce multiple deprivations into single number as in the case of conventional approach. Estimation of poverty, under any methodological approach, typically involves two steps:

Identification: who is poor in a given population; and,
Aggregation: how many people in a given population are poor.

After the selection of dimensions and indicators (which we explain later), Alkire and Foster methodology adopts a dual cut-off points approach for identification. In the first step, appropriate first cut-off points are determined for each of the indicator selected. Depending upon household's achievement and these cut-off points, each household is categorized as 'deprived' or 'non-deprived' on a particular indicator. Since different indicators contribute to welfare differently, the methodology allows for assigning various weights to each indicator. Household's (weighted) deprivations are then aggregated. This methodology is also called as 'counting approach' as it counts the deprivations faced by each household.

In the next step, the second cut-off point is determined which functions as poverty line. If the (weighted) aggregate deprivations of the household are more than this second cut-off point, it is considered multidimensional poor, if below this cut-off point, it is non-poor. After identification of the multidimensional poor, their proportion is estimated in the population which provides the poverty headcount ratio. For clarity, this methodology can be explained step by step with simple notations.

Let d denote the number of dimensions one is taking into consideration and x_{ij} is the achievement of individual i in dimension j. The first task of this methodological approach is to sum up the information of all j using an identification function represented as $\rho(\cdot)$. The identification function $\rho(\cdot)$ uses the achievement vector $x_i = (x_{i1}, x_{i2}, x_{i3} \ldots, x_{id})$ and a cut-off vector $z = (z_1, z_2, z_3 \ldots z_n)$. Thus achievements of all the agents can be summarized in the achievement matrix X which has n rows and d columns. The achievement entries for an individual are compared to the respective cut-offs to identify the deprivation on that indicator/dimension (for the sake of simplicity, we are using 'indicators' and 'dimensions' interchangeably until we clarify it further later in this chapter). In order to state it formally, we define a function g_{ij}^o which is the deprivation indicator variable of individual i and deprivation j. It takes a value of 1 when individual i is deprived in dimension/indicator j and is 0 otherwise. So, if $x_{ij} < z_j$ then $g_{ij}^o = 1$ otherwise it will be zero. We can use this function to introduce the deprivation matrix, $g^o(X)$. Deprivation matrix has dimensions $n \times d$ and all its elements are either '0' or '1' indicating the deprivation status (also known as deprivation count) of the individual on an indicator/dimension.

Each indicator/dimension j is allotted a weight $\omega_j > 0$ where $\sum_{j=1}^{d} \omega_j = 1$. The methodology is flexible to adopt any set of weights. In line with the conceptual framework, the magnitude of the weight is proportional to the importance of the indicator/dimension in determining wellbeing and this weighting scheme is used to aggregate the information of deprivation.

The deprivation statuses of individual i, g_{ij}^o is then used with the weighting scheme to construct a deprivation score. The deprivation score of individual i, represented as c_i is the weighted average of the deprivation statuses. The deprivation score can also be interpreted as the overall deprivation measure with the indicators/dimensions weighted according the weighting scheme.

After summarizing the information of deprivation through c_i, the poor are identified using an identification function $\rho(x_i; z)$. The function $\rho(x_i; z)$ takes a value of '1' if the deprivation score is above or equal to a threshold k (where $k \in \mathbb{R}_+$). It is important to keep in mind that k is second cut-off point. Each value of k will correspond to a particular deprivation vector given the weighting scheme, so using a threshold for c_i does not change the methodology. The two extreme cases are $k = 1$ and $k = 0$. The former is the case when the individuals are classified as deprived in all the dimensions, whereas in the latter case individuals that are deprived in any one dimension are considered to be deprived.

After the identification of the poor households, the information is aggregated into an index. According to Alkire et al. (2015), a poverty index is a function $P: X \times z \to \mathbb{R}$ that converts the

information contained in achievement matrix X and deprivation vector z into a real number. One of the most common methods of aggregating information is to assume $P(X; z) = \mu(g(X))$ where μ represents the mean operator[3]. This is called as headcount ratio (HC) and gives the percentage of people in the population who are identified as multidimensional poor. HC is also called as the incidence or breadth of poverty.

Apart from the headcount ratio, another measure, the intensity of poverty (I), is also estimated, which is the average deprivation score of those who are identified as multidimensional poor. If the number of poor people in the population is represented by n_p then we can write the formula of intensity of poverty as $I = \sum_{i=1}^{n_p} \frac{c_i}{n_p}$.

I is also known as depth of poverty and it differentiates between different poor based on the extent of deprivations they face.

Third measure in the family of Alkire and Foster measure is the adjusted headcount ratio (M_o) that is computed by multiplying intensity I and the headcount ratio HC. One specific form of the adjusted headcount ratio is the Multidimensional Poverty Index (MPI) which is annually computed for more than 100 countries by the Oxford Poverty and Human Development Initiative for the UNDP's Human Development Report. The adjusted headcount ratio or its specific example MPI captures both the incidence and intensity of poverty, or the depth and breadth of poverty, for any group of population. We use this measure as the Index of Multidimensional Poverty.

There are thus three key measures within this methodological framework: headcount ratio; intensity of poverty; and, adjusted headcount ratio, or, index of multidimensional poverty. All three measures depend upon a particular second cut-off point, k, which functions as 'poverty line'. Given the socio-economic context of Pakistan, we use a poverty line of the 40 per cent of weighted sum of deprivations, thus $k = 0.40$. So, $\rho(x_i; z) = 1$ if $c_i \geq 0.4$ otherwise its value is '0'. In simple words, a household facing a weighted sum of deprivation of 40 per cent or more is considered multidimensional poor household.

In addition to these three key measures, the methodology provides some other descriptive measures by adjusting the value of the second cut-off point, k. We estimate extreme poverty by using a higher value of k. As the headcount ratio is estimated at k=0.40, extreme poor are naturally the ones who experience higher deprivations than the multidimensional poor. Thus k=0.50 is used estimating extreme poverty which implies a household deprived on half or more of the weighted sum of deprivations is extreme poor. The extreme poor are the subset of the multidimensional poor. It is important to acknowledge that the Alkire and Foster methodology itself allows for more nuanced approach to identify the extreme poor/destitute within the multidimensional poor group by choosing different indicators, cut-off points and weights (see Alkire and Seth 2015).

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[3] Given we use the identification method in which we use the deprivation score, $\mu(g(X))$ can be mathematically written as:

$$\mu(g(X)) = \sum_{i=1}^{n} \frac{g_i^o}{n}$$

Where $g_i^o = \rho(x_i; z)$

All these measures can be decomposed for sub-groups of population. Additionally, the methodology also allows us to determine the contribution of various indicators in the adjusted headcount ratio. The contribution of each dimension to overall poverty can be found using the censored headcount ratio. The censored headcount of a dimension j is the percentage of population that is both multidimensional poor and deprived in that dimension (Alkire et al. 2015). Let g_{ij}^o be a variable that takes the value of '1' if person i is multidimensional poor and deprived in dimension j. In that case, the censored headcount of dimension j can be found using the formula,[4]

$$h_j = \frac{1}{n}\sum_{i=1}^{n} g_{ij}^o$$

M_o can be expressed as a weighted sum of the censored headcounts of each dimension (note that $\sum_{j=1}^{d} \omega_j h_j$. This allows us to compute the contribution of dimension j towards M_o as follows:

$$\phi_j^o = \frac{\omega_j h_j}{\sum_{j=1}^{d} \omega_j h_j}$$

The decomposition of M_o by dimensions is important from policy perspective as it identifies the most significant dimension contributing to poverty. Another feature of these measures is that they can be decomposed for various sub-groups of population such as rural and urban, different provinces and districts within each province. For example, if the total number of people n is divided into two subgroups, i.e. n_1 and n_2, then poverty headcount (and the other statistics) can be computed at the level of this sub-group by using the following formula:

$$h_j^{n_t} = \frac{1}{n_t}\sum_{i=1}^{n_t} g_{ij}^o$$

Where n_t stands for the total number of people in group t and $h_j^{n_t}$ is the censored headcount of dimension j for the t group. Other measures can similarly be computed at the sub-group level.

Adjusted headcount ratio M_o, can be compared over time for the particular population group. Time trends in poverty can help us in gauging the progress of poverty alleviation amongst the entire population or various sub-groups. It can help policy makers identify the regions with increasing, decreasing or stagnant levels of poverty.

Absolute change in a measure over time, such as M_o can be estimated using the formula:

$$(I) \qquad \Delta^a M_{o,t} = M_{o,t} - M_{o,t-1}$$
$$(II)$$

The relative change in M_o can be calculated using the formula:

$$(III) \qquad \Delta^r M_{o,t} = \frac{M_{o,t} - M_{o,t-1}}{M_{o,t-1}} \times 100$$

Where $\Delta^a M_{o,t}$ represents the absolute change in M_o from period $t-1$ to t and $\Delta^r M_{o,t}$ represents the relative change in M_o from period $t-1$ to t. The benefit of using relative

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[4] For simplicity, the threshold has not been mentioned in the formula. However, g_{ij}^o will itself depend on the choice of k

changes instead of absolute changes is that it reports the progress of a particular group related to its position in the base year. Negative changes in M_o would mean that poverty of the group under consideration has decreased over the period of time considered.

Dimensions and Indicators

The most important feature in the multidimensional poverty approach is the selection of appropriate dimensions and indicators. These choices are value judgment as on what is important for the wellbeing of individuals and households in a society. Ideally, such decisions should be made in a democratic way with a greater representation of those whose lives are affected by such choices. The UNDP Human Development Report 2010, which introduced the Multidimensional Poverty Index for 104 countries for the first time, selected its indicators based on the following criteria:

a.   insights from the participatory studies about what determines individuals' wellbeing;
b.   global consensus on certain set of capabilities such as the Millennium Development Goals and human rights;
c.   as justified by various theories of welfare and wellbeing;
d.   availability of data

The Global MPI adopts various indicators pertaining to three key dimensions, i.e. education, health, and living conditions. However, its choice of indicators is determined by the goal of global comparison. While our indicator selection is also informed by the Global MPI, it is also affected by the challenges and opportunities offered by Pakistan Social and Living Standards Measurement (PSLM) Survey. The Global MPI approach clubs the indicators of household assets and living conditions into single dimension, whereas we treat them as separate dimensions and include additional indicators as permitted by PSLM and relevant to Pakistani context. Additionally, our choice of indicators is also informed by the above mentioned Voices of the Poor study (GoP 2002) that reflects the value judgments of a large number of poor across the country. It, therefore, draws upon following four dimensions: (1) Education, (2) Health, (3) Household assets and (4) Living conditions. A total of 27 indicators pertaining to these broad dimensions are selected and analyzed.

Education is one of the fundamental aspects of human wellbeing given its intrinsic as well as instrumental value. Individual's participation in social, economic and political spheres is inherently linked to education. Higher levels of education are associated with higher chances of households' breaking out of chronic poverty in Pakistan (Arif and Bilqees 2006, Hari 2009). Two indicators of education are included in the analysis. First indicator focuses on household members' schooling levels and identifies the households that have no member schooled to primary level or above. This indicator, therefore, identifies households with acute educational deprivation. The second indicator focuses on the enrolment of children at school. It identifies the households that have at least one child of school going age (5-14) who is out of school. In a way, this indicator indirectly assesses household's ability to invest in the human capital of its young members.

Health is another crucial indicator of wellbeing. Like education, it is also important intrinsically as well as instrumentally as individuals' life chances are associated with their health status. In many low and middle income countries, households' economic status is closely linked to the health status of their members (see Alam and Mahal 2014) for a survey of literature). As most of the health expenditures in Pakistan are out-of-pocket expenditures, health shocks can have devastating impact on economic status of households. Literature from other developing countries suggests they spend on their health using their incomes, savings, by borrowing, selling assets and livestock (ibid.). Poor health also affects household members' labour supply. Maternal and neonatal health particularly affects the life and wellbeing of women and children in the household. Our choice of indicators on health is restricted by the limited coverage of health in the survey data. Two indicators under this dimension focus on women's access to prenatal and postnatal healthcare. Households with female members who gave birth to a child in the last three years but did not have access to prenatal/postnatal care are considered deprived on these indicators. The third indicator focuses on household's access to basic health unit (BHU). A household that does not use BHU because it is far away or too costly is considered deprived on this indicator. Fourth indicator focuses on the overall availability of the healthcare facilities. A household is considered deprived if time taken by using the usual modes of transport to reach the nearest health facility is more than half hour.

Living conditions dimension provides indicators that measure the household's quality of life. It covers five indicators, which are also included in the Global MPI that capture the quality of housing, access to safe drinking water, improved sanitation facilities, source of lighting and the type of fuel used by the household for cooking. A household is considered deprived if the walls of the house are not made of bricks/blocks. Since Pakistan continues to have high incidence of infectious diseases, access to safe drinking water and improved sanitation facilities are important aspects of household's wellbeing. A household is considered deprived if it accesses drinking water through covered/uncovered well, river, stream, pond, and water tanker/water bearer. A household is deprived of sanitation facilities if it does not have access to flush toilet. Electrification is very important in modern day-to-day living which has significant dependence on electronic appliances. Households that do not have electricity as their main source of lighting are also considered deprived. Similarly, cooking fuel is an important aspect of wellbeing since the use of firewood/dung cake, crop residue, charcoal and coal are detrimental to health particularly of women who spend most of their time in cooking. A household with the above-mentioned sources of cooking fuel is also considered deprived.

Lastly, asset ownership is an important component of wellbeing particularly in the absence of household income or consumption expenditures data. Durable assets serve as a proxy of long-term accumulation of material wealth and hence the economic status of the households. Assets ownership dimension consists of three components: expensive assets; less expensive assets; and property (land/building) ownership. Expensive assets category includes refrigerator, AC, computer, car and livestock. Less expensive assets include TV, VCR, cooler, sewing-machine, chair, watch, bicycle, fan, and motorbike. Property ownership includes agricultural/residential/commercial land, and residential building. Household not owning any of these assets is considered deprived of that particular asset.

Assigning Weights

Like the selection of dimensions and indicators, assigning weights to various dimensions and indicators is a paramount step in measuring multidimensional poverty. Alkire and Foster methodology allows for assigning different weights to different dimensions and indicators as appropriate and justified. However, decisions on weights for various dimensions involve value judgment on behalf of the society, particularly the poor. In an ideal sense, and where resources allow, these weights (as well as the selection of dimensions and indicators in the first place) should be based on wider consultations particularly with the poor. In the absence of such a consultative process, we assign equal weights to four imensions. These dimensional weights are then subdivided equally amongst the indicators within each dimension, i.e. education, health and living conditions. In assets dimension, the weight is further subdivided into three categories equally, and then distributed equally within the sub-category of assets. The only exception is the ownership of motorbike which is given twice weight compared to other indicators in the sub-category of assets for being an expensive asset.

Giving weights to various dimensions and indicators are value judgments and also influence poverty estimates. The Global MPI allocates equal weight to all dimensions which are further subdivided into respective indicators. We assign equal weights to four dimensions; 25% or 0.25 is allocated to each of the dimensions, education, health, assets ownership, and living conditions. These weights are equally divided amongst the indicators under each of these dimensions. As the value and significance of assets changes, there are different weights assigned to the indicators under assets dimension. Owing to difference in prevalence of these assets, a higher weight has been assigned to assets of Type I as compared to those in Type II. Land is very important in determining the lifestyle in the context of Pakistan, therefore, we give it highest weight among assets indicators. Table 2.1 provides these indicators and their respective cut-off points with a brief explanation of all the indicator variables that have been used in the estimation of multidimensional poverty in Pakistan. It also describes the cut-off point for each indicator. Table 2.1 also reports the respective weight for each dimension.

Table 2.1: Dimensions, indicators, cut-off points and weights

Dimensions	Indicator	Cutoff Points	Weights Assigned
Education	Schooling of family members	None of the adult members in the household have primary education (5 years of schooling)	0.125
	Enrolment status of children	If any of the children of school going age (5-14) in the household is not enrolled at school	0.125
Total weight for dimension of education			0.25
Health	Access to prenatal care	If a female member who gave birth to a child in the last three years, did not receive pre-natal care	0.063
	Access to postnatal care	If a female member who gave birth to a child in the last three years, did not receive post-natal care	0.063
	Access to hospital	If the time taken by the usual mode of transport to reach nearest hospital is more than 30 minutes	0.063
	Access to BHU	If the household does not use the BHU because it is far away or is too costly to reach	0.063
Total weight for dimension of health			0.25
Assets Holdings	Refrigerators	If the household does not possess a refrigerator	0.017
	Livestock	If the household does not possess any livestock	0.017
	Air Conditioner	If the household does not possess an air conditioner	0.017
	Computer	If the household does not possess a computer	0.017
	Car	If the household does not possess a car	0.017
	Total weights for assets category I		0.083
	TV	If the household does not possess a television set	0.008
	VCR	If the household does not possess a VCR	0.008
	Cooler	If the household does not possess a cooler	0.008
	Sewing Machine	If the household does not possess a sewing machine	0.008
	Chair	If the household does not possess a chair	0.008
	Watch	If the household does not possess a wrist watch	0.008
	Bicycle	If the household does not possess a bicycle	0.008
	Fan	If the household does not possess a fan	0.008
	Motorbike	If the household does not possess a motorbike	2x(0.008)
	Total weights for assets category II		0.083
	Land ownership	If the household owns non of the agricultural land/nonagricultural land (of any size) or a commercial property	0.042
	Ownership of residential building	If the family does not possess a residential building	0.042
	Total weight for assets category III		0.083
Total weight for dimension of assets			0.25
Living Conditions	Walls material	If the walls of the house are made of material other than burnt bricks/blocks	0.05
	Access to safe drinking water	If the main source of drinking water is covered/uncovered well, river, stream, pond, water tanker/water bearer	0.05
	Sanitation/hygiene conditions	If the toilet facility is either not available or the household is using raised latrine, pit latrine or other but not flush toilet	0.05
	Source of light	If the main source of lightening is other than electricity	0.05
	Cooking fuel	If household is using firewood, dung cake, crop residue, charcoal, coal, other (gas, kerosene, and electricity are the only exceptions)	0.05
Total weight for dimension of living conditions			0.25

Data

Estimating poverty requires large information base in line with the assumption of underlying measurement approach. Compromises over the quality and quantity of information base, whether real or perceived, can be detrimental to the policies on poverty reduction (c.f. Khan, Naveed, Samman, Sarwar and Hoy (2015) for the issues related to the official estimation of poverty in Pakistan). There are several household surveys available in Pakistan providing data on the most significant dimensions of poverty. These are: Multiple Indicators Cluster Survey (MICS), Pakistan Demography and Health Survey (PDHS), etc. These surveys have a particular nuanced information about the health dimension and nutrition. However, as our objective is to explore the distribution of poverty across the country and most importantly at the disaggregated level, such national surveys fall short on this account as they are at best representative at the provincial level. We are, therefore, left only with the Pakistan Social and Living Measurement (PSLM) Survey which is representative at the district level and is consistent over time. With the exception of health dimension, the coverage of other dimensions is particularly strong given the survey has been purposely designed to track progress over Millennium Development Goals (MDGs).

PSLM surveys are conducted every year by the Pakistan Bureau of Statistics. One year, the survey is conducted over a smaller sample, representative at the provincial level, and gathers information on household consumption expenditures, which is used for the official estimation of poverty. In each alternate year, PSLM is conducted at district level with a large sample size. These district rounds do not gather information on household income/consumption expenditures. District level PSLM surveys were started in 2005-06 and the latest one available at the beginning of this study was conducted in 2012-13.

This study explores trends in multidimensional poverty over five years and analyses PSLM rounds 2008-09, 2010-11, and 2012-13. These three rounds broadly collect similar information except for certain indicators of asset ownership. In order to draw the meaningful inferences, we have selected the indicators for which data is available across all three rounds. A breakdown of the sample is provided in e Table 2.2.

Table 2.2: PSLM Sample Size (individual) 2008-09, 2010-11, 2012-13

Province	2008-09	2010-11	2012-13
Balochistan	83,059	78,851	83,679
KP	91,445	90,818	89,493
Punjab	201,510	201,067	195069
Sindh	123,726	128,477	124,410
Pakistan (Total)	499,740	499,213	492641
Pakistan (Urban)	167,085	167,085	167,085
Pakistan (Rural)	325,556	325,556	325,556

Table 2.3 presents the proportion of population deprived each of the selected indicators for the three survey rounds at national level disaggregated by the rural and urban groups. It also reports the absolute change in deprivations over the five years.

Table 2.3: Indicator wise deprivation in total population Pakistan 2008-09 to 2012-13

Indicators	2012-13			2010-11			2008-09			Change 2008-09 to 2012-13		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Schooling of family members	22.7%	10.4%	28.9%	23.7%	11.2%	30.0%	24.7%	11.7%	31.0%	-1.98%*	-1.3%*	-2.1%*
Enrolment status of children	30.6%	16.8%	37.4%	33.7%	19.6%	40.6%	35.3%	20.2%	42.7%	-4.68%*	-3.4%*	-5.2%*
Access to prenatal care	14.4%	7.2%	18.0%	16.5%	8.9%	20.3%	20.1%	10.0%	25.1%	-5.70%*	-2.8%*	-7.1%*
Access to postnatal care	31.9%	24.6%	35.6%	31.9%	25.3%	35.1%	34.4%	25.9%	38.6%	-2.50%*	-1.3%*	-3.0%*
Access to hospital	21.0%	3.6%	29.7%	24.0%	4.3%	33.7%	28.8%	7.4%	39.3%	-7.77%*	-3.8%*	-9.5%*
Access to BHU	15.5%	4.1%	21.2%	14.7%	4.6%	19.8%	16.0%	4.9%	21.4%	-0.49%*	-0.8%*	-0.2%*
Refrigerators	55.3%	31.2%	67.3%	60.0%	35.5%	72.1%	60.2%	35.6%	72.2%	-4.90%*	-4.4%*	-4.9%*
Livestock	65.0%	95.2%	49.9%	63.2%	94.6%	47.6%	61.4%	94.1%	45.4%	3.58%*	1.1%*	4.5%*
Air Conditioner	94.4%	86.4%	98.3%	95.0%	87.7%	98.6%	94.8%	86.8%	98.6%	-0.39%*	-0.4%*	-0.3%*
Computer	89.3%	77.6%	95.1%	92.4%	83.0%	97.0%	92.3%	82.7%	97.0%	-3.00%*	-5.1%*	-1.9%*
Car	99.3%	99.4%	99.2%	99.3%	99.4%	99.2%	99.3%	99.4%	99.2%	-0.05%*	0.0%	-0.1%*
TV	37.6%	13.5%	49.7%	41.3%	16.3%	53.7%	39.9%	16.0%	51.6%	-2.27%*	-2.5%*	-1.9%*
VCR	92.1%	86.8%	94.7%	92.7%	86.9%	95.6%	88.5%	79.0%	93.1%	3.60%*	7.7%*	1.6%*
Cooler	91.1%	85.4%	94.0%	91.5%	85.0%	94.7%	89.7%	81.7%	93.7%	1.42%*	3.8%*	0.3%*
Sewing Machine	36.9%	22.4%	44.1%	39.3%	25.6%	46.0%	32.7%	18.5%	39.6%	4.17%*	3.9%*	4.5%*
Chair	30.0%	17.5%	36.2%	29.9%	17.2%	36.1%	28.5%	15.8%	34.7%	1.54%*	1.7%*	1.6%*
Watch	19.2%	6.6%	25.5%	17.5%	5.7%	23.3%	13.8%	4.7%	18.3%	5.39%*	1.9%*	7.2%*
Bicycle	71.2%	75.9%	68.9%	64.9%	70.5%	62.2%	58.3%	64.5%	55.2%	12.95%*	11.4%*	13.7%*
Fan	8.3%	1.0%	11.9%	9.9%	0.7%	14.4%	10.4%	1.0%	15.0%	-2.11%*	0.0%	-3.1%*
iron	20.5%	5.4%	28.0%	23.8%	6.0%	32.7%	22.5%	5.7%	30.6%	-1.98%*	-0.3%*	-2.6%*
Motorbike	62.1%	52.9%	66.7%	62.1%	60.0%	74.7%	74.2%	63.2%	79.6%	-12.1%*	-10.3%*	-12.9%*
Land	67.5%	86.8%	57.9%	64.5%	85.9%	54.0%	62.8%	84.7%	52.0%	4.73%*	2.1%*	5.8%*
Ownership of Residential Building	13.3%	23.5%	8.2%	12.8%	22.2%	8.1%	12.1%	20.1%	8.2%	1.18%*	3.4%*	0.0%
Walls material	24.5%	4.9%	34.3%	28.2%	5.9%	39.2%	29.2%	6.2%	40.5%	-4.71%*	-1.3%*	-6.2%*
Access to safe drinking water	10.8%	6.5%	13.0%	13.3%	6.8%	16.5%	11.1%	4.9%	14.1%	-0.28%*	1.6%*	-1.1%*
Sanitation	29.1%	3.7%	41.7%	33.5%	4.5%	47.8%	36.9%	5.7%	52.2%	-7.85%*	-2.0%*	-10.5%*
Source of light	6.6%	1.7%	9.0%	8.4%	1.8%	11.6%	8.9%	2.3%	12.2%	-2.35%*	-0.6%*	-3.2%*
Cooking fuel	62.9%	16.9%	85.9%	65.7%	18.1%	89.2%	69.7%	23.1%	92.5%	-6.81%*	-6.2%*	-6.6%*

*Significant at 5% level of significance.

The highest deprivations are reported in most of the assets, including livestock, AC, car, VCR, cooler, motorbike and landownership. Rural and urban populations are differently deprived of these indicators. Within education dimension, the highest proportion of household is deprived of child enrolment. Rural population has more than twice ratio of households deprived of each of the two indicators than urban population. Within health dimension, access to postnatal care has the highest deprivations. Rural population has much higher deprivations on all indicators of health than urban population. Rural-urban gap is particularly the highest on access to hospital and BHU. Within living conditions dimension, cooking fuel has the highest deprivations. Rural-urban differences are extremely high in deprivations on the indicators of cooking fuel, improved sanitation, and housing quality.

Over the five years, there has been decline in the proportion of population deprived of most of the indicators. The highest decline has occurred on motorbike followed by access to hospital, sanitation facilities and cooking fuel. Several indicators, particularly on asset ownership report increased in the proportion of population deprived. Within education, health and living conditions dimensions, there is a decline in deprivations on all indicators and for both rural and urban populations over the five years, except for an increase in deprivations on access to safe drinking water for urban population. The change reported on the deprivations for each indicator is statistically significant at the level of 5%.

Chapter 3

Poverty Headcount Ratio

At the poverty line k=0.40, individuals experiencing the weighted sum of deprivations equal to or more than 40 per cent of the total possible deprivations are considered multidimensional poor. This is a conservative poverty line compared to the one used in the construction of Global MPI (OPHI 2015). Once the poor are identified, their proportion in the population is estimated to compute poverty headcount ratio. This chapter presents the estimated headcount ratio at national, provincial and district levels and discusses the trends over the period covered by the PSLM rounds 2008-09, 2010-11, and 2012-13.

This chapter is divided into three sections. Section A presents poverty headcount ratio at national level with rural and urban breakdown. Section B discusses provincial headcount ratio along with the estimates and trends in rural and urban poverty within each province. Section C extends the analysis to district level and using the national ranking of districts identifies the districts with the highest headcount ratios, districts with the largest number of poor people, and the greatest reduction in headcount ratio over the five years understudy.

National Level Estimates

Overall, multidimensional poverty in Pakistan has been high in the given five years albeit with a gradual decline in the headcount ratio over time. At national level, the headcount ratio dropped by 5.6 percentage points in absolute terms over the five years, or by an approximately 1.1 percentage points per year. This low pace of poverty reduction suggests that that a little improvement in access to education, health, living conditions and asset ownerships has been made over the last five years.

Table 3.1: Estimates of poverty headcount at national level 2008-09 to 2012-13

National level	Population share 2012-13 (%)	Poverty headcount ratio (H)			Change 2008-09 to 2012-13	
		2012-13	2010-11	2008-09	Absolute	Percentage
Pakistan	100.	31.3	34.5	36.9	-5.6*	-15.2
Rural	67.12	42.3	46.3	49.2	-6.9*	-14.0
Urban	32.88	9.1	10.5	11.8	-2.7*	-22.9

* Significant at the 5% level of significance.

Poverty in Pakistan has been seen historically by the analysts as largely a rural phenomenon (Naseem 2012). As rural population experiences higher deprivation in terms of education and health services and lacks access to living conditions and household assets more than the urban population, rural headcount ratio is much higher than the urban one for the entire period understudy. Overall, headcount ratio for the rural population has been at least 4.2 times higher than that of urban headcount ratio in the five years from 2008-09 to 2012-13. While there is a higher absolute decline in rural headcount ratio than the urban, the rural to urban headcount ratio has increased over time reaching to 4.7 in 2012-13.

These results correspond to the Global MPI estimates (OPHI 2015), which at a poverty line k=0.333 (fewer deprivation than k=0.40) and with somewhat different sets of indicators and weights, reported 44.2 per cent of total population (20 per cent rural and 55.7 per cent urban) living below poverty line in 2012-13. Jamal (2013), with a different methodology and indicators (but the same data) also reported multidimensional poverty to be 37.3 per cent at national level in 2010-11.

a. Poverty at Provincial Level

There are wide disparities in poverty headcount ratio between the four provinces, consistent over the five years, as shown in Table 3.2. In the given period, Balochistan had the highest headcount ratio followed by KP, and Sindh. In contrast, Punjab has been the least poor province. These estimates show somewhat similar provincial distribution of multidimensional poverty headcount for the year 2012-13 to Global MPI estimates (OPHI 2015).[5] Rural- urban disparities in the incidence of poverty within each province are evident in Table 3.2. In 2012-13, for example, rural poverty was almost four times higher than urban poverty in Balochistan, KP, and Punjab. The greatest rural-urban disparity is found in Sindh where rural poverty was seven times higher than urban poverty in 2012-13.

Table 3.2: Province-wise headcount ratio with rural-urban disaggregation

Province	Population share	Poverty headcount ratio (H)			Contribution to headcount ratio (%)	Change 2008-09 to 2012-13	
	2012-13	2012-13	2010-11	2008-09	2012-13	Absolute	Percentage
Balochistan	5.07	62.6	67.1	70.3	10.2	-7.7*	-11
Rural	3.91	76.2	80.3	83.1	9.5	-6.9*	-8.3
Urban	1.17	20.2	25.1	27.6	0.7	-7.4*	-26.8
KP	14.17	39.3	45.5	48.5	17.8	-9.2*	-19
Rural	11.82	44.8	51.2	54.3	16.9	-9.5*	-17.5
Urban	2.35	12.3	18.1	19.2	0.9	-6.9*	-35.9
Punjab	57.42	24.3	27.6	30.1	44.5	-5.8*	-19.3
Rural	39.4	31.7	36.4	39.7	39.9	-8*	-20.2
Urban	18.03	8	8.4	9.2	4.6	-1.2*	-13
Sindh	23.33	37.5	37.4	39.4	28.0	-1.9*	-4.8
Rural	12	64.2	62.5	64.4	24.6	-0.2*	-0.3
Urban	11.33	9.4	10.5	12.9	3.4	-3.5*	-27.1

* Significant at the 5% level of significance.

Table 3.2 also reports the percentage share of each province and its rural and urban population in total headcount ratio for the year 2012-13. It shows that 10.2 per cent of the country's poor lived in Balochistan suggesting that province's contribution to headcount ratio was more than doubled of its share in the country's population. The contribution of both Sindh and KP to headcount ratio was slightly more than their share in total population. Given more than half of

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[5] Except that these estimates report higher poverty in KP than Sindh whereas OPHI reports otherwise.

the country's population lives in Punjab, 44 per cent of the country's poor population lived in Punjab.

Over the five years, the four provinces have reduced poverty differently. KP has the highest decline in poverty headcount ratio as the proportion of poor dropped by 9.2 percentage points. Balochistan had the second largest decline in headcount ratio where the proportion of poor declined by 7.7 percentage points. Punjab reduced poverty by 5.8 per cent. In contrast to other provinces, Sindh made the least progress in reducing poverty by only 1.9 percentage points over the five years suggesting the lowest improvement in access to education, health, living conditions and asset ownership during this period compared to other provinces.

Both KP and Punjab have reduced rural poverty more than urban poverty in absolute terms whereas in Balochistan and Sindh, higher reduction has been made in urban rather than rural poverty despite overwhelmingly high rural headcount ratio. Poverty is particularly persistent in rural Sindh. Except for Punjab, rural to urban poverty ratio has increased in each province as the relative change (as percentage of base year) in poverty reduction is higher for the urban than the rural population. The greatest increase in rural-urban poverty ratio over the five years can be seen in Sindh.

These estimates demonstrate that provinces and their respective rural and urban populations experience different levels of poverty, and each province is differently able to reduce poverty over time. There is a wide range of factors which potentially explain differences in the incidence of poverty between various population groups within and between provinces. These factors include population size and density, urbanization, governance and access to public services, industrial agglomeration, the nature of control over natural resources, and natural disasters, and conflict, to name but a few. Since these factors also demonstrate tremendous diversity within each province beyond the rural-urban divide, we discuss them at sufficient length in Chapter 8 after presenting a detailed picture of diversity in the incidence of poverty at sub-provincial, or district level.

Given their size and complexity, provinces are large administrative units and the aggregate statistics hide the distribution of poverty within each province. Understanding poverty for effective policy response requires identifying the geographic sites where poverty is concentrated and persists over time, and where lives the largest proportion of the poor, and the ones that experience greatest change over time. The subsequent section of this chapter therefore extends the analysis to district level and identifies the nation-wide poorest districts with the highest headcount ratio and with the largest poor populations.

b. District Level Analysis of Poverty

The aim of this section is to explore how poverty headcount ratio is distributed at the most disaggregated level of analysis enabled by the PSLM survey– the district level. In doing so, the inequalities in the incidence of poverty at sub-provincial level are uncovered. This section identifies the districts where the incidence of poverty (headcount ratio) in the given five years remained overwhelmingly high. By taking into account the population share of each district, this section also identifies the districts that have the largest number of poor people. Identifying

the poorest districts of the country is important both analytically and to inform poverty reduction policies. Identifying the territories of high and low poverty enables us to explore the unique social, economic, cultural, historic and geographic dynamics underlying the varying levels of poverty. A closer look into these dynamics can enable us to see the economic, social, political and other conditions which promote socially inclusive economic growth, and the conditions which sustain and perpetuate social and economic disadvantage for the large proportion of population. From policy perspective, the district level analysis of poverty can enhance the outreach of poverty reduction programmes as the districts with high concentration of poverty, and where it persists over time, and the districts with largest number of poor, can be targeted. It also provides the benchmark to assess the extent to which the overall allocation of public resources at sub-provincial level is egalitarian and pro-poor. Moreover, reducing extreme poverty and overcoming regional inequalities are necessary conditions for creating a socially just and politically stable society. As Pakistan embarks on a new journey of democratization and decentralization of power, generating such an analysis has strong political salience. With additional resources at their disposal in the post 18th Amendment era, and resulting responsibilities, provincial governments need to be informed about the diverse ways in which populations living in various districts experience poverty in order to find the best ways to effectively reduce poverty.

The subsequent section of the chapter presents district level estimates of poverty headcount ratio. As the number of districts covered under the three survey rounds ranged from 110 to 115 over the given years, it is difficult to provide the analysis of each district in this chapter. Based on their national ranking over headcount ratio, districts are divided into five quintiles, each consisting of 23 districts. The bottom two (5th and 4th) quintiles of districts based on their headcount ratio in 2012-13 are presented next. The complete ranking of the districts over poverty headcount ratio and the change over time are provided in the annex 1 and 5.

The district level estimates of poverty headcount ratio presented here are broadly consistent with the estimates of multidimensional poverty provided by earlier district level studies (for example, Arif (undated), Jamal 2013, Naveed and Ali 2012), and the estimates of monetary poverty (Cheema, Khalid and Patnam 2008 for Punjab only), albeit with slightly different ranking and headcount ratios of various districts given different methods and data used by these studies.

Table 3.3 presents the bottom/5th quintile of the districts ranked on poverty headcount ratio in 2012-13 and reports their poverty headcount ratio for the three survey rounds. The last two columns present change in headcount ratio from 2008-09 to 2012-13 in absolute and percentage terms respectively.

Table 3.3: Bottom/5th Quintile of Districts over Poverty Headcount Ratio

Rank	Districts	2012-13		2010-11	2008-09	Change (2008-09 to 2012-13)	
		Population share	Headcount Ratio	Headcount Ratio	Headcount Ratio	Absolute	Percentage
1	Kohlu	0.11	96.4	95.2	93.2	3.2*	3.4
2	Kohistan	0.38	96.2	93.5	95.4	0.8	0.8
3	Torgarh	0.15	89.1		-	-	-
4	Panjgur**	0.20	87.5	87.5	68.6	18.9*	27.6
5	Sherani**	0.06	87.1	82.9	-	4.2*	5.1
6	Dera Bugti	0.12	87.1	97.1	87.5	-0.4	-0.5
7	Barkhan	0.09	86.8	93.7	75.4	11.4*	15.1
8	Washuk	0.08	85.7	82.5	91.5	-5.8*	-6.3
9	Qilla Abdullah	0.34	85.1	67.2	88.2	-3.1*	-3.5
10	Musa Khel	0.06	83	92.1	92.3	-9.3*	-10.1
11	Chaghi	0.09	81.8	90.2	94	-12.2*	-13
12	Awaran	0.11	81.1	69.2	83.9	-2.8*	-3.3
13	Nasirabad	0.18	81.1	77.4	84.3	-3.2*	-3.8
14	Qilla Saifullah	0.1	80.8	83.8	87.7	-6.9*	-7.9
15	Tharparkar	0.71	78.6	84.6	86.4	-7.8*	-9
16	Upper Dir	0.55	76.5	69.2	75.3	1.2	1.6
17	Bolan/Kachhi	0.21	76	77.8	90	-14.0*	-15.6
18	Harnai**	0.07	75.1	64.3	-	10.8*	16.8
19	Jhal Magsi	0.08	74.6	81.6	90.5	-15.9*	-17.6
20	Badin	0.92	73.5	68.4	70.8	2.7*	3.8
21	Thatta	0.78	73	70.2	64.5	8.5*	13.2
22	Umer Kot**	0.58	73	61	-	12.0*	19.7
23	Zhob	0.12	72.6	82.2	72.5	0.1	0.1

* Significant at the 5% level of significance. **Panjgur district was not included in PSLM

2012-13 and the estimates for the year 2010-11 are reproduced here. The change in estimated from 2010-1 to 2012-13 for the districts Umer Kot, Hernai and Sherani.

Table 3.3 offers several insights into the incidence of poverty amongst the poorest districts of the country. Firstly, the incidence of poverty is extremely high in these districts compared to the national and respective provincial average headcount ratios. Poverty headcount in this quintile ranges from 72.6 per cent to 96.4 per cent in the year 2012-13. Kohlu and Kohistan, for example, had almost their entire populations living under poverty in 2012-13. As many as 10 districts never had poverty headcount ratio below 80 per cent of their population.

Secondly, the quintile demonstrates geographic concentration of poverty mainly in Balochistan and in parts of KP and Sindh: 15 districts in the quintile are from Balochistan, three from KP (Kohistan, Torghar, and Upper Dir), four from Sindh (Tharparker, Badin, Thatta and Umer Kot), and no district from Punjab. Thirdly, the trends in headcount ratio over time vary across these districts in the bottom quintile. There is an overall reduction of poverty amongst many of these districts. The greatest reduction of poverty is seen in Jhal Magsi, Bolan/Kachhi, Chaghi, and Musa Khel. In contrast, there is a statistically significant increase in headcount

ratio in districts in the 5th quintile. The highest increase in poverty is observed in Panjgur, Umer Kot, Barkhan, Hernai, Thatta, and Kohlu.

Fourth, poorest districts of the country are also the least populated with no district making one per cent or more contribution to national population. Lastly, these districts are largely rural territories and none of the major cities included in the 5th quintile of poverty headcount ratio.

Table 3.4 presents the second poorest/4th quintile of districts. Poverty headcount ratio in these districts is also very high and ranged from 50 to 72 per cent of the population of these districts in 2012-13. As in the 5th quintiles, geographic concentration of poverty is evident from the fact that most of the districts in the 4th quintile are also from Balochistan, although their number is reduced to eight in the 4th quintile. The number of Sindh districts has dramatically increased to seven in the 4th quintile. Five districts in this quintile are from KP and only two from Punjab.

Table 3.4: 4th Quintile of Districts over Poverty Headcount Ratio

Rank	Districts	2012-13		2010-11	2008-09	Change 2008-09 to 2012-13	
		Population share	HC Ratio	HC Ratio	HC Ratio	Absolute	Percentage
24	Jaffarabad	0.36	71.9	77.5	76	-4.1*	-5.4
25	Shangla	0.37	68.5	66.5	71.9	-3.4*	-4.7
26	Khuzdar	0.35	67.6	63.6	75	-7.4*	-9.9
27	Loralai	0.14	67.3	86.4	69.4	-2.1*	-3.0
28	Kashmore	0.68	63.8	60.5	60.8	3.0	4.9
29	Rajanpur	0.89	63.3	69.2	78.2	-14.9*	-19.1
30	Tank	0.19	61.9	63.7	62	-0.1	-0.2
31	Mirpur Khas	0.78	60.8	49.6	63.6	-2.8*	-4.4
32	Tando Mohammad Khan	0.35	60.7	50.8	58.6	2.1	25.7
33	Kharan	0.09	60.5	80.2	80	-19.5*	-24.4
34	Lasbella	0.23	60.3	73.9	70	-9.7*	-13.9
35	Jaccobabad	0.53	58.2	62.9	64.4	-6.2*	-9.6
36	Pashin	0.32	57.1	35.6	65	-7.9*	-12.2
37	D G Khan	1.43	55.8	68.4	63.8	-8*	-12.5
38	Ketch/Turbat	0.34	53.7	79.4	71.1	-17.4*	-24.5
39	D I Khan	0.89	53.5	65.9	64.1	-10.6*	-16.5
40	Kalat	0.16	53.3	60.8	82	-28.7*	-35.0
41	Nawabshah	0.78	52.9	48.1	55.2	-2.3	-4.2
42	Tando Allah Yar	0.38	52.5	50.8	48.3	4.2*	8.7
43	Shahdadkot	0.77	52.2	54.1	56.8	-4.6*	-8.1
44	Lower Dir	0.67	51.6	36.9	58.9	-7.3*	-12.4
45	Shikarpur	0.77	51.2	52.4	43.2	8.0*	18.5
46	Batagram	0.28	50.3	49.2	57.1	-6.8*	-11.9

* Significant at 5% level of significance.   HC = Headcount

Over the time, poverty has decreased in the quintile with some districts making huge reduction in the headcount ratio, such as Kalat, Kharan, Ketch/Turbat Rajanpur and Lasbella with absolute decline of above 12 per cent, and others with smaller decline. Only Tando Allah Yar in the 4th quintile has observed a statistically significant increase in the headcount ratio over the

five years. As compared to the 5th quintile, districts in the 4th quintile have relatively higher share in the total population although only D G Khan has a population share more than one per cent in the total population of Pakistan.

The two poorest quintiles show the geographic concentration of poverty in Pakistan. Out of the total 56 poorest districts of the country, half (23) are from Balochistan, 11 from Sindh, eight from KP, and only two from Punjab. Based on national rankings, the two quintiles presented above also cover the poorest districts within Balochistan, Sindh, and KP. In contrast, most of the poorest districts within Punjab do not fall within these two quintiles as the overall headcount ratio in these districts is lower relative to most of the poor districts in other provinces. Nonetheless, several districts have very high headcount ratio relative to other districts in the province. Poverty headcount ratio varied from 40 to 48 per cent in 2012-13 in the districts like Muzaffargarh, Vehari, Rahim Yar Khan, Bhakkar, Bahawalpur and Lodhran. Similarly, in KP, Buner and Lakki Marwat, which are not included in the bottom two quintiles, had headcount ratio above 48 per cent in 2012-13.

In contrast to a very high incidence of poverty in the districts constituting the bottom two quintiles of poverty headcount ratio, many districts have exceptionally low headcount ratios (see annex 1). In the top quintile of districts ranked on poverty headcount ratio (the least poor districts), for example, poverty varied from 3.7 to 20 per cent, which is significantly lower than the national and respective provincial averages. As in the case of concentration of high poverty in certain geographic zones, the lack of poverty is also concentrated in certain geographic regions. In the 1st quintile – 23 districts with the lowest headcount ratio - 14 districts are from Punjab, four are from Federal and Provincial Capitals, three from KP (Haripur, Abbottabad, and Nowshera) and one from Sindh (Hyderabad). Map 3.1 provides a rather holistic overview of the distribution of poverty across 115 districts of Pakistan in 2012-13s.

Map 3.1: District Level Estimates of Poverty Headcount Ratio 2012-13
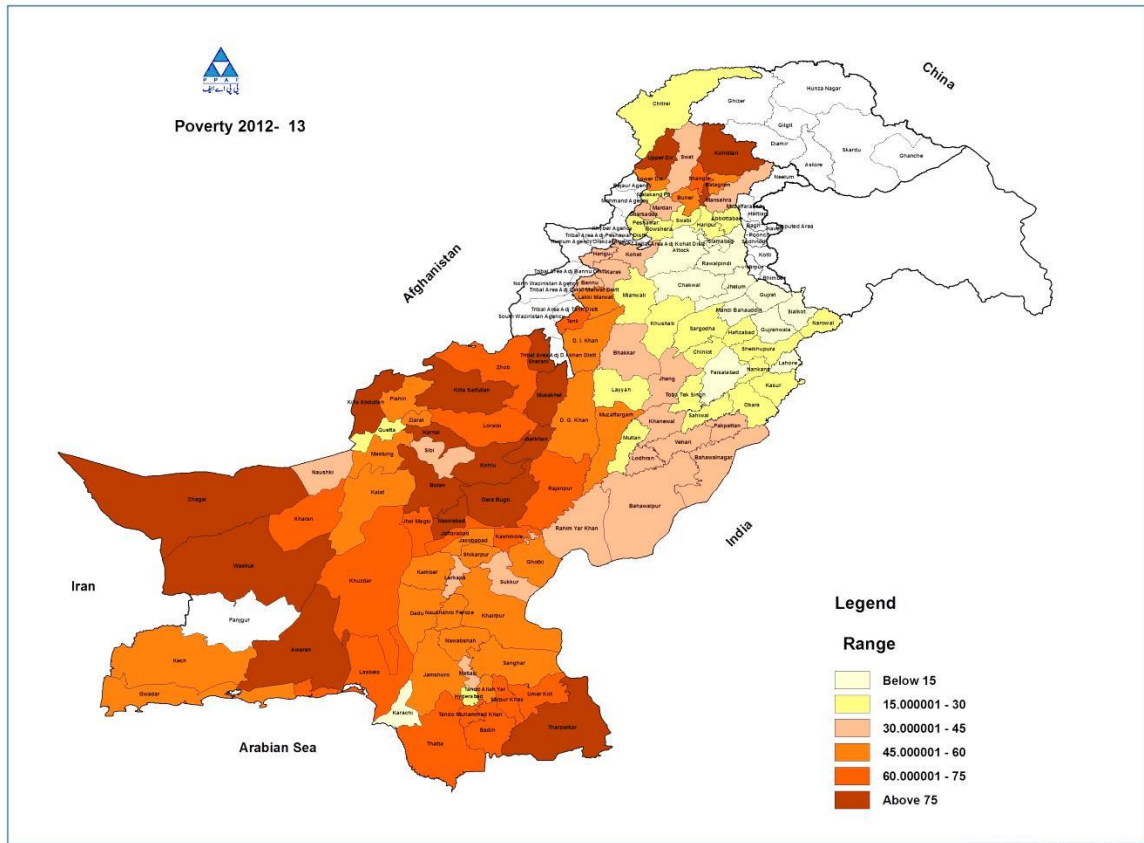
*PSLM 2012-13 did not cover district Panjgur hence there is no value reported.

Except for the most of Punjab, some parts of KP and a few pockets in Sindh and Balochistan, rest of the country has high incidence of poverty. Districts of least poverty are mainly clustered in north of Punjab up to Federal Capital and the adjacent districts of KP (including Haripur, Abbottabad, Swabi, Nowshehra, Peshawar, Malakand and Chitral), urban Sindh (Karachi and Hyderabad) and Balochistan (Quetta). The relative distribution of poverty within each province also shows geographic concentration. In Balochistan, districts in the north-east and south-west have the highest incidence of poverty. In KP, poverty is highly concentrated in several districts in the north and three in the south of the province. In contrast, the northern most district Chitral, and the mainland districts in the center, have low incidence of poverty. In Punjab, districts in the north have the lowest incidence of poverty followed by slightly higher headcount ratio in the central districts and significantly higher poverty in southern half of the province. In Sindh, southern districts have the highest headcount ratio followed by most of the districts of the province.

Headcount ratio is an important measure as it reports the extent to which the proportion of population of a district is poor. However, as districts drastically vary in terms of their population size, headcount ratios alone do not provide information about the size of poor population in each district. From a policy perspective, there is a need to identify the districts that have the largest number of poor people by taking into account the population size of each district. Table 3.5 reports the quintile of the districts that made the largest contribution to the

overall headcount ratio (the population of the poor in the country) in 2012-13.[6] It also presents absolute change in the headcount ratio from 2008-09 to 2012-13 in each district.

Table 3.5: Districts with the Highest Share to the Headcount Ratio 2012-13

Districts	2012-13		Contribution to headcount ratio		Absolute change in headcount ratio (percentage points)
	Population Share	Headcount Ratio	Absolute	Percentage	2008-09 to 2012-13
Rahim Yar Khan	2.56	43.98	1.13	3.60	-3.4*
Bahawalpur	2.07	42.64	0.88	2.82	-10.6*
Muzaffargarh	1.82	48.17	0.88	2.80	-12.1*
Vehari	1.84	44.90	0.83	2.64	-4.3*
D. G. Khan	1.43	55.76	0.80	2.55	-8.1*
Multan	2.29	29.66	0.68	2.17	-8.7*
Badin	0.92	73.55	0.68	2.16	2.8*
Bahawalnagar	1.71	38.54	0.66	2.11	-9.4*
Khairpur	1.32	49.40	0.65	2.08	4.5*
Thatta	0.78	73.03	0.57	1.82	8.5*
Jhang	1.54	36.97	0.57	1.82	-8.0*
Rajanpur	0.89	63.40	0.56	1.80	-14.8*
Tharparkar	0.71	78.57	0.56	1.78	-7.8*
Khanewal	1.64	30.28	0.50	1.59	-9.2*
D. I Khan	0.89	53.54	0.48	1.52	-10.5*
Mir Pur Khas	0.78	60.78	0.47	1.51	-2.8*
Okara	1.71	27.44	0.47	1.50	-8.9*
Sanghar	1.01	46.31	0.47	1.49	-4.0*
Ghotki	0.94	48.00	0.45	1.44	-7.2*
Swat	1.04	41.73	0.43	1.39	-16.4*
Kashmore	0.68	63.79	0.43	1.39	3.0
Umer kot**	0.58	72.95	0.42	1.35	12.0*
Upper Dir	0.55	76.49	0.42	1.34	1.2
Total	**29.70**	-	**14.0**	**44.7**	-

*Significant at 5% level of significance. ** Change for Umer Kot is estimated from 2010-11 to 2012-13.

In sharp contrast to their high headcount ratio, districts in Balochistan do not show up in the list of top contributors to headcount ratio given their low population. Instead the quintile of the highest contributors to headcount ratio consists of 11 districts from Punjab, nine from Sindh and three from KP. These 23 districts make nearly one-third (29.7 per cent) of the population of Pakistan. As they contribute 14 percentage points to headcount ratio in absolute terms, as many as 44.7 per cent of Pakistan's poor lived in these 23 districts in 2012-13. A largest number of the poor is concentrated in southern Punjab. One-fourth of Pakistan's poor lived in 11 districts of three Divisions of south Punjab, namely Multan, DG Khan and Bahawalpur.[7] Similarly, nine districts from Sindh (Table 3.5) hosted 15 per cent of Pakistan's poor. The contribution to headcount ratio by each district for the year 2012-13 is provided in annex 7. Overall, the magnitude of poverty reduction in these districts is high. As many as 18

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[6] The absolute contribution to headcount ratio is product of the weighted headcount ratios of the districts and their share in total population.
[7] These divisions constitute 11 districts, including: Multan, Vehari, Khanewal, Lodhran, Bahawalpur, Bahawalnagar, Rahim Yar Khan, DG Khan, Rajanpur, Layyah and Muzaffargarh. Two districts, Layyah and Lodhran, are not in the bottom quintile.

districts in the quintile have observed significant decline in their headcount ratios over the five years with highest decline experienced by Swat and Rajanpur. Four districts in the quintile, all from Sindh, have experienced statistically significant increase in their headcount ratio during the same period. Map 3.2 presents the share of each district to the national headcount ratio while also showing the headcount ratio for each district.

Map 3.2: Contribution to National Headcount Ratio by District 2012-13
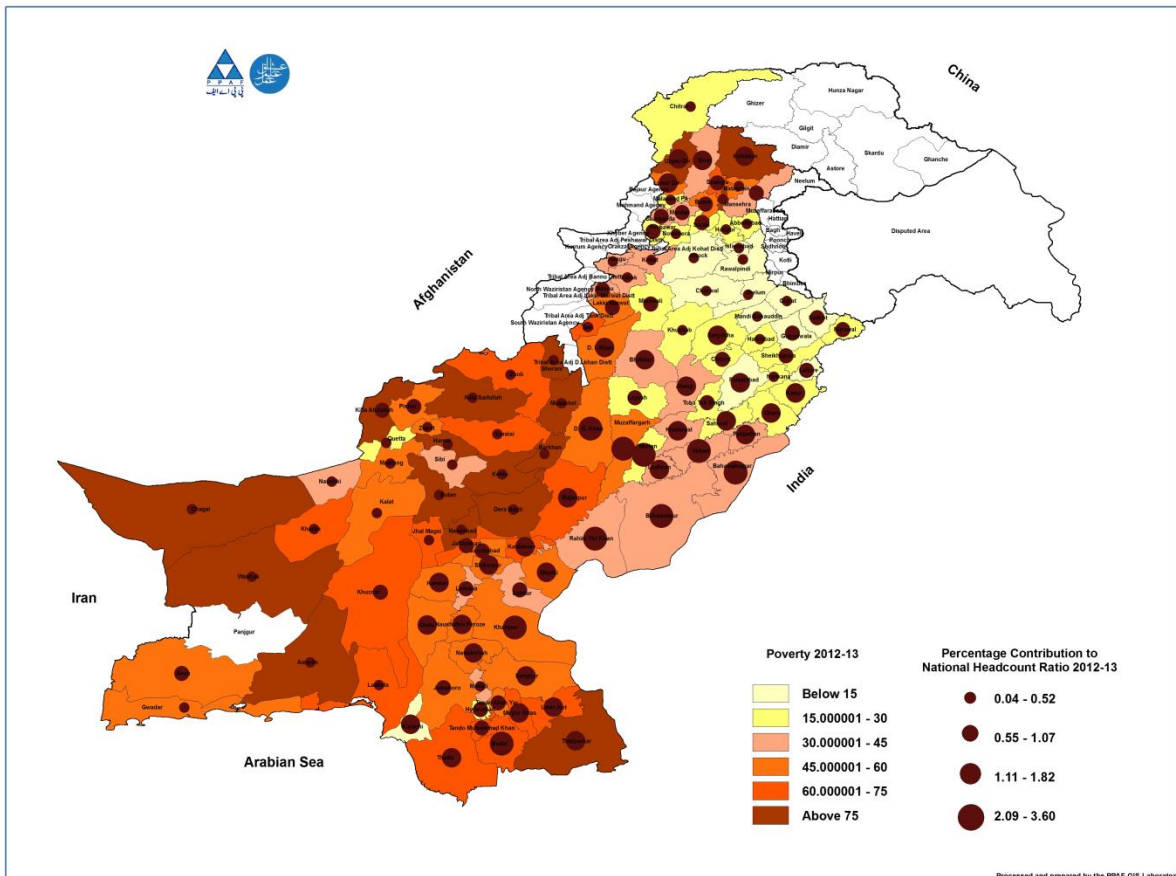
Change in Poverty Headcount

At national level, Pakistan has managed a 5.6 percentage points absolute reduction in headcount ratio from 2008-09 to 2012-13 with an average annual poverty reduction of around one per cent. However, different districts have differently experienced this poverty reduction as previous three tables show. In some districts, headcount ratio has declined drastically, in others, just about the average, and in contrast, it has rather increased in some other districts.

Table 3.6 presents the top quintile of districts with the greatest absolute reduction of poverty over the five years. It also presents poverty reduction as percentage of base year 2008-09 value along with the headcount ratios for the years 2008-09 and 2012-13.

Table 3.6: Top Quintile of Districts with Highest Reduction in Headcount Ratio

Rank	Districts	2012-13		2008-09	Change (2008-09 to 2012-13)	
		Population share	Headcount Ratio	Headcount Ratio	Absolute	Percentage
1	Mastung	0.12	46.07	77.6	-31.53*	-40.63
2	Kalat	0.16	53.26	82	-28.74*	-35.05
3	Naushki	0.08	42.09	69.4	-27.31*	-39.35
4	Sibi	0.06	31.76	57.3	-25.54*	-44.57
5	Larkana	0.78	32.72	56.3	-23.58*	-41.88
6	Layyah	1.01	28.93	49.2	-20.27*	-41.2
7	Kharan	0.09	60.5	80	-19.5*	-24.38
8	Chitral	0.25	25.93	44.1	-18.17*	-41.2
9	Charsada	0.77	33.74	51.2	-17.46*	-34.1
10	ketch/turbat	0.34	53.71	71.1	-17.39*	-24.46
11	Swat	1.04	41.73	58.2	-16.47*	-28.3
12	Jhal Magsi	0.08	74.56	90.5	-15.94*	-17.61
13	Ziarat	0.03	47.17	63	-15.83*	-25.13
14	Rajanpur	0.89	63.27	78.2	-14.93*	-19.09
15	Bolan/Kachhi	0.21	75.99	90	-14.01*	-15.57
16	Pakpatan	1.08	34.59	48.2	-13.61*	-28.24
17	Quetta	0.56	17.18	29.9	-12.72*	-42.54
18	Peshawar	1.59	18.54	31.2	-12.66*	-40.58
19	Chaghi	0.09	81.78	94	-12.22*	-13
20	D.I.Khan	0.89	53.54	64.1	-10.56*	-16.47
21	Lasbella	0.23	60.3	70	-9.7*	-13.86
22	Attock	1.05	8.52	17.2	-8.68*	-50.47
23	Hafizabad	0.64	17.25	24.6	-7.35*	-29.88

* significant at the 5% level of significance.

Out of 23 districts that experienced highest reduction in headcount ratio from 2008-09 to 2012-13, 12 are from Balochistan, five each from KP and Punjab and only one district from Sindh. Six districts, namely Mastung, Kalat, Naushki, Sibi, Larkana, and Layyah, have experienced reduction of above 20 percentage points in their headcount ratio. Five districts in the quintile (Chaghi, Bolan/Kachhi, Jhal Magsi, Kharan, and Kalat) had headcount ratio above 80 per cent in the base year. Four other districts had headcount ratio above 70 per cent in the base year. Most of the districts in the quintile had poverty in the base year between 40-60 per cent. Some other districts in the quintile had low poverty in the base year, including Attock, Hafizabad, Peshawar, Quetta, Chitral, Pakpattan and Larkana. Moreover, most of the districts in this quintile are rural, and are less populated except for Quetta, Peshawar, and Larkana. For a complete list of districts with respective change in headcount ratio, please see annex 7.

Map 3.3 visually presents the magnitude of change in poverty headcount ratio in each district (lighter shades show higher reduction in headcount ratio and the darker shades show lower

decrease/higher increase in headcount ratio). The map shows that poverty has decreased in some of the poorest districts, albeit with varying levels, and increased in others. The greatest increase in poverty has occurred in Naushahro Feroze, Barkhan, Dadu, Tando Allah Yar, and Shikarpur. Most of the districts in Sindh particularly in rural Sindh have either experienced an increase in headcount ratio or very low decrease over the five years.

Map 3.3: Change in poverty headcount ratio from 2008-09 to 2012-13
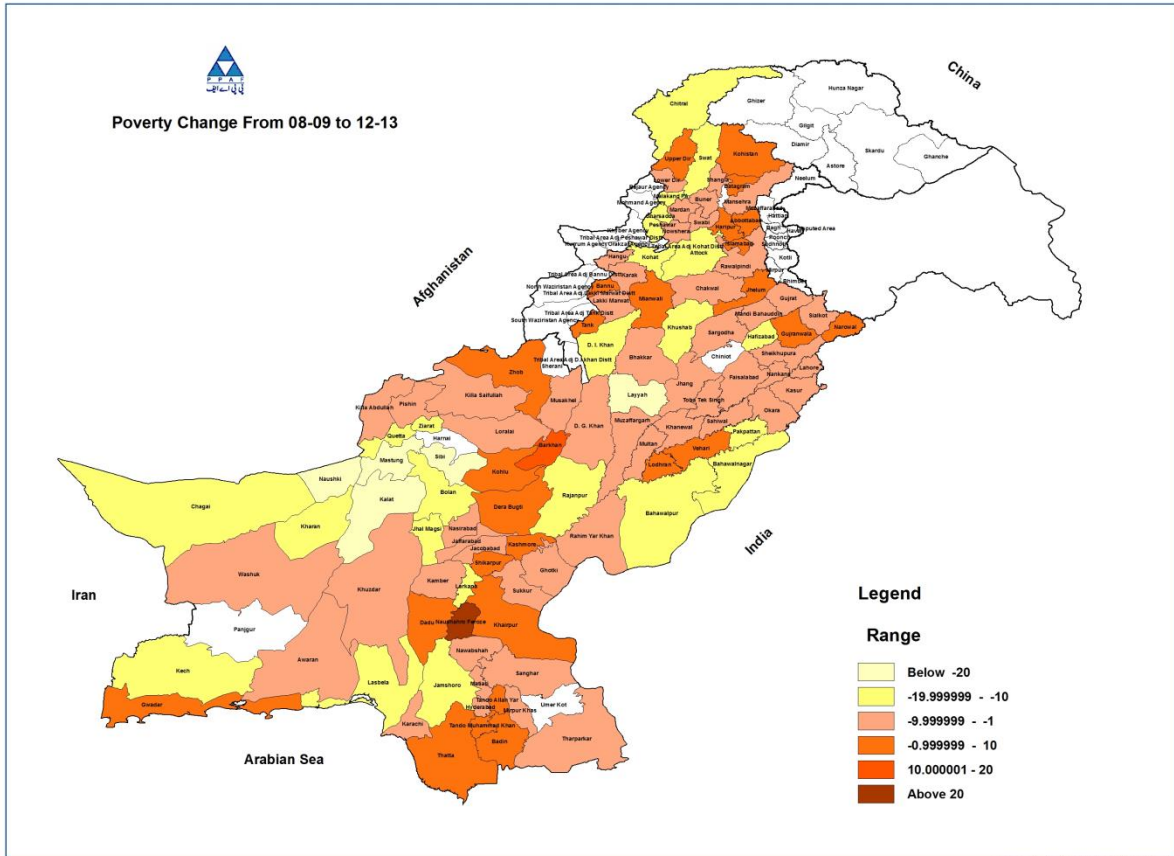
Conclusion

This chapter has presented the estimates of multidimensional poverty headcount ratio at the national, provincial and district levels for the years 2008-09, 2010-11 and 2012-13. With a reduction of 5.6 percentage points over the five years (or 1.1 per cent annually), nearly one-third of Pakistan's population continued to live under poverty in 2012-13. There are stark rural-urban inequalities in the headcount ratio which despite a higher absolute reduction in rural than urban poverty widened in relative sense over time. Rural headcount ratio was 4.65 times of urban headcount ratio in 2012-13.

The provincial level estimates of poverty show sharp differences in headcount ratio which are persistent over time. In 2012-13, Balochistan had more than 60 per cent of its population living below the poverty line, KP had more than 39 per cent, Sindh more than 37 per cent, and Punjab less than a quarter of its population. Over the five years, KP had made the highest and Sindh the lowest reduction in the headcount ratio. There are also wide rural-urban disparities within

each province. Sindh had the highest rural-urban inequality which increased over the five years in both absolute and relative terms due to persistence of rural poverty in the province.

District level analysis provides more detailed picture of the distribution of poverty headcount ratio at the sub-provincial level identifying the poorest districts of Pakistan. Districts like Kohlu and Kohistan had almost entire population living below poverty line in 2012-13. The geographic concentration of poverty is evident from the fact that out of 56 districts in the bottom two quintiles (highest headcount ratio), 23 are from Balochistan, 11 from Sindh, eight from KP, and two from Punjab. Districts which are largely rural and have low population are the ones with the highest headcount ratio. Least poor districts of Pakistan are mainly clustered in the north of Punjab up to Federal Capital and the adjacent districts of KP, and include the major urban centers in all provinces.

In Balochistan, districts in north-east and south-west have the highest headcount ratio. In KP, poverty is highly concentrated in several districts in north and south of the province. In Punjab, poverty is very high in the districts in the south of the province. In Sindh, southern districts have the highest headcount ratio followed by most of the districts of the province.

This chapter also identified the districts with the highest contribution to headcount ratio by taking their respective population share into account. The quintile of districts with the highest share to headcount ratio hosted 44.7 per cent population of the poor in Pakistan in 2012-13. This quintile consists of 11 districts from Punjab, mainly the southern part, nine districts from Sindh and three from KP. This chapter has also shown that different districts in each province have differently experienced change in headcount ratio over time and has identified the ones that had the highest reduction in headcount ratio over the five years.

Chapter 4

Depth of Deprivation: Intensity of Poverty

The previous chapter has presented the estimates of headcount ratio at various levels of aggregation. It is important to keep in mind that headcount ratio does not differentiate between a person 'A' deprived of all dimensions and a person 'B' deprived only of 40 per cent of the weighted dimensions since it treats both as 'poor'. However, the experience of poverty is vastly different for both. In other words, it is possible to have two population groups with similar headcount ratio but with different levels of deprivations faced by their respective poor people. Alkire and Foster methodology provides a distinct measure – intensity of poverty – to distinguish between the two groups of poor based on the extent of deprivations they face.

In the simplest sense, intensity of poverty is the average weighted sum of deprivations faced by all those below poverty line. It measures the depth of poverty. A group of the poor deprived of more dimensions scores high on intensity measure than another group of the poor facing fewer deprivations. This chapter presents the estimates of intensity of poverty and its trends over time at national, rural-urban, provincial, and district levels following the structure of the previous chapter.

a. National Level Estimates

At national level, those below poverty line faced on an average 56 per cent of the weighted sum of deprivations in 2008-09 falling only to 55 per cent in 2012-13. As Table 4.1 illustrates, there is a significant difference between the rural and urban poor over the extent of deprivations they face. Rural poverty is not only high in terms of headcount ratio, but also in terms of the intensity of deprivations, as compared to the urban poverty.

Table 4.1: Estimates of intensity of poverty at national level 2008-09 to 2012-13

Aggregates	Population share 2012-13	Intensity of poverty			Change (2008-09 to 2012-13)	
		2012-13	2010-11	2008-09	Absolute	Percentage
Pakistan	100.	0.548	0.555	0.560	-0.012*	-2.14
Rural	67.12	0.555	0.562	0.567	-0.012*	-2.12
Urban	32.88	0.485	0.495	0.501	-0.016*	-3.19

* Significant at the 5% level of significance.

The rural-urban gap in the intensity of poverty has widened over the five years since there is relatively higher decline in the intensity of urban than rural poverty.

b. Provincial Estimates of the Intensity of Poverty

There are substantial differences between provinces in the extent of deprivation faced by their respective poor as shown in Table 3.2. The poor in Balochistan on the average faced the highest deprivations than those in the rest of the country. In 2008-09, for example, the poor in Balochistan faced 6.5 per cent higher deprivations than the poor in Punjab. This gap in the intensity of poverty between the poorest and the least poor provinces has slightly increased over the five years as Punjab had the highest reduction of 2 percentage points in the intensity of poverty. In the same duration, Sindh had the lowest reduction in the intensity of poverty.

Table 4.2: Intensity of Poverty by Provinces and Rural Urban Population

Province	Pop. share	Intensity of poverty (I)			Change 2012-13 to 2008-09	
	2012-13	2012-13	2010-11	2008-09	Absolute	Per cent
Balochistan	**5.07**	**0.597**	**0.609**	**0.610**	**-0.013***	**-2.1**
Rural	3.91	0.605	0.619	0.620	-0.015*	-2.4
Urban	1.17	0.501	0.510	0.512	-0.011*	-2.1
KP	**14.17**	**0.552**	**0.556**	**0.561**	**-0.009***	**-1.6**
Rural	11.82	0.556	0.560	0.566	-0.01*	-1.8
Urban	2.35	0.483	0.501	0.513	-0.03*	-5.8
Punjab	**57.42**	**0.525**	**0.541**	**0.545**	**-0.02***	**-3.7**
Rural	39.4	0.533	0.547	0.550	-0.017*	-3.1
Urban	18.03	0.482	0.492	0.495	-0.013*	-2.6
Sindh	**23.33**	**0.562**	**0.559**	**0.570**	**-0.008***	**-1.4**
Rural	12.0	0.573	0.570	0.583	-0.01*	-1.7
Urban	11.33	0.487	0.492	0.502	-0.015*	-3.0

* significant at the 5% level of significance.

As evident in Table 4.2, the rural poor experience higher intensity than the urban population within each province. On the average, the rural poor in Balochistan experienced more than 10 percentage points higher deprivations than the urban poor in the province for all three survey rounds. The rural poor in Sindh also experienced very high levels of deprivations over these five years and rural intensity remained more than eight percentage points higher than the urban intensity. Within rural population, KP had the highest reduction of three percentage points in absolute terms in the intensity of poverty. Given lower reduction in the intensity of poverty for the rural poor in the province, rural and urban inequality in the deprivations faced by the poor has increased over time.

There are strong differences in the average deprivations experienced by urban and rural poor across provinces. In order to further explore the distribution of the intensity of poverty within each province to uncover inequalities glossed over by the provincial averages, the subsequent section presents district level analysis of the intensity of poverty for the period of 2008-09 to 2012-13.

c. District Level Analysis of Intensity of Poverty

This section explores variations in the intensity of poverty across districts and discusses its trends over time. This helps us identify the districts with the highest levels of deprivations faced by those living below the poverty line. It is important to keep in mind that at the poverty line of 40 per cent of deprivations, intensity of poverty cannot be lower than 0.40. Similarly, for intensity to assume the maximum value of one, all the poor in a group of population need to experience 100 per cent of the weighted sum of deprivations which is an unlikely scenario. Variations in the intensity of deprivation across different population groups and over time are, therefore, possible only within a narrow range of values.

Based on the national ranking of the districts over the intensity of poverty in 2012-13, the bottom two quintiles of the districts are presented here. Along with their intensity levels the estimates of poverty and trends over time are discussed (see the complete list of districts with estimates in the annex 2). This section also presents the top quintile of the districts where the poor have experienced the greatest reduction in the intensity of poverty. Table 4.3 presents the bottom quintile of the districts where the poor population, regardless of their headcount ratio experiences the highest intensity of poverty.

Table 4.3: 5th Quintile of Districts with the Highest Intensity of Poverty in Pakistan

Rank	Districts	2012-13		2010-11	2008-09	Change	
						2008-09 to 2012-13	
		Pop.	Intensity	Intensity	Intensity	Absolute	Percentage
1	Kohlu	0.11	0.716	0.648	0.715	0.001	0.14
2	Dera Bugti	0.12	0.708	0.745	0.712	-0.004	-0.56
3	Nasirabad	0.18	0.653	0.62	0.631	0.022*	3.49
4	Kohistan	0.38	0.639	0.652	0.671	-0.032*	-4.77
5	Zhob	0.12	0.63	0.628	0.65	-0.02*	-3.08
6	Jhal Magsi	0.08	0.628	0.585	0.666	-0.038*	-5.71
7	Torgarh	0.15	0.625	-	-	-	-
8	Panjgur*	0.20	0.623	0.623	0.607	0.016*	2.64
9	Bolan/Kachhi	0.21	0.623	0.584	0.686	-0.063*	-9.18
10	Sherani	0.62	0.62	0.598	-	-	-
11	Chaghi	0.09	0.619	0.65	0.624	-0.005	-0.8
12	Upper Dir	0.55	0.616	0.554	0.507	0.109*	21.5
13	Washuk	0.08	0.614	0.584	0.631	-0.017*	-2.69
14	Mirpur Khas	0.78	0.614	0.592	0.652	-0.038*	-5.83
15	Musa Khel	0.06	0.608	0.631	0.665	-0.057*	-8.57
16	Tharparkar	0.71	0.606	0.619	0.611	-0.005	-0.82
17	Thatta	0.78	0.6	0.582	0.599	0.001	0.17
18	Qilla Saifullah	0.1	0.597	0.621	0.595	0.002	0.34
19	Rajanpur	0.89	0.596	0.628	0.638	-0.042*	-6.58
20	Loralai	0.14	0.596	0.646	0.62	-0.024*	-3.87
21	Lasbella	0.23	0.596	0.633	0.594	0.002	0.34
22	Khuzdar	0.35	0.594	0.562	0.577	0.017*	2.95
23	Buner	0.37	0.593	0.604	0.568	0.025*	4.4

* Significant at the 5% level of significance.

The bottom quintile of the districts over intensity of poverty presents 23 districts with deprivations ranging from 59 to 72 per cent of total possible deprivations in 2012-13. The poor in Kohlu and Dera Bugti experienced more than 70 per cent of the possible deprivations in 2012-13. Overall, there is a strong convergence between the two measures, intensity and headcount ratio, which is evident from the fact that 17 districts in the bottom/5th quintile of intensity of poverty are also in the 5th quintile of the headcount ratio. Other six districts in 5th quintile of intensity (Mir Pur Khas, Rajanpur, Loaralai, Lasbella, Khuzdar and Buner) come from the 4th quintile of poverty headcount ratio. This suggests that where proportion of the poor is large in the population, they are likely to face higher deprivations on the average than the poor living in districts with low headcount ratios. Nonetheless, the ranking of districts is somewhat different on the two measures suggesting their distinctiveness.

The bottom quintile of intensity of poverty maintains the same geographic pattern as that of headcount ratio. As many as 15 districts in the quintile are from Balochistan, four from KP, one from Punjab and three from Sindh. There is a statistically significant increase over the five years in the intensity of poverty in four districts in the 5th quintile. The greatest increase has been seen in districts like Upper Dir where the poor experienced nearly 11 percentage points higher deprivations in 2012-13 than in 2008-09. In other eight districts, there has been a statistically significant decline in the intensity of poverty poverty the five years, with the highest decline of 6.5 percentage points in Bolan/Kachhi district. As pointed out in Chapter 3, most of the districts in the bottom quintile of intensity of poverty have very low share in total population. They are also highly rural and far from the major urban centers.

Table 4.4 presents the 4th quintile of intensity of poverty. Intensity varies in these districts from 55 to 59 per cent and the lower bound is not too high from the intensity at national level given the narrow range of measure in the year 2012-13. This quintile has the largest number of districts, i.e. nine from Sindh, eight from Balochistan, three from KP and one from Punjab.

Table 4.4: 4th Quintile of Districts with Highest Intensity of Poverty in Pakistan

Rank	Districts	2012-13		2010-11	2008-09	Change 2008-09 to 2012-13	
		Pop.	Intensity	Intensity	Intensity	Abs.	Perc.
24	Harnai	0.07	0.593	0.518			
25	Jaffarabad	0.36	0.591	0.594	0.597	-0.006	-1.01
26	Ketch/Turbat	0.34	0.588	0.656	0.604	-0.016*	-2.65
27	Qilla Abdullah	0.34	0.586	0.537	0.629	-0.043	-6.84
28	Badin	0.92	0.585	0.582	0.586	-0.001	-0.17
29	Shangla	0.37	0.585	0.59	0.59	-0.005	-0.85
30	Barkhan	0.09	0.585	0.642	0.61	-0.025	-4.1
31	Sanghar	1.01	0.58	0.568	0.583	-0.003	-0.51
32	Tando Mohd Khan	0.35	0.58	0.611	0.578	0.002	0.35
33	Awaran	0.11	0.579	0.553	0.639	-0.06*	-9.39
34	Umer Kot	0.58	0.579	0.579			
35	Kashmore	0.68	0.569	0.581	0.538	0.031*	5.76
36	Sibi	0.06	0.569	0.614	0.631	-0.062*	-9.83
37	Tank	0.19	0.568	0.556	0.543	0.025*	4.6
38	Nowshera	0.66	0.565	0.545	0.529	0.036*	6.81
39	Kharan	0.09	0.561	0.566	0.619	-0.058*	-9.37
40	Jaccobabad	0.53	0.561	0.548	0.566	-0.005	-0.88
41	Naushero Feroze	0.81	0.559	0.562	0.511	0.048*	9.39
42	Jamshoro	0.45	0.559	0.572	0.617	-0.058*	-9.4
43	Nawabshah	0.78	0.557	0.546	0.564	-0.007	-1.24
44	D. I. Khan	0.89	0.557	0.572	0.565	-0.008	-1.42
45	Pashin	0.32	0.554	0.503	0.562	-0.008	-1.42
46	Muzaffargarh	1.82	0.554	0.648	0.573	-0.019*	-3.32

* Significant at the 5% level of significance.

Over the five years, there has been a statistically significant increase in the intensity of poverty in four districts in the 4th quintile. The greatest increase of 4.8 percentage points is seen in Naushero Feroze, followed by 3.6 percentage points increase in Nowshera and 3.1 per cent in Kashmore. Six districts in the quintile have experienced statistically significant decline in the intensity value over the five years with the greatest decline of six percentage points in Sibi and Awaran.

The 4th quintile also shows the convergence and divergence between headcount and intensity measures in the sense that five districts in the 4th quintile of intensity are from the 5th quintile of headcount ratio and 11 districts are from the 4th quintile of the headcount ratio. Other seven districts in the 4th quintile of intensity come from higher quintiles of headcount ratio. The relationship between the two measures despite being strong is not perfect suggesting that they capture somewhat different aspects of deprivations.

In contrast to the districts in the bottom two quintiles, the intensity of poverty is very low in the top quintile districts, ranging from 46 to 51per cent of the weighted sum of deprivations (see annex 2). Most of these districts are also the least poor districts on headcount ratio. The

top quintile also shows geographic concentration as 16 districts in the quintile are from Punjab, other four are federal and provincial capitals, and one each from the three provinces. Map 4.1 provides the distribution of intensity of poverty across all districts of Pakistan.

Map 4.1: Distribution of Intensity of Poverty across Districts of Pakistan 2012-13
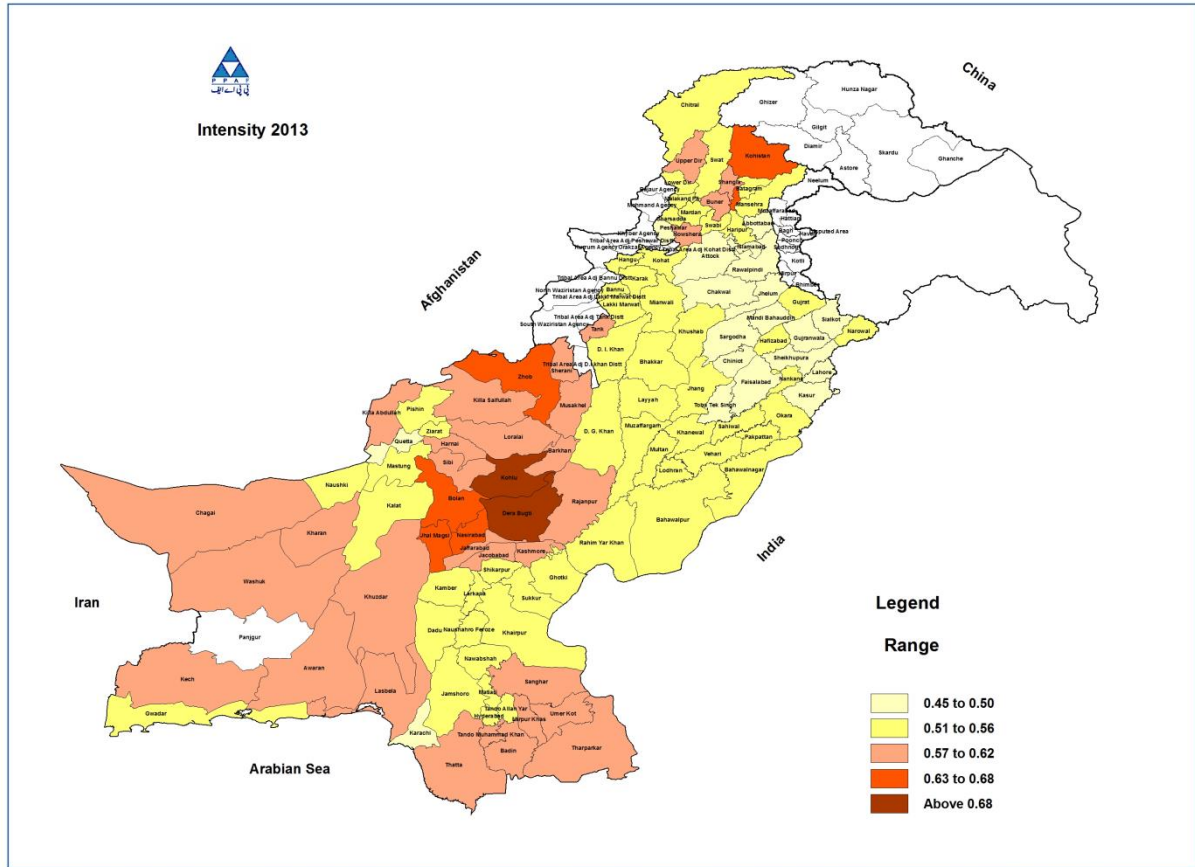
Map 4.1 illustrates the geographic distribution of the intensity of poverty across the districts of Pakistan. Like headcount ratio, high levels of intensity are clustered in north-east and south-west of Balochistan, north of KP, south of Sindh and Punjab. Districts in northern Punjab have the lowest intensity and those in central Punjab have relatively higher intensity.

Map 4.2 visually illustrates the relationship between poverty headcount ratio and the intensity of poverty for the year 2012-13. It presents a picture of the convergence between two measures. Overall, districts with the higher headcount ratio have higher intensity value, albeit with small variation in the magnitude of intensity within the same band of headcount ratio.

Map 4.2: Relationship between Headcount Ratio and Intensity of Poverty 2012-13
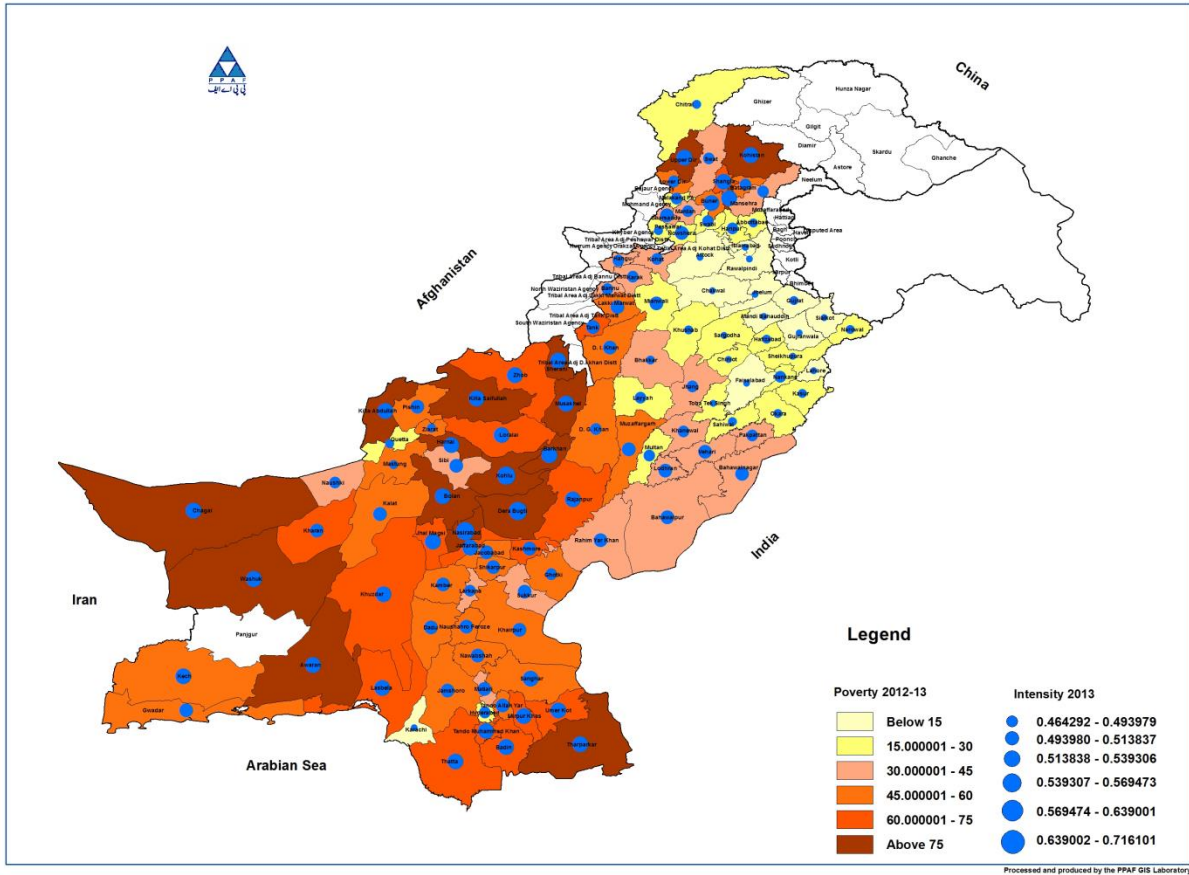
Change in the intensity of poverty from 2008-09 to 2012-13

The bottom two quintiles show that not only the intensity of poverty varies across districts; the magnitude of change over time also varies. The top quintile of the districts with the greatest reduction in the intensity of poverty over the five years is presented in Table 4.5. Nine districts in the quintile are from Balochistan, six from KP, five from Punjab and three from Sindh. The greatest decline of 10 percentage points is experienced by the poor in Mastung, which implies that the poor in 2012-13 experience 11 per cent lesser deprivations than in 2008-09. Districts like DG Khan, Bolan, Sibi, Awaran, Swat, Jamshoro, Kharan and Musa Khel have lowered the average deprivations faced by their respective poor at least by 6 percentage points.

Table 4.5: Top quintile of districts with the greatest reduction in intensity

Rank	Districts	2012-13		2010-11	2008-09	Change 2008-09 to 2012-13	
		Pop.	Intensity	Intensity	Intensity	Absolute	%
1	Mastung	0.12	0.51	0.55	0.62	-0.11*	-17.99
2	D.G. Khan	1.43	0.54	0.61	0.60	-0.07*	-10.85
3	Bolan/Kachhi	0.21	0.62	0.58	0.69	-0.06*	-9.24
4	Sibi	0.06	0.57	0.61	0.63	-0.06*	-9.76
5	Awaran	0.11	0.58	0.55	0.64	-0.06*	-9.46
6	Swat	1.04	0.53	0.56	0.59	-0.06*	-10.24
7	Jamshoro	0.45	0.56	0.57	0.62	-0.06*	-9.42
8	Kharan	0.68	0.56	0.57	0.62	-0.06*	-9.29
9	Musa Khel	0.06	0.61	0.63	0.66	-0.06*	-8.5
10	Mansehra	0.74	0.53	0.58	0.58	-0.05*	-8.38
11	Naushki	0.08	0.54	0.65	0.58	-0.05*	-8.12
12	Qilla Abdullah	0.34	0.59	0.54	0.63	-0.04*	-6.94
13	Rajanpur	0.89	0.60	0.63	0.64	-0.04*	-6.62
14	Layyah	1.01	0.52	0.59	0.56	-0.04*	-7.4
15	Haripur	0.55	0.52	0.50	0.56	-0.04*	-7.26
16	Jhal Magsi	0.08	0.63	0.58	0.67	-0.04*	-5.77
17	Mir Pur Khas	0.78	0.61	0.59	0.65	-0.04*	-5.86
18	Ättock	1.05	0.47	0.50	0.51	-0.04*	-7.36
19	Okara	1.71	0.51	0.52	0.55	-0.03*	-6.08
20	Peshawar	1.59	0.50	0.52	0.53	-0.03*	-6.24
21	Karak	0.35	0.52	0.56	0.56	-0.03*	-5.88
22	Tando Allah Yar	0.38	0.55	0.58	0.58	-0.03*	-5.56
23	Chitral	0.25	0.51	0.50	0.54	-0.03*	-5.9

* Significant at the 5% level of significance.

Another feature of this quintile is that most districts have low population share. Only six districts, namely DG Khan, Swat, Layyah, Attock, Peshawar, and Okara, had more than one per cent contribution to the total population. In the top quintile of intensity reduction, 11 district are also the ones which are in the top quintile of poverty headcount reduction They include Mastung, Bolan/Kachhi, Sibi, Swat, Kharan, Naushki, Rajanpur, Layyah, Jhal Magsi, Attock, Peshawar, and Chitral. Other 12 districts have reduced the intensity of poverty more than headcount ratio relative to other districts.

Conclusion

In contrast to the headcount ratio, the intensity of poverty is fairly stable over time at national level with only one percentage point decline in the five years. Rural poor consistently faced seven per cent higher deprivation than the urban poor. The poor in different provinces experienced poverty differently. In 2012-13, for example, the poor on the average faced 60 per cent deprivations in Balochistan, 56 per cent in Sindh, 55 per cent in KP and 54 per cent in Punjab. Within each province, the experience of poverty varied between rural and urban poor. In 2012-13, for example, rural poor in Balochistan, KP and Sindh experienced eight percentage point higher deprivations than the urban poor. The experience of provinces has varied on reducing intensity over time which is further differentiated across rural and urban populations.

Intensity of poverty tremendously varied across districts. In 2012-13, for example, the poor in Kohlu experienced 72 per cent of the total possible deprivations compared to 46 per cent in Gujranwala. The high levels of deprivations persist in several districts primarily the ones which also have high headcount ratios. There is also a geographic pattern in the distribution of intensity of poverty. The bottom two quintiles of intensity of poverty consist of 24 districts from Balochistan, 12 from Sindh, seven from KP and two from Punjab. In contrast, most of the districts with the lowest intensity of poverty are from Punjab. Geographically, the high levels of intensity are clustered in north-east and south-west of Balochistan, north of KP, south of Sindh, and south of Punjab. Districts in northern Punjab have the lowest intensity and those in central Punjab have relatively higher intensity. This chapter also shows that there is a strong overlap between the two measures of poverty, headcount ratio and intensity of poverty, albeit with a notable degree of divergence between them.

Chapter 5

Adjusted Headcount Ratio: Index of Multidimensional Poverty

The previous two chapters have presented the estimates of two distinct yet somewhat overlapping measures; breadth of poverty or headcount ratio, and depth of poverty or intensity. The two measures overlap as most of the poorest districts on headcount ratio also have the highest levels of the intensity of poverty. These measures are also distinct in the sense that they capture different aspects of deprivations. From policy perspective, it is useful to take into account both aspects of poverty. The Alkire and Foster approach, in this context, provides a third measure, which captures both aspects of poverty into single measure, the Adjusted Headcount Ratio. As explained in the methodology chapter, the adjusted headcount ratio is computed as a product of headcount ratio and intensity of poverty. A version of this measure is popularly used in the UNDP's Human Development Reports as Multidimensional Poverty Index (MPI). The MPI is primarily motivated by a global cross-country analysis of poverty thus uses internationally comparable indicators. Our choice of indicators is influenced by the coverage of PSLM and for a district level comparison. We alternatively call the adjusted headcount ratio in this report as the Index of Multidimensional Poverty or 'Index' in the remainder of this report. Given the collective measure of breadth and depth of poverty, the Index can be an efficient measure for targeting districts for poverty reduction programme. This chapter presents the estimates of Index/adjusted headcount ratio for the duration of this study and presents the results at national, provincial and district levels.

a. Estimates at National Level

The Index/adjusted headcount ratio suggests a small and steady decline of poverty at national level over the five years. At the aggregate level, the Index value declined by 0.02 points in each of the survey rounds as shown in Table 5.1. The adjust headcount ratio/Index of Multidimensional Poverty for rural population has remained more than four times higher for the entire period of this study. Chapters 3 and 4 have shown that variation in intensity between various population groups is smaller than variation in headcount ratio. The rural-urban disaggregation of adjusted headcount ratio shows a greater influence of headcount ratio on index/adjusted headcount ratio than the intensity of poverty.

Table 5.1: Adjusted Headcount Ratio at national level 2008-09 to 2012-13

Aggregates	Adjusted Headcount Ratio				Change	
	Pop. 2012-13	2012-13	2010-11	2008-09	Absolute	Percentage
Pakistan	100.	0.17	0.19	0.21	-0.04*	-19.0
Rural	67.12	0.24	0.26	0.28	-0.04*	-14.3
Urban	32.88	0.04	0.05	0.06	-0.02*	-33.3

*Significant at the level of 5 per cent.

In absolute terms, rural adjusted headcount ratio dropped by four points and urban by two points only, however, given the initial low urban adjusted headcount ratio, the rural-urban ratio has increased from 4.7 times in 2008-09 to 6 times in 2012-13. While there is an overall decrease in both rural and urban poverty, rural-urban inequality is rising.

b. Estimates at Provincial Level

Given the significant differences between provinces over the headcount ratio and intensity, the inter-provincial differences over the adjusted headcount ratio are not unexpected. Table 5.2 presents the adjusted headcount ratio over time at the provincial level disaggregated by rural and urban populations. It highlights the inequality between and within provinces over the joint measure of depth and breadth of poverty and trends over time.

Table 5.2: Adjusted Headcount Ratio by Provinces (2008-09 to 2012-13)

Province	Pop. share	Adjusted Headcount Ratio			Change (2008-09 to 2012-13)	
	2012-13	2012-13	2010-11	2008-09	Absolute	Per cent
Balochistan	**5.07**	**0.37**	**0.41**	**0.43**	**-0.06***	-14.0
Rural	3.91	0.46	0.50	0.52	-0.06*	-11.5
Urban	1.17	0.10	0.13	0.14	-0.04*	-28.6
KP	**14.17**	**0.22**	**0.25**	**0.27**	**-0.05***	-18.5
Rural	11.82	0.25	0.29	0.31	-0.06*	-19.4
Urban	2.35	0.06	0.09	0.10	-0.04*	-40.0
Punjab	**57.42**	**0.13**	**0.15**	**0.16**	**-0.03***	-18.8
Rural	39.4	0.17	0.20	0.22	-0.05*	-22.7
Urban	18.03	0.04	0.04	0.05	-0.01*	-20.0
Sindh	**23.33**	**0.21**	**0.21**	**0.22**	**-0.01***	-4.5
Rural	12.0	0.37	0.36	0.38	-0.01*	-2.6
Urban	11.33	0.05	0.05	0.06	-0.01*	-16.7

*Significant at the level of 5 percent.

Balochistan had two times higher adjusted headcount ratio than the national headcount ratio, and almost three times higher from that of Punjab, for the entire period of this study. Both KP and Sindh had higher index value than the national average. Over the five years, Balochistan had the greatest absolute decline in the adjusted headcount ratio followed by KP whereas Sindh had the lowest decline in the same time period.

Overall, the rural adjusted headcount ratios/index value is several times higher than the urban for each province and for the entire period of this study. In Balochistan, rural index value was 3.7 times higher than urban Index value in 2008-09 increasing to 4.6 in 2012-13 due to a higher decline in urban Index. Similarly, in KP, the rural to urban ratio of Index value in KP rose from 3.1 in 2008-09 to 4.2 in 2012-13. In Punjab, the rural to urban ratio of Index value rose from 4.4 in 2008-09 to 5 in 2010-11 but fell to 4.2 by 2012-13 showing a net decline over the five years. For the entire period of the study, the rural to urban ratio of Index value in Sindh remained the highest in the country: 6.3 in 2008-09; 7.2 in 2010-11; and 7.4 in 2012-13. Nonetheless, the absolute decline in the adjusted headcount ratio/Index value from 2008-09 to 2012-13 is higher for the rural population than the urban population in each province. The rise in rural to urban index ratios, suggesting the widening inequalities, is primarily because of very low urban index values.

c. District Level Analysis of the adjusted headcount ratio/Index of Multidimensional Poverty

In order to probe further into the inequalities between and within provinces, the analysis of the adjusted headcount ratio is extended beyond the provincial level. This section presents the district level estimates from 2008-09 to 2012-13. Following the format of previous two chapters, the bottom two quintiles based on national ranking of districts over the adjusted headcount ratio are presented and their trends over time are discussed. It also presents the top quintile of the districts that have experienced the highest decline in the adjusted headcount ratio over the five years.

Given the distribution of headcount ratio and intensity across districts, there is a great variation in the distribution of the adjusted headcount ratio/Index value across districts. Table 5.3 presents the 5th quintile of the districts on the adjusted headcount ratio.

Table 5.3: Bottom/5th Quintile of districts on Adjusted Headcount Ratio

Rank	Districts	2012-13		2010-11	2008-09	Change 2008-09 to 2012-13	
		Pop.	Index	Index	Index	Absolute	Per cent
1	Kohlu	0.11	0.691	0.61	0.666	0.025*	3.75
2	Dera Bugti	0.12	0.616	0.724	0.623	-0.007	-1.12
3	Kohistan	0.38	0.615	0.61	0.64	-0.025*	-3.91
4	Torgarh	0.15	0.557	-	-	-	-
5	Panjgur**	0.20	0.545	0.545	0.416	0.129*	31.01
6	Sherani	0.06	0.54	0.495	-	-	-
7	Nasirabad	0.18	0.529	0.48	0.532	-0.003	-0.56
8	Washuk	0.08	0.527	0.481	0.577	-0.05*	-8.67
9	Barkhan	0.09	0.508	0.602	0.46	0.048*	10.43
10	Chaghi	0.09	0.506	0.586	0.587	-0.081*	-13.8
11	Musa Khel	0.06	0.505	0.581	0.614	-0.109*	-17.75
12	Qilla Abdullah	0.34	0.498	0.361	0.555	-0.057*	-10.27
13	Qilla Saifullah	0.1	0.483	0.521	0.522	-0.039*	-7.47
14	Tharparkar	0.71	0.476	0.524	0.528	-0.052*	-9.85
15	Bolan/Kachhi	0.21	0.473	0.454	0.617	-0.144*	-23.34
16	Upper Dir	0.55	0.471	-	0.422	0.049*	11.61
17	Awaran	0.11	0.469	0.383	0.537	-0.068*	-12.66
18	Jhal Magsi	0.08	0.468	0.333	0.603	-0.135*	-22.39
19	Zhob	0.12	0.457	0.384	0.471	-0.014*	-2.97
20	Harnai	0.07	0.445	0.333		-	-
21	Thatta	0.78	0.438	0.409	0.386	0.052*	13.47
22	Badin	0.92	0.43	0.398	0.414	0.016*	3.86
23	Jaffarabad	0.36	0.425	0.461	0.454	-0.029*	-6.39

*Significant at the level of 5 per cent.

** 2010-11 value for Panjgur is reproduced for 2012-13 as PSLM did not cover the district in 2012-13.

The first feature of the 5th quintile of districts over adjusted headcount ratio is that it is almost the exact replica of the bottom quintile of the poverty headcount ratio as 22 out of 23 districts in both quintiles are the same albeit a somewhat different ranking on the two measures. It demonstrates, therefore, the similar geographic features as the bottom quintile of the headcount ratio does. As many as 17 districts are from Balochistan, and three from KP and Sindh each. Over the five years, the adjusted headcount ratio had a statistically significant increase in five districts with the highest increase in Panjgur district followed by Thatta. During the same period, there was statistically significant decrease in the adjusted headcount ratio of 13 districts with the highest decrease in Bolan/Kachhi and Jhal Magsi.

Another important feature of Table 5.3 is the persistence of poverty over time. As many as 13 districts, namely Kohlu, Dera Bugti, Kohistan, Bolan/Kachhi, Musa Khel, Jhal Magsi, Chaghi, Washuk, Nasirabad, Qilla Saifullah, Tharparkar, Zhob and Jaffarabad have remained in the bottom quintile of the districts for the entire period of this study (see annex 3). With the exception of Kohistan and Tharparkar, 11 of these districts were from Balochistan. Several other districts have been in the quintile for two of the three survey rounds. These evidences suggest that very high level of poverty, concentrated in most parts of Balochistan and in parts of KP and Sindh, persists over time.

Table 5.4 presents the 4th quintile of the districts on the adjusted headcount ratio. Like the bottom/5th quintile, the 4th quintile of adjusted headcount ratio also repeats the districts in the 4th quintile of poverty headcount ratio. As many as 22 districts in the 4th quintile of adjusted headcount ratio are also in the 4th quintile of the poverty headcount ratio (see Table 3.4), one from the 5th, and one from the 3rd quintile. There is thus a very strong relationship between headcount ratio and the adjusted headcount ratio. The variations in the latter are greatly explained by the variation in the former, at least for the bottom two quintile districts.

Table 5.4: 4th Quintile of districts over Adjusted Headcount Ratio

Rank	Districts	2012-13		2010-11	2008-09	Change 2008-09 to 2012-13	
		Pop.	**Index**	**Index**	**Index**	**Absolute**	**Percentage**
24	Umer Kot	0.58	0.422	-	-	-	-
25	Loralai	0.14	0.401	0.558	0.43	-0.029*	-6.74
26	Khuzdar	0.35	0.401	0.358	0.432	-0.031*	-7.18
27	Shangla	0.37	0.401	0.393	0.425	-0.024*	-5.65
28	Rajanpur	0.89	0.377	0.434	0.499	-0.122*	-24.45
29	Mirpur Khas	0.78	0.373	0.294	0.415	-0.042*	-10.12
30	Kashmore	0.68	0.363	0.351	0.327	0.036*	11.01
31	Lasbella	0.23	0.359	0.468	0.416	-0.057*	-13.7
32	Tando Mohd. Khan	0.35	0.352	0.386	0.339	0.013	3.83
33	Tank	0.19	0.351	0.354	0.337	0.014	4.15
34	Kharan	0.09	0.34	0.454	0.495	-0.155*	-31.31
35	Jaccobabad	0.53	0.327	0.344	0.365	-0.038*	-10.41
36	Pashin	0.32	0.316	0.179	0.365	-0.049*	-13.42
37	Ketch/Turbat	0.34	0.316	0.521	0.429	-0.113*	-26.34
38	D.G. Khan	1.43	0.299	0.418	0.384	-0.085*	-22.14
39	D.I. Khan	0.89	0.298	0.377	0.362	-0.064*	-17.68
40	Nawabshah	0.78	0.295	0.263	-	-	-
41	Kalat	0.16	0.293	0.335	0.464	-0.171*	-36.85
42	Buner	0.37	0.292	0.411	0.326	-0.034*	-10.43
43	Tando Allah Yar	0.38	0.289	0.295	0.281	0.008	2.85
44	Shahdadkot	0.77	0.283	0.287	0.314	-0.031*	-9.87
45	Shikarpur	0.77	0.28	0.299	0.228	0.052*	22.81
46	Lower Dir	0.67	0.274	0.2	0.332	-0.058*	-17.47

*Significant at the level of 5 per cent.

Sindh has the highest number of nine districts in the 4th quintile of the adjusted headcount ratio followed by seven from Balochistan, five from KP and two from Punjab. Within the 4th quintile, two districts, Shikarpur and Kashmore, have experienced a statistically significant increase in their adjusted headcount ratio from 2008-09 to 2012-13. Other 16 districts have experienced a statistically significant net reduction in their headcount ratio over the five years. The greatest reduction in this quintile has occurred in Kalat, Kharan, Rajanpur and Ketch/Turbat.

Within the bottom two quintiles of the adjusted headcount ratio, more than half (24) districts are from Balochistan, 12 from Sindh, eight from KP and only two from Punjab. Other poor districts in Punjab that have very high index value but are included in 3rd quintile are: Muzaffargarh, Vehari, Rahim Yar Khan, Bahawalpur, Lodhran, Bhakkar, Bahawalnagar and Jhang (see annex 5).

Several districts in the country had very low adjusted headcount ratio during the period of this study given their low headcount ratio and/or low intensity of poverty. As many as 18 districts have remained in the lowest value quintile over the adjusted headcount ratio for the entire period of this study (see annex 3). These districts include: Jhelum, Islamabad, Lahore, Rawalpindi, Karachi, Gujranwala, Gujrat, Sialkot, Chakwal, Mandi Bahauddin, Hyderabad, Faisalabad, Haripur, Attock, T.T. Singh, Sheikhopura, Sargodha, and Nankana Sahib. Three others, such as Abbottabad, Quetta and Narowal, were in the quintile for two rounds of the survey. It is important to note that the top quintile of the adjusted headcount ratio consists of 15 districts from Punjab, two urban districts from Sindh, one district from KP and Islamabad. Most of the districts in the quintile are the ones that are also the least poor, least extreme poor and the least poverty-intense districts. Such persistence of very low levels of poverty – its breadth and depth - in a small number of districts over time suggests the consistency in the overall patterns of social and economic development in these areas.

Map 5.1 presents a rather holistic picture of the adjusted headcount ratio at the district level for the year 2012-13.[8] It also shows the relationship between adjusted headcount ratio and the poverty headcount ratio for the same year. Levels of adjusted headcount ratios, whether low or high, are closely associated with the levels of poverty headcount ratio. Map 5.1 clearly illustrates the geographic distribution of poverty in Pakistan. Districts in the north of Punjab, Islamabad and in the east of KP are the least poor districts of Pakistan. Districts in central Punjab, most districts in central and north of KP, northwest of Balochistan, and the urban districts in the south of Sindh also experience low levels of poverty although higher than the districts in the north of Punjab. Districts in the south of Punjab, several districts in the center and south of KP and interior Sindh experience high levels of poverty. The highest levels of poverty can be seen in most parts of Balochistan, north of KP, and south of Sindh. Most of the districts in Sindh experience high levels of poverty.

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[8] Data for Panjgur district is missing in the PSLM 2012-13 hence it is left blank in the map. In Table 5.3, the value for previous survey round is reproduced.

Map 5.1: Distribution of Poverty Headcount Ratio & Adjusted Headcount Ratio across Districts 2012-13
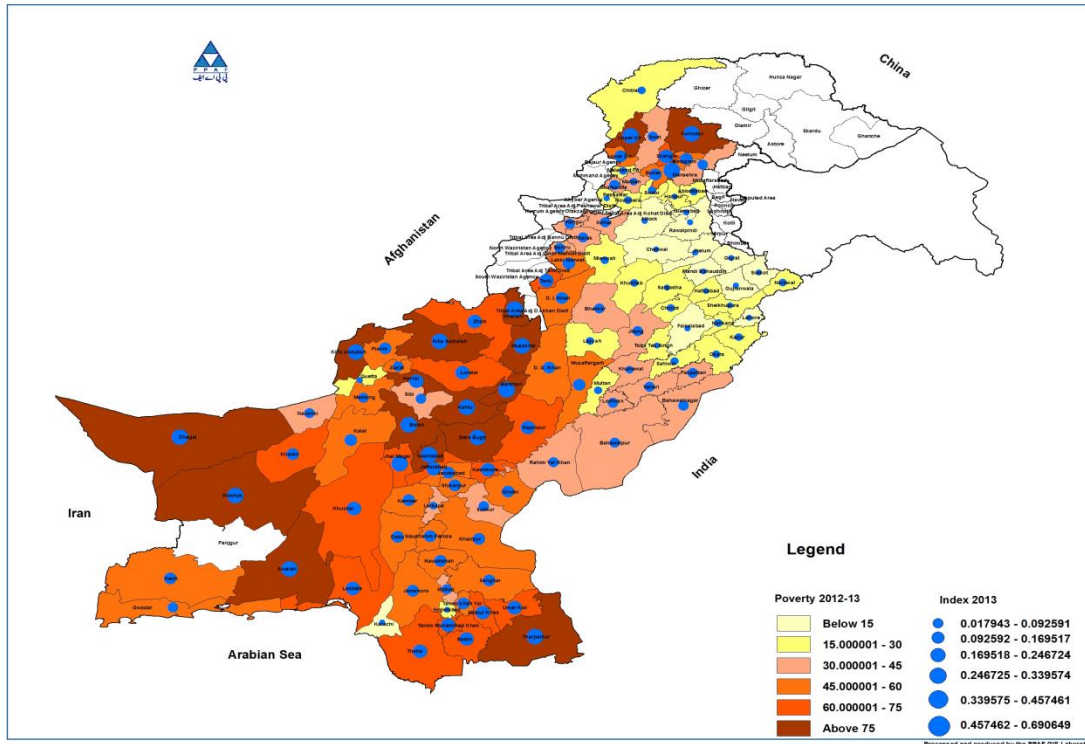
The relationship between three measures, headcount ratio, intensity of poverty, and adjusted headcount ratio is shown in Figure 5.1. In a way, this illustrates the composition of the adjusted headcount ratio/Index of Multidimensional Poverty as a product of the headcount ratio and the intensity. Overall, the variation in headcount ratio is higher than the narrow range of the adjusted headcount ratio. Figure 5.1 suggests that headcount ratio takes precedence in explaining the Index value/adjusted headcount ratio, whereas, intensity drives the adjusted headcount ratio in the low Index districts.

Figure 5.1: Relationship between Headcount Ratio, Intensity of Poverty, & Adjusted Headcount Ratio 2012-13
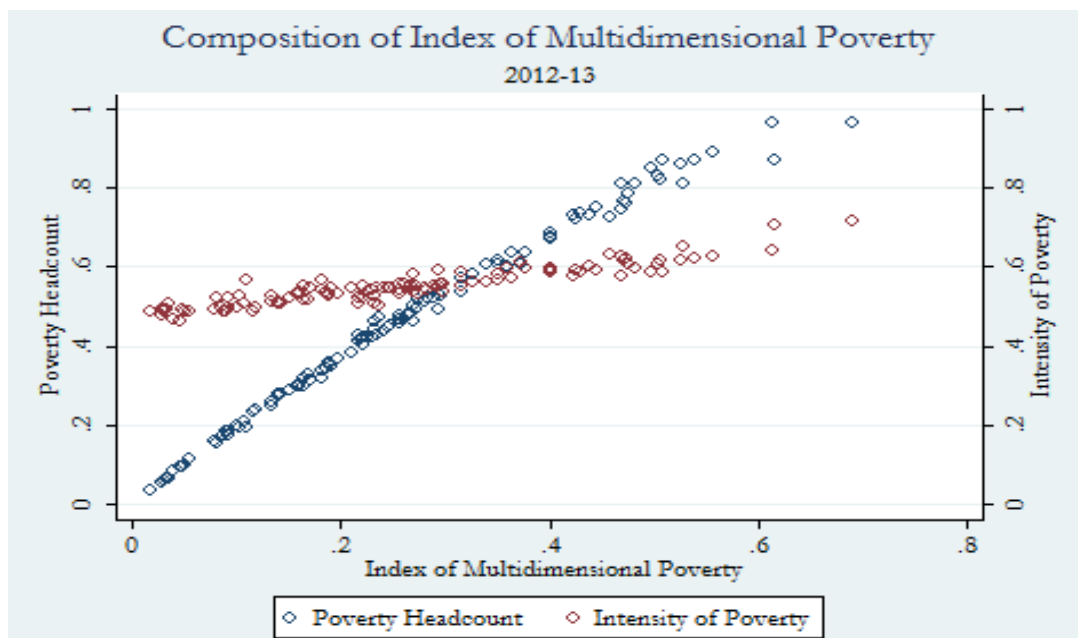
Change in the adjusted headcount ratio from 2008-09 to 2012-13

The districts that have experienced the greatest change in the adjusted headcount ratio from 2008-09 to 2012-13 are also identified. Nationally, the adjusted headcount ratio dropped from 0.21 to 0.17. Nonetheless, this change is experienced differently by different districts. Table 5.5 presents the top quintile of the districts that have experienced the greatest decline in the adjusted headcount ratio over the five years.

Table 5.5: Top Quintile of Districts with Greatest Decrease in the Value of Index of Multidimensional Poverty (2008-09 to 2012-13)

Rank	Districts	2012-13		2010-11	2008-09	Change 2008-09 to 2012-13	
		Pop.	Index	Index	Index	Absolute	%
1	Mastung	0.12	0.233	0.252	0.479	-0.246*	-51.32
2	Sibi	0.06	0.181	0.202	0.361	-0.181*	-49.97
3	Nushki	0.08	0.225	0.487	0.404	-0.179*	-44.26
4	Kalat	0.16	0.293	0.335	0.464	-0.171*	-36.91
5	Kharan	0.68	0.340	0.454	0.495	-0.156*	-31.43
6	Bolan/Kachhi	0.21	0.473	0.454	0.617	-0.144*	-23.36
7	Jhal Magsi	0.08	0.468	0.477	0.603	-0.135*	-22.34
8	Layyah	1.01	0.151	0.255	0.277	-0.126*	-45.52
9	Swat	1.04	0.219	0.280	0.341	-0.121*	-35.61
10	Rajanpur	0.89	0.378	0.434	0.499	-0.121*	-24.28
11	Ketch/Turban	0.34	0.316	0.521	0.429	-0.113*	-26.38
12	Musa Khel	0.06	0.505	0.581	0.614	-0.109*	-17.71
13	Chitral	0.25	0.133	0.214	0.240	-0.107*	-44.63
14	Mansehra	0.74	0.188	0.253	0.294	-0.106*	-36.07
15	Karak	0.35	0.222	0.372	0.319	-0.097*	-30.32
16	Charsada	0.77	0.183	0.247	0.277	-0.094*	-34.04
17	Jamshoro	0.45	0.257	0.302	0.350	-0.093*	-26.69
18	D.G. Khan	1.43	0.299	0.418	0.384	-0.085*	-22.1
19	Larkana	0.78	0.170	0.204	0.254	-0.084*	-33.19
20	Ziarat	0.03	0.236	0.301	0.320	-0.083*	-26.05
21	Chaghi	0.09	0.506	0.586	0.587	-0.081*	-13.85
22	Muzaffargarh	1.82	0.267	0.339	0.345	-0.078*	-22.72
23	Peshawar	1.59	0.093	0.154	0.166	-0.074*	-44.36

*Significant at the level of 5 per cent.

In this quintile, 11 districts are from Balochistan, six from KP, four from Punjab, and only two from Sindh. It is worth noting that most of the districts experiencing greatest reduction in the adjusted headcount ratio have smaller population share in the total sample. A few large sized districts such as Muzaffargarh, Peshawar, DG Khan, Swat and Layyah have also experienced a significant decline in the cumulative measure of depth and breadth of poverty.

It is important to note that change in the adjusted headcount ratio seems to be primarily driven by the headcount ratio as 17 districts in this quintile are also in the top quintile of the reduction in headcount ratio. Six other districts namely Jamshoro, D G Khan, Musa Khel, Muzaffargarh, Mansehra and Karak have relatively higher reduction in their adjusted headcount ratio than headcount ratio. These districts have relatively higher decline in the intensity of poverty than headcount ratio.

In the meantime, there are several districts that have experienced an increase in their adjusted headcount ratio over the five years. Naushahro Feroze, for example, has observed the

absolute increase in the Index value followed by Upper Dir, Barkhan, Dadu, Shikarpur and Kohlu (see annex 5). Map 5.2 presents a comprehensive picture of the change in the adjusted headcount ratio across all the districts.

Map 5.2: Change in the Adjusted Headcount Ratio from 2008-09 to 2012-13
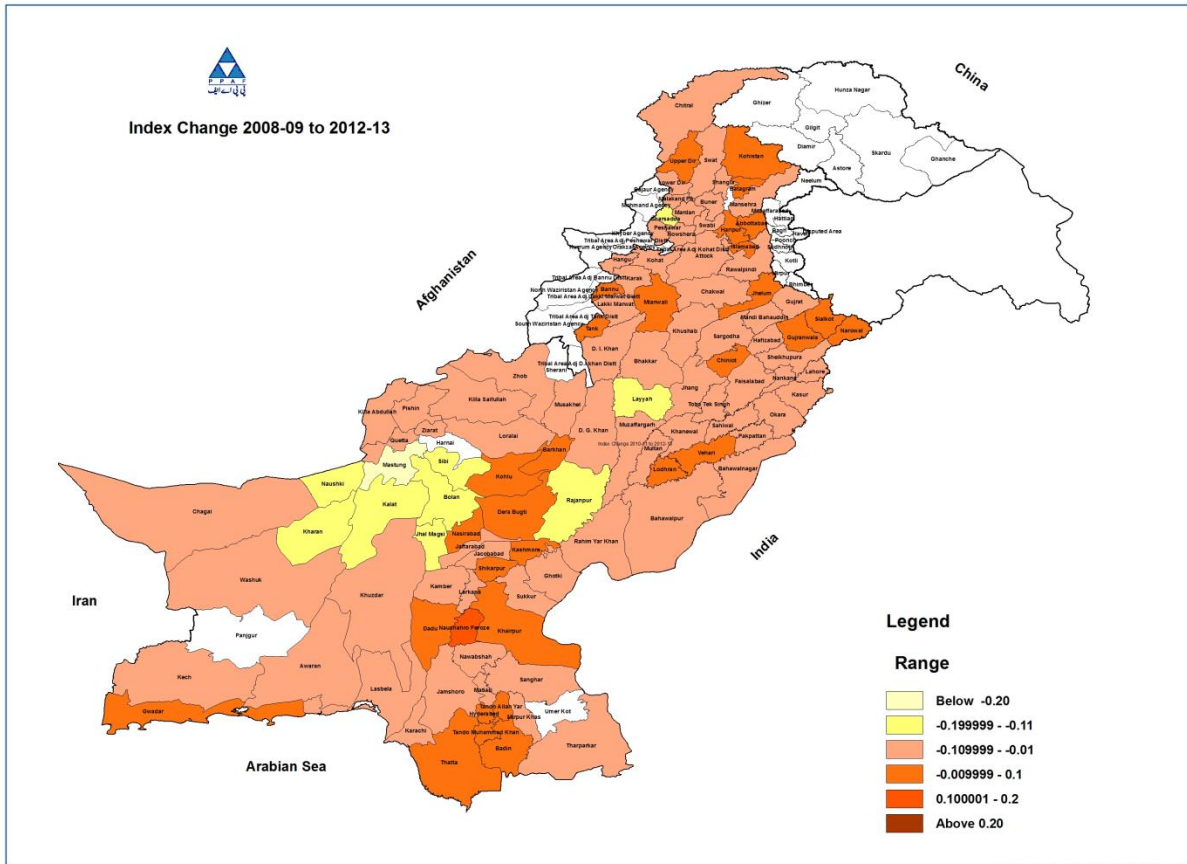
Conclusion

At the aggregate level, the adjusted headcount ratio demonstrates a gradual decline in poverty over the five years. As reported on other two measures, rural-urban disparities are very high at national level. Despite a higher absolute decline in rural adjusted headcount ratio than the urban, rural to urban ratio of the adjusted headcount ratio has increased from 4.7 in 2008-09 to 6 in 2012-13. The adjusted headcount ratio maintains the interprovincial differences, rural-urban differences within and between provinces, and the trends in these over time as reported by the measures of headcount ratio and intensity of poverty.

District level analysis identifies the districts with the highest and the lowest adjusted headcount ratio in the country. It reiterates the geographic distribution of poverty as shown by the headcount ratio and the intensity of poverty. Districts in the north of Punjab, Islamabad and in the east of KP have the lowest adjusted headcount ratio in the country. Districts in central Punjab, most districts in central and north of KP, northwest of Balochistan, and the urban districts in the south of Sindh also experience low levels of adjusted headcount ratio although higher than the districts in the north of Punjab. Districts in the south of Punjab,

several districts in the center and south of KP and interior Sindh experience the high adjusted headcount ratio. The highest adjusted headcount ratios are found in most parts of Balochistan, north of KP, and south of Sindh. Rural districts and those with low population have very higher adjusted headcount ratio than the populous and urban districts.

This chapter also explored the relationship of the adjusted headcount ratio with its two constituting measures. It showed that the intensity drives the adjusted headcount ratio in the low Index districts, whereas in the high Index districts, it is the headcount ratio which takes precedence in explaining the Index value/adjusted headcount ratio.

Chapter 6

Extreme Poverty

As defined in the Chapter 2, extreme poor are those who fall below a higher poverty line of 50 per cent of the weighted sum of deprivations with the dimensions, indicators and weights used for computing headcount ratio. Extreme poor are thus a sub-set of the poor and are the ones whose intensity levels are above 50 per cent. There is an analytical value in exploring the dynamics of extreme poverty to examine if there is a distinction between the characteristics of the poor and the extreme poor. From the policy perspective, it is important to identify amongst the poor who experience relatively higher deprivations and estimate their proportion in different population groups, and track the trends in extreme poverty over time. Given the high incidence of poverty and the scarcity of resources, extreme poverty merits priority in poverty reduction programmes and hence needs to be estimated and analyzed. This chapter does not address all these aspects of extreme poverty given the focus of this report and presents the incidence of extreme poverty, its distribution across the country at various levels of disaggregation, and trends over time. Following the structure of earlier chapters, Section A presents the estimates of extreme poverty at national level and Section B presents these estimates at the provincial levels. Both sections also provide rural-urban differences. Section C presents the district level analysis of extreme poverty.

a. Extreme Poverty at National Level

Over the five years, more than half of the poor experienced extreme poverty. With an absolute decline of 4.2 percentage points over the five years, extreme poverty fell gradually from 22.8 per cent of population in 2008-09 to 18.6 per cent in 2012-13 (Table 6.1).

Table 6.1: Extreme Poverty in Pakistan (2008-09 to 2012-13)

National level	Population share 2012-13 ( )	Extreme poor out of total population			Change 2008-09 to 2012-13	
		2012-13	2010-11	2008-09	Absolute	Percentage
Pakistan	100.	18.6	20.9	22.8	-4.2*	-18.4
Rural	67.12	26.4	29.3	31.5	-5.1*	-16.2
Urban	32.88	3.0	4	5.1	-2.1*	-41.2

* significant at the 5% level of significance.

The rural – urban differences are more nuanced in extreme poverty than on other measures of poverty presented in this report. One-third of the urban poor in 2012-13 were extreme poor, whereas, 62.4 per cent of the rural poor were extreme poor, despite a higher absolute decline in rural extreme poverty than urban extreme poverty over the five years.

b. Extreme Poverty at Provincial Level 2008-09 to 2012-13

Like the other measures of poverty, extreme poverty also shows strong inequalities between provinces and between rural and urban populations within each province as shown in Table 6.2. With around half of its population living below the extreme poverty line, Balochistan had the largest proportion of extreme poor out of its population compared to other provinces for the period of this study. Sindh had the second highest proportion of extreme poor in 2012-13, almost a quarter of its population, followed closely by KP. In the same year, Punjab had the lowest proportion 12.8 per cent of its population under extreme poverty.

Table 6.2: Provincial Level Estimates of Extreme Poverty (2008-09 to 2012-13)

Province	Pop. share	Extreme poor out of total population			Contribution to extreme poverty (%)	Change	
	2012-13	2012-13	2010-11	2008-09	2012-13	Abs	Per
Balochistan	5.07	46.2	49.8	52.7	12.59	-6.5*	-12.3
Rural	3.91	58.2	63.9	65.8	12.23	-7.6*	-11.6
Urban	1.17	8.6	11.8	12.8	0.54	-4.2*	-32.8
KP	14.17	23.7	26.6	30.3	18.06	-6.6*	-21.8
Rural	11.82	27.6	32.7	35.8	17.54	-8.2*	-22.9
Urban	2.35	4.3	7.6	9.2	0.54	-4.9*	-53.3
Punjab	57.42	12.8	15.4	17.2	39.51	-4.4*	-25.6
Rural	39.4	17.6	21.8	24.5	37.28	-6.9*	-28.2
Urban	18.03	2.5	3.1	3.5	2.42	-1.0*	-28.6
Sindh	23.33	24.1	24.6	25.7	30.23	-1.6*	-6.2
Rural	12	44.1	42.9	45.3	28.45	-1.2*	-2.6
Urban	11.33	3	3.8	5.5	1.83	-2.5*	-45.5

*Significant at 5% level of significance.

Given the higher intensity of poverty experienced by the poor in Balochistan, nearly three-quarters of Balochistan's poor were extreme poor in 2012-13. In Sindh, nearly two-thirds of the poor were extreme poor in the same year. In contrast, slightly above half of the poor in Punjab were extreme poor. As more than 57 per cent population of Pakistan lives in Punjab, its share to extreme poverty is, therefore, the highest. Almost 40 per cent of total population of extreme poor lived in Punjab and more than 30 per cent in Sindh in 2012-13. In contrast, due to very high incidence of extreme poverty, Balochistan makes 12.6 per cent contribution to extreme poverty, which is 2.5 times higher than its share to the country's population. Except for Punjab, the contribution of other provinces to extreme poverty is higher than their respective share to total population.

There are stark rural-urban inequalities within each province. Nearly 60 per cent of the rural population in Balochistan was extreme poor in 2012-13 compared to 8.6 per cent urban population. In Sindh, more than 44 per cent of rural population was extreme poor in the same year compared to only 3 per cent urban population. While smaller than in Balochistan and Sindh, rural-urban disparity in extreme poverty was also very high in KP and Punjab.

The pace of extreme poverty reduction has varied across provinces and rural and urban populations within each province. Over the five years, KP had the highest reduction in extreme poverty in total and for its rural population, in absolute terms, followed by Balochistan. The

lowest reduction in extreme poverty, overall and in rural population occurred in Sindh. Except for Sindh, the absolute decline in rural extreme poverty was higher than the decline in urban extreme poverty in each province. Extreme poverty in Sindh rather increased in 2012-13 from its level in 2010-11.

Despite a higher absolute decline in rural than urban extreme poverty, the rural to urban extreme poverty ratio increased over time due to relatively very low base and higher proportional decline in urban extreme poverty. In Balochistan, rural to urban extreme poverty ratio increased from 5.1 in 2008-09 to 6.8 by 2012-13. In KP, it rose from 3.9 in 2008-09 to 6.4 by 2012-13. In Punjab, rural to urban ratio, which is much higher than that of Balochistan and KP, remained stable at seven for the three rounds of PSLM. In Sindh, rural to urban extreme poverty ratio rose from 8.2 in 2008-09 to the highest level of 14.7 in 2012-13.

c. District Level Analysis of Extreme Poverty

Various measures of poverty presented in previous chapters illustrate geographic patterns of poverty, which are replicated in the case of extreme poverty. Based on the national ranking of districts over the incidence of extreme poverty in 2012-13, this section presents the bottom two quintiles of districts with their respective incidence of extreme poverty from 2008-09 to 2012-13 and the change that has occurred during these five years.

Several of the poorest districts in Pakistan have exceptionally high incidence of extreme poverty as shown in Table 6.3. Extreme poverty in the bottom (5th) quintile districts ranged from 53 to 90.9 per cent in 2012-13. Four districts namely Kohlu, Kohistan, Dera Bugti and Torghar, in the same year, had at least three-quarters of their population as extreme poor, and nine other districts had more than two-thirds of their population living in extreme poverty. Extreme poverty bottom quintile replicates the bottom quintile districts of poverty headcount ratio as 22 out of 23 districts are in the 5th quintile for both the measures of poverty. This suggests that the districts with the highest proportion of poor also have the highest proportion of extreme poor in their population.

Table 6.3: Bottom Quintile of Extreme Poor Districts in Pakistan – (2008-09 to 2012-13)

Rank	Districts	2012-13		2010-11	2008-09	Change	
						2008-09 to 2012-13	
		Pop.	Extreme Poverty	Extreme Poverty	Extreme Poverty	Absolute	Percentage
1	Kohlu	0.11	90.9	81.6	87.9	3.0*	3.41
2	Kohistan	0.38	85.3	86.8	86.8	-1.5	-1.73
3	Dera Bugti	0.12	82.4	95.9	75.7	6.7*	8.85
4	Torgarh	0.15	73.3	-	-	-	-
5	Sherani	0.46	70.8	66.7	-	-	-
6	Nasirabad	0.18	70.5	63.5	70.6	-0.1	-0.14
7	Panjgur**	0.20	70.4	70.4	-	-	-
8	Washuk	0.08	70.4	56.6	76.9	-6.5*	-8.45
9	Musa Khel	0.06	66.9	82.	79.8	-12.9*	-16.17
10	Chaghi	0.09	66.6	80.5	75.9	-9.3*	-12.25
11	Qilla Abdullah	0.34	65.6	39.4	69.5	-3.9*	-5.61
12	Barkhan	0.09	62.8	80.7	56.2	6.6*	11.74
13	Qilla Saifullah	0.1	61.9	66.2	67.6	-5.7*	-8.43
14	Bolan/Kachhi	0.21	61.3	59.5	80.9	-19.6*	-24.23
15	Tharparkar	0.71	60.8	69.4	69.3	-8.5*	-12.27
16	Upper Dir	0.55	59.4	45.5	54.3	5.1*	9.39
17	Awaran	0.11	58.9	41.2	73.7	-14.8*	-20.08
18	Jhal Magsi	0.08	55.7	64.4	80.4	-24.7*	-30.72
19	Jaffarabad	0.36	55.0	62.3	55.6	-0.6	-1.08
20	Thatta	0.78	54.8	52.6	49.3	5.5*	11.16
21	Zhob	0.12	53.5	67.8	56.5	-3.0*	-5.31
22	Harnai	0.07	53.3	23.2	-	-	-
23	Umer Kot	0.58	53.0	42.1	-	-	-

*Significant at 5% level of significance. ** Data for Panjgur is not available for 2012-13, estimates for 2010-11 are reproduced here.

The geographic concentration of extreme poverty is similar to that of headcount ratio; 17 districts in the 5th quintile are from Balochistan, three from KP, three from Sindh and no district from Punjab. Like the 5th quintile of headcount ratio, districts in this quintile are also less populous and primarily rural. There was statistically significant increase in extreme poverty over the five years in five districts. Dera Bugti, Awaran, Barkhan and Thatta have experienced at least five percentage points increase in extreme poverty from 2008-09 to 2012-13. High increase in extreme poverty of 20 percentage points in Hernai and of 11 percentage points in Umer Kot has been observed from 2010-11 to 2012-13 and the data for these districts is not available for the year 2008-09. There was statistically significant reduction in extreme poverty in 12 other districts. The greatest reduction has occurred in Jhal Magsi, Bolan Kchhi, Awaran, Musa Khel and Chaghi.

The 4th quintile of extreme poverty largely replicates the 4th quintile of poverty headcount ratio as 19 districts are common in both. This quintile has higher share of the districts from Sindh (10 out of 23), and seven districts are from Balochistan, four from KP and only two from Punjab.

Table 6.4: 4th Quintile of Districts over Extreme Poverty

Rank	Districts	2012-13		2010-11	2008-09	Change 2008-09 to 2012-13	
		Pop.	Extreme Poverty	Extreme Poverty	Extreme Poverty	Abs.	Perc.
24	Khuzdar	0.35	52.0	41.3	53.1		
25	Badin	0.92	51.3	50.2	53.7	-2.4	-4.47
26	Shangla	0.37	48.5	52.3	57.3	-8.8*	-15.36
27	Mir Pur Khas	0.78	46.8	35.0	52.4	-5.6*	-10.69
28	Rajanpur	0.89	46.1	57.0	69.7	-23.6*	-33.86
29	Lasbella	0.23	46.0	57.5	50.9	-4.9*	-9.63
30	Kashmore	0.68	45.9	43.2	37.6	8.3*	22.07
31	Loralai	0.14	45.8	73.8	56.3	-10.5*	-18.65
32	Jaccobabad	0.53	42.5	40.1	43.2	-0.7	-1.62
33	Tando Mohd Khan	0.35	41.4	50.5	39.6	1.8	4.55
34	Tank	0.19	40.5	42.8	36.8	3.7*	10.05
35	Ketch/Turbat	0.34	39.1	69.6	59.0	-19.9*	-33.73
36	Kharan	0.09	38.0	50.0	67.0	-29.0*	-43.28
37	Kalat	0.16	36.6	37.8	61.6	-25.0*	-40.58
38	D.I. Khan	0.89	36.0	44.5	44.4	-8.4*	-18.92
39	Pashin	0.32	34.7	16.1	42.4	-7.7*	-18.16
40	Buner	0.37	34.6	51.0	38.3	-3.7*	-9.66
41	Nawabshah	0.78	34.5	29.3	36.6	-2.1*	-5.74
42	Jamshoro	0.45	32.1	35.8	38.0	-5.9*	-15.53
43	Tando Allah Yar	0.38	31.9	38.7	31.2	0.7	2.24
44	D.G. Khan	1.43	31.7	53.3	48.7	-17.0*	-34.91
45	Shikarpur	0.77	31.4	37.3	24.3	7.1*	29.22
46	Shahdadkot	0.77	31.1	30.9	37.5	-6.4*	-17.07

*Significant at 5% level of significance.

Most of the districts in 4th Quintile as in the 5th Quintile are less populous and mostly rural. There was a statistically significant decrease in extreme poverty over the five years in three districts, namely Kashmore, Shikarpur and Tank. Other 15 districts have experienced a statistically significant reduction in extreme poverty in the same period. The highest reduction in extreme poverty was in Kharan, Kalat, Rajanpur, Ketch/Turbat and DG Khan.

Collectively, the bottom two quintiles of extreme poverty report 24 districts from Balochistan, 13 from Sindh, seven from KP, and only two from Punjab. Given the higher share of Balochistan and Sindh to the bottom two quintiles, several districts in KP and Punjab that have higher incidence of extreme poverty compared to other districts in their respective province are not reported here. Districts Lakki Marwat, Lower Dir and Battagram from KP and Muzaffargarh, Vehari, Rahim Yar Khan, Bahawalpur, Bahawalnagar, Lodhran, Pakpatan and Jhang are amongst the 10 districts with the highest incidence of extreme poverty within their respective province.

In line with the geography of poverty presented in Chapter 3, most of the districts with the lowest incidence of extreme poverty are concentrated in Punjab. In the least extreme poor quintile 16 districts (annex 4) in 2012-13 were from Punjab, mainly from northern/central Punjab and the only non-Punjab districts making to the quintile were the federal and provincial capitals, along with Hyderabad from Sindh and Abbottabad from KP. Extreme poverty in the districts in top quintile has been below 10 per cent of their population and has declined in most of these districts over the five years.

Map 6.1 presents the district wise-distribution of extreme poverty in 2012-13, illustrating the geography of extreme poverty across the country. The highest levels of extreme poverty are concentrated in the northeast and south-west districts of Balochistan, northern districts of KP, and southern districts of Punjab and Sindh. In contrast, the lowest levels of extreme poverty are concentrated in northern half of Punjab, adjacent districts of KP and federal and provincial capitals of each province.

Map 6.1: Extreme poverty across districts 2012-13
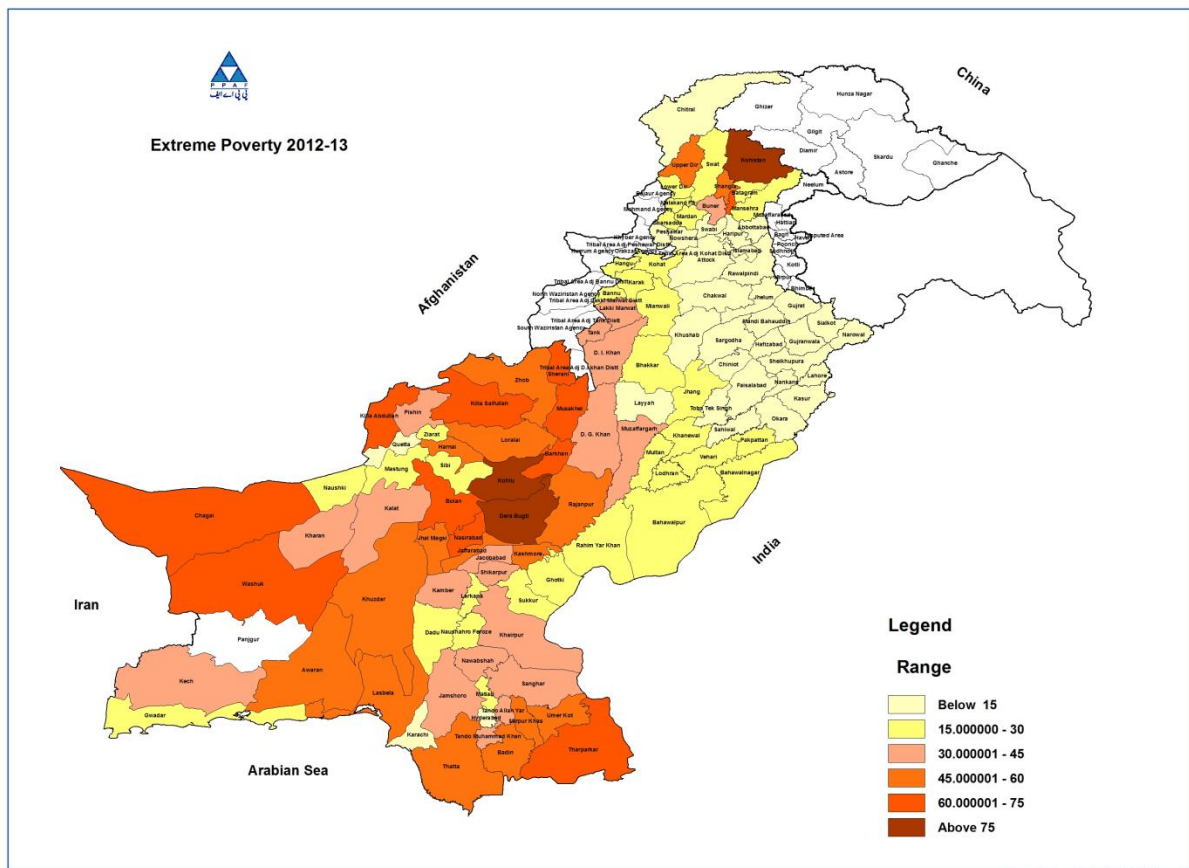
As in the case of poverty headcount ratio discussed in Chapter 3, statistics on the proportion of population, who are extreme poor, does not provide information about the districts that have the greatest populations of extreme poor. Share of each district in total extreme poverty, which takes respective population of the districts into account, provides information about the districts where the largest number of poor lives. Table 6.5 presents the quintile of the districts that made the highest contribution to the total population of extreme poor in 2012-13.

Table 6.5: Highest contributors to Extreme Poverty 2012-13

Districts name	Extreme Poverty			Absolute change	2012-13	Share to extreme poverty in 2012-13	
	2012-13	2010-11	2008-09	2008-09 to 2012-13	Pop. Share	Absolute	Percentage
Rahim Yar Khan	0.281	0.269	0.313	-0.032	2.56	0.72	3.87
Muzaffargarh	0.302	0.407	0.441	-0.139	1.82	0.55	2.96
Bahawalpur	0.256	0.273	0.373	-0.117	2.07	0.53	2.84
Vehari	0.281	0.171	0.236	0.046	1.84	0.52	2.78
Badin	0.513	0.502	0.537	-0.024	0.92	0.47	2.54
D. G. Khan	0.317	0.533	0.487	-0.170	1.43	0.45	2.44
Tharparkar	0.608	0.694	0.693	-0.085	0.71	0.43	2.32
Thatta	0.548	0.526	0.493	0.055	0.78	0.43	2.30
Bahawalnagar	0.242	0.252	0.310	-0.068	1.71	0.41	2.23
Rajanpur	0.461	0.570	0.697	-0.236	0.89	0.41	2.21
Khairpur	0.302	0.293	0.265	0.037	1.32	0.40	2.14
Multan	0.161	0.200	0.241	-0.080	2.29	0.37	1.98
Mir Pur Khas	0.468	0.350	0.524	-0.056	0.78	0.36	1.96
Upper Dir	0.594	0.455	0.543	0.051	0.55	0.33	1.76
Kohistan	0.853	0.868	0.868	-0.014	0.38	0.32	1.74
D. I. Khan	0.360	0.445	0.444	-0.084	0.89	0.32	1.72
Jhang	0.207	0.235	0.267	-0.060	1.54	0.32	1.71
Sanghar	0.310	0.325	0.337	-0.027	1.01	0.31	1.68
Kashmore	0.459	0.432	0.376	0.083	0.68	0.31	1.68
Umer kot	0.530	0.421		0.530	0.58	0.31	1.65
Khanewal	0.173	0.230	0.216	-0.044	1.64	0.28	1.52
Nawabshah	0.345	0.293	0.366	-0.021	0.78	0.27	1.45
Ghotki	0.268	0.270	0.365	-0.097	0.94	0.25	1.35
Total					28.11	9.08	48.84

These 23 districts that have 28.11 per cent share to Pakistan's population hosted nearly half of the population of extreme poor in Pakistan. Ten districts in this quintile from south Punjab, mainly south Punjab, had one-quarter of the total population of extreme poor in Pakistan in 2012-13. In the same year, 11 districts from Sindh had 19 per cent of the total population of extreme poor. The quintile also had two districts from KP. This quintile has similar composition as that of the top contributors to poverty headcount ratio except that two districts in the latter, Okara and Swat are replaced by Kohistan and Nawabshah in the former.

Change in the incidence of extreme poverty (2008-09 to 2012-13)

At national level, extreme poverty declined gradually by 4.6 percentage points from 2008-09 to 2012-13. The earlier sections of this chapter have shown that this change has varied across rural and urban populations, and across provinces. District level analysis shows strong variation in the change in extreme poverty over time across the districts of the country. Table

6.6 presents the top quintile of the districts with the highest decrease in the incidence of extreme poverty in the given five years.

Table 6.6: Top quintile of extreme poverty change (reduction) 2008-09 to 2012-13

Rank	Districts	2012-13		2010-11	2008-09	Change 2008-09 to 2012-13	
		Pop.	Extreme Poverty	Extreme Poverty	Extreme Poverty	Absolute	Percentage
1	Mastung	0.12	0.206	0.280	0.623	-0.416*	-66.86
2	Kharan	0.68	0.380	0.500	0.670	-0.289*	-43.23
3	Naushki	0.08	0.239	0.620	0.526	-0.287*	-54.55
4	Kalat	0.16	0.366	0.378	0.616	-0.250*	-40.66
5	Jhal Magsi	0.08	0.557	0.644	0.804	-0.247*	-30.74
6	Rajanpur	0.89	0.461	0.570	0.697	-0.236*	-33.86
7	Sibi	0.06	0.199	0.216	0.432	-0.232*	-53.84
8	Swat	1.04	0.213	0.314	0.419	-0.206*	-49.13
9	Layyah	1.01	0.140	0.289	0.341	-0.201*	-58.98
10	Ketch/Turbat	0.34	0.391	0.696	0.590	-0.200*	-33.81
11	Bolan/Kacchi	0.21	0.613	0.595	0.809	-0.196*	-24.17
12	D.G.Khan	1.43	0.317	0.533	0.487	-0.170*	-34.9
13	Mansehra	0.74	0.182	0.314	0.349	-0.167*	-47.81
14	Awaran	0.11	0.589	0.412	0.737	-0.148*	-20.05
15	Karak	0.35	0.236	0.440	0.379	-0.142*	-37.61
16	Chitral	0.25	0.103	0.194	0.242	-0.139*	-57.46
17	Muzaffargarh	1.82	0.302	0.407	0.441	-0.139*	-31.52
18	Musa Khel	0.06	0.669	0.820	0.798	-0.129*	-16.2
19	Bahawalpur	2.07	0.256	0.273	0.373	-0.117*	-31.42
20	Malakand	0.23	0.153	0.235	0.259	-0.106*	-40.88
21	Loralai	0.14	0.458	0.738	0.563	-0.105*	-18.6
22	Okara	1.71	0.123	0.173	0.226	-0.104*	-45.86
23	Swabi	0.73	0.118	0.197	0.219	-0.101*	-46.05

*Significant at 5% level of significance.

Given high incidence of extreme poverty in Balochistan in the base year 2008-09, 10 districts of the province are amongst the top quintile of extreme poverty reduction followed by six districts from KP. Six districts of Punjab are in the top quintile of extreme poverty reduction despite no district from Punjab made to the bottom quintile of extreme poverty, and only two to the 4th quintile. Extreme poverty is thus not only low in the Punjab districts but also on the decline at a rate relatively higher than districts in other provinces. In contrast, while 13 districts of Sindh made to the 4th and 5th quintiles of extreme poverty, no district of the province is in the first quintile of extreme poverty reduction. Extreme poverty in many districts of Sindh is not only high, but also it is persistent, or increasing over time. As the districts with the highest incidence of extreme poverty are rural and have low population, most districts in the top quintile of extreme poverty reduction are also largely rural with low population share. There

are nonetheless a few populous districts with population share above one per cent including five districts of Punjab, i.e. Bahawalpur, Muzaffargarh, Okara, DG Khan and Layyah, and one district from KP, i.e. Swat.

While the bottom two quintiles of extreme poverty almost replicate the bottom two quintiles of poverty headcount ratio, the top quintile of extreme poverty reduction is significantly different from the top quintile of poverty headcount reduction. Only 12 districts simultaneously make to the top quintiles of extreme poverty reduction and poverty headcount reduction. Districts like DG Khan, Mansehra, Awaran, Karak, Muzaffargarh, Musa Khel, Bahawalpur, Malakand, Loarali, Okara and Swabi have particularly experienced a decline in extreme poverty higher than the decline in headcount ratio. This suggests that while headcount ratio captures many aspects of extreme poverty, it does not fully represent the change in extreme poverty and extreme poverty is a distinct measure in itself. This change can rather be explained by decline in the intensity of poverty.

It is also important to note that several other districts have experienced increase in extreme poverty. The greatest increase in extreme poverty of 19 percentage points has occurred in Naushahro Feroze, followed by Barkhan, Dera Bugti, Upper Dir, Kohistan. Most of the districts experiencing increase in extreme poverty are from Sindh (see annex 5). Map 6.2 visually presents this change.

Map 6.2: Change in Extreme Poverty 2008-09 to 2012-13
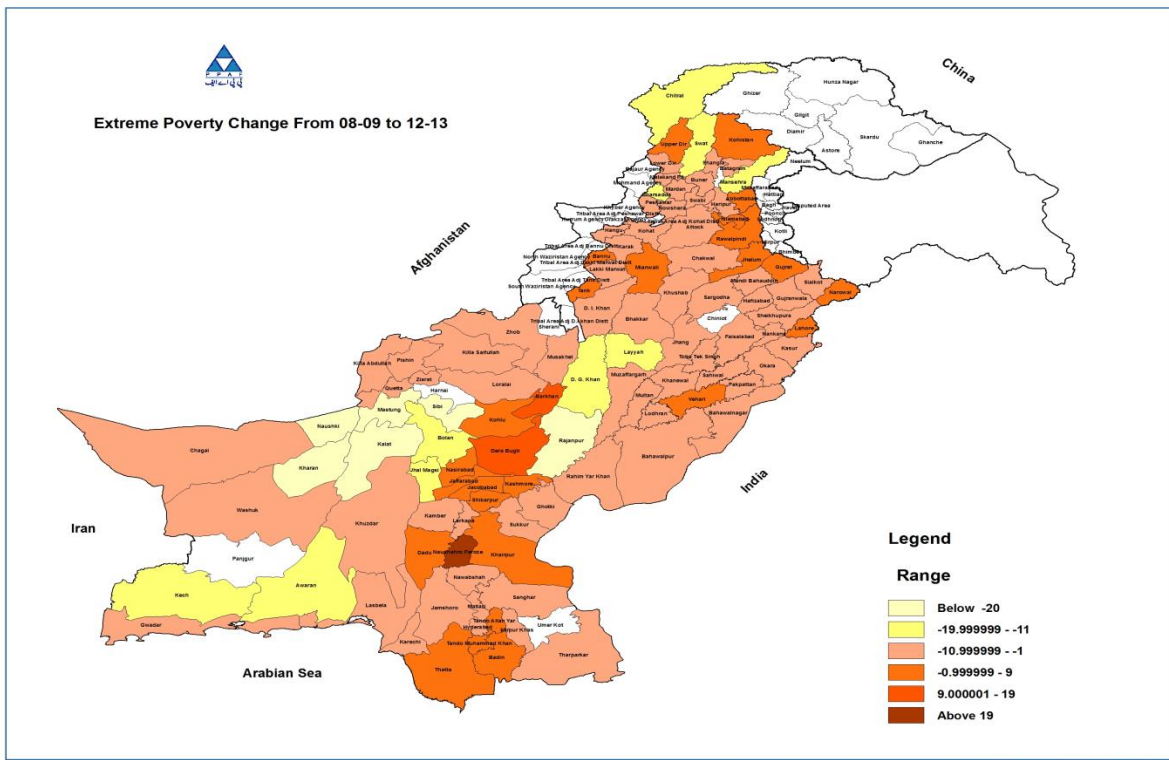
The greatest increase has occurred in eastern districts of Balochistan, districts in the north, center and south of Sindh, north and south of KP and the north of Punjab. In contrast, the highest decline in extreme poverty has occurred in the districts located in the center and south of Balochistan, north of KP and south of Punjab.

Conclusion

This chapter illustrates that at national level, the incidence of extreme poverty has fallen from 22.8 per cent in 2008-09 to 18.6 per cent tin 2012-13. The incidence of extreme poverty has remained several times higher in rural than urban population throughout the period of this study. Patterns of extreme poverty between provinces and between rural and urban groups within each province follow the patterns similar to that of poverty headcount ratio. Except for Punjab, all other provinces made higher contribution to extreme poverty than their respective contribution to the country's population. Over the five years, extreme poverty has gradually declined for both rural and urban groups within each province. In Sindh, however, progress in reducing extreme poverty has been very sluggish particularly in rural Sindh.

District level analysis of extreme poverty reproduces the patterns revealed by poverty headcount ratio. High levels of extreme poverty are clustered in Balochistan, north KP and south of Sindh followed by south Punjab and south KP. Low levels of extreme poverty are found mainly in north/central Punjab and Federal and Provincial Capitals. Districts with low population and largely rural have very high incidence of extreme poverty, whereas those with high population and urban centers have low incidence of extreme poverty. This analysis also identifies the districts with the highest number of extreme poor by taking into account the respective populations of the districts. Nearly half of Pakistan's extreme poor in 2012-13 lived in 23 districts, 11 from Sindh, 10 from south Punjab and two KP. District level analysis presented in this chapter also shows the districts that have experienced different levels and directions of change in extreme poverty over time.

Chapter 7

Drivers of Multidimensional Poverty

This chapter explores the contribution of various dimensions and their respective indicators to poverty at various levels. It breaks down the adjusted headcount ratio/Index of Multi-dimensional Poverty by each indicator at each level of aggregation and point in time. This analysis enables us to understand the nature and composition of poverty for various groups by measuring the relative significance of each dimension and its indicators in determining poverty. Moreover, tracking changes in the contribution of various dimensions/indicators to poverty over time helps understand the changing nature of poverty at each level of aggregation. It also helps policy makers identify the best ways to alleviate multidimensional poverty by focusing on the dimensions with the highest contribution to poverty, and through differentiated policies addressing the needs of various population groups.

We begin this chapter by presenting the censored headcount ratios, the percentage of population simultaneously deprived of an indicator and is multi-dimensionally poor. Given the strong rural and urban differences, Table 7.1 presents the censored headcount ratios separately for both groups, for each of the three survey rounds. It also reports the absolute change in these ratios during 2008-09 to 2012-13.

Table 7.1: Censored Headcount Ratios Rural and Urban Pakistan 2008-09 to 2012-13

Indicators	2012-13		2010-11		2008-09		Difference 2008-09 to 2012-13	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Schooling of family members	6.3%	25.2%	7.2%	26.8%	7.9%	27.9%	-1.62%*	-2.72%*
Enrolment status of children	7.0%	28.7%	8.1%	31.9%	9.2%	34.0%	-2.15%*	-5.21%*
Access to prenatal care	2.7%	12.9%	3.5%	15.3%	3.9%	19.1%	-1.24%v	-6.15%*
Access to postnatal care	4.8%	19.9%	5.5%	21.4%	6.4%	24.8%	-1.61%*	-4.91%*
Access to hospital	0.9%	20.2%	1.3%	24.4%	2.3%	27.8%	-1.34%*	-7.61%*
Access to BHU	0.8%	12.3%	0.9%	12.7%	1.3%	14.4%	-0.46%*	-2.02%*
Refrigerator	7.8%	38.8%	9.1%	42.9%	10.4%	45.2%	-2.63%*	-6.43%*
Livestock	8.3%	21.5%	9.5%	22.3%	10.7%	22.5%	-2.43%*	-0.96%*
AC	9.1%	42.2%	10.4%	46.3%	11.8%	49.1%	-2.70%*	-6.95%*
Computer	9.0%	42.0%	10.4%	46.2%	11.8%	49.0%	-2.73%*	-7.01%*
TV	3.9%	31.2%	5.1%	34.9%	5.8%	36.0%	-1.86%*	-4.83%*
VCR	8.9%	41.6%	10.2%	45.6%	11.4%	48.1%	-2.56%*	-6.53%*
Cooler	9.0%	41.9%	10.3%	45.9%	11.6%	48.7%	-2.64%*	-6.80%*
Sewing Machine	5.2%	28.0%	6.0%	30.7%	6.2%	28.9%	-1.00%*	-0.84%*
Chair	5.1%	25.9%	5.6%	26.9%	6.2%	27.2%	-1.07%*	-1.35%*
Watch	3.0%	18.8%	2.8%	18.0%	2.3%	15.2%	0.74%*	3.56%*
Bicycle	6.9%	31.3%	7.6%	31.2%	8.4%	30.1%	-1.44%*	1.20%*
Fan	0.5%	10.6%	0.4%	13.0%	0.7%	13.8%	-0.13%*	-3.20%*
Car	9.1%	42.2%	10.4%	46.2%	11.8%	49.1%	-2.70%*	-6.95%*
Motor Bike	8.1%	34.4%	9.7%	39.6%	11.2%	43.9%	-3.05%*	-9.52%*
Landholding	8.7%	29.5%	9.9%	29.8%	11.1%	30.4%	-2.40%*	-0.89%*
Ownership of residential building	3.1%	5.5%	3.7%	5.6%	3.8%	6.1%	-0.66%*	-0.66%*
Walls material	2.2%	26.0%	3.0%	30.4%	3.4%	32.4%	-1.20%*	-6.40%*
Access to safe drinking water	0.8%	9.4%	1.2%	12.3%	1.1%	11.4%	-0.30%*	-2.00%*
Sanitation	1.9%	30.2%	2.4%	35.5%	3.1%	38.4%	-1.20%*	-8.20%*
Source of light	0.4%	7.8%	0.4%	10.6%	0.7%	11.3%	-0.30%*	-3.50%*
Cooking fuel	5.1%	40.8%	5.6%	44.8%	7.3%	48.2%	-2.20%*	-7.40%*

Given a very high incidence of poverty in the rural population and very low in the urban, it is unsurprising to see the differences between the two populations on indicator wise deprivations, consistent over time. In both the population groups, expensive assets have the highest censored headcount ratios followed by some indicators of living conditions particularly in the rural population and the indicators of education for both the groups. Over the five years, all indicators show a statistically significant decline. The highest decline in urban population has occurred in the ownership of assets, including motorbike, computer, AC and cooler. In the rural population, the highest reduction over the five years has occurred in the ownership of motorbike followed by access to toilet facilities, hospital access and cooking fuel.

It is important to recognize that different indicators are given different weights hence their share to overall poverty varies not only by the censored headcount ratios but also their respective weights. The adjusted headcount ratio/Index of Multidimensional Poverty is in fact the weighted sum of all censored headcount ratios. A straightforward approach to interpret the relative share and the significance of various dimensions and indicators is to compare them

with their respective weight. A contribution higher than the given weight of an indicator/dimension indicates the relative strength of a particular indicator/dimension in comparison to others in determining the adjusted headcount ratio.

Table 7.2 presents the relative contribution (ϕ_i^o) of each dimension and indicator to the adjusted headcount ratio/Index of Multidimensional Poverty at national level and disaggregated at rural and urban levels. The sum of each column in Table 7.2 is 100 per cent. At national level, the greatest contribution to adjusted headcount ratio is made by education and asset dimensions followed by living conditions, whereas the lowest contribution is made by health dimension (as operationalized and measured in this study given the PSLM data). The largest contributions made by single indicator are by the two indicators of education dimension.

Table 7.2: Relative share of dimensions/indicators to Adjusted Headcount Ratio – Pakistan (2008-09 to 2012-13)

Group	Total			Urban			Rural		
Year	2012-13	2010-11	2008-09	2012-13	2010-11	2008-09	2012-13	2010-11	2008-09
Index Value									
Schooling of family members	13.80%	13.30%	12.90%	17.70%	17.50%	16.60%	13.40%	12.90%	12.50%
Enrolment status of children	15.70%	15.70%	15.60%	19.90%	19.50%	19.40%	15.30%	15.30%	15.20%
Education	29.50%	29.00%	28.50%	37.60%	37.10%	36.00%	28.80%	28.20%	27.70%
Access to prenatal care	3.50%	3.70%	4.30%	3.80%	4.20%	4.10%	3.50%	3.70%	4.30%
Access to postnatal care	5.40%	5.30%	5.70%	6.70%	6.70%	6.70%	5.30%	5.10%	5.50%
Access to hospital	5.00%	5.50%	5.90%	1.30%	1.50%	2.40%	5.40%	5.90%	6.20%
Access to BHU	3.10%	2.90%	3.00%	1.20%	1.10%	1.40%	3.30%	3.00%	3.20%
Health	17.10%	17.30%	18.80%	13.00%	13.50%	14.60%	17.50%	17.70%	19.30%
Refrigerator	2.80%	2.80%	2.80%	3.00%	3.00%	3.00%	2.80%	2.80%	2.80%
Livestock	1.70%	1.60%	1.50%	3.20%	3.10%	3.10%	1.60%	1.50%	1.40%
AC	3.10%	3.10%	3.00%	3.50%	3.40%	3.40%	3.10%	3.00%	3.00%
Computer	3.10%	3.10%	3.00%	3.50%	3.40%	3.40%	3.00%	3.00%	3.00%
TV	1.00%	1.00%	1.00%	0.70%	0.80%	0.70%	1.00%	1.00%	1.00%
VCR	1.40%	1.30%	1.30%	1.50%	1.50%	1.50%	1.30%	1.30%	1.30%
Cooler	1.40%	1.40%	1.30%	1.50%	1.50%	1.50%	1.40%	1.30%	1.30%
Sewing-Machine	0.90%	0.90%	0.80%	0.90%	0.90%	0.80%	0.90%	0.90%	0.80%
Chair	0.80%	0.80%	0.70%	0.90%	0.80%	0.80%	0.80%	0.80%	0.70%
Watch	0.60%	0.50%	0.40%	0.50%	0.40%	0.30%	0.60%	0.50%	0.40%
Bicycle	1.00%	0.90%	0.80%	1.20%	1.10%	1.10%	1.00%	0.90%	0.80%
Fan	0.30%	0.40%	0.30%	0.10%	0.10%	0.10%	0.30%	0.40%	0.40%
Car	3.10%	3.10%	3.00%	3.50%	3.40%	3.40%	3.10%	3.00%	3.00%
Motor Bike	2.30%	2.40%	2.40%	2.80%	2.90%	2.90%	2.20%	2.30%	2.40%
Landholding	5.50%	5.10%	4.80%	8.20%	8.00%	7.80%	5.20%	4.80%	4.50%
Ownership of residential building	1.10%	1.10%	1.10%	2.90%	3.00%	2.70%	1.00%	0.90%	0.90%
Assets	30.10%	29.30%	28.50%	37.80%	37.20%	36.20%	29.40%	28.50%	27.70%
Walls material	5.30%	5.60%	5.50%	2.50%	2.90%	2.90%	5.50%	5.80%	5.80%
Access to safe drinking water	1.90%	2.30%	1.90%	0.90%	1.20%	1.00%	2.00%	2.40%	2.00%
Sanitation	6.10%	6.40%	6.50%	2.10%	2.30%	2.60%	6.40%	6.80%	6.90%
Source of light	1.60%	1.90%	1.90%	0.40%	0.40%	0.60%	1.70%	2.00%	2.00%
Cooking fuel	8.40%	8.30%	8.40%	5.80%	5.40%	6.20%	8.70%	8.60%	8.60%
Living Conditions	23.30%	24.40%	24.20%	11.70%	12.20%	13.20%	24.40%	25.70%	25.40%

Nationally, there is a gradual increase in the share of education dimension to adjusted headcount ratio induced mainly by the schooling of household members suggesting the increasing incidence of multidimensional poverty amongst the households with no member schooled to the levels of primary or above. There is also an increase in the relative share of assets dimensions caused by several assets but more substantially by landownership

suggesting the increasing incidence of poverty amongst the households not owning assets particularly land. There is a slight decline in the relative share of living conditions and health dimensions to the adjusted headcount ratio at national level over the five years. Within the living conditions dimension, access to toilet facility and electricity have a small decline in their share to the adjusted headcount ratio over the five years suggesting a minor decrease in the joint distribution of these indicators with others. The decline in the relative share of health dimension is mainly contributed by a small decline in the share of access to hospital, prenatal and postnatal care to the adjusted headcount ratio. Within health dimension, there is an increase in the relative share of access to Basic Health Units.

Table 7.2 also compares the share of various dimensions/indicators to the adjusted headcount ratio for the rural and urban populations. Urban poverty is largely driven by the lack of access to education and household assets. The relative shares of education and asset ownership jointly make nearly three-quarters of urban adjusted headcount ratio, with health and living conditions together making only 24.7 per cent contribution. Rural poverty has somewhat different composition than urban poverty. Education and asset ownership each makes slightly more than a quarter of rural adjusted headcount ratio, living conditions dimension adds another quarter, and health dimension contributes less than 17.5 per cent in 2012-13. While there are differences in the composition of rural and urban poverty at national level, there are somewhat similar trends in the relative share of each dimension to respective adjusted headcount ratio over time. The share of education and assets dimension is increased over time and that of living conditions and health dimensions decreased for both population groups.

We have seen previously that the breadth and depth of poverty vary not just between rural and urban population and provinces but also between rural and urban populations within each province. Table 7.3 disaggregates the drivers of multidimensional poverty by rural and urban populations for each province for the years 2008-09 and 2012-13.

Table 7.3: Trends in the contribution of dimensions/indicators in the Adjusted Headcount Ratio by province 2008-09 to 2012-13

	Balochistan Urban		Balochistan Rural		KP Urban		KP Rural		Punjab Urban		Punjab Rural		Sindh Urban		Sindh Rural	
Indicator	2012-13	2008-09	2012-13	2008-09	2012-13	2008-09	2012-13	2008-09	2012-13	2008-09	2012-13	2008-09	2012-13	2008-09	2012-13	2008-09
Index value																
Schooling of family members	13.2%	11.5%	11.6%	9.7%	17.6%	16.4%	11.6%	10.9%	18.9%	18.1%	12.1%	14.7%	17.2%	16.3%	12.1%	10.8%
Enrolment status of children	19.2%	19.3%	14.9%	13.5%	18.6%	18.4%	15.1%	15.5%	19.3%	18.6%	15.9%	15.3%	21.0%	20.5%	15.9%	15.5%
Education	32.4%	30.8%	26.5%	23.2%	36.2%	34.8%	26.7%	26.4%	38.2%	36.7%	28.0%	30.1%	38.2%	36.8%	28.0%	26.3%
Access to prenatal care	4.5%	5.2%	3.2%	3.6%	4.2%	3.9%	4.1%	4.7%	3.8%	4.9%	3.1%	4.4%	3.5%	3.2%	3.1%	4.0%
Access to postnatal care	7.0%	6.7%	4.4%	4.3%	7.5%	6.0%	5.8%	5.8%	6.9%	7.2%	4.3%	6.0%	6.3%	6.4%	4.3%	5.0%
Access to hospital	1.9%	3.2%	5.7%	7.4%	2.1%	2.0%	6.6%	6.2%	1.1%	2.1%	5.8%	5.8%	1.3%	2.7%	5.8%	6.5%
Access to BHU	0.4%	1.8%	3.3%	3.0%	0.4%	1.3%	3.5%	3.7%	2.0%	1.4%	2.3%	3.1%	0.5%	1.2%	2.3%	3.1%
Health	13.8%	16.8%	16.6%	18.4%	14.1%	13.2%	20.1%	20.4%	13.7%	15.5%	15.5%	19.4%	11.6%	13.5%	15.5%	18.5%
Refrigerators	2.7%	2.4%	2.5%	2.5%	2.5%	2.7%	2.5%	2.5%	3.1%	3.1%	2.9%	2.9%	3.0%	3.1%	2.9%	2.8%
Livestock	3.2%	3.1%	2.0%	2.1%	3.2%	2.8%	1.5%	1.3%	3.2%	3.2%	1.7%	1.3%	3.1%	3.0%	1.7%	1.4%
Air Conditioner	3.4%	3.3%	2.8%	2.7%	3.5%	3.3%	3.1%	3.0%	3.5%	3.4%	3.0%	3.1%	3.5%	3.4%	3.0%	2.9%
Computer	3.3%	3.2%	2.8%	2.7%	3.4%	3.3%	3.0%	3.0%	3.5%	3.4%	3.0%	3.1%	3.5%	3.4%	3.0%	2.9%
Car	3.4%	3.3%	2.8%	2.7%	3.5%	3.3%	3.1%	3.0%	3.5%	3.4%	3.0%	3.1%	3.5%	3.4%	3.0%	2.9%
TV	0.6%	0.7%	1.0%	0.9%	0.9%	0.8%	1.1%	1.0%	0.7%	0.7%	1.0%	1.0%	0.7%	0.8%	1.0%	0.9%
VCR	1.4%	1.3%	1.2%	1.2%	1.5%	1.4%	1.3%	1.3%	1.5%	1.5%	1.3%	1.4%	1.6%	1.5%	1.3%	1.3%
Cooler	1.5%	1.5%	1.3%	1.2%	1.5%	1.4%	1.3%	1.3%	1.5%	1.5%	1.3%	1.4%	1.6%	1.5%	1.3%	1.3%
Sewing Machine	0.6%	0.6%	0.6%	0.5%	0.9%	0.9%	0.8%	0.6%	0.9%	0.7%	1.0%	0.9%	1.0%	0.9%	1.0%	0.9%
Chair	1.3%	1.0%	1.1%	1.0%	0.3%	0.3%	0.3%	0.3%	0.7%	0.6%	1.1%	0.8%	1.1%	1.1%	1.1%	1.0%
Watch	0.4%	0.2%	0.4%	0.3%	0.3%	0.1%	0.2%	0.1%	0.5%	0.3%	0.8%	0.5%	0.6%	0.4%	0.8%	0.5%
Bicycle	1.1%	0.8%	0.9%	0.7%	1.2%	1.1%	1.2%	1.0%	1.0%	0.9%	1.2%	0.7%	1.4%	1.3%	1.2%	1.0%
Fan	0.0%	0.1%	0.5%	0.5%	0.1%	0.0%	0.4%	0.4%	0.1%	0.1%	0.4%	0.3%	0.1%	0.1%	0.4%	0.4%
Motorbike	2.3%	2.3%	1.5%	1.7%	2.9%	2.9%	2.5%	2.6%	2.8%	2.9%	2.2%	2.5%	2.9%	2.9%	2.2%	2.3%
Land	7.8%	7.5%	5.0%	5.1%	8.0%	7.6%	4.4%	3.7%	8.2%	7.9%	5.7%	4.6%	8.2%	7.7%	5.7%	4.9%
Ownership of Residential Building	2.6%	2.2%	0.4%	1.1%	3.7%	2.9%	1.1%	0.9%	3.1%	2.9%	0.9%	1.0%	2.6%	2.4%	0.9%	0.7%
Assets	35.4%	33.4%	26.7%	27.0%	37.3%	34.8%	27.8%	26.0%	37.8%	36.7%	30.3%	28.3%	38.3%	36.8%	30.3%	28.1%
Walls material	5.4%	6.6%	7.4%	7.5%	3.5%	4.3%	6.8%	7.1%	1.4%	1.5%	6.5%	4.4%	2.9%	3.1%	6.5%	6.7%
Access to safe drinking water	2.2%	1.9%	4.9%	5.9%	0.8%	2.3%	4.1%	3.9%	0.5%	0.4%	1.8%	0.4%	1.1%	1.0%	1.8%	1.9%
Sanitation	4.8%	4.3%	7.5%	7.5%	2.1%	3.6%	5.0%	6.4%	1.3%	1.9%	7.6%	6.6%	2.7%	2.7%	7.6%	7.5%
Source of light	0.1%	0.5%	2.6%	2.9%	0.5%	0.3%	1.0%	1.1%	0.4%	0.4%	1.9%	1.9%	0.5%	0.8%	1.9%	2.7%
Cooking fuel	5.8%	5.6%	7.8%	7.6%	5.4%	6.8%	8.6%	8.7%	6.7%	6.9%	8.5%	9.0%	4.7%	5.3%	8.5%	8.4%
Living conditions	18.4%	19.0%	30.3%	31.5%	12.4%	17.2%	25.5%	27.2%	10.2%	11.1%	26.3%	22.2%	11.9%	13.0%	26.3%	27.1%

Perhaps the simplest way to understand the complexity in Table 7.3 is to interpret it by dimension. In 2012-13, education dimension made the greatest contribution to urban poverty in Punjab and Sindh and the lowest contribution to rural poverty in Balochistan and KP, respectively. Within education dimension, child enrolment had consistently higher share than household schooling levels across all population groups. Child enrolment had the highest contribution to the adjusted headcount ratio for urban population in Sindh followed by the urban population in Balochistan. Over the five years, the highest increase in the share of this dimension has occurred for rural population in Balochistan. Schooling levels of the household members has the highest contribution to poverty in Punjab (urban) followed by KP (urban). The highest increase in the share of schooling indicator has occurred in both rural and urban groups in Balochistan.

The highest contribution of assets dimension in 2012-13 can be seen in Sindh (urban) followed by the urban groups in Punjab and KP. Within the assets dimension, landholding makes the highest contribution to the adjusted headcount ratio for all population groups. Amongst the population groups, its share is the highest in the densely population urban groups in Punjab and Sindh. Over the five years, the share of assets dimension has the highest increase in Punjab rural followed by KP (urban). The highest contribution of the living conditions dimension in 2012-13 to the adjusted headcount ratio was for Balochistan rural and the lowest in Punjab (urban). Indicators within the dimension of living conditions have different significance for different population groups. Given the heavy use of firewood for cooking fuel in rural Pakistan, fuel indicator has the highest share for all rural groups followed by access to toilet facilities. Cooking fuel also has the highest within-dimension share to urban populations in each province. Over the five years, there is a highest decline in the share of living conditions dimension to adjusted headcount ratio in KP (urban) but a highest increase in its share in Punjab (rural).

Lastly, in the same year, the highest contribution of the health dimension is made to the adjusted headcount ratio for KP (rural) followed by Punjab (rural), and the lowest contribution to Sindh (urban). Over the five years, the share of health has the highest decrease in Punjab (rural) but has increased in KP (urban). Various indicators of health dimension have variable significance for various population groups. Postnatal care and access to hospital consistently make the highest contributions for each group.

Chapter 8

Towards Explaining and Addressing the Diversity of Poverty in Pakistan: Moving from Quantitative to Qualitative Analysis

This concluding chapter offers reflection on the meaning of data and indicates the case for further explanatory research through qualitative approaches. Although some explanations for the spatial distribution, persistence and depth of poverty are implied from the foregoing presentation of data, many questions remain unanswered. As can be guessed from the huge diversity along several dimensions within the national boundary of Pakistan, there is no single explanation of poverty and thus importantly no valid single policy intervention to remove it.

This diversity comprises wide variation in socio-economic characteristics, ethnicity and language, natural resource endowments and topography, climate, agrarian and pastoral systems, alongside growing urbanization including mega-cities like Karachi and structures of governance. As a consequence, there are different ways in which people have been poor, remain poor and will continue to be poor unless public policy and intelligent resources are focused upon poverty reproduction taking into account its diversity.

Therein lies the argument for a more nuanced understanding of the challenges and the ways ahead. In the absence of a 'one size fits all' model, the main conclusion is that diversity requires diversified analysis leading to diversified responses. At the same time, potential complexity has to be simplified where possible. We would argue this could be done through exploring a typology of poverty scenarios and then having a planned strategy for developing the capacity to engage with those scenarios through ongoing action-research.

There can be little doubt that Pakistan offers some of the more extreme challenges to such aspirations in the world: insecurity; violence against progressive ideas; deep senses of male honour and patriarchy; thus second class status for women; rising inequality in different forms; fragile senses of citizenship even for the middle class;

institutionalized rent-seeking which reproduces poverty; widespread feelings of alienation; rejection of public goods in favour of primordial loyalties[9]; marginalization of the state for most livelihood strategies; extreme ethnic, regional, tribal and religious identities competing with ideas of nationalism and nationwide cooperation; competing narratives of deprivation; and widespread problems of governance, to name some.

A key entry point into this complexity is the continuation of disaggregated district analysis of clustered deprivations represented by this study. This quantitative analysis sets up the challenge for a more nuanced qualitative understanding of how poverty is reproduced in these diverse settings. The challenge is to understand which explanations of poverty are the most prominent for the different areas of the country in which poverty is significant.

The distinction between the poorest, poor and least poor districts in each province is analytically important for seeking a deeper understanding of poverty dynamics and thus appropriate policy interventions for poverty reduction. As a first step to reduce the complexity of district level analysis while retaining the distinction between various levels of poverty, we extend the quintile based approach to classify the districts of Pakistan into five zones of poverty based on their poverty headcount ratio in 2012-13. The mapping of poverty presented already suggests a high degree of geographic proximity for districts in each quintile. This zoning provides a simple framework to summarize the analysis presented in previous chapters.

It is also analytically convenient to label the quintiles with their levels of poverty. Given the highest levels of poverty (as well as extreme poverty) in 5th and 4th quintiles, we call them as the Extreme Poverty Zone - 1, and the Extreme Poverty Zone – 2, respectively. While lower than these two quintiles, the 3rd quintile also has very high headcount ratio compared to the national average hence is called the High Poverty Zone -1. The headcount ratio is mostly higher than the national average in the 2nd quintile which is called the High Poverty Zone -2. Given the lowest incidence of headcount ratio in the 1st quintile, significantly lower than the national headcount ratio, it is called the Low Poverty Zone. Table 8.1 presents the list of districts within each zone.

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[9] That implies relying upon personalized networks for achieving survival needs.

Table 8.1: Zones of Poverty

Zones	Districts
Extreme Poverty Zone – 1 / 5th Quintile	Districts in the northeast and southwest of Balochistan, south of Sindh and north of KP. Awaran, Badin, Barkhan, Bolan/Kachhi, Chaghi, Dera Bugti, Harnai, Jaffarabad, Jhal Magsi, Kohistan, Kohlu, Musakhel, Nasirabad, Panjgur, Qilla Abdullah, Qilla Saifullah, Tharparkar, Thatta, Torgarh, Upper Dir, Washuk, Sherani, Zhob.
Extreme Poverty Zone – 2 / 4th Quintile	Districts mainly in the centre but also in the north and south of Balochistan, east and northwest of Sindh, south of Punjab and KP and north of KP. Batagram, Buner, DI Khan, Jaccobabad, Kalat, Kashmore, Keych/Turbat, Khairpur, Kharan, Khuzdar, Lasbella, Loralai, Mirpur Khas, Naushki, Nawabshah, Pashin, Rajanpur, Sanghar, Shahdadkot, Shangla, Tando Mohammad Khan, Tank, Umer Kot.
High Poverty Zone – 1 / 3rd Quintile	Districts in the southwest and centre of Balochistan, west of Sindh, south of Punjab, centre-south and north of KP. Bannu, Bhakar, Bahawalnagar, DG Khan, Dadu, Gawadar, Ghotki, Hangu, Jamshoro, Karak, Lakki Marwat, Larkana, Lower Dir, Mastung, Mitiari, Muzaffargarh, Naushahro Feroze, Rahim Yar Kahn, Shikarpur, Swat, Tando Allah Yar, Vehari, Ziarat.
High Poverty Zone -2 / 2nd Quintile	Districts in the centre of Balochistan, north of KP, centre-south of Punjab and centre and north of KP. Bahawalpur, Charsadda, Chitral, Jhang, Kasur, Khanewal, Khushab, Kohat, Layyeh, Lodhran, Mianwali, Malakand, Mansehra, Mardan, Multan, Narowal, Okara, Pakpatan, Quetta, Sahiwal, Sibi, Sukkur, Swabi
Low Poverty Zone / 1st Quintile	Districts in the southwest of Sindh, north of Punjab and centre/centre east of KP. Abbottabad, Attock, Chakwal, Chiniot, Faisalabad, Gujranwala, Gujrat, Hafizabad, Haripur, Hyderabad, Islamabad, Jhelum, Karachi, Lahore, Mandi Bahauddin, Nankana Sahab, Nowshehra, Peshawar, Rawalpindi, Sargodha, Sheikhopura, Sialkot, Toba Tek Singh.

Table 8.2 summarizes the findings of previous chapters by presenting the (weighted) estimates of each measure at the above-mentioned zone level, for the years 2012-13 and 2008-09. The statistics illustrate the extent to which the five zones varied in terms of their poverty experience over the five years from 2008-09 to 2012-13.

Table 8.2: Zone wise estimates of poverty 2008-09 to 2012-13

Zones of Poverty	2012-13					2008-09			
	Pop.	HC ratio	Intensity	Adjusted HC ratio	Extreme poverty	HC ratio	Intensity	Adjusted HC ratio	Extreme poverty
Extreme Poverty - 1	5.68	79.0 (14.34*)	0.611	0.483	61.7	78.7	0.616	0.485	62.8
Extreme Poverty - 2	11.51	56.8 (20.9*)	0.573	0.325	38.9	59.8	0.575	0.344	41.9
High Poverty - 1	19.25	45.4 (27.93*)	0.541	0.246	26.9	50.1	0.562	28.2	32.8
High Poverty - 2	23.45	31.2 (23.38*)	0.528	0.165	16.4	41.1	0.545	0.224	24.6
Low Poverty	40.12	10.5 (13.46*)	0.494	0.052	4.0	14.0	0.507	0.071	6.1
Total	100	31.3 (100*)	0.548	0.172	18.6	36.6	0.558	0.204	23.1

*Values in parenthesis present percentage contribution to the national headcount ratio.
*HC = Headcount

We already know that the poorest zones have the lowest share to the total population of Pakistan. Population share increases with the decreasing levels of poverty and the least poor zone is the most populous one with more than 40 per cent of Pakistan's population living in this zone. This is partly because high population density, and partly because of the shortcoming of PSLM which treats big cities as one district although they are administratively divided into many districts.

Table 8.2 also presents the contribution of each zone to the overall headcount ratio (in parenthesis in third column) for the year 2012-13. It shows that due to overwhelmingly high headcount ratio of 79 per cent, the Extreme Poverty Zone – 1 made 14.34 per cent contribution to the total number of poor in 2012-13 despite having only 5.68 per cent share in the population. The contribution of this zone to poverty headcount ratio is higher than the contribution of the Low Poverty Zone which is nearly eight times more populous. Similarly, the Extreme Poverty Zone – 2 that has only 11.5 per cent of the country's population but a headcount ratio of 56.8, had more than 20 per cent of the country's poor in 2012-13. In the same year, the highest proportion of Pakistan's poor lived in the High Poverty Zone – 1 which due to both high population and high headcount ratio, made nearly 28 per cent contribution to the headcount ratio. With headcount ratio equal to the national headcount ratio, the contribution of the High Poverty Zone – 2 to headcount ratio is proportional to its share in country's population. In contrast, with more than 40 per cent share in national population, the Low Poverty Zone contributes 13.46 per cent to the headcount ratio. Map 8.1 presents the classification of districts into these zones and labels the zone level headcount ratio as well the contribution of each zone to the national headcount ratio.

Map 8.1: Classification of districts inot poverty zone and zone level headcount ratio 2012-13
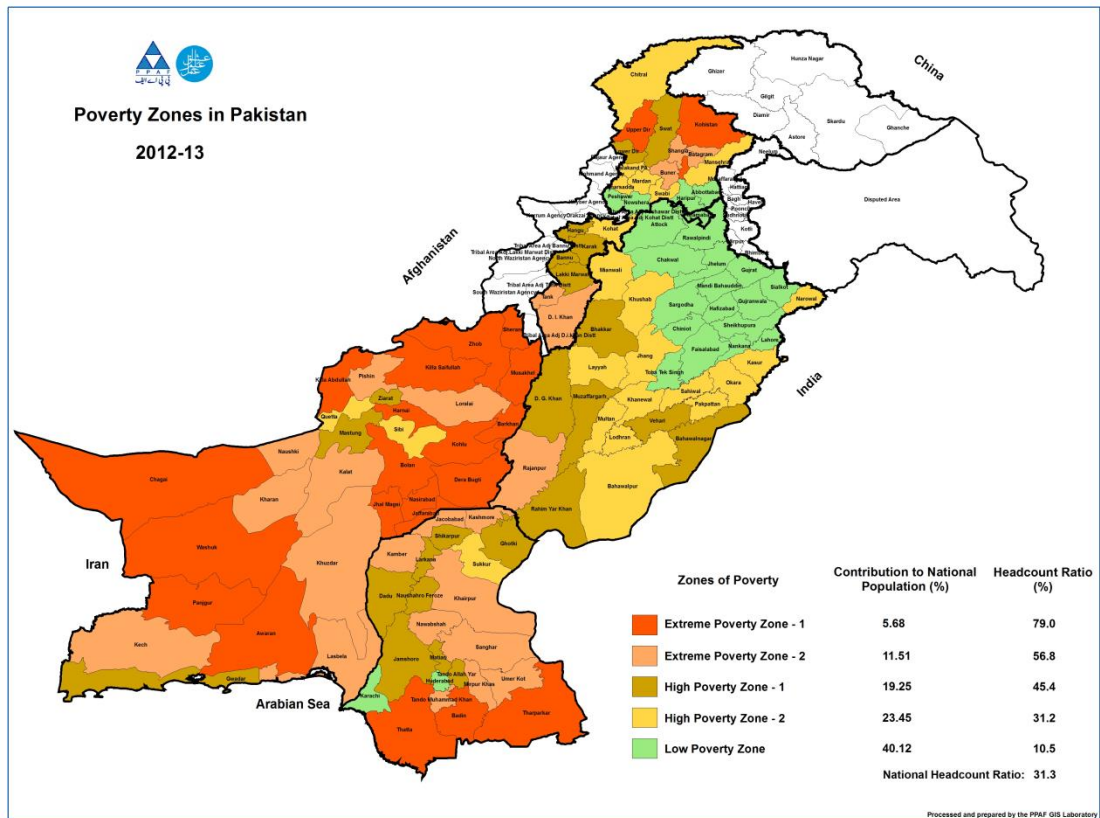
The headcount ratio seems to have persisted over the five years in the Extreme Poverty Zone – 1, and decreased only by three percentage points in the Extreme Poverty Zone – 2. The highest decline over the five years in the headcount ratio of 10 percentage points has occurred in the High Poverty Zone - 2. The High Poverty Zone - 1 experienced 4.5 percentage points decline and the Lower Poverty Zone a decline of 3.5 percentage points over the five years. If the population shares of the zones are taken into account, the overall reduction of headcount ratio over the five years at national level is driven primarily by the reduction in the High Poverty Zones -2 followed by the reduction in the Low Poverty Zone.

The poor living across these zones vary in terms of their experience of the levels of deprivation, i.e. the intensity of poverty (I). In 2012-13, for example, the poor in the Extreme Poverty Zone – 1 faced more than 61 per cent deprivations compared to 49.4 per cent deprivations faced by the poor living in the Low Poverty Zone. The intensity of poverty is also somewhat persistent over time in the Extreme Poverty Zones 1 and 2, and has a higher decline in the High Poverty Zones 1 and 2. The adjusted headcount ratio (A) demonstrates a pattern similar to that of the headcount ratio and intensity. The measure of extreme poverty makes the distinction between the five zones further sharp. In 2012-13, compared to the Low Poverty Zone, the incidence of extreme poverty was more than 15 times higher in the Extreme Poverty Zone – 1; 10 times higher in the Extreme Poverty Zone – 2; almost seven times higher in the High Poverty Zone -1; and four times higher in the High Poverty Zone -2. The extreme poverty is

persistent in the Extreme Poverty Zone – 1 over the five years, and the highest reduction of eight percentage points has occurred in the High Poverty Zone - 2 followed by six percentage points in the High Poverty Zone - 1.

These five zones of poverty based on the quintiles of headcount ratio enable us to recap the findings of the earlier analysis and provide a platform for further discussions on the factors that explain tremendous diversity in the breadth and depth of poverty across the country and the ways to develop a rather nuanced typology of poverty. The subsequent section of this chapter attempts to identify the key factors that potentially explain the diverse ways in which various districts are poor.

Explaining differences in poverty

There are some stand-out implications from the data that potentially help explain regional variations in the incidence of poverty. First, there is polarization with broadly the West and South experiencing very high rates of poverty—especially Balochistan, Sindh and also Southern Punjab which constitute the Extreme Poverty Zones and High Poverty Zones in contrast to the Northern parts of Punjab making the Low Poverty Zone. An early policy concern from this over-arching spatial pattern is that policy levers such as education and health perhaps do not have the same leverage when applied across this diversity, and the more universal initiatives like cash transfer programmes cannot deliver universal impact. Another way of expressing this problem is that poverty, in its extreme locations, is more inelastic, not only as a response to growth, but also perhaps in its socio-cultural and economic embeddedness.

Second, the urban-rural data reveal a very strong story of spatial inequality strongly consistent with the zones of poverty: relative urban inclusiveness is contrasted to the high incidence of poverty in remote areas away from growth pole centres. The Extreme Poverty Zones 1 and 2 and High Poverty Zone -1 are largely rural territories, whereas the Low Poverty Zone is mostly urban. Thus while the whole of Pakistan reveals a centre-periphery picture (northern Punjab versus the rest, or at a lower level, provincial capitals and the rest of the districts in each province), the urban-rural contrast reveals strong centre-periphery relations even within otherwise high poverty provinces like Sindh, when Karachi and Hyderabad are considered. And if northern Punjab from Lahore to its north and west, stretching through Attock and Nowshera to Peshawar in KP is considered a peri-urban area, served by denser road infrastructure than elsewhere in the country, then this analysis is reinforced. While the data in the report can show this trend, further explanation is needed. We return to this below.

Third, population density is not distributed equally across the spatial areas of Pakistan. Extreme Poverty Zones 1 and 2 have 13.4 and 17.4 per cent of the country's population, respectively (Table 8.2). In contrast, population share increases with the decreasing levels of poverty across zones reaching to 28.6 per cent in the Low Poverty Zone. The overall zone wise size of the population however does not inform us about the area wise density of the population. Districts in the Extreme Poverty Zones 1 and 2

as well as in the High Poverty Zone - 1 have very low population living per square KM area (see annex 9). All the districts in Low Poverty Zone and except for Chitral and Bahawalpur in High Poverty Zone - 2 have very high population density.

Sparse population in the poorest zones also points towards a fundamental deficit of democracy. The key political actors, in a democratic setting, inherently tend to be more responsive to the demands of majority population groups often at the cost of smaller 'vote banks'. In the absence of further constitutional guarantees, which ensure the poverty measures like headcount ratios cannot be disproportionally high in certain zones, democracy in itself will continue to favour the already privileged zones. Moreover, as there are economies of density in the production of public services, managerial aspects of public services also work against low density areas since the costs of service delivery in sparsely dense areas are very high. Sparse population in the poorest zones also point towards the distinct forms of social organizations with potentially higher reliance on informal networks such as feudal and tribal structures to access public goods and services with repercussions for the prospects of poverty reduction in such communities. This is explained further in the subsequent point.

Fourth, linked to rurality and population density is the access to and quality of public services which is greatly differentiated across poverty zones. Poverty in general and the measures of multidimensional poverty in particular are inherently influenced by citizens' access to and utilization of public services. Access to education and healthcare facilities and municipality services carry the largest weight in the construction of Global MPI and the poverty index in the current study. Multidimensional poverty is thus in itself a measure of access to and utilization of a number of basic public services. The zones with the high levels of poverty are characterized with the poor service delivery. PSLM data provides a relatively broad picture of citizens' access to a number of public services along with a proxy measure of their quality through citizens' reported levels of satisfaction with these services. Table 8.3 presents the percentage of population reporting to have used and been satisfied with the nine public services across poverty zones in 2012-13.

Table 8.3: Governance and Public Service Delivery across Zones of Poverty (2012-13)

Public Services	Extreme Poverty Zone - 1		Extreme Poverty Zone - 2		High Poverty Zone-1		High Poverty Zone-2		Low Poverty Zone	
	Use	Satisfaction	Use	Satisfaction	Use	Satisfaction	Use	Satisfaction	Use	Satisfaction
Veterinary	30.2	36.3	32	51	32	58.3	26.7	63	12.9	79
Agriculture	18.9	38.7	23.6	54.1	18	59.2	11.8	65	6.3	83
Police	32.7	38.6	34.4	47.6	32	48.4	26.6	51	23.4	50
Banking	51.5	75.6	71.3	89.1	78	89.8	79.7	95	87.8	97
Road	100	41.9	100	54.8	100	64.9	100	72	100	76
Drinking Water	100	50.7	100	71.4	100	80.8	100	82	100	78
Bus	99.5	57.6	99.6	63.5	100	73.1	99.6	74	99.5	71
Railways	15.7	28.4	28.5	24.4	26	40.9	24.6	33	25.4	36
Post Office	34.9	65.4	51.4	78.2	49	84.2	45.4	86	44.9	87

Source: Computed from PSLM 2012-13

The use of veterinary and agricultural services is higher in the largely rural/agrarian two Extreme Poverty Zones than the largely urban Low Poverty Zone. However, the reported levels of satisfaction with the use of these services are the lowest in the Extreme Poverty Zones increasing steadily to reach the highest level in the Low Poverty Zone. Interestingly, the use of police services is the highest in the two Extreme Poverty Zone and the lowest in the Low Poverty Zone, suggesting the higher exposure of the former to crime and violence. In contrast, the reported level of satisfaction with the use of police services is the lowest in the Extreme Poverty Zone – 1 and the highest in the Low Poverty Zone.

Half of the citizens use banking services in the Extreme Poverty Zone –1 and three-quarters of them report to be satisfied, compared to 88 per cent using these services in the Low Poverty Zone and nearly all of them reportedly satisfied. Drinking water, roads, and (presumably private) bus service are used by everyone, however the levels of satisfaction with these services are drastically lower in the two Extreme Poverty Zones than the zones of lesser poverty. The use of railways services is the lowest in the poorest zone, also low in the least poor zone and high in the middle three zones. The level of satisfaction is however higher in the three lesser poor zones than the two Extreme Poverty Zones. Lastly, both the use of and satisfaction with the postal services are the lowest in the Extreme Poverty Zone – 1 than other four zones.

These low satisfaction levels with the public services reported by the citizens in the Extreme Poverty Zones provide insights into the deep seated problems with the public services delivery – and in fact the overall relationship between state and citizens - particularly those in the rural, agrarian regions where access to public resources is heavily mediated by the patron-client networks and state resources are used for the gains of local elites and public officials. In a recent study, Azam and Kate (2013), using household datasets from rural Punjab reported that many households contact provincial and national politicians to access basic state services such as getting a national identity card. As these patron-client relationships are based on some sort of reciprocity where better of households can offer greater returns to the patrons, the landless and female headed households are less likely to interact with and benefit from the politicians (p.205). Consequently, they are left out and these relationships perpetuate inequalities. Similarly, an ethnographic study of service delivery in KP by Khan (2012) shows the 'un-official' way of doing the official business. The case studies of public service delivery show the informal social norms of clientelism, personal relationships and moral attachment governing the provision of basic social services and shaping the behaviour of public officials. There is thus a close relationship between the functioning, efficiency and transparency of the organizations of public services delivery and poverty outcomes. Districts far from the provincial cores particularly appear to suffer from poor provision of public services that contributes towards the persistence of poverty.

Fifth, the combination of evidence about inequality and polarization (including urban-rural) speaks to the familiar theory of undeveloped regions, analyzed for example as far back as 1957 by Gunnar Myrdal for Europe. Without taking space here to repeat the

theory, the basic argument is about the economies of agglomeration as primary industry attracts necessarily associated commercial activity and services, in turn requiring public sector infrastructure support which sets in motion further industrial and commercial investment to take advantage of what already exists. Similar arguments are made later on by Krugman (1991) to explain the inherent tendency for economic activities to concentrate geographically given the increasing returns to scale. Agglomeration offers firms the opportunity to benefit from value chain networks, presence of appropriately skilled labor-force, an overall knowledge diffusion, and the availability of financial services and other commercial facilities. There are thus tremendous spill overs for the firms to be based in close proximity with each other and in large cities.

Burki and Khan (2010) examined the agglomeration of the manufacturing industries in Pakistan and its emergence over time. By using the data on industries collected in 2005-06, they report that 35.3 per cent of the manufacturing industries are highly agglomerated, 38.2 per cent moderately concentrated and only 26.5 per cent not concentrated. They report that the districts with the highest and the medium industrial concentration are clustered around metropolitan cities of Karachi and Lahore – districts that constitute the Low Poverty Zone. Burki and Khan identify several factors causing the agglomeration of the manufacturing industries in a few districts around Lahore and Karachi (and lack thereof in others) particularly the size of the district level population (consumer markets), road density (transportation) in the industry, and the pool of technically trained workers (labour force) in the district which to them are the causes of low manufacturing activities in the remote districts. The relationship between the geography of poverty and industrial concentration is very obvious in Pakistan. The economic opportunities offered by the process of industrialization are not available to those living in the districts in the Extreme Poverty Zone – 1 and Extreme Poverty Zone – 2 as well as in several other districts except for those in the Low Poverty Zones.

Sixth, it would seem that natural resource endowment beyond land carrying capacity in agro-ecological terms is also not compensating for remoteness and low intensity and lower yielding agriculture. Thus Balochistan and Sindh both have significant natural resources in natural gas, coal and other minerals, but the exploitation of these resources has not yet impacted upon poverty in these regions. Instead, there is a pattern of 'resource curse' as the resource rich districts fall in the Extreme Poverty Zones. Natural gas reserves provide an excellent example in this regard. With 12.5 trillion cubic feet, Dera Bugti alone had 46.7 per cent of the total gas reserves in Pakistan in 2012 (GOP 2012a; GOP 2012b). Similarly, with 6.7 trillion cubic feet, Ghotki had more than a quarter of the total gas reserves and Dadu had almost nine per cent of the total gas reserves (ibid.). Tharparker had the largest coal reserves in the country (GOP 2012b). In complete contrast to their resource richness, Dera Bugti and Tharparker are in the Extreme Poverty Zone -1, and Ghotki and Dadu in the High poverty Zone. These districts are thus extremely poor. Other notable districts with significant natural gas reserves include Khairpur, Kashmore and Sukkur.

If environment is taken as a natural resource to be exploited for fossil fuel energy production, Muzaffargarh and Lasbella present the acute case of resource curse. With nearly 8,000 Gigawatts per hour, Muzaffargarh makes 20 per cent contribution to the total thermal power generation capacity in the country (GOP 2012c). A new coal power plant is currently being established in the district. Moreover, Pakistan's largest oil refinery, the Pak Arab Oil Refinery is also established in Muzaffargarh. All these fossil fuel establishments are installed in close geographic proximity to each other. The district had nearly half of the population poor in 2012-13 and hosted third largest population of the poor. Similarly, with 8,000 Gigawatts per hour, Lasbella makes 20 per cent contribution to country's thermal power production (ibid.) and is in the Extreme Poverty Zone – 2. Although different in nature from the exploitation of other natural resources, fossil fuel industry worsens environment and causes irreparable losses to human health and ecological conditions in the long run particularly when it is concentrated in small geographic areas with an overwhelming proportion of population already living below the poverty line.

Thus, natural resources do not seem to be the drivers of poverty reduction in many of the poorest districts. Partly the absence of trickle down or trickle across effects is a function of ownership of these resources and the ways in which these resources are allocated for exploration and exploitation. Several layers of authority, federal, provincial and local governments (if and when the latter exist) and the local power structures mediate any trickle down potential. Poor governance at various levels has led to monopolistic rent-seeking around these resources. But, resource exploitation also requires skilled employment using advanced technologies, which de facto exclude the local, poor, illiterate and semi-literate, under-educated population from these opportunities. Thus such natural resource endowments are more likely to lead to the forms of industrialization, where we witness slavery like working conditions as in the case of mining sector.

Seventh, across Pakistan, like elsewhere in the sub-continent, we need to ask whether physical mobility (migration) within regions and the country as well as externally has the function in the longer term of converging the intra provincial and inter district differences indicated by the data, or whether such mobility reinforces the 'pull' of working age populations towards growth pole centres and sub-regions. Indeed, if the data were more income than asset focused, then the significance of remittance income for convergence would perhaps be stronger than shown here. KP is especially affected by this, with high incidence of out-migration of some family members for employment in Middle Eastern countries and in various major cities within Pakistan. Districts with the highest international migration include Kohat, Bannu, Swat, Hangu, Swabi, DG Khan and Sialkot, and they had more than one per cent of their population registered as overseas workers in 2012-13 (GOP 2013). In contrast, districts of Balochistan, including Dera Bugti, Qilla Saifullah, Turbat, Jhal Magsi, Qilla Abdullal, Bolan and Pishin have the smallest proportion of population registered as overseas workers in the year 2012-13 (ibid.). The degree of KP and indeed FATA remittance dependency needs further research. But within the country, income data would also affect urban-rural polarization with urban incomes from temporary and cyclical migration supporting

rural short-term consumption, which is not revealed in asset data. Once again, this has implications for policy towards investing in people's ability to gain incomes from outside their own underdeveloped residential areas in other growth pole centres — a process which might have the function of reinforcing polarization rather than suppressing it, though choices of measures will lead to different outcomes. Patterns of migration, particularly the destination of immigrants if we have enough geographic data, can be related to the poverty in their districts of origins.

Eighth, in the strongly patriarchal environments of rural Pakistan, especially its remoter areas with the higher incidences of poverty as revealed by the data, physical mobility is more confined to men with significant gender implications for de facto family structure in the locations where poverty is actually experienced. Restriction on mobility, variable across the country, has tremendous implications for women's access to education and healthcare opportunities, and wider participation in the social and economic spheres of life. We also need to understand more about the incidence of female headed and female managed households in the areas reporting highest poverty, and also both the de facto exclusions of those families from local level social capital and other community support as well as the de facto desertion of those women by men who have ended up settling more permanently in urban locations of employment, taking additional wives/partners. More generally these observations should focus our attention upon the feminisation of poverty, especially extreme poverty, which is noted elsewhere in the sub-continent.

While there is enough evidence that women suffer the most under the conditions of poverty, there is a need to explore the extent to which adverse positioning of women in the household (intra-household distribution of resources and opportunities) and in the community (re)produce the conditions of poverty. Although we could not sufficiently explore the gender dynamics of poverty in this report, significant cultural diversity in Pakistan suggests the possibility of the diverse nature of gender relations prevalent across sub-cultures, ethnicities, regions and districts. Additional research on diversity of gender relations across the geography of Pakistan can help understand the gender-poverty-inequality nexus.

Ninth, districts in the poorest zones are simultaneously characterized with recurring natural disasters, such as cyclones, floods, earthquakes and droughts, and poor infrastructural capacity to deal with these disasters. Many of the districts in the poorest zones also suffer from endemic violence and active conflict. Within these zones, poor households suffer the most given their existing social and economic vulnerability due to poverty. Cyclone Yemyin in 2007, for example, affected 2.5 million population, destroying more than 71 thousand houses in Balochistan and Sindh, mainly in the districts classified in the Extreme Poverty Zones 1 and 2 (GOP 2015). Similarly, floods affected 20 million populations in 2010, 9.3 million in 2011, 4.8 million in 2012, 1.5 million in 2013, and 2.5 million in 2014. Districts around the Indus river, including those in the north of KP, south of KP and Punjab, and most districts of Sindh, with very high incidence of poverty, are particularly prone to catastrophic floods, greatly affecting lives, livelihoods and living conditions of the poor population. Other natural

disasters, such as earthquakes, and droughts are also very recurring in the Extreme Poverty Zones districts in Balochistan, some parts of KP and Tharparker in Sindh.

Similarly, the mapping of conflict also shows relationship between violence and poverty[10]. The most conflict prone areas of Pakistan are in FATA which are not covered in the PSLM but are expected to be extremely poor. Several districts in KP and Balochistan experiencing very high poverty also have high incidents of terrorism, sectarian violence and armed insurgency. Some urban centres with low poverty headcount ratios, such as Karachi and Quetta, also have high conflict. Perhaps the nature of conflict varies in the poor and the least poor regions. The ways in which conflict affects poverty or poverty perpetuates conflict need to be investigated further in order to break the relationship between the two and build the resilience of the poor communities and households.

Behind Figures and Macro-Trends

The picture summarized above clearly helps explain some of the spatial and regional patterns of poverty using the distribution of wealth quintiles (measured through assets and living conditions), alongside other multi-dimensional measures like access to education and health. The disaggregation of these data down to the district level, using PSLM, adds significantly to our understanding of these patterns and zones of poverty, including the difference between moderate and extreme poverty in terms of the intensity measures. But these data inevitably leave other questions about poverty, its explanation, and policy inferences unanswered.

These data support the following broader explanations of the incidence of poverty:

- inequality in asset ownership
- growth pole centres/sub-regions structuring the relationship between economic growth and the elasticity of poverty responses
- urban-rural ratios
- carrying capacity of agro-ecological zones
- path dependency of remoter regions
- associated patterns of deprivations in terms of assets, education, and health access

In some sense, this quantitative exercise over three data periods gets us to first base in terms of explanations. Within each of these poverty zones, there are also inequalities, relationships and micro-level resource endowments which offer deeper insight into the processes through which poverty is reproduced on a daily basis. While these data above indicate diversity along selected measures, they do not themselves offer explanations about how poverty is reproduced---the path dependencies. Successful and nuanced policy interventions need that detail of evidence. The two main nationwide instruments at present, BISP and rural support programmes, are designed to address social protection and income generating programmes respectively. These are supported, as it were, by public sector investment in education, health and other

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[10] http://www.usip.org/sites/default/files/PW93-Mapping_Conflict_Trends_in_Pakistan.pdf

public infrastructure. But taken together as the poverty reduction policy stance of successive governments in the country, they can be critiqued for not making a stronger impact upon poverty reduction, especially the eradication of extreme poverty.

This limited impact is:
- partly a function of bluntness of nationwide instruments
- partly mis-targeting
- partly a function of rent-seeking and corruption entailing leakage of potential impact as funds get misallocated and diverted
- partly a function of poor governance and transparency which, for example, allows teachers to have worse absentee records from their schools than their pupils or beneficiaries to be preferentially rather than objectively selected for inclusion
- partly because local level institutions (local government, CBOs, etc.) are easily captured by local elites at the village and union levels
- partly through not engaging with vertical and horizontal inequalities of livelihoods and power (especially class and gender) as played out within and between communities in terms of relationships though which choices and opportunities for agency and access is constrained

Constructing a Typology across poverty range

How can the multi-dimensional poverty data presented in this report help us reach this more nuanced understanding of how poverty is reproduced across the country? Pursuing such research agenda requires intelligently borrowing from a wide range of disciplinary traditions and methodological orientations. We recognize that the statistical and econometric models are important in generating a generalized picture of the incidence of poverty and inequality, as well as trends over time and some of its determinants. Quantitative methods are thus essential in exploring the nature and dynamics of poverty and inequality exploiting the full potential of the household surveys and panel data which are increasingly becoming available. But we also realize that understanding the deeper structures and power relations that reproduce poverty and inequality require a broad social science based framework employing qualitative methods such as ethnography. Given the stark inequalities of livelihoods and power, a political economy analytical perspective is essential, enriched by the disciplines of anthropology and sociology to capture the subtler processes in poverty reproduction in class, status, gender and inter-generational perspectives.

Clearly it would not be pragmatic to investigate all these issues of limited policy impact for each of the 115 districts in the country. But just using the headline distributional, district-wise, conclusions from the data, six poverty classifications are offered from below 15% poor to above 75% poor. Strictly derived from this schema it might offer us a six fold ex-hypothesis typology from the quantitative analysis to explore qualitatively, selecting one location within each of these six categories. But if we acknowledged that more variables needed to be embraced than offered merely by the statistical range, for example concentration of high poverty, agro-ecological, provincial administration, north-south

Punjab and ethno-linguistic, modified for population significance, then we might have the following more representative a priori typology for further investigation, moving from low to high poverty (Box 8.1).

Box 8.1: Potential Typology of Poverty

Gujrat (N. Punjab): (below 15%) a strong growth pole area representing N. Punjab, an industrial district famous for ceramics, fans and furniture making;
Multan (S. Punjab): (15-30%) significant urban influence towards S. Punjab, with population density and industrial units across the district in textiles, beverages, chemicals and fertilizer;
Sukkur (Sindh): (30-45%) northern Sindh with near average poverty rate for the country, mainly reliant upon agriculture and river fishing;
Kohat (KP) (30-45%) adjacent to low poverty area of Attock, but in KP with near average poverty rate, out migration and remittances, local agriculture and horticulture supported by irrigation from Tanda Dam, socially organized through tribal identities;
Naushahro Feroze (Sindh): (45-60%) significant poverty rate, representative of surrounding districts in northern Sindh, heterogenous settlement of tribes, castes and clans, wheat cotton and sugarcane growing, problem of riverine salinity, significant intra-district rural-urban migration to the main district town;
Gwadar (Balochistan): (45-60%) high present poverty rate, arid area with low rainfall, low density agriculture, outmigration and poor services, low literacy, but likely to undergo significant change and become a growth pole area due to port construction and improved links (road and air) with Karachi;
Rajanpur (S. Punjab): (60-75%) persistently high poverty rate, representing southern Punjab located with the Indus to its east and mountains in the west, very low rainfall, reliant upon canal irrigation and other forms of water storage, vulnerable to flash flooding, much recent damage, main crops cotton and sugarcane and some subsistence wheat and rice;
Kohlu (Balochistan): (above 75%) low population, tribal area, arid and mountainous, nomadic and semi-nomadic livestock dependent, comprising Zarkoon and Marri tribal groups, a small seasonal fertile valley;
Washuk (Balochistan): (above 75%) low population density, barren desert and mountainous with small proportion of arable land, high poverty rate in mixed pastoral and agricultural pockets near the river, 8 tribal groups speaking Balochi, comprising small tribal settlements, very low rankings for education and other facilities/services, until 2007 part of neighbouring Kharan district, 300 km SW of Quetta, provincial capital.

This initial typology proposal should be seen more as an exemplar of how an ex-ante typology might be constructed solely from the data in this report. However, some areas are left out, for example Kohistan, as being an outlier on many dimensions, and it might be that there should be a higher representation of lower poverty areas in northern Punjab, or more urbanized areas to reveal factors responsible for lower poverty rates. Not all diversity is captured in the suggestions above, but the main criterion is to represent the significant poverty areas of the country alongside the range of poverty rates.

A 'road map' for this kind of approach might actually be better to include a few more locations than to assemble an initial description of socio-economic/cultural

characteristics before again reducing the number of district locations. We would like the opportunity to pursue this further.

From Thin to Thick Descriptive Analysis

Outlining an initial typology, as mentioned above, would be the beginning of a further, more qualitative research agenda, providing the framework for selecting village/settlement locations for ethnographical, thick description analysis (supported by PRA methods) of the experience of poverty among the lives of the poor, but importantly their relationships to other non-poor and institutions within the village.[11] This in turn provides a guide for selecting households for more detailed life history analysis both as a qualitative baseline, but also as a frame within which to track subsequent household livelihoods choices, coping strategies, and management of crises either through interval tracking, or in relation to other events, economic changes or policy interventions. This approach will provide a core Q-squared analysis, with further possibilities of quantitative validation. In this way a continuous dataset can be established.

This will set up the conditions for tracking an action-research, in the context of ongoing policy interventions to reduce poverty, to assess graduation out of poverty, protecting the gains and resilience to shocks. The intervention design would accept that assets transfer cannot be a sufficient condition of graduation due to the ongoing vulnerability of families assisted through such transfers, and thus forms of social protection and safety net (not the same tool) will be required alongside other integrated services, most importantly healthcare, education and training which also engage with inter-generational reproduction problems, and forms of awareness raising and confidence building amounting to empowerment (the demand side)—enabling people to avoid Faustian bargains and achieve a security of agency.

The Analytic Framework: Linking Poverty Research to Policy Outcomes

In order to engage with the issues raised quantitatively in this report in a way which links analysis to potential strategies for more effective poverty eradication, we need to establish an analytic framework which links the conditions of poor people to their aspirations for improved and more secure livelihoods, and to a progressive agenda for the country's duty bearers. In a sense, normatively, this is a plea for a new political settlement in Pakistan which reforms the present dysfunctional welfare regime towards a more inclusive strategy for social policy. But analytically, the framework needs to link people's agency to the institutional context, the structures laid down by history and other powerful contemporaries, within which they have to negotiate their livelihoods and wellbeing. Let us, therefore, remind ourselves what a welfare regime

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[11] See Aziz, Khan and Wood (2015) for a published example of this methodology in which 3 village locations were selected for ethnographical study on community spaces for maternal and child health in Pakistan, from 3 exemplar districts.

looks like in broad terms and what people have to do to survive within it, let alone structurally transform it to become more inclusive.

The point of departure for the model below is normative. Social policy in OECD countries is usually associated with state support for livelihoods that cannot otherwise be sustained via markets, employment, savings, capital acquisition, self-funded pensions and residual family relationships. In advanced market societies, a Polanyian principle is at work in which the labour market is partially de-commodified by public intervention (social insurance, pensions and so on) to insulate individuals and their families from market volatility. As Gough and Wood (2004) have argued, this de-commodification, in advanced market societies, reflects a political settlement between labour and capital under conditions of pervasive formal labour and financial markets, accompanied by highly legitimate states arising from democratic processes possessing the ingredients of accountability and transparency as features of good governance. This combination of conditions provides for a wide range of rights based entitlements in return for high rates of taxation with re-distributive, flat-rate and regressive elements. Thus, in principle, both taxation and benefits operate within strong legal frameworks based on equity and precedent case law.

However, even under the more robust versions of this ideal welfare model, neither the state nor the market has a monopoly of support for people's livelihoods. And even where state support has in principle been available, quality and adequacy continuously fall short of needs, and in 'postcode terms' can be highly variable. This strongly appears to be the case in Pakistan given its tremendous diversity. Furthermore, even within a broad political settlement, the quality, comprehensiveness and adequacy of state support have been a function of both the ideological complexion of ruling parties, affecting provision and entitlements at the margin; and, as the recent global financial crises demonstrate, policy responses to broader global trends and priorities. Thus the search for welfare security extends beyond the state even in OECD societies, and certainly in lower and middle income ones.

In order to engage with the state and market conditions of lower and middle income countries, Gough and Wood (2004) extended the focus of Esping-Andersen's welfare state regimes (1991) and his use of Polanyi's 'de-commodification' principle to countries with diverse and different institutional landscapes, such as Pakistan. Amid this comparative complexity, they found two prominent 'condition' variables: problematic states with respect to their legitimacy to uphold rights and effect de-commodification; and highly imperfect, non-pervasive labour and finance markets, inhibiting employment related forms of universal social insurance. The main conclusion, especially for South Asia was that in terms of institutional choice, people are obliged to rely more heavily upon community and family/household arenas. Thus their livelihoods are much more a function of personalized social embeddedness rather than impersonal rights, non-sensitive to the preferentialism of power-holders. This reliance highlights a key feature of poverty in Pakistan: namely the contrast between dependent and autonomous security and agency. The argument in social policy terms is that while the normative goal may be towards autonomous (in the sense of rights-

based) security, what people actually experience is dependent security at best (dependent upon local patrons, other family members, or the informalised state). In other words, the social policy regime in many MICs, like Pakistan retains a hybridity of partial formal provision (e.g. Benazir Income Support Programme or even National Rural Support Programme) alongside the continuation of partial but significant informal provision through patrons and networks of intermediaries. Thus we need to be aware of the different types of non-state welfare across the diverse socio-economic conditions of Pakistan and their significance for both the continuation of dependent security and the receding goal of autonomous security. The concern is not just to identify and describe forms of non-state welfare but to assess their social and institutional implications for ongoing political settlements, involving formal duty-bearers, about responsibility for poverty reduction and support for livelihoods.

Figure 8.1 below sets out the basic inclusive model of a wellbeing regime, proposed as a conceptual advance on Esping-Andersen's welfare state regimes model. The focus on wellbeing as opposed to welfare captures more ultimate 'outcome value' embracing both objective (how people are doing) and subjective (experience, feelings and aspirations of people) dimensions (White and Abeyasekera 2014). Thus wellbeing and ill-being incorporates Rawlsian ideas about citizenship and belonging (Rawls 1971), and Sen's later ideas about capabilities (Sen 1999). And in capturing cognitive and perceptual dimensions, helps pursue a more inclusive policy agenda.

Figure 8.1: Model for Wellbeing Regimes
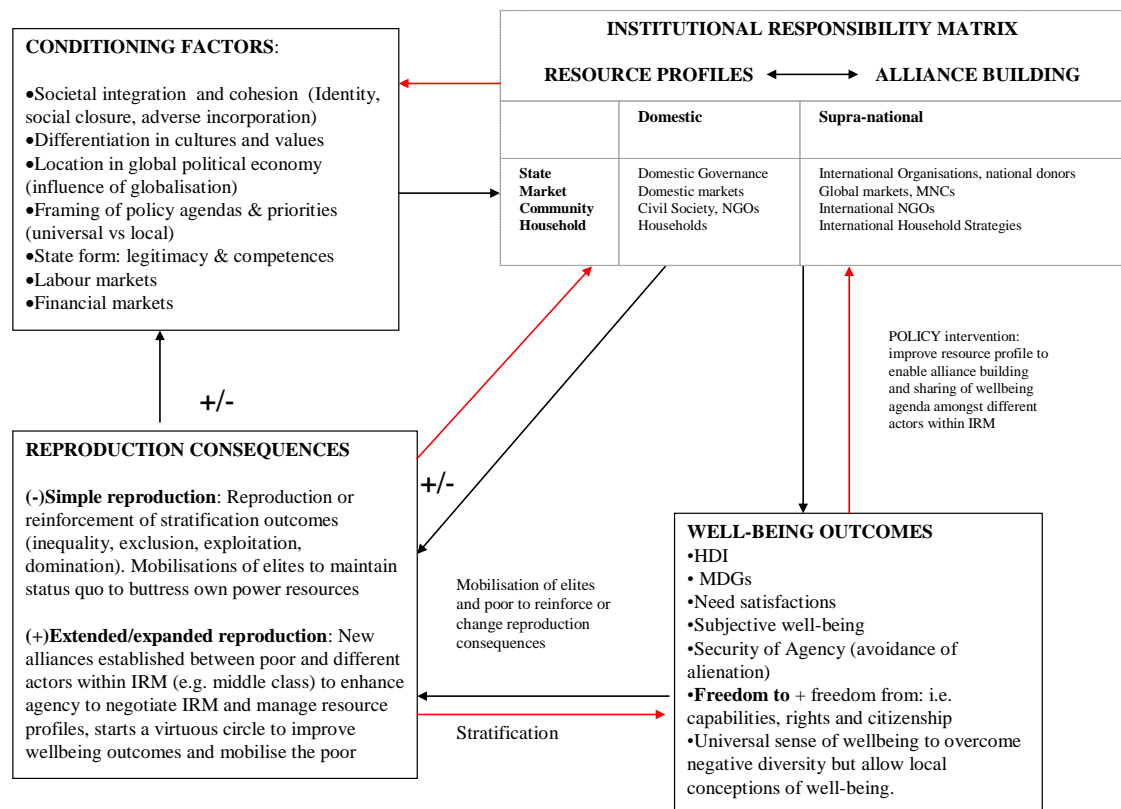
Source: Gough and Wood (2004).

Beginning at the bottom right-hand corner, the wellbeing outcomes of the Pakistan population represent the classic objectives that social policy and social development aim to meet through social protection and social investment in human resources and agency. These can include satisfaction of basic and intermediate needs, reduction of poverty and vulnerability and other measures of low or inadequate resources. In moving from welfare to wellbeing, outcomes are extended to include social identity, citizenship, participation, reduced alienation and freedom from fear, and thus crucially—the security of agency.

Moving to the top right of the figure, wellbeing outcomes are not explained simply by the presence and practice of policy, but most immediately by agency-structure interaction within an institutional responsibility matrix (IRM) or welfare mix. This is the actual institutional landscape within which people in Pakistan pursue their livelihoods and welfare objectives, and embraces the role of government, community, private sector market activity, and the household in mitigating insecurity and ill-being, alongside the role of matching international actors and processes. The core problem is that all these 4 broad domains are problematical for the poor, imperfectly rigged in favour of power holders and elites, even within the heavily gendered and age-related seniority of the household.

The welfare mix in turn is shaped by the conditioning factors of a country (top left): the pervasiveness and character of markets, the legitimacy of the state, the extent of societal integration, cultural values and the position of the country in the global system.

Finally, under 'reproduction consequences' we consider social stratification and patterns of political mobilization by elites and other groups (bottom left of Figure 7.1) as both cause and consequence of the other factors. Social stratification refers both to the existing distribution of power in the society and the extent and nature of societal inequalities as indicated to some extent by the zoning of poverty presented in this report. These and related mobilizations of different groups and coalitions reproduce or change the institutional conditions of the society, and thus either simply reproduce or change the welfare mix and patterns of welfare of the country. These processes can reproduce a stable political settlement (in more settled societies) or be a driver for fundamental, transformational change.

The key to this policy agenda is the distinction between 'freedom from' and 'freedom to'. Thus welfare policy in richer societies has been able to focus more upon the principles of 'freedom from' insecurity through various forms of social insurance, leaving 'freedom to' agendas to other social policy domains like education and health. By contrast, any welfare policy agenda in poorer societies like Pakistan, without deserting the 'freedom from' and human security agenda, has to embrace a stronger social development agenda which places more emphasis upon 'freedom to' and human development objectives, in a way that goes beyond investment in individual human capital, competencies and skills to building alliances and effective mobilization to negotiate the problematic institutional landscape and to hold duty-bearers to account.

This imperative especially draws attention to the problems of governance. In other words, for transformative change to reduce poverty, the development/investment agenda to support agency has to be pursued alongside the social protection agenda to support the security of agency.

The principle hypothesis or research question arising from seeing Pakistan through these analytical lenses is that middle income status, under present institutional conditions, is unfortunately compatible with a continuation of imperfect labour markets and quasi-feudal relationships especially in agriculture and other rural economic activity where inequality in the ownership and control of assets remains significant. In this way, poverty levels in certain parts of the country remain very high and slow to improve, despite the present array of policy instruments like BISP and rural support programmes. Thus support for people's sustainable livelihoods requires policy and practice, which is both more radical and more comprehensive than the present instruments. What does 'radical' mean in this context?

The key transformational objective is a positive change in the time preference behaviour of poor people, especially the extreme poor. This means enabling poor people to commit less of their available resources to present and urgent survival needs so that they can re-allocate resource to preparation or investment for future needs and hazards: old age, illness, climate challenges, children's survival and education, skills acquisition, liquidity management, hedges against inflation, entitlement failure through sudden changes in relative prices, and so on. This will only happen if people experience greater socio-economic security in their basic incomes, and thus have a more stable and predictable platform upon which to plan for their futures, thereby reducing their personal discount rates. In this way, they gain a security for their action, for their agency to realize personal, inter-generational and collective, even society-wide ambitions. In other words, securing the 'freedom from' extreme poverty, moderate poverty and vulnerability enables the prospect of 'freedom to' build lives beyond poverty within a more socially cohesive and inclusive society, in which the state restricts the excesses of de-stabilising capitalism. Do present programmes in Pakistan pass this test? It would seem not from the data presented.

Using the Model to Indicate Diversity

While the analytic model offered above represents a universal 'regime' linking people's agency to their institutional landscape with respect to wellbeing needs and aspirations, the evident diversity in Pakistan tells us that in precise terms, the model will look different in different poverty settings across the proposed zones of poverty. Thus the model is intended to reveal the details of diversity in the way poverty is experienced and reproduced. For example, we might expect more agency and fluidity of constraining structures in urban and peri-urban settings, the Low Poverty Zone, compared to the more traditional and fixed structures of remoter, quasi-feudal or tribally organized regions, the Extreme Poverty Zones 1 and 2 and High Poverty Zone. We might expect stronger gender based discrimination against women in remoter,

more patriarchal and conservative areas like Kohistan or tribal areas of Balochistan than urban and peri-urban areas, especially, say in northern Punjab—although actually the measures will not be uniform. In addition to geographical variables, some ethno-cultural areas are more conservative in relation to age and gender whether in Pashtun areas of KP or for South Punjab or interior Sindh.

Thus overall, some of these variations are mutually reinforcing into localized path dependencies or 'regimes', coinciding:

- with ethno-linguistic areas;
- with an urban prevalence rate;
- with road density and associated mobility;
- with agro-ecological zones and their 'determining' influence over local modes of production (e.g. pastoral and agricultural, high or low intensity of agricultural and horticultural production, seasonality and cropping intensity, commercial crop values, irrigation availability and productivity);
- with consequent population densities and dependency ratios of households;
- with degrees of patriarchy;
- with outmigration;
- with tenancy patterns, with degrees of intensity and interlocking in patron-client dependencies involving landlords, moneylenders, employers and other broker and intermediary classes with power over all poor household members;
- with forms of domination of 'community' institutions by leading families and clans;
- with residential settlements strongly organized by clan and other primordial loyalties.

All of these factors circumscribe agency, choice, opportunities and capabilities, and whether security is dependent or more autonomous and more rights/entitlements based. We need to understand the different ways they are articulated across the zones of poverty as revealed in the data presented in this report.

Guiding Policy Principles

Finally, the data presented in this report and the potential for enriched understanding arising from the qualitative follow up research proposed in this concluding chapter, offer already some insight into the key principles which poverty eradication policy should be pursuing in the country. These are briefly summarized below.

First, especially with regard to the eradication of extreme poverty, this distributional analysis clearly points to the need for prioritising the poorest zones in the country, not just in sharply focussed poverty reduction programmes but also all sorts of economic and development plans as poverty is multifaceted. This district level analysis however points to a key policy challenge as the districts with the highest headcount ratio – those in the Extreme Poverty Zones 1 and 2 – make low contribution to the overall population of poor due to their low population. Populous districts with relatively low

headcount ratios, mainly in the High Poverty Zone – 1 and some in the High Poverty Zone – 2, host the largest poor populations (see Table 3.5). Given the social and ethnic diversity of Pakistan and the concentration of high headcount ratio districts in Balochistan, it is absolutely important to prioritize the districts in the Extreme Poverty Zones 1 and 2, both from the perspective of equity and horizontal equality. Eradicating poverty in these districts, however, will not bring national headcount ratio to a drastically low level. In order to make significant reduction in the overall headcount ratio, there is a need to prioritize the districts that host the largest population of country's poor. These districts fall in the High Poverty Zones 1 and 2, and are located in South Punjab, rural Sindh and parts of KP (see Table 3.5 and annex 7). Majority of the districts with high poverty particularly lack economic opportunities, and access to basic services (especially education and health) as well as other infrastructure especially roads and communications. They should be prioritised by all sectoral development plans of the federal and provincial governments. Given the high Multi-dimensional poverty requires multi-dimensional responses.

Second, it is clear that access to education and health is fundamental, after food security and other basic needs (shelter and clothing) have been met. Health can be seen as a universal basic need (Doyal and Gough 1992) which not only underpins capabilities in the present but also has inter-generational implications, especially with maternal and new born child health (Aziz, Khan and Wood 2015). Health alters time-preference behaviour, the single most important policy principle in poverty reduction. Education, including access to quality not just the artefact of education (i.e. schools with absentee and poorly educated and motivated teachers), not only supports present populations to negotiate the highly imperfect and dysfunctional institutional landscapes of the wellbeing regime, but it is the contribution to breaking the simple reproduction of poverty between generations. The youth need to be served particularly when Pakistan goes through youth bulge given its demographic transition.

Third, there is enough evidence that duty-bearing institutions are significantly permeated, indeed contaminated, by informal, non-transparent, preferential practices in the allocation of resources, opportunities and core social protection. National, provincial and district/local governments all share in the problem of poor governance. Poor governance means the society has poor people. That equation is simple to understand. How can duty-bearers expect the poor to exercise functional agency (Sen would call this 'capabilities') to support their own livelihoods and wellbeing if the institutions through which they have to negotiate those livelihoods are rigged against? This is a condemnation of the state at its different levels, but also its collusion with imperfect markets and arbitrary forms of unaccountable power exercised by its allies throughout the communities and mohallahs of Pakistan. Rights, governance and agency go together. They are the preconditions for everything else if poverty reduction is to move beyond the realm of patronage, voluntarism and philanthropy towards rights based entitlements.

Fourth, a sustainable delivery of public services requires an effective decentralisation. The maps of poverty showing the districts farther from provincial capitals to be the

poorer ones demonstrate the effectiveness of provincially managed provision of public goods. Punjab has more than half of the population of the country and Balochistan has more than half of the geographic area of the country. Provinces are thus too large administrative units to ensure the effective delivery of public goods and services to everyone and everywhere. Perhaps the next logical step in the ongoing democratic transition is to devolve service delivery to the leve9ls of district and local governments. Such devolution needs to ensure the maximum autonomy of district and local governments in the provision of services and an equitable allocation of resources from the federal and provincial governments particularly considering the incidence of poverty in the districts. Moreover, the current modes of service delivery appear suitable to cater to the needs of densely populated urban centres and peri-urban areas. District level analysis presented in this report makes the case for departure from the universal models of service delivery. Poverty reduction requires diversifying such models particularly; a) by finding innovative means to provide basic services to the rural and sparsely populated communities in the Extreme Poverty Zones 1 and 2; and, b) by improving the scale and efficiency in the districts that host the largest poor population.

Fifth, Benazir Income Support Programme (BISP), a step in the right direction, needs to be re-examined for its capacity to engage with the diversity picture presented in this report. It is presently a blunt instrument, and for those who are really dependent upon cash transfers because their poverty excludes them from employment or small business based livelihood strategies, it is also inadequate in having any positive effect upon time preference behaviour. The cash figure needs to match basic income needs if poor people's discount rates about their uncertain futures are to be reduced. Thus cash transfer provision should be near universal in those districts with the highest poverty rates to provide a platform for poor people to diversify their sources of income, possibly involving more forms of migration (see 'twelfth' below).

Sixth, at the same time, the federal government in Pakistan may wish to open up its thinking to the ideas behind a Universal Basic Income (Ferguson 2015). While this would be a paradigm jump in social protection thinking for Pakistan, it would lead to discourses and framing of options which could be transformational for the country. It is based upon the principle of a 'citizen's income', rather than social protection as a residual function of people's 'failure' to be employed or to be successful in small business. With economic growth increasingly unlikely to be adequately employment generating the world over, let alone in middle income countries, we will increasingly have to accept that the full employment model is dead as a route to sustained livelihoods for all the population. But, the citizens of Pakistan have, as its citizens, the right to 'rents' from its resources, rather than see them diverted, generation after generation, into the hands of narrow elites, who thereby reproduce the inequality responsible for its poverty.

Seventh, the various rural support programmes would be further enriched if they moved away from universal, one size fits all, institutional models to calibrate more closely with local institutional and socio-cultural conditions which define the realistic

options for collective action, community based development as well as mobilisation to hold other duty-bearers to better account in terms of rights and entitlements. This enrichment occurred in the first (AK)RSP area in Chitral and the Northern Areas from the late 90s with the programme field workers becoming more aware and sensitive to local, diversified conditions and working out local solutions to local circumstances and institutional conditions (Wood et al. eds 2006). These programmes thus require creativity to engage with the diverse ways in which people are poor, stay poor or break out of poverty. The data presented in this report has significant implications for the where and what of these programmes.

Eighth, the overwhelming depth and breadth of rural poverty needs not to take the focus away from urban poverty, which is likely to be clustered in various parts of the urban centres, including slums/kachi abadis and ghettos. Urban poor, though very small in number, seem to be worse off in the overall picture of poverty. The nature and dynamics of urban poverty are supposedly different from those of rural poverty and likely to vary across urban centres. There is thus a strong need for context specific measures to reduce urban poverty.

Ninth, there is a need for a long-term development of appropriate infrastructure for building resilience of the districts prone to natural disasters, including floods, landslides, droughts and earthquakes affecting millions of populations, damaging millions of homes, and vanishing lives and livelihoods. So far, the focus seems more on emergency response and recovery in the wake of recurring disasters which is important but the losses can be avoided in the first instance by investing in the appropriate structures and poor communities and households can invest their resources in breaking out of poverty rather than on day-to-day survival. Similarly, the violent conflict in several parts of the country also needs to be managed and eventually resolved with minimum displacement and loss to the lives and livelihoods of the local communities in these regions.

Thus tenth, through the kind of typology-derived, qualitative research proposed here and the sharing of such diversified analysis with practitioners along the way by having them and poor communities involved as co-analysts, many more duty-bearers become empowered with disaggregated analysis, which reflects the diversity presented so strongly in this report. This will lead to more context specific programming, using the wellbeing regime model to identify priorities for duty-bearers and the agency of the poor in those locations.

Eleventh, the colonial modes of natural resource exploitation, including environment need to be replaced by acknowledging the first right of the local communities and regions over these resources and opportunities they offer. While not every district in the Extreme Poverty Zones or the High Poverty Zones is endowed by the natural resources, but those like Dera Bugti, Tharpaker, Dadu, Ghotki and others need to be offered greatest share in their natural resources. Similarly the districts where environmental resources are highly depleted such as Lasbela and Muzaffargarh to meet the energy needs elsewhere must be compensated through special development

plans. Measures need to be taken to avoid long-term human sufferings in certain areas, as are expected through concentration of fossil energy establishments in small localities, to benefit the others.

Twelfth, we must look at trends in diversity. If the principle is accepted that poverty reduction should be more about developing people rather than places, then we should be wary of ploughing public resources into unfavourable areas where opportunities are so limited that populations found it virtually impossible to live in them. The data in this report, supported by more disaggregated, contextual knowledge, tell us, for example, that in certain parts of Balochistan, (Washuk might be that example) it is very difficult to imagine dramatic improvements in locally based livelihoods. These arguments raged among us in Chitral and the Northern Areas too. What is the balance between taking infrastructure and services into remote, difficult to access locations, or assisting those people with appropriate skills development to enable them to earn family incomes in other locations through migration and remittances? Employment trends and labour markets alongside the mobility of money through internet transfers have implications for populations moving around rather than trying to extract a precarious living in areas with low carrying capacity—deserts and mountains for example. This principle re-defines what we might mean by poverty focussed rural development. If diversity is being reduced, de facto, by people being more mobile as a function of communications infrastructure and education assisting their mobility, including of course overseas, then that is a positive result. Should the next generation remain as shepherds in the inclement conditions of several poorest districts, or should they shift to growth pole centres? Some are doing that already, but we need more qualitative understanding of this shifting. If the policy principle is to assist people to chase employment rather than be dependent upon social protection, then they have to go where the employment is, and they need the skills to participate in those new locations.

Lastly, as majority of the districts of Balochistan have extremely high poverty rates, it is important to consider another 'natural' resource possessed by Balochistan is its location. While not totally transformational, the China-Pakistan Economic Corridor (CPEC) linking China via northern Pakistan to the hitherto small fishing port of Gwadar on Balochistan's south coast where a huge modern port is being developed will have an impact upon the Gwadar hinterland. Construction and maintenance combines higher skills with lower, manual ones thus reducing the enclave status of the project. The new port itself will attract migration and generate informal sector and services activity as well as employment in the organized sector. Thus we might see remittance flows from Gwadar and its road towards beleaguered and remote rural locations assisting poverty reduction in those locations. Of course, such internal 'pull' migration may also have negative effects upon the poverty experience in the locations left behind and denuded of their working age, more educated populations. But always in poverty discourses, the distinction should be maintained between the developments of people in contrast to the development of any area.

The major roads in the CPEC are generally understood to create their own strip hinterlands with growth pole centres and internal migration towards the road based

centres along the route. However, in addition to the seaport and the rout, the geographic distribution of various investment opportunities complementary to the CPEC will determine its impact upon poverty and regional inequality. It has a potential to be an equalising force if it is used to bring resources and opportunities to highly poor districts in Balochistan and other districts in other provinces it passes through. At the same time, it also has a great potential to further entrench existing inequalities by concentrating these opportunities in already developed districts. Poverty mapping in this report warns against the concentration of opportunities for economic and social development within a handful of districts.

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Annexures

Annex 1: Poverty Headcount Ratio and District Ranking

District	2012-13		2010-11		2008-09	
	Estimate	Rank	Estimate	Rank	Estimate	Rank
Abbottabad	0.199	90	0.290	88	0.226	91
Awaran	0.811	10	0.692	22	0.839	13
Badin	0.735	18	0.684	24	0.708	24
Bahawalpur	0.426	60	0.414	65	0.532	50
Bannu	0.441	57	0.427	63	0.440	68
Barkhan	0.868	5	0.937	3	0.754	19
Batagram	0.503	43	0.492	50	0.571	44
Bhakkar	0.430	59	0.482	51	0.474	61
Bahawalnagar	0.385	67	0.412	66	0.479	58
Bolan/Kacchi	0.760	15	0.778	14	0.900	7
Buner	0.493	45	0.680	25	0.573	42
Chaghi	0.818	9	0.902	6	0.940	2
Chakwal	0.056	111	0.078	110	0.113	101
Charsadda	0.337	73	0.453	58	0.512	51
Chiniot	0.236	88	0.335	80	-	-
Chitral	0.259	85	0.425	64	0.441	67
D.G. Khan	0.558	34	0.684	23	0.638	32
D.I. Khan	0.535	36	0.659	30	0.641	31
Dadu	0.470	50	0.409	67	0.374	77
Dera Bugti	0.871	4	0.971	1	0.875	10
Faisalabad	0.100	102	0.160	98	0.174	96
Gwadar	0.452	55	0.673	26	0.434	69
Ghotki	0.480	48	0.479	53	0.552	49
Gujranwala	0.097	104	0.081	108	0.098	102
Gujrat	0.068	106	0.110	104	0.093	103
Hafizabad	0.172	97	0.204	95	0.246	90
Hangu	0.414	65	0.448	59	0.488	55
Haripur	0.177	96	0.177	97	0.198	94
Harnai	0.751	16	0.643	32	-	-
Hyderabad	0.154	100	0.153	99	0.173	97
Islamabad	0.037	112	0.046	111	0.032	108

Jaccobabad	0.582	32	0.629	36	0.644	30
Jaffarabad	0.719	21	0.775	15	0.760	18
Jamshoro	0.459	54	0.528	43	0.567	46
Jhelum	0.064	107	0.104	105	0.039	107
Jhal Magsi	0.746	17	0.816	11	0.905	6
Jhang	0.370	68	0.407	69	0.450	63
Kalat	0.533	37	0.608	38	0.820	14
Karachi	0.057	110	0.079	109	0.087	104
Karak	0.425	62	0.668	28	0.574	41
Kashmore	0.638	25	0.605	39	0.608	36
Kasur	0.238	87	0.246	90	0.301	83
Ketch/Turbat	0.537	35	0.794	13	0.711	23
Khairpur	0.494	44	0.494	48	0.449	64
Khanewal	0.303	77	0.404	70	0.395	75
Kharan	0.605	30	0.802	12	0.800	15
Khushab	0.211	89	0.228	92	0.309	82
Khuzdar	0.676	23	0.636	34	0.750	21
Kohat	0.359	69	0.461	56	0.448	65
Kohistan	0.962	2	0.935	4	0.954	1
Kohlu	0.964	1	0.952	2	0.932	3
Lahore	0.060	109	0.087	107	0.082	105
Lakki Marwat	0.485	46	0.654	31	0.563	47
Larkana	0.327	74	0.399	72	0.476	60
Lasbella	0.603	31	0.739	18	0.700	25
Layyah	0.289	81	0.432	62	0.492	54
Lodhran	0.425	61	0.493	49	0.447	66
Loralai	0.673	24	0.864	7	0.694	26
Lower Dir	0.516	41	0.369	76	0.589	38
Mianwali	0.299	78	0.299	86	0.296	85
Malakand	0.298	79	0.399	73	0.425	71
Mandi Bahauddin	0.113	101	0.143	100	0.158	99
Mansehra	0.352	70	0.435	61	0.504	52
Mardan	0.318	75	0.403	71	0.414	72
Mastung	0.461	53	0.456	57	0.776	17
Mirpur Khaas	0.608	28	0.496	47	0.636	33
Mitiari	0.402	66	0.408	68	0.479	59
Multan	0.297	80	0.337	79	0.384	76
Musa Khel	0.830	8	0.921	5	0.923	4
Muzaffargarh	0.482	47	0.596	40	0.603	37
Nankana Sahib	0.196	91	0.223	93	0.278	88
Narowal	0.277	83	0.247	89	0.283	87
Nasirabad	0.811	11	0.774	16	0.843	12
Nushki	0.421	63	0.755	17	0.694	27

Nawabshah	0.529	38	0.481	52	0.552	48
Nowshera	0.195	92	0.379	75	0.286	86
Naushahro Feroze	0.468	51	0.385	74	0.214	93
Okara	0.274	84	0.331	81	0.363	79
Pakpattan	0.346	72	0.478	54	0.482	57
Pashin	0.571	33	0.356	77	0.650	28
Peshawar	0.185	93	0.299	85	0.312	81
Qilla Abdullah	0.851	7	0.672	27	0.882	8
Qilla Saifullah	0.808	12	0.838	9	0.877	9
Quetta	0.172	98	0.141	101	0.299	84
Rahim Yar Khan	0.440	58	0.437	60	0.473	62
Rajanpur	0.634	26	0.692	21	0.782	16
Rawalpindi	0.062	108	0.090	106	0.074	106
Sahiwal	0.278	82	0.296	87	0.355	80
Sanghar	0.463	52	0.471	55	0.503	53
Sargodha	0.185	94	0.233	91	0.258	89
Shahdadkot	0.522	40	0.541	42	0.568	45
Shangla	0.685	22	0.665	29	0.719	22
Sheikupura	0.177	95	0.200	96	0.216	92
Shikarpur	0.512	42	0.524	44	0.432	70
Sialkot	0.098	103	0.111	103	0.128	100
Sibi	0.318	76	0.328	82	0.573	43
Sukkur	0.348	71	0.339	78	0.411	73
Swabi	0.251	86	0.320	84	0.371	78
Swat	0.417	64	0.498	46	0.582	40
T.T Singh	0.159	99	0.141	102	0.196	95
Tando Allah Yar	0.525	39	0.508	45	0.483	56
Tando Muhammad Khan	0.607	29	0.632	35	0.586	39
Tank	0.619	27	0.637	33	0.620	35
Tharparkar	0.786	13	0.846	8	0.864	11
Thatta	0.730	19	0.702	19	0.645	29
Torgarh	0.891	3	-	-	-	-
Upper Dir	0.765	14	0.692	20	0.753	20
Vehari	0.449	56	0.328	83	0.406	74
Washuk	0.857	6	0.825	10	0.915	5
Ziarat	0.472	49	0.578	41	0.630	34
Attock	0.085	105	0.222	94	0.172	98
Umer Kot	0.730	20	0.610	37	-	-

Annex 2: Intensity of Poverty and Ranking of Districts

District	2012-13		2010-11		2008-09	
	Estimate	Rank	Estimate	Rank	Estimate	Rank
Abbottabad	0.498	96	0.529	73	0.493	102
Awaran	0.579	30	0.553	52	0.639	8
Badin	0.585	25	0.582	28	0.586	28
Bahawalpur	0.548	50	0.555	46	0.568	41
Bannu	0.526	74	0.511	92	0.527	81
Barkhan	0.585	27	0.642	8	0.610	20
Batagram	0.536	62	0.528	78	0.551	57
Bhakar	0.506	89	0.553	51	0.531	75
Bahawalnagar	0.548	51	0.546	59	0.555	54
Bolan/Kacchi	0.623	7	0.584	26	0.686	3
Buner	0.593	20	0.604	18	0.568	39
Chaghi	0.619	8	0.650	4	0.624	14
Chakwal	0.491	99	0.474	110	0.475	108
Charsada	0.541	59	0.547	56	0.541	68
Chiniot	0.487	108	0.544	61	-	-
Chitral	0.512	85	0.504	95	0.544	63
D.G. Khan	0.536	64	0.611	17	0.601	22
D.I. Khan	0.557	41	0.572	33	0.565	45
Dadu	0.543	57	0.528	76	0.543	64
Dera Bugti	0.708	2	0.745	1	0.712	2
Faisalabad	0.490	105	0.513	90	0.516	87
Gwadar	0.545	55	0.593	20	0.569	37
Ghotki	0.533	67	0.529	75	0.564	46
Gujranwala	0.464	112	0.473	111	0.485	106
Gujrat	0.507	87	0.492	105	0.499	99
Hafizabad	0.503	92	0.516	88	0.504	97
Hangu	0.523	78	0.532	71	0.527	82
Hariput	0.520	81	0.498	100	0.561	51
Harnai	0.593	21	0.518	85	-	-
Hyderabad	0.524	77	0.508	94	0.530	76
Islamabad	0.485	109	0.500	99	0.513	89
Jaccobabad	0.561	37	0.548	55	0.566	43
Jaffarabad	0.591	22	0.594	19	0.597	24
Jamshoro	0.559	39	0.572	34	0.617	17
Jhelum	0.491	101	0.493	102	0.484	107
Jhal Magsi	0.628	5	0.585	24	0.666	5
Jhang	0.532	68	0.529	74	0.547	60
Kalat	0.550	47	0.551	54	0.566	42
Karachi	0.477	110	0.493	103	0.499	100

Karak	0.523	79	0.557	44	0.555	53
Kashmore	0.569	32	0.581	30	0.538	71
Kasur	0.497	97	0.514	89	0.504	96
Ketch/Turbat	0.588	23	0.656	2	0.604	21
Khairpur	0.550	48	0.546	57	0.542	66
Khanewal	0.531	70	0.542	66	0.526	83
Kharan	0.561	36	0.566	38	0.619	16
Khushab	0.506	88	0.490	106	0.515	88
Khuzdar	0.594	19	0.562	39	0.577	35
Kohat	0.527	73	0.562	41	0.530	77
Kohistan	0.639	4	0.652	3	0.671	4
Kohlu	0.716	1	0.648	5	0.715	1
Lahore	0.489	106	0.490	107	0.490	104
Lakki Marwat	0.546	54	0.554	47	0.551	56
Larkana	0.518	83	0.511	91	0.533	73
Lasbella	0.596	18	0.633	9	0.594	26
Layyah	0.522	80	0.589	23	0.564	48
Lodhran	0.541	60	0.552	53	0.542	67
Loralai	0.596	16	0.646	6	0.620	15
Lower Dir	0.531	69	0.541	67	0.563	49
Mianwali	0.551	44	0.527	79	0.517	86
Malakand	0.536	63	0.535	70	0.546	61
Mandi Bahauddin	0.490	104	0.498	101	0.495	101
Mansehra	0.534	66	0.582	29	0.583	31
Mardan	0.519	82	0.544	62	0.545	62
Mastung	0.506	90	0.553	50	0.617	18
Mirpur Khas	0.614	11	0.592	21	0.652	7
Mitiari	0.550	45	0.542	64	0.568	40
Multan	0.530	71	0.543	63	0.548	58
Musa Khel	0.608	12	0.631	10	0.665	6
Muzaffargarh	0.554	43	0.568	37	0.573	36
Nankana Sahib	0.525	76	0.501	98	0.517	85
Narowal	0.505	91	0.485	108	0.505	95
Nasirabad	0.653	3	0.620	13	0.631	12
Nushki	0.535	65	0.645	7	0.582	32
Nawabshah	0.557	40	0.546	58	0.564	47
Nowshera	0.565	35	0.545	60	0.529	78
Naushahro Feroze	0.559	38	0.562	40	0.511	90
Okara	0.514	84	0.523	82	0.547	59
Pakpatan	0.539	61	0.558	43	0.540	69
Pashin	0.554	42	0.503	96	0.562	50
Peshawar	0.499	94	0.516	87	0.533	74
Qilla Abdullah	0.586	24	0.537	68	0.629	13

Qilla Saifullah	0.597	15	0.621	12	0.595	25
Quetta	0.499	95	0.516	86	0.519	84
Rahim Yar Khan	0.548	52	0.542	65	0.565	44
Rajanpur	0.596	17	0.628	11	0.638	9
Rawalpindi	0.491	100	0.492	104	0.491	103
Sahiwal	0.509	86	0.523	83	0.528	79
Sanghar	0.580	28	0.568	36	0.583	30
Sargodha	0.488	107	0.526	80	0.508	92
Shahdadkot	0.543	58	0.530	72	0.553	55
Shangla	0.585	26	0.590	22	0.590	27
Sheikupura	0.490	103	0.526	81	0.510	91
Shikarpur	0.547	53	0.571	35	0.528	80
Sialkot	0.490	102	0.480	109	0.487	105
Sibi	0.569	33	0.614	15	0.631	11
Sukkur	0.545	56	0.537	69	0.569	38
Swabi	0.527	72	0.554	49	0.534	72
Swat	0.525	75	0.561	42	0.585	29
T.T Singh	0.494	98	0.509	93	0.499	98
Tando Allah Yar	0.550	46	0.580	31	0.582	33
Tando Muhammad Khan	0.580	29	0.611	16	0.578	34
Tank	0.568	34	0.556	45	0.543	65
Tharparkar	0.606	13	0.619	14	0.611	19
Thatta	0.600	14	0.582	27	0.599	23
Torgarh	0.625	6	-	-	-	-
Upper Dir	0.616	9	0.554	48	0.560	52
Vehari	0.548	49	0.528	77	0.539	70
Washuk	0.614	10	0.584	25	0.631	10
Ziarat	0.501	93	0.520	84	0.507	93
Attock	0.470	111	0.502	97	0.507	94
Umer Kot	0.579	31	0.579	32	-	-

Annex 3: Adjusted Headcount Ratio/Index of Multidimensional Poverty and District Ranking

District	2012-13		2010-11		2008-09	
	Estimate	Rank	Estimate	Rank	Estimate	Rank
Abbottabad	0.099	92	0.153	88	0.111	91
Awaran	0.469	15	0.383	28	0.537	10
Badin	0.430	19	0.398	24	0.414	27
Bahawalpur	0.234	57	0.230	63	0.302	50
Bannu	0.232	59	0.218	68	0.232	71
Barkhan	0.508	7	0.602	4	0.460	18
Batagram	0.270	45	0.260	54	0.314	46
Bhakar	0.218	65	0.267	52	0.252	62
Bahawalnagar	0.211	67	0.225	64	0.266	58
Bolan/Kacchi	0.473	13	0.454	18	0.617	4
Buner	0.292	39	0.411	21	0.326	42
Chaghi	0.506	8	0.586	5	0.587	7
Chakwal	0.028	110	0.037	110	0.054	101
Charsada	0.183	73	0.247	60	0.277	55
Chiniot	0.115	88	0.182	79	-	-
Chitral	0.133	85	0.214	72	0.240	67
D.G. Khan	0.299	35	0.418	20	0.384	30
D.I. Khan	0.298	36	0.377	29	0.362	33
Dadu	0.255	52	0.216	70	0.203	77
Dera Bugti	0.616	2	0.724	1	0.623	3
Faisalabad	0.049	102	0.082	98	0.090	97
Gwadar	0.247	53	0.399	23	0.247	63
Ghotki	0.256	51	0.253	58	0.311	47
Gujranwala	0.045	104	0.038	109	0.048	102
Gujrat	0.035	106	0.054	103	0.046	103
Hafizabad	0.087	96	0.105	95	0.124	90
Hangu	0.217	66	0.238	61	0.257	60
Hariput	0.092	94	0.088	97	0.111	92
Harnai	0.445	17	0.333	40	-	-
Hyderabad	0.081	99	0.078	99	0.092	96
Islamabad	0.018	112	0.023	111	0.016	108
Jaccobabad	0.327	32	0.344	37	0.365	32
Jaffarabad	0.425	20	0.461	16	0.454	19
Jamshoro	0.257	50	0.302	41	0.350	35
Jhelum	0.032	107	0.051	105	0.019	107
Jhal Magsi	0.468	16	0.477	14	0.603	6
Jhang	0.197	68	0.215	71	0.246	64

Kalat	0.293	38	0.335	39	0.464	17
Karachi	0.027	111	0.039	108	0.043	104
Karak	0.222	62	0.372	30	0.319	44
Kashmore	0.363	27	0.351	36	0.327	41
Kasur	0.118	87	0.126	89	0.152	85
Ketch/Turbat	0.316	34	0.521	9	0.429	22
Khairpur	0.272	44	0.270	49	0.244	65
Khanewal	0.161	78	0.219	66	0.208	76
Kharan	0.340	31	0.454	17	0.495	15
Khushab	0.107	90	0.112	93	0.160	82
Khuzdar	0.401	23	0.358	33	0.432	20
Kohat	0.189	70	0.259	55	0.237	68
Kohistan	0.615	3	0.610	3	0.640	2
Kohlu	0.691	1	0.617	2	0.666	1
Lahore	0.029	109	0.042	107	0.040	105
Lakki Marwat	0.265	48	0.362	31	0.310	49
Larkana	0.170	75	0.204	75	0.254	61
Lasbella	0.359	28	0.468	15	0.416	25
Layyah	0.151	81	0.255	56	0.277	54
Lodhran	0.230	60	0.272	48	0.242	66
Loralai	0.401	22	0.558	7	0.430	21
Lower Dir	0.274	43	0.200	77	0.332	40
Mianwali	0.165	77	0.157	85	0.153	84
Malakand	0.160	79	0.213	73	0.232	70
Mandi Bahauddin	0.055	101	0.071	102	0.078	99
Mansehra	0.188	71	0.253	57	0.294	51
Mardan	0.165	76	0.219	67	0.225	73
Mastung	0.233	58	0.252	59	0.479	16
Mirpur Khaas	0.373	26	0.294	45	0.415	26
Mitiari	0.221	63	0.221	65	0.272	56
Multan	0.157	80	0.183	78	0.210	75
Musa Khel	0.505	9	0.581	6	0.614	5
Muzaffargarh	0.267	47	0.339	38	0.345	36
Nankana Sahib	0.103	91	0.112	92	0.144	87
Narowal	0.140	84	0.120	91	0.143	88
Nasirabad	0.529	5	0.480	13	0.532	11
Naushki	0.225	61	0.487	11	0.404	28
Nawabshah	0.295	37	0.263	53	0.311	48
Nowshera	0.110	89	0.206	74	0.151	86
Naushahro Feroze	0.262	49	0.216	69	0.110	94
Okara	0.141	83	0.173	84	0.199	78
Pakpatan	0.187	72	0.267	51	0.260	59
Pashin	0.316	33	0.179	81	0.365	31

Peshawar	0.093	93	0.154	87	0.166	81
Qilla Abdullah	0.498	10	0.361	32	0.555	9
Qilla Saifullah	0.483	11	0.521	10	0.522	13
Quetta	0.086	98	0.073	100	0.155	83
Rahim Yar Khan	0.241	55	0.237	62	0.267	57
Rajanpur	0.378	25	0.434	19	0.499	14
Rawalpindi	0.030	108	0.044	106	0.036	106
Sahiwal	0.141	82	0.155	86	0.187	80
Sanghar	0.269	46	0.268	50	0.294	52
Sargodha	0.090	95	0.122	90	0.131	89
Shahdadkot	0.283	41	0.287	46	0.314	45
Shangla	0.401	24	0.393	25	0.425	23
Sheikupura	0.087	97	0.105	96	0.110	93
Shikarpur	0.280	42	0.299	43	0.228	72
Sialkot	0.048	103	0.053	104	0.062	100
Sibi	0.181	74	0.202	76	0.361	34
Sukkur	0.190	69	0.182	80	0.234	69
Swabi	0.132	86	0.177	82	0.198	79
Swat	0.219	64	0.280	47	0.341	37
T.T Singh	0.079	100	0.072	101	0.098	95
Tando Allah Yar	0.289	40	0.295	44	0.281	53
Tando Muhammad Khan	0.352	29	0.386	26	0.339	38
Tank	0.351	30	0.354	34	0.337	39
Tharparkar	0.476	12	0.524	8	0.528	12
Thatta	0.438	18	0.409	22	0.386	29
Torgarh	0.557	4	-	-	-	-
Upper Dir	0.471	14	0.384	27	0.422	24
Vehari	0.246	54	0.173	83	0.219	74
Washuk	0.527	6	0.481	12	0.577	8
Ziarat	0.236	56	0.301	42	0.320	43
Attock	0.040	105	0.111	94	0.087	98
Umer Kot	0.422	21	0.353	35	-	-

Annex 4: Estimates of Extreme Poverty and District Ranking

District	2012-13		2010-11		2008-09	
	Estimate	Rank	Estimate	Rank	Estimate	Rank
Abbottabad	0.079	94	0.164	84	0.095	93
Awaran	0.589	15	0.412	35	0.737	9
Badin	0.513	22	0.502	24	0.537	24
Bahawalpur	0.256	54	0.273	56	0.373	44
Bannu	0.236	61	0.196	77	0.227	75
Barkhan	0.628	10	0.807	5	0.562	21
Batagram	0.281	50	0.257	63	0.343	50
Bhakar	0.202	70	0.323	45	0.270	61
Bahawalnagar	0.242	57	0.252	64	0.310	56
Bolan/Kacchi	0.613	12	0.595	15	0.809	3
Buner	0.346	37	0.510	22	0.383	38
Chaghi	0.666	8	0.805	6	0.759	7
Chakwal	0.016	110	0.025	109	0.040	101
Charsada	0.195	73	0.266	61	0.279	58
Chiniot	0.096	89	0.208	74	-	-
Chitral	0.103	87	0.194	78	0.242	71
D.G. Khan	0.317	41	0.533	19	0.487	30
D.I. Khan	0.360	35	0.445	28	0.444	31
Dadu	0.249	55	0.213	73	0.213	79
Dera Bugti	0.824	3	0.959	1	0.757	8
Faisalabad	0.041	101	0.076	97	0.088	96
Gawadar	0.238	59	0.492	26	0.275	59
Ghotki	0.268	53	0.270	58	0.365	47
Gujranwala	0.021	108	0.023	110	0.029	105
Gujrat	0.033	103	0.041	105	0.037	102
Hafizabad	0.091	92	0.084	95	0.108	91
Hangu	0.227	62	0.268	60	0.267	63
Haripur	0.091	91	0.075	98	0.109	90
Harnai	0.533	19	0.232	69	-	-
Hyderabad	0.071	96	0.064	101	0.092	94
Islamabad	0.012	112	0.021	111	0.016	107
Jaccobabad	0.425	29	0.401	37	0.432	33
Jaffarabad	0.550	17	0.623	13	0.556	22
Jamshoro	0.321	39	0.358	42	0.380	39
Jhelum	0.021	109	0.045	103	0.013	108
Jhal Magsi	0.557	16	0.644	11	0.804	4
Jhang	0.207	67	0.235	67	0.267	62
Kalat	0.366	34	0.378	40	0.616	17

Karachi	0.016	111	0.029	108	0.034	103
Karak	0.236	60	0.440	29	0.379	41
Kashmore	0.459	27	0.432	30	0.376	42
Kasur	0.093	90	0.121	90	0.132	87
Ketch/Turbat	0.391	32	0.696	8	0.590	18
Khairpur	0.302	46	0.293	51	0.265	64
Khanewal	0.173	77	0.230	70	0.216	78
Kharan	0.380	33	0.500	25	0.670	15
Khushab	0.097	88	0.080	96	0.136	85
Khuzdar	0.520	21	0.413	34	0.531	25
Kohat	0.201	71	0.272	57	0.241	73
Kohistan	0.853	2	0.868	2	0.868	2
Kohlu	0.909	1	0.816	4	0.879	1
Lahore	0.022	106	0.032	106	0.029	104
Lakki Marwat	0.305	45	0.428	32	0.356	48
Larkana	0.175	76	0.193	79	0.272	60
Lasbella	0.460	26	0.575	16	0.509	28
Layyah	0.140	81	0.289	53	0.341	51
Lodhran	0.221	63	0.300	50	0.249	69
Loralai	0.458	28	0.738	7	0.563	20
Lower Dir	0.291	49	0.182	81	0.380	40
Mianwali	0.190	74	0.164	85	0.139	84
Malakand	0.153	80	0.235	68	0.259	67
Mandi Bahauddin	0.037	102	0.061	102	0.068	99
Mansehra	0.182	75	0.314	46	0.349	49
Mardan	0.155	79	0.236	66	0.254	68
Mastung	0.206	68	0.280	54	0.623	16
Mirpur Khas	0.468	24	0.350	43	0.524	27
Mitiari	0.248	56	0.263	62	0.330	53
Multan	0.161	78	0.200	75	0.241	72
Musa Khel	0.669	7	0.820	3	0.798	5
Muzaffargarh	0.302	47	0.407	36	0.441	32
Nankana Sahib	0.090	93	0.099	91	0.155	83
Narowal	0.108	86	0.089	94	0.129	88
Nasirabad	0.705	5	0.635	12	0.706	10
Nushki	0.239	58	0.620	14	0.526	26
Nawabshah	0.345	38	0.293	52	0.366	46
Nowshera	0.119	84	0.219	71	0.159	82
Naushahro Feroze	0.294	48	0.251	65	0.100	92
Okara	0.123	83	0.173	82	0.226	76
Pakpatan	0.208	66	0.307	49	0.287	57
Pashin	0.347	36	0.161	86	0.424	35
Peshawar	0.075	95	0.139	88	0.170	81

Qilla Abdullah	0.656	9	0.394	38	0.695	12
Qilla Saifullah	0.619	11	0.662	10	0.676	14
Quetta	0.068	98	0.071	99	0.136	86
Rahim Yar Khan	0.281	52	0.269	59	0.313	54
Rajanpur	0.461	25	0.570	17	0.697	11
Rawalpindi	0.022	107	0.032	107	0.024	106
Sahiwal	0.137	82	0.159	87	0.211	80
Sanghar	0.310	44	0.325	44	0.337	52
Sargodha	0.068	97	0.131	89	0.119	89
Shahdadkot	0.311	43	0.309	48	0.375	43
Shangla	0.485	23	0.523	21	0.573	19
Sheikupura	0.065	100	0.096	92	0.085	97
Shikarpur	0.314	42	0.373	41	0.243	70
Sialkot	0.031	104	0.041	104	0.040	100
Sibi	0.199	72	0.216	72	0.432	34
Sukkur	0.216	64	0.186	80	0.261	66
Swabi	0.118	85	0.197	76	0.219	77
Swat	0.213	65	0.314	47	0.419	36
T.T Singh	0.066	99	0.066	100	0.073	98
Tando Allah Yar	0.319	40	0.387	39	0.312	55
Tando Muhammad Khan	0.414	30	0.505	23	0.396	37
Tank	0.405	31	0.428	31	0.368	45
Tharparkar	0.608	13	0.694	9	0.693	13
Thatta	0.548	18	0.526	20	0.493	29
Torgarh	0.733	4	-	-	-	-
Upper Dir	0.594	14	0.455	27	0.543	23
Vehari	0.281	51	0.171	83	0.236	74
Washuk	0.704	6	0.566	18	0.769	6
Ziarat	0.203	69	0.280	55	0.263	65
Attock	0.023	105	0.090	93	0.091	95
Umer Kot	0.530	20	0.421	33	-	-

Annex 5: Absolute Change in All Estimates from 2008-09 to 2012-13

District	Headcount Ratio	Intensity	Adjusted Headcount Ratio	Extreme Poverty
Abbottabad	-0.0268419	0.0057104	-0.0120814	-0.0159052
Awaran	-0.028353	-.0604938*	-.0671873*	-.1477799*
Badin	.0277886*	-0.0004804	.0159202*	-0.0238409
Bahawalpur	-.1059312*	-.0196679*	-.0685041*	-.1170918*
Bannu	0.0007251	-0.0017668	-0.0003961	0.0092956
Barkhan	.1139088*	-.0250756*	.0476785*	.0655813*
Batagram	-.0670965*	-.0148272*	-.0444255*	-.0614324*
Bhakar	-.0436355*	-.0248306*	-.0338531*	-.0685569*
Bahawalnagar	-.0940596*	-0.0073169	-.0550325*	-.0679832*
Bolan/Kacchi	-.1400299*	-.0633765*	-.1442206*	-.1955152*
Buner	-.0801742*	.0248851*	-.0333014*	-.0371329*
Chaghi	-.1226659*	-0.0058007	-.081334*	-.0932196*
Chakwal	-.0567589*	0.016546	-.026017*	-.0236343*
Charsada	-.1745394*	0.0004467	-.0942582*	-.0834278*
Chitral	-.1813915*	-.0320467*	-.1069104*	-.1392333*
D.G. Khan	-.0804769*	-.0652601*	-.0847772*	-.1699784*
D.I. Khan	-.1053768*	-0.0075662	-.0635646*	-.0842757*
Dadu	.0958847*	-0.0004148	.0519106*	.0360709*
Dera Bugti	-0.0039115	-0.0044473	-0.0066584	.0670084*
Faisalabad	-.0736165*	-.0262232*	-.0406027*	-.0470647*
Gwadar	0.0181783	-.0236094*	-0.0003343	-.0373409*
Ghotki	-.0716149*	-.0314345*	-.0555085*	-.0971525*
Gujranwala	-0.0006944	-.0204619*	-0.002331	-.0076481*
Gujrat	-.0249226*	0.0077911	-.011912*	-0.0036618
Hafizabad	-.073655*	-0.001469	-.0373861*	-0.0171864
Hangu	-.0741842*	-0.0034531	-.0404927*	-.0398642*
Haripur	-0.0210741	-.0407165*	-.0190034*	-0.0184862
Hyderabad	-0.018206	-0.006495	-0.0106569	-.0205621*
Islamabad	0.0048697	-.0275556*	0.0014788	-0.0036481
Jaccobabad	-.0622187*	-0.0049935	-.0381379*	-0.0067405
Jaffarabad	-.0415731*	-0.0059579	-.0291083*	-0.006502
Jamshoro	-.1081031*	-.0581306*	-.0933934*	-.0592683*
Jhelum	.0249856*	0.0071521	.012546*	0.0072198
Jhal Magsi	-.159054*	-.0384692*	-.134662*	-.2471766*
Jhang	-.0798746*	-.0148124*	-.0491527*	-.0602261*
Kalat	-.2870889*	-.0164304*	-.1713721*	-.2504449*
Karachi	-.0302086*	-.0224559*	-.0163565*	-.018117*
Karak	-.14898*	-.0326351*	-.0966133*	-.1424351*
Kashmore	0.0295098	.0319371*	.0362354*	.083461*
Kasur	-.0631766*	-0.0069266	-.0334989*	-.0395789*

Ketch/Turbat	-.173465*	-.0157247*	-.1131914*	-.1995973*
Khairpur	.0449184*	.0073487*	.027998*	.0368751*
Khanewal	-.0920323*	0.0049375	-.046886*	-.0438112*
Kharan	-.1953628*	-.0574848*	-.1556625*	-.2894998*
Khushab	-.0988701*	-0.0089163	-.0528341*	-.0396431*
Khuzdar	-.0738454*	.0167872*	-.0312525*	-0.0108473
Kohat	-.0891145*	-0.0029095	-.0482818*	-.0400641*
Kohistan	0.0072451	-0.0317014*	-.0256268*	-0.0144919
Kohlu	.032233*	0.0014146	.0244008*	.0302339*
Lahore	-.0224937*	-0.0009206	-.0110733*	-.0066143*
Lakki Marwat	-.0776193*	-0.0048366	-.0451331*	-.0513119*
Larkana	-.1489254*	-.0148525*	-.084218*	-.0967296*
Lasbella	-.0967101*	0.001626	-.0564595*	-.0482323*
Layyah	-.20242*	-.0417224*	-.126156*	-.2009661*
Lodhran	-0.0222025	-0.001314	-0.0125964	-0.0283229
Loralai	-0.0211253	-.0232585*	-.0287453*	-.1047135*
Lower Dir	-.0732246*	-.0314885*	-.0574522*	-.0889389*
Mianwali	0.0034067	.0346575*	0.0121326	.0513427*
Malakand	-.127642*	-0.0095903	-.0724994*	-.1060713*
Mandi Bahauddin	-.0450854*	-0.0048643	-.0228534*	-.031511*
Mansehra	-.1524219*	-.0488347*	-.1059895*	-.1670288*
Mardan	-.0957608*	-.0257077*	-.0603679*	-.0997209*
Mastung	-.3154339*	-.1109689*	-.2457345*	-.4164396*
Mirpur Khaas	-.0280293*	-.0381937*	-.0414937*	-.0562788*
Mitiari	-.0771892*	-.0176087*	-.0509115*	-.0821649*
Multan	-.0872935*	-.0178473*	-.0530968*	-.0804375*
Musa Khel	-.0929314*	-.0565235*	-.1087156*	-.1293347*
Muzaffargarh	-.1214264*	-.0185346*	-.0784471*	-.1390444*
Nankana Sahib	-.0822635*	0.0081763	-.0409099*	-.0648372*
Narowal	-0.005489	-0.0000482	-0.0027867	-.0204233*
Nasirabad	-.0325184*	.0222598*	-0.0024537	-0.0017838
Naushki	-.2728199*	-.0473031*	-.1788215*	-.2867106*
Nawabshah	-0.0224928	-0.0065205	-0.0161366	-0.0209219
Nowshera	-.0906426*	.0355419*	-.0410513*	-.0408215*
Naushahro Feroze	.2534643*	.0479591*	.1519917*	.1933366*
Okara	-.088711*	-.0332426*	-.0576538*	-.1038033*
Pakpatan	-.1357297*	-0.0010244	-.0736933*	-.0789301*
Pashin	-.0796*	-0.0072482	-.0488441*	-.0771545*
Peshawar	-.1270142*	-.0332165*	-.073806*	-.0943373*
Qilla Abdullah	-.0311651*	-.0436891*	-.0567873*	-.0396772*
Qilla Saifullah	-.0685706*	0.0016898	-.0394418*	-.0573218*
Quetta	-.1267189*	-.0201717*	-.0692179*	-.0686554*
Rahim Yar Khan	-.0335007*	-.0173656*	-.0265639*	-.032439*

Rajanpur	-.1478861*	-.0422336*	-.1211703*	-.236059*
Rawalpindi	-.0124994*	-0.0002047	-.0061533*	-0.0015474
Sahiwal	-.0766119*	-.0192178*	-.0457756*	-.0747819*
Sanghar	-.0401395*	-0.0031307	-.0248643*	-.0270105*
Sargodha	-.0726065*	-.0208904*	-.0407763*	-.0512043*
Shahdadkot	-.0462157*	-.0101435*	-.0308503*	-.0642225*
Shangla	-.0339517*	-0.0054858	-.0238029*	-.0876523*
Sheikupura	-.0392746*	-.0203575*	-.0236406*	-.0193329*
Shikarpur	.0796947*	.0197641*	.0521692*	.0705083*
Sialkot	-.0303387*	0.0031803	-.0144578*	-0.0083453
Sibi	-.2552321*	-.0615305*	-.1805265*	-.2323647*
Sukkur	-.0625822*	-.0233945*	-.0437312*	-.0452221*
Swabi	-.1204768*	-0.0065396	-.0659417*	-.1006944*
Swat	-.1643853*	-.0599618*	-.1212516*	-.2059526*
T.T Singh	-.0372844*	-0.005333	-.0194654*	-0.0067587
Tando Allah Yar	.0419249*	-.0323672*	0.0074401	0.0078491
Tando Muhammad Khan	0.0202797	0.0012404	0.0124824	0.0175207
Tank	-0.001758	.0249752*	0.0144938	.0368856*
Tharparkar	-.0781516*	-0.0058811	-.0524043*	-.0849709*
Thatta	.0851086*	0.0017269	.0522057*	.0552645*
Upper Dir	0.0116617	.0563705*	.0496491*	.0512818*
Vehari	.0428427*	.0094057*	.0273161*	.0455215*
Washuk	-.0575112*	-.0165909*	-.0505047*	-.0654011*
Ziarat	-.1582911*	-0.00629	-.0832625*	-.060614*
Attock	-.0871096*	-.0373312*	-.0473626*	-.0680491*

**Significant at the level of 5%.*

Annex 6: Population Weights

District	Population Weight	District	Population Weight	District	Population Weight
Bannu	0.58	Gujrat	1.63	Mirpur Khas	0.78
Lakki Marwat	0.43	Hafizabad	0.64	Sanghar	1.01
D.I.Khan	0.89	Mandi Bahauddin	0.83	Tharparkar	0.71
Tank	0.19	Narowal	1.01	Umer Kot	0.58
Abbottabad	0.64	Sialkot	2.21	Ghotki	0.94
Batagram	0.28	Kasur	1.75	Khairpur	1.32
Haripur	0.55	Lahore	4.53	Naushahro	0.81
Kohistan	0.38	Nankana Sahib	0.83	Nawabshah	0.78
Mansehra	0.74	Sheikhupura	1.47	Sukkur	0.78
Torgarh	0.15	Khanewal	1.64	Awaran	0.11
Hangu	0.2	Lohdran	0.87	Kalat	0.16
Karak	0.35	Multan	2.29	Kharan	0.09
Kohat	0.45	Vehari	1.84	Khuzdar	0.35
Buner	0.37	Attock	1.05	Lasbela	0.23
Chitral	0.25	Chakwal	0.77	Mastung	0.12
Lower Dir	0.67	Jhelum	0.73	Washuk	0.08
Malakand	0.32	Rawalpindi	2.49	Gwadar	0.18
Shangla	0.37	Okara	1.71	Ketch / Turbat	0.34
Swat	1.04	Pakpatan	1.08	Jaffarabad	0.36
Upper Dir	0.55	Sahiwal	1.41	Jhal Magsi	0.08
Mardan	1.05	Bhakkar	0.91	Bolan/ Kacchi	0.21
Swabi	0.73	Khushab	0.67	Nasirabad	0.18
Charsada	0.77	Mianwali	0.69	Chaghi	0.09
Nowshera	0.66	Sargodha	1.87	Qilla Abdullah	0.34
Peshawar	1.59	Badin	0.92	Naushki	0.08
Islamabad	0.58	Dadu	0.83	Pashin	0.32
Bahawalnagar	1.71	Hyderabad	1.16	Quetta	0.56
Bahawalpur	2.07	Jamshoro	0.45	Dera Bugti	0.12
Rahim Yar Khan	2.56	Mitiari	0.4	Harnai	0.07
D.G. Khan	1.43	Tando Allah Yar	0.38	Kohlu	0.11
Layyah	1.01	Tando Muhammad	0.35	Sibi	0.06
Muzaffargarh	1.82	Thatta	0.78	Ziarat	0.03
Rajanpur	0.89	Karachi	7.16	Barkhan	0.09
Chiniot	0.73	Jaccobabad	0.53	Qilla Saifullah	0.1
Faisalabad	4.08	Kashmore	0.68	Loralai	0.14
Jhang	1.54	Larkana	0.78	Musa Khel	0.06
T.T Singh	1.34	Shahdadkot	0.77	Sherani	0.06
Gujranwala	2.58	Shikarpur	0.77	Zhob	0.12

Annex 7: District wise Contribution to Poverty Headcount Ratio 2012-13

Rank	Districts	Poverty Headcount	Population Weight (%)	Absolute Contribution	Percentage Contribution
1.	Rahim Yar Khan	0.440	2.56	1.126	3.60%
2.	Bahalwapur	0.426	2.07	0.883	2.82%
3.	Muzaffargarh	0.482	1.82	0.877	2.80%
4.	Vehari	0.449	1.84	0.826	2.64%
5.	D.G Khan	0.558	1.43	0.797	2.55%
6.	Multan	0.297	2.29	0.679	2.17%
7.	Badin	0.735	0.92	0.677	2.17%
8.	Bahawalnagar	0.385	1.71	0.659	2.11%
9.	Khairpur	0.494	1.32	0.652	2.09%
10.	Thatta	0.730	0.78	0.57	1.82%
11.	Jhang	0.370	1.54	0.569	1.82%
12.	Rajanpur	0.634	0.89	0.564	1.80%
13.	Tharparkar	0.786	0.71	0.558	1.78%
14.	Khanewal	0.303	1.64	0.497	1.59%
15.	D.I. Khan	0.535	0.89	0.477	1.53%
16.	Mirpur Khas	0.608	0.78	0.474	1.52%
17.	Okara	0.274	1.71	0.469	1.50%
18.	Sanghar	0.463	1.01	0.468	1.50%
19.	Ghotki	0.480	0.94	0.451	1.44%
20.	Swat	0.417	1.04	0.434	1.39%
21.	Kashmore	0.638	0.68	0.434	1.39%
22.	Ümer Kot	0.730	0.58	0.423	1.35%
23.	Upper Dir	0.765	0.55	0.421	1.35%
24.	Kasur	0.238	1.75	0.416	1.33%
25.	Nawabshah	0.529	0.78	0.413	1.32%
26.	Faisalabad	0.100	4.08	0.41	1.31%
27.	Karachi	0.057	7.16	0.407	1.30%
28.	Shahdadkot	0.522	0.77	0.402	1.29%
29.	Shikarpur	0.512	0.77	0.394	1.26%
30.	Sahiwal	0.278	1.41	0.392	1.25%
31.	Bhakkar	0.430	0.91	0.391	1.25%
32.	Dadu	0.470	0.83	0.39	1.25%
33.	Naushahro Feroze	0.468	0.81	0.379	1.21%
34.	Pakpatan	0.346	1.08	0.374	1.20%
35.	Lodhran	0.425	0.87	0.37	1.18%
36.	Kohistan	0.962	0.38	0.365	1.17%
37.	Lower Dir	0.516	0.67	0.346	1.11%
38.	Sarghodha	0.185	1.87	0.346	1.11%
39.	Mardan	0.318	1.05	0.334	1.07%
40.	Jaccobabad	0.582	0.53	0.309	0.99%
41.	Peshawar	0.185	1.59	0.295	0.94%

42.	Layyah	0.289	1.01	0.292	0.93%
43.	Qilla Abdullah	0.851	0.34	0.289	0.92%
44.	Narowal	0.277	1.01	0.28	0.90%
45.	Sukkur	0.348	0.78	0.271	0.87%
46.	Lahore	0.060	4.53	0.27	0.86%
47.	Mansehra	0.352	0.74	0.26	0.83%
48.	Charsada	0.337	0.77	0.26	0.83%
49.	Sheikhupura	0.177	1.47	0.26	0.83%
50.	Jaffarabad	0.719	0.36	0.259	0.83%
51.	Bannu	0.441	0.58	0.256	0.82%
52.	Larkana	0.327	0.78	0.255	0.82%
53.	Shangla	0.685	0.37	0.254	0.81%
54.	Gujranwala	0.097	2.58	0.251	0.80%
55.	Khuzdar	0.676	0.35	0.237	0.76%
56.	Sialkot	0.098	2.21	0.216	0.69%
57.	T.T Singh	0.159	1.34	0.213	0.68%
58.	Tando Mohd Khan	0.607	0.35	0.212	0.68%
59.	Lakki Marwat	0.485	0.43	0.209	0.67%
60.	M Ianwali	0.299	0.69	0.206	0.66%
61.	Jamshoro	0.459	0.45	0.206	0.66%
62.	Tando Allah Yar	0.525	0.38	0.199	0.64%
63.	Swabi	0.251	0.73	0.183	0.59%
64.	Keych/Turbat	0.537	0.34	0.183	0.59%
65.	Pashin	0.571	0.32	0.183	0.59%
66.	Buner	0.493	0.37	0.182	0.58%
67.	Hyderabad	0.154	1.16	0.179	0.57%
68.	Chiniot	0.236	0.73	0.173	0.55%
69.	Nankana Sahib	0.196	0.83	0.163	0.52%
70.	Kohat	0.359	0.45	0.161	0.51%
71.	Mitiari	0.402	0.4	0.161	0.51%
72.	Bolan/Kachhi	0.760	0.21	0.16	0.51%
73.	Rawalpindi	0.062	2.49	0.153	0.49%
74.	Karak	0.425	0.35	0.149	0.48%
75.	Nasirabad	0.811	0.18	0.146	0.47%
76.	Batagram	0.503	0.28	0.141	0.45%
77.	Khushab	0.211	0.67	0.141	0.45%
78.	Lasbella	0.603	0.23	0.139	0.44%
79.	Torgarh	0.891	0.15	0.134	0.43%
80.	Nowshera	0.195	0.66	0.129	0.41%
81.	Abbottabad	0.199	0.64	0.128	0.41%
82.	Tank	0.619	0.19	0.118	0.38%
83.	Gujrat	0.068	1.63	0.111	0.35%
84.	Hafizabad	0.172	0.64	0.11	0.35%
85.	Kohlu	0.964	0.11	0.106	0.34%
86.	Dera Bugti	0.871	0.12	0.104	0.33%

87.	Haripur	0.177	0.55	0.097	0.31%
88.	Quetta	0.172	0.56	0.096	0.31%
89.	Malakand	0.298	0.32	0.095	0.30%
90.	Mandi Bahauddin	0.113	0.83	0.094	0.30%
91.	Loralai	0.673	0.14	0.094	0.30%
92.	Ättock	0.085	1.05	0.089	0.28%
93.	Awaran	0.811	0.11	0.089	0.28%
94.	Zhob	0.726	0.12	0.087	0.28%
95.	Kalat	0.533	0.16	0.085	0.27%
96.	Hangu	0.414	0.2	0.083	0.27%
97.	Gawadar	0.452	0.18	0.081	0.26%
98.	Qilla Saifullah	0.808	0.1	0.081	0.26%
99.	Barkhan	0.868	0.09	0.078	0.25%
100.	Chaghi	0.818	0.09	0.074	0.24%
101.	Washuk	0.857	0.08	0.069	0.22%
102.	Chitral	0.259	0.25	0.065	0.21%
103.	Jhal Magsi	0.746	0.08	0.06	0.19%
104.	Mastung	0.461	0.12	0.055	0.18%
105.	Kharan	0.605	0.09	0.054	0.17%
106.	Harnai	0.751	0.07	0.053	0.17%
107.	Sherani	0.871	0.06	0.052	0.17%
108.	Musa Khel	0.830	0.06	0.05	0.16%
109.	Jhelum	0.064	0.73	0.047	0.15%
110.	Chakwal	0.056	0.77	0.043	0.14%
111.	Nushki	0.421	0.08	0.034	0.11%
112.	Islamabad	0.037	0.58	0.021	0.07%
113.	Sibi	0.318	0.06	0.019	0.06%
114.	Ziarat	0.472	0.03	0.014	0.04%

Annex 8: District wise Contribution to Extreme Poverty 2012-13

Rank	Districts	Extreme Poverty	Population Weight (%)	Absolute Contribution	Percentage Contribution
1.	Rahim Yar Khan	0.281	2.56	0.719	3.87%
2.	Muzaffargarh	0.302	1.82	0.55	2.96%
3.	Bahalwapur	0.256	2.07	0.529	2.85%
4.	Vehari	0.281	1.84	0.518	2.79%
5.	Badin	0.513	0.92	0.472	2.54%
6.	D.G Khan	0.317	1.43	0.453	2.44%
7.	Tharparkar	0.608	0.71	0.431	2.32%
8.	Thatta	0.548	0.78	0.428	2.30%
9.	Bahawalnagar	0.242	1.71	0.414	2.23%
10.	Rajanpur	0.461	0.89	0.41	2.21%
11.	Khairpur	0.302	1.32	0.399	2.15%
12.	Multan	0.161	2.29	0.369	1.99%
13.	Mirpur Khas	0.468	0.78	0.365	1.96%
14.	Upper Dir	0.594	0.55	0.327	1.76%
15.	Kohistan	0.853	0.38	0.324	1.74%
16.	D.I. Khan	0.360	0.89	0.32	1.72%
17.	Jhang	0.207	1.54	0.319	1.72%
18.	Sanghar	0.310	1.01	0.313	1.68%
19.	Kashmore	0.459	0.68	0.312	1.68%
20.	Ümer Kot	0.530	0.58	0.307	1.65%
21.	Khanewal	0.173	1.64	0.283	1.52%
22.	Nawabshah	0.345	0.78	0.269	1.45%
23.	Ghotki	0.268	0.94	0.252	1.36%
24.	Shikarpur	0.314	0.77	0.242	1.30%
25.	Shahdadkot	0.311	0.77	0.239	1.29%
26.	Naushahro Feroze	0.294	0.81	0.238	1.28%
27.	Pakpatan	0.208	1.08	0.225	1.21%
28.	Jaccobabad	0.425	0.53	0.225	1.21%
29.	Qilla Abdullah	0.656	0.34	0.223	1.20%
30.	Swat	0.213	1.04	0.222	1.20%
31.	Okara	0.123	1.71	0.21	1.13%
32.	Dadu	0.249	0.83	0.206	1.11%
33.	Jaffarabad	0.550	0.36	0.198	1.07%
34.	Lower Dir	0.291	0.67	0.195	1.05%
35.	Sahiwal	0.137	1.41	0.193	1.04%
36.	Lodhran	0.221	0.87	0.192	1.03%
37.	Bhakkar	0.202	0.91	0.184	0.99%
38.	Khuzdar	0.520	0.35	0.182	0.98%
39.	Shangla	0.485	0.37	0.18	0.97%
40.	Sukkur	0.216	0.78	0.168	0.90%
41.	Faisalabad	0.041	4.08	0.166	0.89%
42.	Mardan	0.155	1.05	0.162	0.87%

43.	Kasur	0.093	1.75	0.162	0.87%
44.	Charsada	0.195	0.77	0.15	0.81%
45.	Jamshoro	0.321	0.45	0.145	0.78%
46.	Tando Muhammad Khan	0.414	0.35	0.145	0.78%
47.	Layyah	0.140	1.01	0.141	0.76%
48.	Bannu	0.236	0.58	0.137	0.74%
49.	Larkana	0.175	0.78	0.137	0.74%
50.	Mansehra	0.182	0.74	0.135	0.73%
51.	Keych/Turbat	0.391	0.34	0.133	0.72%
52.	Lakki Marwat	0.305	0.43	0.131	0.71%
53.	Mianwali	0.190	0.69	0.131	0.71%
54.	Bolan/Kachhi	0.613	0.21	0.129	0.69%
55.	Buner	0.346	0.37	0.128	0.69%
56.	Sarghodha	0.068	1.87	0.127	0.68%
57.	Nasirabad	0.705	0.18	0.127	0.68%
58.	Tando Allah Yar	0.319	0.38	0.121	0.65%
59.	Peshawar	0.075	1.59	0.12	0.65%
60.	Karachi	0.016	7.16	0.113	0.61%
61.	Pashin	0.347	0.32	0.111	0.60%
62.	Torgarh	0.733	0.15	0.11	0.59%
63.	Narowal	0.108	1.01	0.109	0.59%
64.	Lasbella	0.460	0.23	0.106	0.57%
65.	Lahore	0.022	4.53	0.101	0.54%
66.	Kohlu	0.909	0.11	0.1	0.54%
67.	Mitiari	0.248	0.4	0.099	0.53%
68.	Dera Bugti	0.824	0.12	0.099	0.53%
69.	Sheikhupura	0.065	1.47	0.096	0.52%
70.	Kohat	0.201	0.45	0.09	0.48%
71.	T.T Singh	0.066	1.34	0.089	0.48%
72.	Swabi	0.118	0.73	0.086	0.46%
73.	Karak	0.236	0.35	0.083	0.45%
74.	Hyderabad	0.071	1.16	0.083	0.45%
75.	Batagram	0.281	0.28	0.079	0.43%
76.	Nowshera	0.119	0.66	0.078	0.42%
77.	Tank	0.405	0.19	0.077	0.41%
78.	Nankana Sahib	0.090	0.83	0.074	0.40%
79.	Chiniot	0.096	0.73	0.07	0.38%
80.	Sialkot	0.031	2.21	0.069	0.37%
81.	Khushab	0.097	0.67	0.065	0.35%
82.	Awaran	0.589	0.11	0.065	0.35%
83.	Loralai	0.458	0.14	0.064	0.34%
84.	Zhob	0.535	0.12	0.064	0.34%
85.	Qilla Saifullah	0.619	0.1	0.062	0.33%
86.	Chaghi	0.666	0.09	0.06	0.32%
87.	Hafizabad	0.091	0.64	0.058	0.31%

88.	Kalat	0.366	0.16	0.058	0.31%
89.	Barkhan	0.628	0.09	0.057	0.31%
90.	Washuk	0.704	0.08	0.056	0.30%
91.	Gujranwala	0.021	2.58	0.055	0.30%
92.	Rawalpindi	0.022	2.49	0.055	0.30%
93.	Gujrat	0.033	1.63	0.054	0.29%
94.	Abbottabad	0.079	0.64	0.05	0.27%
95.	Haripur	0.091	0.55	0.05	0.27%
96.	Malakand	0.153	0.32	0.049	0.26%
97.	Hangu	0.227	0.2	0.045	0.24%
98.	Jhal Magsi	0.557	0.08	0.045	0.24%
99.	Gwadar	0.238	0.18	0.043	0.23%
100.	Sherani	0.708	0.06	0.042	0.23%
101.	Musa Khel	0.669	0.06	0.04	0.22%
102.	Quetta	0.068	0.56	0.038	0.20%
103.	Harnai	0.533	0.07	0.037	0.20%
104.	Kharan	0.380	0.09	0.034	0.18%
105.	Mandi Bahauddin	0.037	0.83	0.031	0.17%
106.	Chitral	0.103	0.25	0.026	0.14%
107.	Mastung	0.206	0.12	0.025	0.13%
108.	Ättock	0.023	1.05	0.024	0.13%
109.	Nushki	0.239	0.08	0.019	0.10%
110.	Jhelum	0.021	0.73	0.015	0.08%
111.	Chakwal	0.016	0.77	0.012	0.06%
112.	Sibi	0.199	0.06	0.012	0.06%
113.	Islamabad	0.012	0.58	0.007	0.04%
114.	Ziarat	0.203	0.03	0.006	0.03%

Annex 9: Population Density (PD) across Zones AND DISTRICTS (1998 census)

| LP		HP-2		HP-1		EP-2		EP-1	
District	**PD**	**District**	**PD**	**District**	**PD**	**District**	**PD**	**District**	**PD**
Attock	186	Bahawalpur	98	Bahawalnagar	232	Batagram	236	Awaran	21
Chakwal	166	Charsadda	1,026	Bannu	551	Buner	271	Badin	169
Faisalabad	927	Chitral	21	Bhakkar	129	D.I.Khan	116	Barkhan	30
Gujranwala	939	Jhang	322	D.G Khan	138	Jaccobabad	270	Bolan/kachhi	38
Gujrat	642	Kasur	595	Dadu	89	Kalat	36	Chaghi	112
Hafizabad	352	Khanewal	476	Lower Dir	453	keych/Turbat	18	Dera Bugti	18
Haripur	401	Khushab	139	Gwadar	11	Khairpur	97	Upper Dir	156
Hyderabad	524	Kohat	221	Ghotki	160	Kharan	4	Jaffarabad	177
Jhelum	261	Layyah	178	Hangu	287	Khuzdar	12	Jhal Magsi	30
Karachi	7049	Lodhran	422	Karak	128	Lasbella	4	Qilla Abdullah	4
Lahore	3566	Malakand	475	Lakki Marwat	155	Loralai	30	Qilla Saifullah	28
Mandi Bahauddin	434	Mansehra	252	Larkana	260	Mirpur Khas	310	Kohistan	63
Nowshera	500	Mardan	895	Mastung	28	Rajanpur	90	Kohlu	13
Peshawar	1,606	Mianwali	181	Muzaffargarh	320	Sanghar	135	Musa Khel	23
Rawalpindi	637	Multan	838	Naushahro Feroze	369	Shangla	274	Nasirabad	73
Sargodha	455	Narowal	541	Rahim Yar Khan	264	Tank	142	Tharparkar	47
Sheikhupura	432	Okara	510	Shikarpur	351	Umer kot	118	Thatta	64
Sialkot	903	Pakpatan	472	Swat	236				
T.T Singh	499	Quetta	286	Vehari	479				
		Sahiwal	576	Ziarat	22				
		Sibi	23						
		Sukkur	176						
		Swabi	665						

Source: GOP (1998).

Annex 10: Robustness Checks

Multidimensional poverty presented in this report is based on the poverty line/threshold level of 40 per cent of the weighted sum of deprivations. The ranking of various population groups over poverty estimates can be sensitive to various decisions made in estimating poverty, including the choice of indicators, cut of points, and the poverty line. A robust measure requires the estimates to generate rankings which are consistent with the changing decisions/weights/cut-off points. Figure 7.1 presents the checks we employed to test the robustness of our methodology for each of the three survey rounds. The headcount ratios for provinces and total population are plotted in against the poverty line/threshold levels. These graphs show that for each year, and at all possible cut-off points/threshold levels/poverty lines, Punjab remains the least poor province and Balochistan the poorest one. In 2012-13, there is a convergence between Sindh and KP at the higher threshold levels. There is also somewhat convergence between KP, Punjab and Sindh in poverty estimates over time. In contrast, there is divergence in Balochistan over time.

Figure A-10: Robustness checks 2008-09 to 2012-13
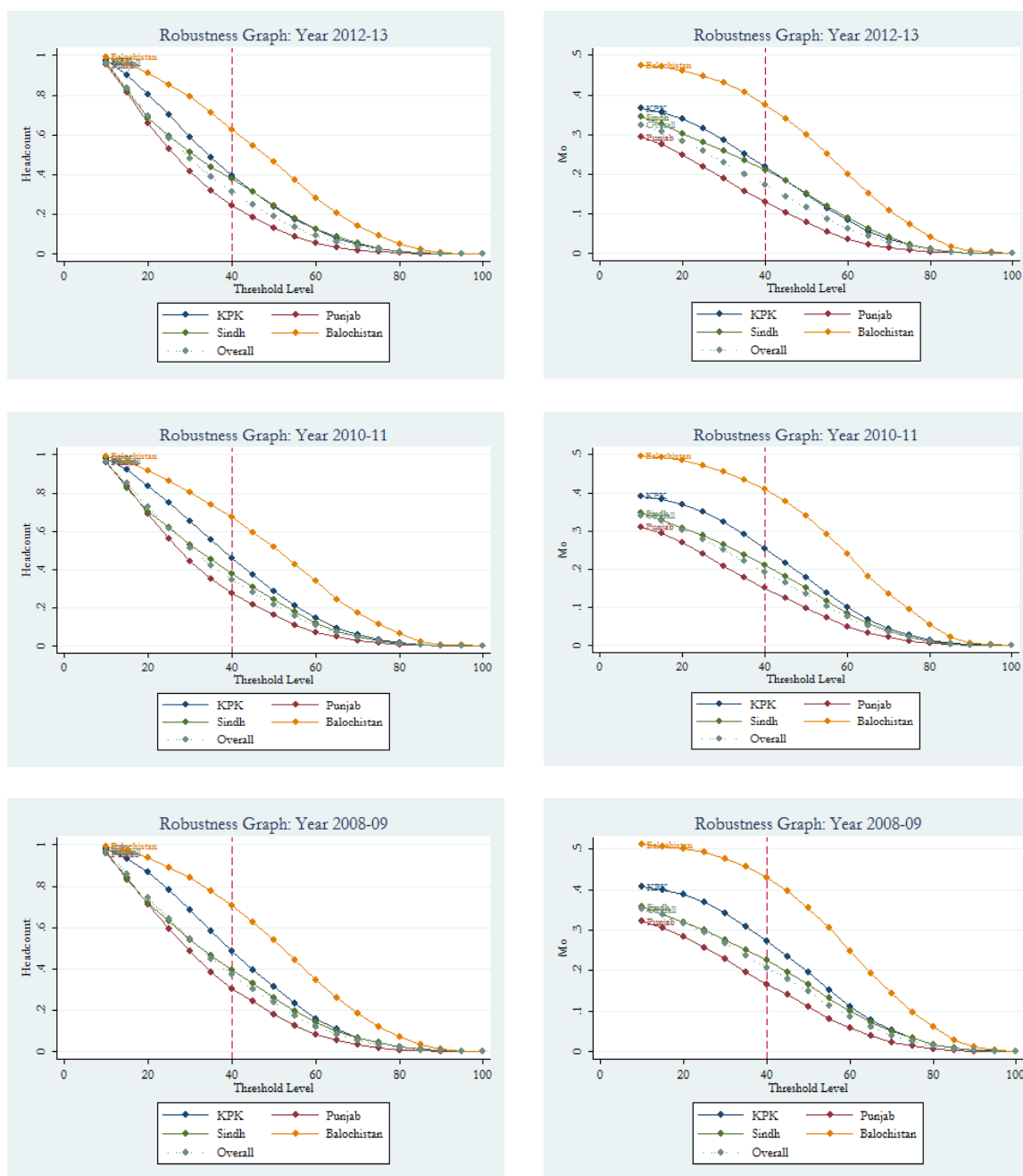
عشق، علم ، عمل   پی پی اے ایف کی بنیادی اقدار اور اس کے کام کی اصل روح ہیں۔

The emblem denotes three words: *Ishq, Ilm, Aml*
meaning profound love, knowledge and action - the virtuous
circle that drives PPAF.

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