

AFGHANISTAN



Islamic Republic of Afghanistan
Ministry of Economy

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POVERTY STATUS UPDATE

An analysis based on National Risk and Vulnerability
Assessment (NRVA) 2007/08 and 2011/12

OCT 2015



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Foreword

On behalf of the Citizens of the Islamic Republic of Afghanistan, it is a pleasure to present this Poverty Status Update report, which is a major output of the Ministry of Economy's 100 Days Plan.

The analysis presented in this report takes advantages of the latest two rounds of household survey data, namely the 2007-08 and 2011-12 rounds of the National Risk and Vulnerability Assessment (NRVA). For the first time, the availability of two comparable rounds of household survey data provides the opportunity to assess the performance of Afghanistan's development process. In particular, it makes it possible to assess *if* and *how* the development efforts by the Government and international donor community have contributed to poverty reduction and human development at the national and subnational level and across population subgroups.

The analysis presented in this Poverty Status Update report is not intended to be exhaustive or to provide a complete picture of the complex web of causal interactions shaping socio-economic dynamics in Afghanistan. Rather, the objective of this report is to analyze and describe the most important aspects of Afghanistan's socio-economic development process, using the limited data available.

The findings presented in this report contribute to building the evidence base needed to enable the Government and the international community to design informed policy interventions and to address the economic growth, social inclusion and stability challenges that Afghanistan faces moving forward.

The Ministry of Economy of the Islamic Republic of Afghanistan and The World Bank wish to take this opportunity to express appreciation to the Central Statistics Organization and to the international community partners who contributed to this report.

We look forward to continuing our collaborative work with our distinguished partners in the future.

Sincerely,



H.E Minister Abdul Satar Murad
Ministry of Economy



Robert J. Saum
World Bank Country Director for Afghanistan

Executive Summary

In 2007-08, 36 percent of the population in Afghanistan was poor, that is more than one in every three Afghan person was living on levels of expenditure insufficient to satisfy basic food and non-food needs. Four years later, in 2011-12, the poverty rate in Afghanistan remained substantially unchanged despite massive increase in international spending on military and civilian assistance, and overall strong economic growth and labor market performance. This Poverty Status Update documents the nature of the Afghanistan aid-growth-poverty conundrum, examines plausible determinants, and suggests some policy directions to strengthen the link between growth and poverty reduction.

1. Growth and poverty reduction: the role of widening inequalities

The period between 2007-08 and 2011-12 was characterized by strong economic growth; increasing levels of conflict and international spending, and by stagnating poverty rates. The lack of poverty reduction in spite of growth is explained by an increase in inequality, as indeed reflected by the trend of the Gini index which increased from 29.7 in 2007-08 to 31.6 in 2011-12. Had Afghanistan's economic growth been more widely shared, poverty could have declined by as much as 4.4 percentage points.

What were the drivers of the increase in inequality?

Traditionally, welfare disparities in Afghanistan relate strongly to geography. In 2011-12, the share of total inequality explained by spatial differences varied from 19 percent in the case of rural/urban or regional differences, to 26 percent in the case of interprovincial disparities. Between the 2007-08 and 2011-12 study periods, increased inequality was largely the result of widening regional inequalities, in particular to three regions that lag the rest of the country: the East, West-Central and especially the Northeast regions. The widening gap between these three "lagging" regions and the rest of the country is due largely to regional differences in aid allocation and in vulnerability to shocks. Lagging regions benefitted less than the rest of the country from the increase in international spending. Weather-related shocks are also more common in lagging regions.

2. Human development trends and dynamics of exclusion

The lack of progress in poverty reduction occurred in a context otherwise characterized by continuous improvement in human development. Between 2007-08 and 2011-12, increase in public investments fueled by international aid led to strong improvement in the enrollment rates of children in primary and secondary school, and in public access to basic services (electricity, safe drinking water and improved sanitation).

Did the improvement in service delivery contribute to reducing inequality?

For poverty and inequality to decrease, progress in human development should contribute to closing gaps between the poorest and the richest segments of the population, reducing spatial disparities and, ultimately, equalizing opportunities. Disappointingly, progress in human development outcomes between 2007-08 and 2011-12 was not uniform between groups and regions.

Looking at education outcomes, the gap between the richest and the poorest segments of the population increased over the period, while the rural-urban gap stagnated – mostly due to the negative effect of conflict on girls’ enrollment. Access to public services were relatively more widespread, mostly thanks to improvement in rural access to public services.

The East, West-Central and Northeast regions consistently lag behind the rest of the country in human development outcomes. In particular, “lagging” regions enjoyed better educational outcomes, but worse basic service access in 2007-08. Four years later, lagging regions lost much of their education advantage—mostly due to a drop in enrollment rates in the Northeast—while these regions fell further behind in access to basic services.

3. Poverty reduction through job creation: the role of differences in human capital endowments

Between 2007-08 and 2011-12, “aid-led” growth contributed to overall improvement in labor market outcomes. The economy added approximately 490 thousand new jobs for men aged 25 to 50, reducing the unemployment and underemployment rate, and transitioning more of them from informal to formal employment.

Did the improvement in labor market conditions contribute to reducing inequality?

Economic growth is inclusive and contributes to poverty reduction when it creates new and better employment opportunities for the majority of the labor force, and particularly for the poor. Between 2007-08 and 2011-12, improvement in labor market opportunities did not benefit Afghan workers equally. The service sector was the primary driver of employment, but 80 percent of new jobs created were in informal day labor arrangements. The public sector and the health and education-related services also were key drivers of employment growth, but new jobs in these sectors primarily required high-skill workers and were formal jobs. Lacking the human capital to take advantage of better jobs, the poor largely substituted vulnerable employment in agriculture with vulnerable employment in the service sector.

In line with previous findings, improvements in labor market outcomes were strongest in non-lagging regions.

4. Poverty reduction and vulnerability to shocks.

Vulnerability to shocks is an important dimension of fragility in Afghanistan. The country’s geography, reliance on rain-fed agriculture, protracted conflict, and the absence of formal safety nets all contribute to Afghan vulnerability to shocks. Vulnerability to shocks is highest for poor households and for households in lagging regions, reinforcing and perpetuating inequality by adversely affecting asset and human capital accumulation.

5. Moving forward: policy directions

Aid-led growth did not significantly accelerate poverty reduction in Afghanistan. Between 2008 and 2012, fast growth in Afghanistan was associated with substantial increases in military and civilian aid. Military aid targeted regions with high conflict, while civilian aid mainly targeted improvement in access to

education, health and infrastructure services. Due to the geographical targeting of aid and the types of jobs that it generated, aid-led growth increased income inequality and did not decrease poverty.

As aid flows dwindle, Afghanistan will have to rely on new sources of growth to ensure poverty reduction. While identifying new sources of growth is beyond the scope of this report, our analysis suggests three main broad policy directions to promote broad-based growth and decreased poverty in Afghanistan:

- i. Sustaining growth by strengthening agriculture;*
- ii. Reducing welfare inequalities by leveling the playing field for human development; and*
- iii. Protecting the poor from shocks by developing targeted safety nets.*

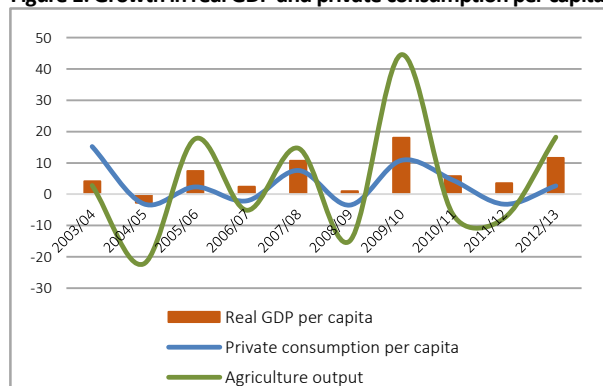
Chapter 1: Growth and Poverty Reduction

Summary: The period between 2007-08 and 2011-12 was characterized by strong economic growth driven by international spending, increasing levels of conflict and stagnating poverty rates. Poverty levels and trends vary substantially at the subnational level, partly reflecting geographic differences in international spending and differences in conflict incidence. The percentage of people living under the poverty line is highest in rural areas, whereas higher absolute numbers of poor people live in urban areas and densely populated provinces. Regardless of location, poverty is strongly associated with deprivation in education, employment opportunities, and access to basic services. Increase in inequality between 2007-08 and 2011-12 accounts for the lack of poverty reduction. In particular, the patterns of growth over the period contributed to widening inequality between the richest and the poorest segments of the population, and between regions.

SETTING THE CONTEXT: ECONOMIC TRENDS, AID AND CONFLICT

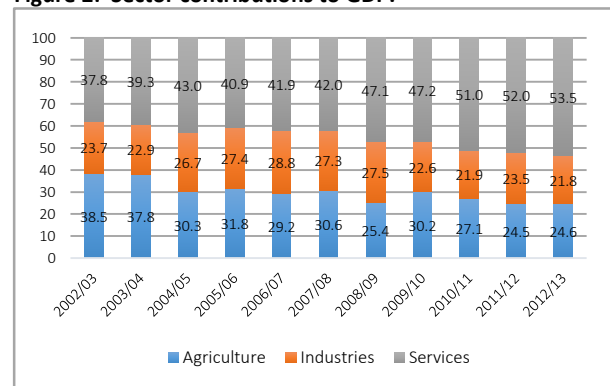
Between 2007-08 and 2011-12, Afghanistan's economy grew on average by almost 10 percent per year (9.6 percent). GDP per capita grew at an average of 6.9 percent annually, and real GDP per capita was 27 percent higher at the end of the period (Figure 1). Not surprisingly, as the country emerged from decades of conflict and with low capital stock, increase in capital from international aid¹ drove GDP growth. The growth in *private consumption*—that is, growth in the value of all goods and services consumed by Afghan households—was marginal. Using household survey data, estimated annual growth in per capita *private consumption* between 2007-08 and 2011-12 was 1.2 percent².

Figure 1: Growth in real GDP and private consumption per capita.



Source: CSO, 2014.

Figure 2: Sector contributions to GDP.



Source: CSO, 2014.

¹ Decomposition of economic growth into different factors of economic production shows that capital investments contributed 47.2 percent to economic growth between 2002 and 2012. See World Bank (2014a).

² Household survey data show lower rates of increase than National Accounts (NA) in real per capita expenditure. Between 2007-08 and 2011-12 real per capita expenditure as measured by the National Risk and Vulnerability Assessment (NRVA) household survey grew at annually at the rate of 1.2 percent, less than one fifth of the rate of per capita GDP, and half the rate of per capita private consumption growth as measured in the National Accounts (2.6 percent). Much of the difference between survey-based and NA figures is due to differences in the price deflators used in the two cases, namely a poverty line-based price index and GDP deflator respectively.

Afghanistan's economic base remains narrow and heavily dependent on agriculture and international aid. Agriculture has traditionally been the most important sector in Afghanistan's subsistence economy. Post-conflict reconstruction and expansion in public services fueled by aid shifted Afghanistan's economy towards the service sector, which grew as a proportion of GDP from 37.8 percent in 2002 to 53.4 percent in 2012 (Figure 2). Despite the increase in service sector contribution to GDP, agriculture remains a critical driver of economic growth in Afghanistan because of its impact on aggregate demand and its significant input to the manufacturing sector³.

Economic growth in Afghanistan is vulnerable to external shocks and highly volatile. Due to high reliance on rain-fed production⁴, agriculture in Afghanistan is highly vulnerable to climatic and weather-related shocks. As shown in Figure 1, economic growth is highly volatile and tends to follow the same cyclical pattern as agricultural output. With 76 percent of the population living in rural areas, and 38 percent of the workforce engaged in agriculture, the vulnerability of the local economy to weather-related shocks has important implications for vulnerability and poverty reduction⁵. High dependence on international aid and increasing incidence of conflict add to uncertainty for the population, and to vulnerability for Afghanistan's economy. Economic growth fell sharply in Afghanistan because of the uncertainty surrounding the political and security transition in 2013-14⁶.

International spending and conflict levels both increased between 2007-08 and 2011-12. Afghanistan's dependence on aid is renowned and extremely high by international standards. During the 2000s, reconstruction efforts and military and civilian aid steadily increased to match 100 percent of GDP, or approximately 15.7 billion, in 2010. Looking at US funding alone, Congressional appropriations for reconstruction and military operations in Afghanistan almost doubled between 2007 and 2010, and declined only slightly in the two subsequent years⁷ (Figure 3). Increase in international spending over the period was mostly due to increased spending on security⁸. The increase in military spending was accompanied by an increase in security incidents and conflict-related casualties. According to the Security Information and Operation Center (SIOC) of the United Nations Department for Safety and Security (UNDSS), between 2007 and 2012 people killed in Afghanistan increased by 75 percent, people injured increased by 23 percent, and security incidents increased by 110 percent (Figure 4).

³ More than 96 percent of the manufacturing sector depends on agricultural products for inputs (food and beverages, textile, leathers, etc.).

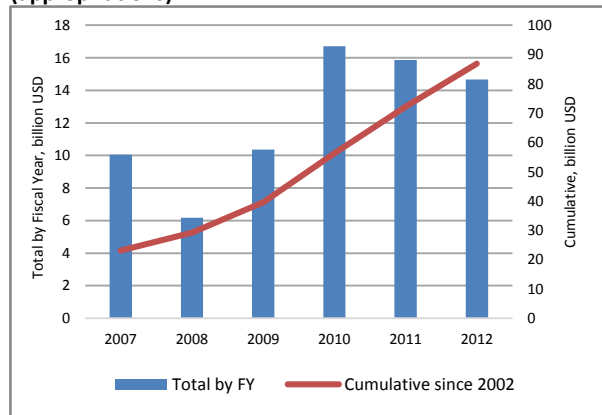
⁴ Approximately one-third of wheat production, Afghanistan's main crop, is rain-fed.

⁵ It is to be noted that data collection for both waves of household survey data (NRVA 2007-08 and 2011-12) survey rounds coincided with negative shocks to agricultural production. For further discussion see Chapter 4.

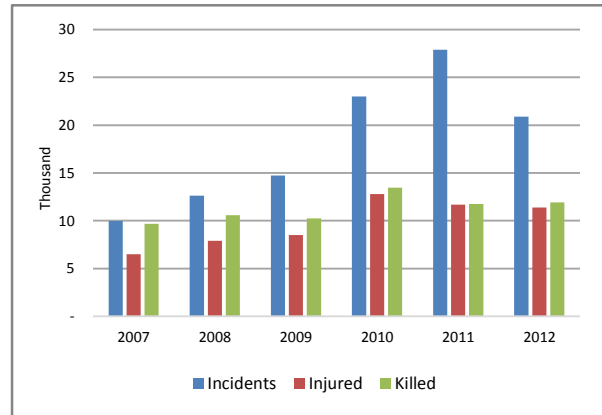
⁶ Economic growth is estimated to have fallen to 2 percent in 2014 from 3.7 percent in 2013 and an average of 9 percent during 2003-12.

⁷ This amount includes spending on the following categories: security, governance and development, and humanitarian and civilian operations. USAID, the State Department, and the Department of Defense have obligated about 85 percent of the amount appropriated, and the agencies have disbursed about 79 percent (SIGAR, 2012).

⁸ In 2010, spending on security accounted for 60 percent of total appropriations.

Figure 3: US reconstruction funding for Afghanistan (appropriations).

Source: SIGAR (2012).

Figure 4: Trends in security incidents and conflict casualties.

Source: Authors' elaboration based on SIOCC data.

Table 1: Classification of provinces by level of conflict and international spending.

	High Conflict	Low Conflict
High Spending	Ghazni ^(b) , Helmand ^{(a) (b)} , Kandahar ^(b) , Khost ^{(a) (b)} , Kunarha, Logar ^(b) , Nimroz, Nooristan ^(b) , Paktika ^(b) , Paktya ^(b) , Uruzgan ^(b) , Zabul ^(b)	Badakhshan ^(b) , Baghlan ^(b) , Herat ^(b) , Kabul, Laghman, Nangarhar ^(b) , Parwan ^(b)
Low Spending	Badghis ^(b)	Balk ^(b) , Bamiyan ^(b) , Daykundi, Farah ^(b) , Faryab ^(b) , Ghor ^(b) , Jawzjan, Kapisa, Kunduz ^(b) , Panjsher ^(b) , Samangan, Sar-e-Pul, Takhar, Wardak ^(b)

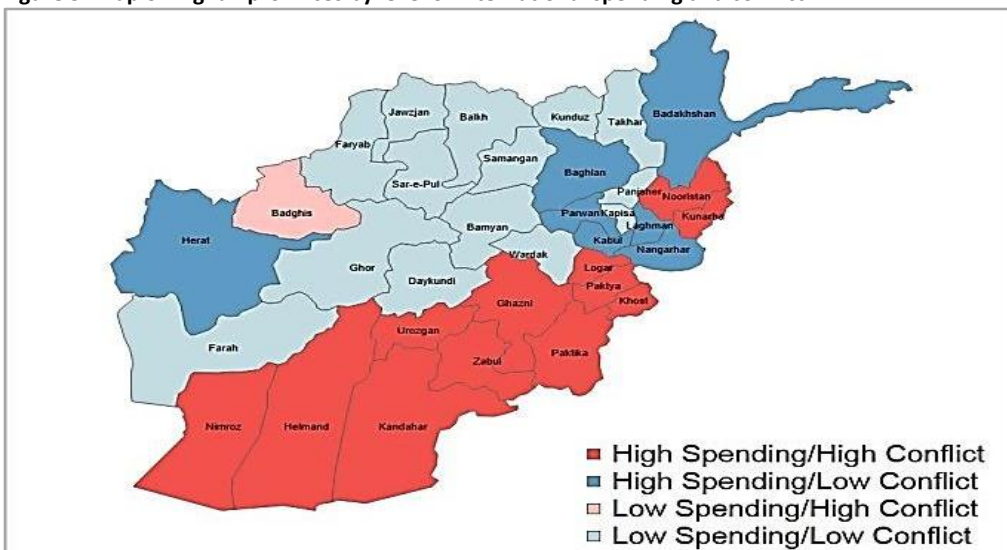
Notes: (a) Provinces with no reliable information on consumption aggregate and poverty in 2011-12; (b) Provinces with Provincial Reconstruction Team's base.

Source: Authors' elaboration on CEPR, USAID and SIOCC data.

International aid spending is not even throughout Afghanistan's territory, and is highest in provinces affected by higher conflict. International spending and conflict intensity vary substantially across Afghanistan's provinces. Since a large part of spending is on security, there is a strong positive correlation between conflict, international spending, and military activity at the provincial level. In 2011-12, international spending was "high"—that is, above the national median—in 19 of Afghanistan's 34 provinces⁹. Among these high-spend provinces, 12 were characterized by "high" levels of conflict. While five others were "low-conflict", an international military base (Provincial Reconstruction Team, PRT) in each makes them important for security operations (Table 1). As shown in Figure 5, "high-spending" provinces are mostly concentrated in the Southwest, South, and East regions of Afghanistan where conflict has traditionally been endemic.

⁹ By focusing on US spending we obtained provincial-level spending on both military and civilian spending in 2010/11. Using this information, we classified provinces as "high" or "low" international spending levels depending on whether per-capita international spending (i.e. civilian aid plus military spending) was above or below the national median. Similarly, we classified provinces as "high" or "low" conflict if total casualties in 2010/11 were above or below the national median.

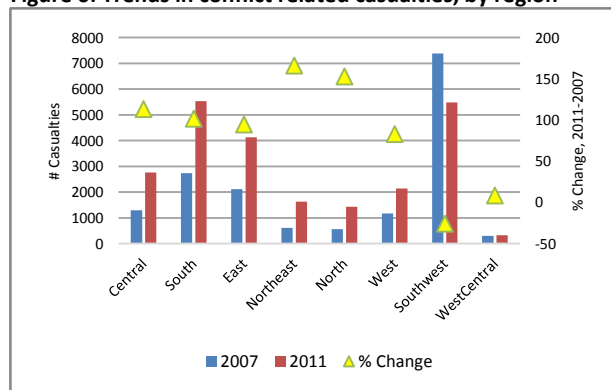
Figure 5: Map of Afghan provinces by level of international spending and conflict



Source: Authors' elaboration on CEPR, USAID, and SIOCC data 2010-11.

Increase in conflict and international spending did not affect all Afghan regions evenly. Conflict intensity is not uniform throughout Afghanistan's territory and remains the highest in the Southwest, South and East regions. Between 2007-08 and 2011-12, with the exception of the Southwest, conflict related casualties increased in all regions. The increase was particularly noticeable in areas previously considered secure, such as the Northeast and the North (Figure 6). Limited data is available to analyze changes in international spending at the subnational level¹⁰. Available data suggest that increase in spending on civilian aid—highly correlated with military spending, and therefore a good proxy for international spending—did not affect all regions equally. According to USAID data on civilian aid between 2009 and 2011, increase in spending was strongest in the Southwest, followed by the Central and West-Central regions (Figure 7).

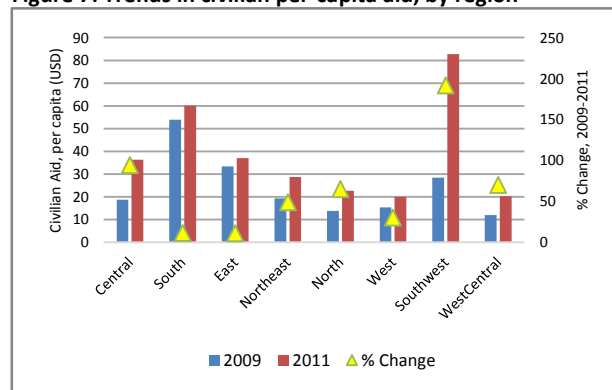
Figure 6: Trends in conflict related casualties, by region



Source: Authors' elaboration on SIOCC data 2007-11.

Note: Classification of provinces by regions is as follows: Southwest: Nimroz, Helmand, Kandahar, Zabul, Urozgan; Central: Kabul, Kapisa, Parwan, Wardak, Logar, Panjsher; West: Badghis, Herat, Farah; North: Samangan, Balkh, Jawzjan, Sar-e-Pul, Faryab; South: Ghazni, Paktika, Paktya, Khost; East: Nangarhar, Kunarha, Laghman, Nooristan; West-central: Ghor, Bamyan, Daykundi; Northeast: Badakhshan, Takhar, Baghlan, Kunduz.

Figure 7: Trends in civilian per-capita aid, by region



Source: Author's elaboration on USAID data 2009-11

¹⁰ Province-level data on US military spending is only available for one year (2010-11). Given the strong correlation between spending on military and civilian operations, the analysis is based on data on US civilian aid, which are available at the subnational level since 2009.

Higher provincial spending appears to have improved welfare only marginally when the effects of conflict are taken into consideration. Spatial differences in outcomes are a distinguishing feature of socio-economic development in Afghanistan. Understanding the determinants of these differences is difficult due to the complex interplay of determining factors and data limitations (Box 1). Higher spending on civilian aid at the provincial level appears have led only mildly to improved welfare, mostly due to correlation between spending and conflict intensity. As shown in Table 2, after controlling for conflict and military spending¹¹, one percent of increase in aid per capita associates, on average, with 0.13 percent poverty reduction and improvement in per capita expenditure of 0.04 percent¹². On the other hand, increase in conflict has relatively stronger negative effect on welfare. Overall, evidence of marginal improvement of aid (after controlling for conflict) is in line with previous findings, and with the common understanding that conflict adversely affects the ability to achieve development results (Box 2).

Table 2: Aid, conflict and welfare changes

	Change in Poverty (%)	Change in pc Expenditure (%)
Change in civilian aid per capita (%)	-0.130 (0.347)	0.043 (0.472)
Change in conflict related casualties (%)	0.257*** (0.006)	-0.060* (0.082)
<i>Nr observations</i>	32	32
<i>R-squared</i>	0.4762	0.542

Notes: Regional dummies, ANA base and PRT base dummies included as controls in the regression. Provinces of Helmand Khost in the South have been excluded from the analysis because of a lack of reliable consumption/poverty data.

Box 1: Data Limitations

Limitations in data availability and quality constrain economic and social analysis in Afghanistan. While macroeconomic data on national accounts and public finances is available, the data does not disaggregate at the subnational level, making it difficult to track economic activity across regions and provinces, and limiting the ability to understand welfare and development outcomes. Secondly, a large amount of public finance is managed “off-budget”, so despite the importance of international aid in Afghanistan’s economy, very little data available to assess the impact of public investments on development outcomes. Information on aid is scattered among donors and various stakeholders who hold various sets of data. Lacking a central repository or effective system for data management, datasets are often incomplete (usually project-based) and provide limited information at the subnational level.

Despite significant progress in the development of a comprehensive and nationally representative household survey —the “National Risk and Vulnerability Assessment” (NRVA), which has recently changed its name into “Afghanistan Living Conditions Survey” (ALCS)— data collection remains challenging, especially in conflict-affected provinces and for modules which require a female enumerator. In 2011-12, the quality of food consumption data in Helmand and Khost was severely compromised by the increase in conflict, and consumption data collected in the two provinces were excluded from poverty and welfare analysis (see Annex 1). Moreover, changes in labor market questionnaires between 2007-08 and 2011-12 limit the scope of the analysis of labor market trends to the adult male population only (see Annex 2), and the lack of earnings data in 2011-12 limits the analysis of labor market returns and of trends in the “quality” of jobs.

¹¹ The presence of international military base (PRT) and presence of Afghan National Army (ANA) proxies for Military spending.

¹² The coefficient of changes in civilian aid is statistically non-significant in both cases.

Box 2: International spending, conflict and household welfare.

Afghanistan's high dependence on international assistance has raised important policy questions surrounding the impact of aid and the sustainability of development gains.

Preparations for the 2014 political transition and withdrawal of international forces devoted particular attention to the issue. The 2013 World Bank study *Afghanistan in Transition* evaluated the impact of a potential decline in aid on development indicators. The study compared development performance of provinces receiving different levels of aid (high, medium, low) over the period between 2005 and 2007-08. The analysis suggested that higher donor spending had only a modest impact on development performance, and that this effect tended to increase marginally when also taking into account the level of conflict. In particular, the analysis suggests that low development impact even in high-spending provinces is the result of the ongoing spending heavily tilted towards security-related measures. The analysis also shows that the gains associated with higher spending appeared to accrue primarily to the better off within each province, thereby increasing inequality. In view of these findings, the study concludes that while decline in donor assistance might decrease household welfare, the effect is likely to be greater on those who are better off and relatively muted for the poor.

In a more recent study, Floreani, Lopez-Acevedo, Rama (2015) analyzed the relationship between casualties and troops (Afghan and International), its interactions with civilian aid, as well as its effect on welfare. In line with previous findings, results indicate that civilian aid has a positive effect on household wellbeing, but that it only accounts for a small fraction of the variance in per capita expenditure (about 0.1%). The analysis also suggests that the presence of troops has a positive impact on welfare, more than to offset the negative impact of casualties. Holding other variables constant, the presence of Afghan troops has a much stronger positive impact on household welfare than international troops, probably an indication that Afghan troops contribute more to the local economy via higher domestic spending.

POVERTY: PROFILE AND TRENDS

Between 2007-08 and 2011-12, consumption-based poverty remained substantially unchanged in Afghanistan. In this report, the analysis of poverty trends between 2007-08 and 2011-12 uses comparable data and estimates based on two rounds of the National Risk and Vulnerability Assessment (NRVA survey)¹³. Based on the latest 2011-12 NRVA data, the poverty rate in Afghanistan is 35.8 percent, meaning that about 9 million individuals, three out of eight Afghans, consume below the minimum deemed necessary to satisfy basic food and non-food needs. As shown in Table 3, the headcount poverty rate has remained substantially stable over time, as has the poverty gap (average per capita shortfall below the poverty line as a proportion of that line, aggregated for all poor) and the squared poverty gap (average of the individual poverty gap weighted by the size of those gaps).

Poverty remains the highest in rural areas and among the Kuchi nomadic population. Afghanistan is predominantly rural and characterized by substantial differences in wellbeing between urban and rural areas. Rural areas accommodate a large majority of the Afghan population and the highest concentration of poverty: four out of every five poor Afghans live in rural areas. On average, expenditure of an Afghan living in urban areas is almost double that of one living in rural areas (Figure 8). The poverty rate is 38.3 percent in rural areas, about ten percentage points higher than in urban areas (Table 4). The urban-rural poverty gap has remained stable over time, but the number of urban poor has increased by 240,000 people due to ongoing rural-to-urban migration. The nomadic Kuchi population has the highest risk of poverty. In 2011-12, the Kuchi poverty headcount was 51.8 percent, meaning that more than half of people within the Kuchi community consumed below the poverty line.

Table 3: Poverty trends by survey year.

Poverty indicators	Survey year		95% Confidence Interval	
	2007-08	2011-12	2007-08	2011-12
Poverty Headcount	36.3	35.8	[34.94, 37.60]	[34.14, 37.40]
Poverty Gap	7.9	8.4	[7.45, 8.27]	[7.95, 8.94]
Squared Poverty Gap	2.5	2.9	[2.37, 2.73]	[2.69, 3.13]

Notes: Provinces of Helmand and Khost were excluded from the original sample in both survey years.

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Table 4: Poverty headcount and poverty distribution by area of residence

	Poverty Headcount		Distribution of the Poor		Distribution of the Population	
	2007-08	2011-12	2007-08	2011-12	2007-08	2011-12
Urban	28.9	27.6	16.68	18.27	20.91	23.65
Rural	38.2	38.3	83.32	81.73	79.09	76.35

Notes: Provinces of Helmand and Khost were excluded from the original sample in both survey years.

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Wellbeing and poverty incidence differ widely across Afghanistan's regions. As shown in Figure 9, the poverty headcount in 2011-12 was the highest in the Northeast, West-Central and Eastern (henceforth referred to as "*lagging regions*") parts of the country. Differences in wellbeing, as measured by differences in mean per capita expenditure adjusted for geographic price differences, are particularly strong in these

¹³ See Annex 1.

regions. The three regions with the highest poverty have very low per capita expenditure (Figure 8). The average expenditure of an Afghan living in a lagging region is approximately half that of one living in the most affluent Central capital region. Despite differences in poverty incidence and wellbeing, it is important to note that the populous and relatively affluent Central region is home to 1.84 million poor individuals, approximately the same number of poor as in the poorest Northeast region.

Between 2007-08 and 2011-12, poverty declined in the North and in the West, while it increased substantially in the Northeast. As shown in Figure 10, poverty headcount remained substantially stable during the period in five out of the eight regions of Afghanistan¹⁴. Poverty declined in the North and in the West regions. In the North, poverty headcount declined by six percentage points, from 39 percent in 2007-08 to 33 percent in 2011-12. In the West poverty reduction was slightly more modest, decreasing from 34 percent to 30 percent over the same period. The Northeast was the only region that experienced strong deterioration in poverty, with the poverty headcount increasing dramatically from 36 percent in 2007-08 to almost 50 percent four years later. Because of this, poverty concentration increased between the two survey periods; in 2011-12, more than half of the Afghan poor lived in only three regions: Northeast, Central and East (Figure 11).

Figure 8: Poverty headcount and mean per capita expenditure, by location

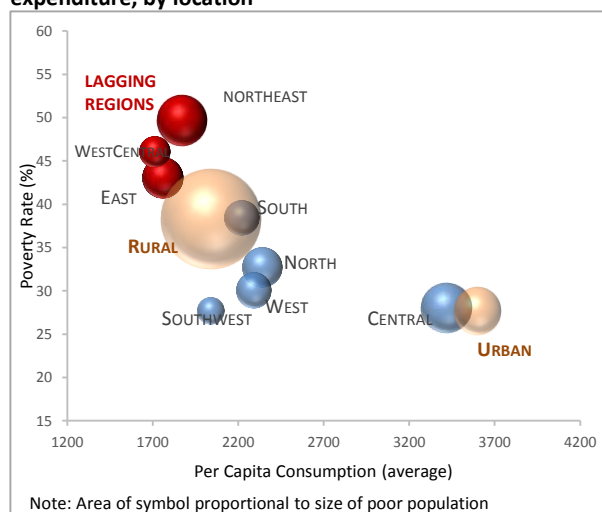
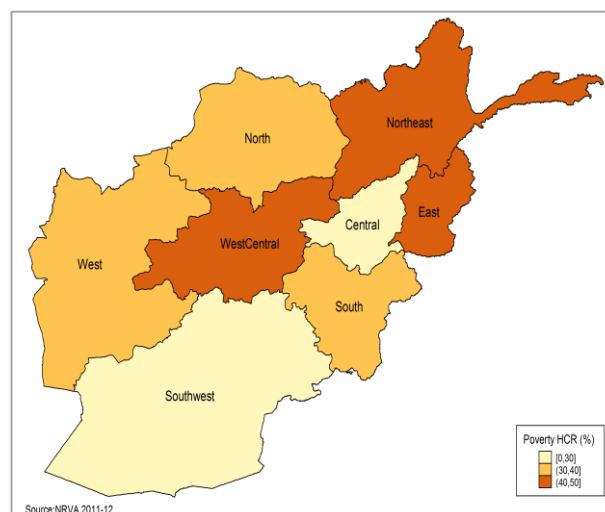


Figure 9: Poverty headcount (HC), by region



Notes: (a) Classification of provinces by regions is as follows: Southwest: Nimroz, (Helmand), Kandahar, Zabul, Urozgan; Central: Kabul, Kapisa, Parwan, Wardak, Logar, Panjsher; West: Badghis, Herat, Farah; North: Samangan, Balkh, Jawzjan, Sar-e-Pul, Faryab; South: Ghazni, Paktika, Paktya, (Khost); East: Nangarhar, Kunarha, Laghman, Nooristan; West-central: Ghor, Bamyan, Daykundi; Northeast: Badakhshan, Takhar, Baghlan, Kunduz.

(b) Provinces of Helmand in the Southwest and Khost in the South have been excluded from the analysis because of a lack of reliable consumption data.

Source: Authors' calculation using NRVA 2011-12.

¹⁴ In line with the previous discussion about the relation between welfare, aid and conflict -- poverty remained substantially unchanged in high conflict-high spending regions (Southwest, South, Central and East).

Figure 10: Trends in poverty headcount, by region

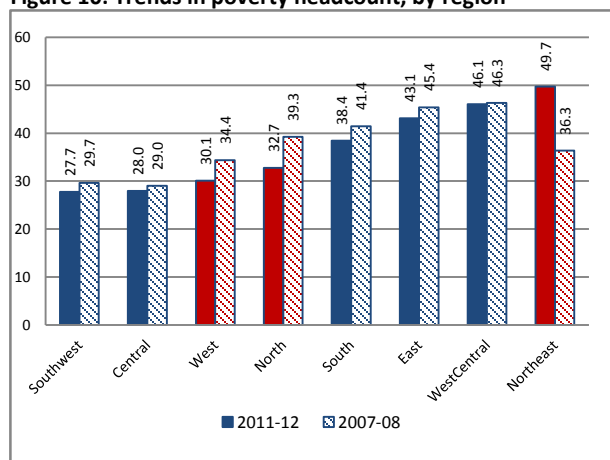
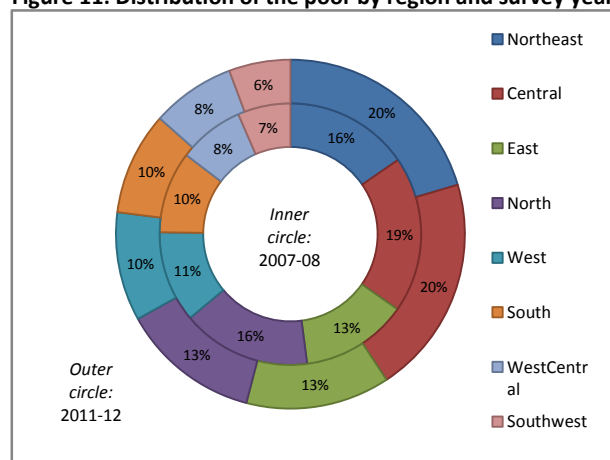


Figure 11: Distribution of the poor by region and survey year

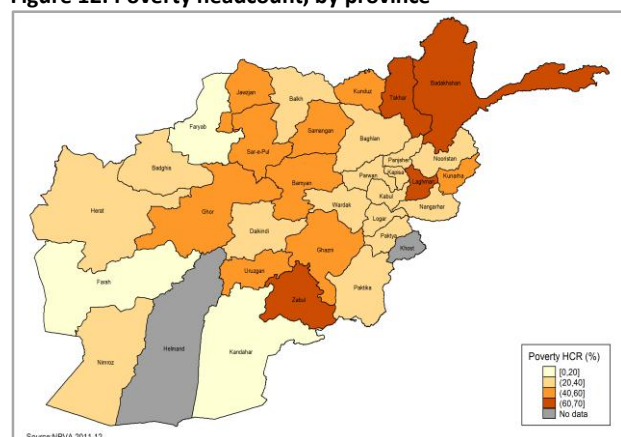


Notes: (a) changes in poverty over time are statistically significant in the West, North and Northeast (red histogram bars).

(b) Provinces of Helmand and Khost in the Southwest and Khost in the South have been excluded from the analysis because of a lack of reliable consumption data.

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Figure 12: Poverty headcount, by province



Notes: (a) Provinces of Helmand and Khost in have been excluded from the analysis because of a lack of reliable poverty data.

Source: Authors' calculation using NRVA 2011-12

Table 5: Provincial ranking, by size of poor population

Province	Nr. of poor	% of poor population	Poverty headcount
Kabul	1,033,730	11.37	24.4
Nangarhar	663,455	7.3	38.2
Herat	660,397	7.26	35.3
Takhar	610,028	6.71	65.4
Badakhshan	588,060	6.47	62.7
Ghazni	582,792	6.41	45.8
Kunduz	398,554	4.38	40.2
Ghor	378,068	4.16	53.0
Laghman	310,730	3.42	63.8
Sar-I-Pul	308,048	3.39	59.1

Afghanistan's administrative provinces also show striking differences in poverty outcomes and trends¹⁵.

In 2011-12 a person living in Kabul province consumed on a

verage 3910 Afs. per month, 60 percent more than the 1440 Afs. per month consumed by someone in the poorest province of Takhar. Similarly, poverty rates varied from less than 20 percent in Farah, Faryab and Kandahar provinces, to more than 60 percent in Takhar, Badakhshan, Zabul and Laghman (Figure 12). The 32 provinces with reliable poverty data from both survey years are near equally divided into three

¹⁵ As well documented in the Provincial Briefs report, differences between Afghanistan provinces are not confined to monetary measures of welfare, but encompass several other dimensions of wellbeing, such as food security, human development, and access to services and to labor market opportunities. Ministry of Economy Islamic Republic of Afghanistan, World Bank (2015) "Afghanistan Provincial Briefs", 2nd edition. Available at: <http://www.worldbank.org/en/country/afghanistan/publication/afghanistan-provincial-briefs>

categories: i) provinces in which poverty did not change (9 provinces); ii) provinces in which poverty increased (11 provinces), and iii) provinces in which poverty declined (12 provinces).

Poverty concentration is highest in more urbanized and densely populated provinces. As shown in Table 5, the three largest provinces in terms of size of poor population also have Afghanistan's three largest urban centers. Kabul province, despite its relatively low poverty rate (24 percent) and high standard of living, accounts for the most poor people (1.03 million), followed by Nangarhar (663 thousand) and Herat (660 thousand). Together with Takhar and Badakhshan – whose poverty rate is above 60 percent –, these first five provinces account for approximately 40 percent of the poor in Afghanistan.

Poverty in Afghanistan correlates to deprivation in other dimensions of wellbeing. Despite a strong geographical dimension, location is not the sole determinant of poverty in Afghanistan. As in many other developing countries, poverty in Afghanistan is associated with lack of education, weak labor market opportunities, and limited access to services. As shown in Table 6, in 2011-12 children below the age of 15 represented more than half of the poor. Moreover, 75.6 percent of the poor above the age of 15 were illiterate (compared to 63.4 percent of the non-poor), and only 7 percent have completed primary education. The human capital disadvantage of the poor corresponds to higher risk of unemployment, underemployment, employment vulnerability, or employment in agriculture¹⁶. Lastly, the poor are more likely to lack access to basic services such as electricity, safe drinking water and sanitation.

Table 6: Profile of the poor

	Poor	Non Poor
Age less than 15	53.0	45.4
Illiteracy rate (15+)	75.6	63.4
Completed primary (15+)	7.1	8.3
Unemployment rate	8.4	7.1
Underemployment rate	41.1	38.3
Vulnerable employment	84.3	76.7
Agriculture	43.6	35.6
Electricity access	63.8	74.9
Access to safe drinking water	40.3	49.6
Access to improved sanitation	2.8	12.2

Source: Authors' calculation using NRVA 2011-12

¹⁶ See Chapter 3 for an in-depth analysis of labor market outcomes.

INEQUALITY, GROWTH AND CONSTRAINTS TO POVERTY REDUCTION

Economic growth has not reduced poverty in Afghanistan because of increasing inequality. International evidence indicates that economic growth is important for poverty reduction. In the case of Afghanistan, the fact that poverty remained stable at 36 percent over a period of fast economic growth does not mean that growth is not necessary to lift Afghan's out of poverty. The problem is in the distribution of the gains. A closer look at growth, poverty, and inequality trends in Afghanistan shows that – had inequality not increased – the same levels of economic growth would have decreased poverty by approximately 12 percent, from 35.8 to 31.4 percent. In other words, had inequality remained at the same level of 2007-08, the growth elasticity of poverty reduction (GEPR) would have been 2.4, meaning that for every one percent increase in mean per capita expenditure, the associated poverty reduction is 2.4 percent, in line with international estimates.¹⁷

Between 2007-08 and 2011-12, welfare inequality rose considerably in the country. The Gini index¹⁸ increased from 29.7 in 2007-08 to 31.6 percent in 2011-12. Increasing inequality is particularly evident looking at the top and bottom ends of the distribution in per capita expenditure. As shown in Table 7, the quantile ratio of per capita consumption between the top 90th and bottom 10th percentile increased from 3.6 to 4, meaning that consumption of the 90th richest percentile is four times larger than the poorest 10th percentile. Across quintiles, the richest 20 percent of the population commands over 40 percent of total expenditure in Afghanistan, twice as much as the bottom 40 percent of the population (Figure 13).

Economic growth was not “pro-poor” and contributed to widening the gap between the poorest and the richest Afghans. Average per capita consumption grew at an annual rate of 1.2 percent between 2007-08 and 2011-12, but growth in consumption was not uniform along the welfare distribution, thus increasing inequality. As shown in Figure 14, growth in per capita consumption clearly skews towards higher expenditure groups; per capita consumption of the poor actually decreased by -0.17% during the period. While the poorest 20 percent of the population saw a 2 percent decline in real per capita expenditure, and the bottom 40 percent did not improve their per capita expenditure, the richest 20 percent experienced a nine percent increase.

Table 7: Quantile Ratio –Distribution of per-capita consumption

	p90/p10	p90/p50	p10/p50	p75/p25	p75/p50	p25/p50
2011-12	4.002	2.127	0.531	2.028	1.453	0.716
2007-08	3.591	2.021	0.563	1.947	1.423	0.731

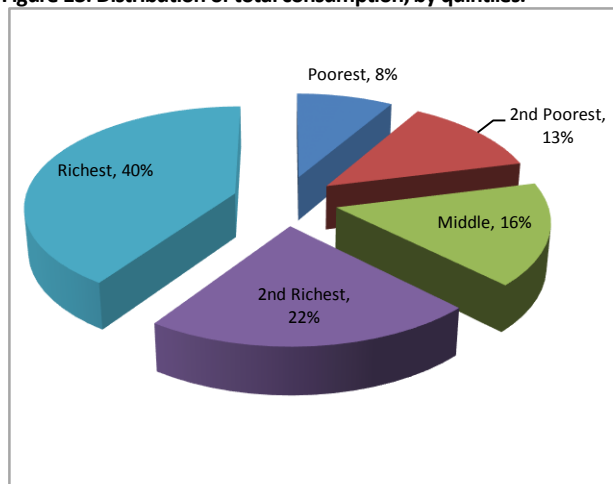
Notes: Provinces of Helmand and Khost were excluded from the original sample in both survey years.

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

¹⁷ Ravallion (2001) estimates the cross national elasticity of poverty reduction to growth to be about minus two, indicating that for every one percent increase in mean income, poverty is reduced, on average, by two percent.

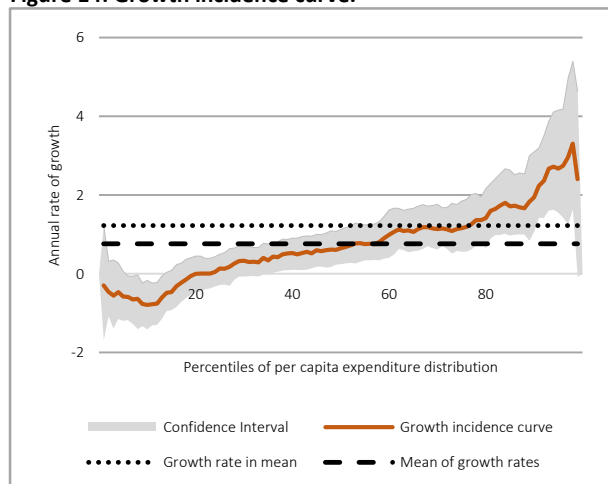
¹⁸ The Gini index measures the extent to which the distribution of consumption among individuals differs from an equal one. A value of 0 represents absolute equality with everybody consuming the same amount, a value of 100 absolute inequality, where all consumption is concentrated in one person.

Figure 13: Distribution of total consumption, by quintiles.



Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Figure 14: Growth incidence curve.



Differences across geographic regions combine with asset disparities among individuals within regions to cause inequality in Afghanistan. Differences in assets (particularly human capital) and differences in access to services and opportunities between the poor and the non-poor explain most Afghan inequality. However, differences between urban versus rural areas, as well as differences between regions and provinces also play an important role in inequality. We can assess the relative importance of geography-specific factors compared to individual characteristics by studying inequality “between” and “within” geographic areas (as measured by the Theil index¹⁹). As shown in Table 8, while disparities among individuals within each geographic area explains most inequality, geographic inequality account for a sizeable share of overall inequality in Afghanistan. In 2011-12, the share of total inequality explained by spatial differences varied from 19 percent in the case of rural/urban or regional differences, to 26 percent in the case of interprovincial disparities.

Contribution of regional disparities to total inequality has increased significantly over time. In 2007-08, differences between regions explained 15 percent of the country’s inequality. By 2011-12, the regional share had increased to 19 percent of total national inequality. Widening regional disparities suggests that regions with lower living standards—the Northeast, East and West-Central lagging regions (Figure 8)—inhibit the country’s growth and poverty reduction. In particular, deteriorating welfare in the populous Northeast accounted for much of interregional differences and lack of total national poverty reduction²⁰. The Northeast region has the highest concentration of poverty with a poor population of 1.86 million in 2011-12. Between 2007-08 and 2011-12, residents in the Northeast experienced an 8 percent decline in mean per capita expenditure, propelling approximately another 545 thousand people into poverty.

¹⁹ Theil indexes are measures of inequality that allow a decomposition of total inequality into “within group” and “between group” inequality. The formula for the Theil-T – GE(1) - index used in the analysis is $GE(1) = \frac{1}{N} \sum_{i=1}^N \frac{y_i}{\bar{y}} \ln \left(\frac{y_i}{\bar{y}} \right)$

²⁰ Evidence presented in Chapter 3 and 4 suggests that livelihoods of households living in the North East and engaged in agriculture were severely affected by a drought in 2011-12.

Table 8: Inequality decomposition – Theil Index

	2011-12	2007-08	Percentage Change
TOTAL INEQUALITY	17.59	15.67	12.28
URBAN/RURAL			
Within Group (WG)	14.14	12.07	17.19
Between Group (BG)	3.45	3.60	-4.22
% of BG to total	19.60	22.97	-14.70
REGION			
Within Group (WG)	14.31	13.31	7.51
Between Group (BG)	3.28	2.36	39.17
% of BG to total	18.67	15.06	23.95
PROVINCE			
Within Group (WG)	12.97	11.12	16.62
Between Group (BG)	4.62	4.55	1.63
% of BG to total	26.28	29.03	-9.48

Source: Authors' calculation using NRVA 2007-08 and 2011-12

Table 9: Regional contribution to national poverty headcount and GEPR

Excluded region	National Poverty HC Rate in 2007-08 excluding one region	National Poverty HC Rate in 2011-12 excluding one region	% Change in National Poverty HC rate excluding one region	% Change pc consumption excluding one region	Growth Elasticity of Poverty Reduction (GEPR)
Central	38.58	38.49	-0.23	1.10	-0.21
South	35.76	35.51	-0.72	4.05	-0.18
East	35.19	34.85	-0.96	5.76	-0.17
Northeast	36.25	33.37	-7.96	6.84	-1.16
North	35.75	36.26	1.45	3.61	0.40
West	36.52	36.54	0.06	4.61	0.01
Southwest	36.84	36.40	-1.18	7.59	-0.16
West-central	35.58	35.11	-1.34	5.01	-0.27
Lagging (East, Northeast & West-central)	33.89	30.66	-9.51	8.10	-1.17

Notes: In each counterfactual we have removed one of the regions from the analysis; we then estimate the national poverty rate and the growth elasticity of poverty reduction (GEPR) by aggregating the remaining seven regions.

Source: Authors' calculation using NRVA 2007-08 and 2011-12

Table 10: Inequality trends in lagging and non-lagging regions

Gini	2007-08	2011-12
Lagging Regions	28.1	26.7
Non Lagging Regions	29.2	31.1

Source: Authors' calculation using NRVA 2007-08 and 2011-12

Afghanistan's very low growth elasticity of poverty reduction (GEPR) is a consequence of the lagging East, West-Central and especially Northeast regions. Between 2007-08 and 2011-12, growth did not lead to poverty reduction in Afghanistan—national GEPR was zero. As shown in Table 9, the lagging of the East, West-Central and Northeast regions limited the impact of growth on poverty reduction nationally. Indeed, when computing GEPR without the lagging regions, poverty for the rest of the country would have fallen by 9.5 percent, and the GEPR would have been 1.17. Eliminating the Northeast from the calculation, Afghanistan as a whole would have experienced an 8 percent reduction in poverty. The resultant GEPR of 1.16 in this “counterfactual” scenario is comparable to other low-income developing countries.

Lack of growth in “lagging regions” accounts for widening geographic inequality, whereas the growth of “non-lagging” regions accounts for increased inequality between Afghanistan's poorest and richest. As shown in Table 10, inequality within the lagging regions fell between 2007-08 and 2011-12, as measured by the Gini coefficient, while it increased within the remaining regions. As discussed in Chapter 3, most increase in inequality in non-lagging regions stems from increased labor market returns to education.

Differences in allocation of aid and weather-related shocks in lagging regions seem to explain widening inequalities and lack of poverty reduction. Increased aid between 2007 and 2011 targeted high-conflict areas relatively more. Aid increased in non-lagging regions by 79 percent over the period compared to only 31 percent in lagging regions. As further discussed in Chapter 4, besides less aid, lagging regions had more droughts and weather related shocks, especially the Northeast. Lower aid and weather shocks combine to explain welfare deterioration in lagging regions and widening geographical inequality. On the other hand, because the jobs created by aid requires minimum literacy to attain, it is not surprising that returns to education increase faster in regions with more aid, which in turn increases inequality and inhibits the impact of growth on poverty reduction.

Chapter 2 – Human Development and Equality of Opportunities

Summary: For poverty and inequality to be successfully reduced, progress in human development outcomes should contribute to closing existing gaps between the poorest and the richest, reducing spatial disparities and, ultimately, equalizing opportunities. Between 2007-08 and 2011-12, Afghanistan experienced broad national improvement in human development and access to basic services, but progress has not been even. The gap in education between the richest and the poorest increased. Expanded service delivery to rural areas driven by international spending reduced the urban-rural gap in access to basic services, but not the education gap, largely because of the negative effect of conflict on girls' enrollment. Educational outcomes in lagging regions stagnated while the access gap to basic services has increased.

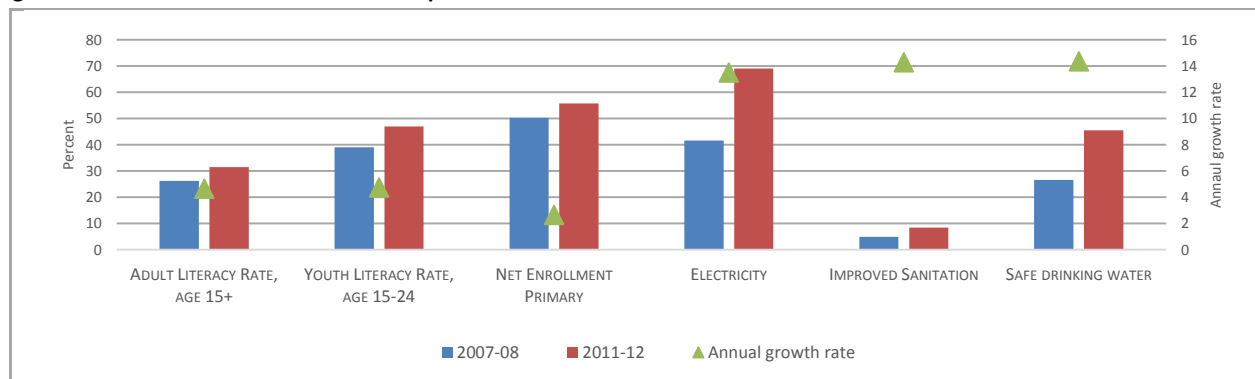
While expanding services to rural areas has contributed to equalizing opportunities for Afghan children, substantial inequality persists for girls, rural children, and children with uneducated parents.

TRENDS IN HUMAN DEVELOPMENT AND ACCESS TO BASIC SERVICES

The lack of progress in poverty reduction occurred in a context otherwise characterized by continuous improvements in human development outcomes. Increase in public investment, fueled by international aid, accompanied progress in human development. Over the period 2007-08 to 2011-12, literacy rates for the population aged 15 and above grew by almost five percent annually, rising from 26.2 percent in 2007-08 to 31.4 percent in 2011-12. Youth literacy rates improved similarly (Figure 15), as did some available health indicators²¹.

Investments in infrastructure have improved access to basic services, such as water, sanitation and electricity. Expansion of health and education services has gone hand-in-hand with the development of physical infrastructures. Access to electricity, access to safe drinking water, and access to improved sanitation have all improved, growing annually by approximately 14 percent each (Figure 15). Between 2007-08 and 2011-12, the share of the population with access to safe drinking water increased from 26.6 percent to 45.5 percent; the population with access to electricity increased from 41.7 percent to 69 percent; and the population with access to improved sanitation increased from 4.9 percent to 8.2 percent.

Figure 15: Trends in selected human development outcomes



Source: Authors calculations based on NRVA 2007-08 and 2011-12.

²¹ The lack of a health component in the 2011-12 NRVA limits the ability to analyze health outcomes. Nevertheless, the progress registered between the two NRVA rounds in maternal health outcomes gives a very positive insight into health sector developments. Between 2007-08 and 2011-12, access to skilled antenatal services increased from 30.4 percent to 51.3 percent, and the share of births assisted by skilled attendants increased from 22 percent to 40.6 percent.

Table 11: International comparisons, selected outcomes.

Country/Region	Adult Literacy Rate, age 15+	Youth Literacy Rate, age (15- 24)	Net Enrollment Rate, Primary	Access to:		
				Electricity	Improved Sanitation	Safe drinking water
Afghanistan (2011-12)	31.44	46.99	55.77	69.11^(a)	8.42	45.49
Fragile / conflict- affected	67.56	74.84	73.59	40.29	44.12	66.73
Low income	60.36	71.43	82.46	31.25	37.12	68.74
South Asia (SAR)	61.36	79.29	89.80	74.46	39.83	91.17
Bangladesh	58.79	79.94	91.55	55.20	57.00	84.80
Bhutan	52.81	74.41	90.59	72.00	46.90	98.10
India	62.75	81.13	93.34	75.00	36.00	92.60
Maldives	98.40	99.30	94.48	99.90	98.70	98.60
Nepal	57.37	82.35	98.48	na	36.70	88.10
Pakistan	54.74	70.77	72.46	91.37	47.60	91.40
Sri Lanka	91.18	98.16	93.79	85.10	92.30	93.80
PROJECTIONS^(b)						
# years to low income	20.3	11.2	18.4	(-)	25.6	3.8
# years to fragile average	25.4	12.8	12.3	(-)	31.8	3.5
# years to SAR average	21.0	14.8	23.4	0.6	28.0	7.5

Note: (a) This indicator refers to access to electricity from any source (grid, generator, solar, and so forth). If we restrict to grid sources only, access to electricity would have been 20 percent in 2007-08 and 26 percent in 2011-12. (b) Projections based on the assumption there will be a constant pace of improvement from 2007-08 and 2011-12 performances.

Source: Authors calculations based on NRVA 2007-08 and 2011-12 (Afghanistan) and WDI (2015).

Despite indisputable progress, Afghanistan is still a long way from closing its human capital and infrastructure gap. Decades of conflict have contributed to the current Afghanistan's human capital and infrastructures deficit and, despite recent investments, the gap remains considerable when comparing Afghanistan with other countries in South Asia, or to low-income, or other fragile/conflict-affected countries. The magnitude of the challenge is even more striking when considering the time it will take Afghanistan to raise development indicators near to these "comparator" countries, even under the optimistic scenario that the pace of progress for each indicator will remain constant to peak international assistance years from 2007-08 to 2011-12. Focusing on education outcomes alone, it will take Afghanistan from 20 to 25 years to achieve the same level of adult literacy of other South Asian, fragile or low Income comparators; from 11 to 15 years for the same level of youth literacy; and from 12 to 23 years for the same level of primary school enrollment (Table 11).

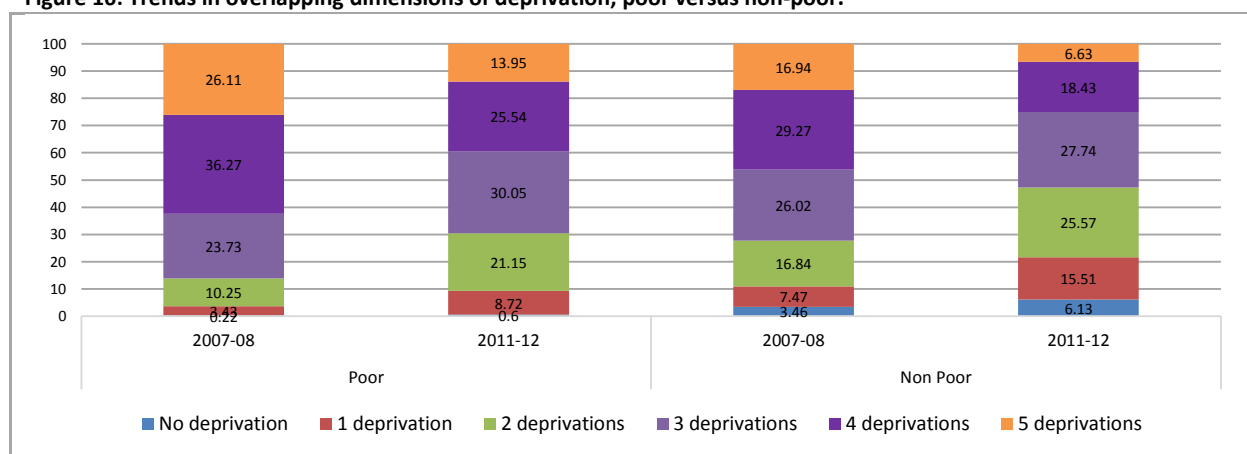
HUMAN DEVELOPMENT TRENDS, POVERTY AND INEQUALITY

Poverty and inequality closely intertwine with human development. As seen in Chapter 1, poverty in Afghanistan strongly correlates with deprivations in other dimensions of wellbeing, especially with lack of education and with limited access to services. For poverty and inequality to be successfully reduced, progress in human development should contribute to closing gaps between the poorest and the richest segments of the population, reducing geographic disparities and, ultimately, equalizing opportunities.

Between 2007-08 and 2011-12, Afghanistan achieved considerable progress reducing the proportion of households experiencing multiple deprivations related to education and/or access to services. From data on education and access to basic services, we constructed five deprivation indicators: (i) household head is illiterate; (ii) any child under 12 in the household is not currently in school; (iii) household does not have access to electricity; (iv) household does not have access to improved sanitation; (v) household does not have access to safe drinking water. Overall, households suffering three or more deprivations declined from 77 percent in 2007-08 to 59 percent in 2011-12.

Despite progress, poor households are more likely to suffer deprivation along multiple dimensions of welfare. On average, in 2011-12 poor households suffered deprivation along 3.1 dimensions simultaneously, significantly more than non-poor households, which suffer deprivation along 2.6 dimensions²². The incidence of overlapping deprivations declined between 2007-08 and 2011-12 (Figure 16). In 2011-12, 70 percent of poor households suffered three or more deprivations, down from 86 percent in 2007-08, whereas non-poor households suffering from three or more deprivations declined from 72 percent in 2007-08 to 53 percent in 2011-12. Reduction in overlapping deprivation was relatively faster for non-poor households. Poor households in 2011-12 had the same average number of deprivation suffered by their non-poor counterparts in 2007-08, and a lower incidence of three or more deprivations.

Figure 16: Trends in overlapping dimensions of deprivation, poor versus non-poor.



Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Between 2007-08 and 2011-12, the gap in education between poor and non-poor Afghans widened. Children in poor households have significantly lower enrollment rates than their counterparts in non-poor households. As shown in Figure 17, the likelihood of a child being in school increases with household welfare. In 2011-12, differences in enrollment between the poorest and richest quintiles were 25 percentage points for children aged 7-12 and 31 percentage points for children aged 13-18 (Figure 18). Improvements in school enrollment have been stronger for the richest segments of the population, widening the education gap between the poor and non-poor.

The gap in access to basic services between the poor and non-poor also widened, except in the case of access to electricity. Expansion in basic services delivery between 2007-08 and 2011-12 has been impressive, but it has most benefited relatively better-off segments of the population. The gap between the poor and the non-poor in terms of access to safe drinking water increased from 6.9 percentage points in 2007-08 to 9.3 percentage points in 2011-12, while the gap in access to improved sanitation increased

²² Corresponding figures in 2007-08 were 3.7 for poor households and 3.2 for non-poor households.

from five percentage points in 2007-08 to 9.5 percentage points in 2011-12. The only exception to this pattern between poor and non-poor is improvement in electricity access, which was stronger for the poor thanks to expanded use of battery and solar energy sources. Virtually non-existent in 2007-08, solar energy became the main source of electricity for the poor in 2011-12.

Figure 17: Percent of children [aged 7 to 12] in school

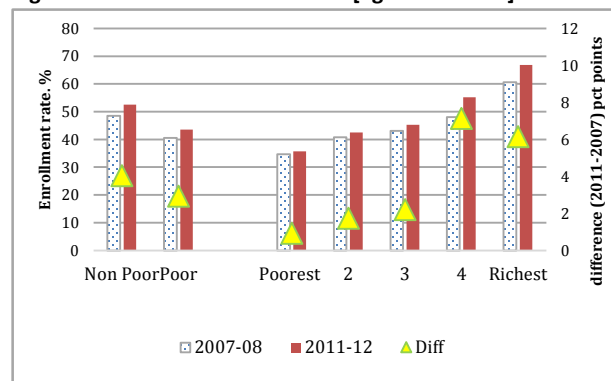
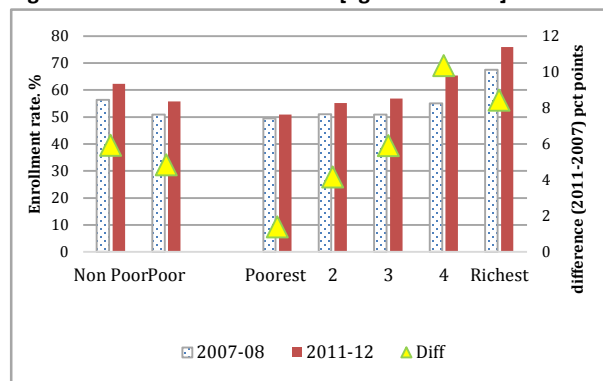


Figure 18: Percent of children [aged 13 to 18] in school



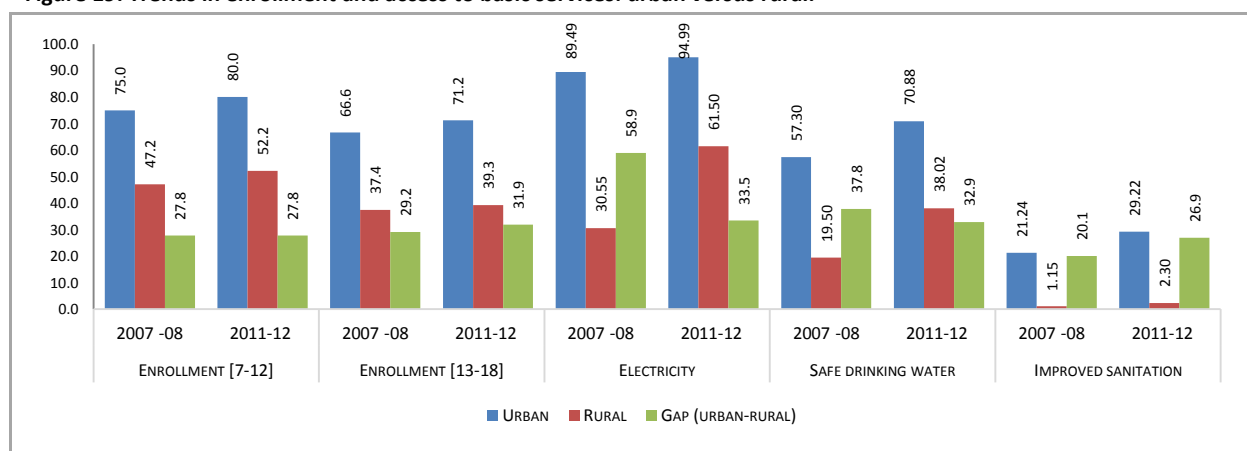
Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Table 12: Trends in access to services: poor versus non-poor.

		Non-poor	Poor	Gap (NP-P)
Access to electricity	2007-08	49.0	32.8	16.1
	2011-12	74.9	63.8	11.1
	Diff			-5.0
Access to safe drinking water	2007-08	29.8	22.8	6.9
	2011-12	49.6	40.3	9.3
	Diff			2.4
Access to improved sanitation	2007-08	6.8	1.7	5.0
	2011-12	12.2	2.8	9.5
	Diff			4.4

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Figure 19: Trends in enrollment and access to basic services: urban versus rural.



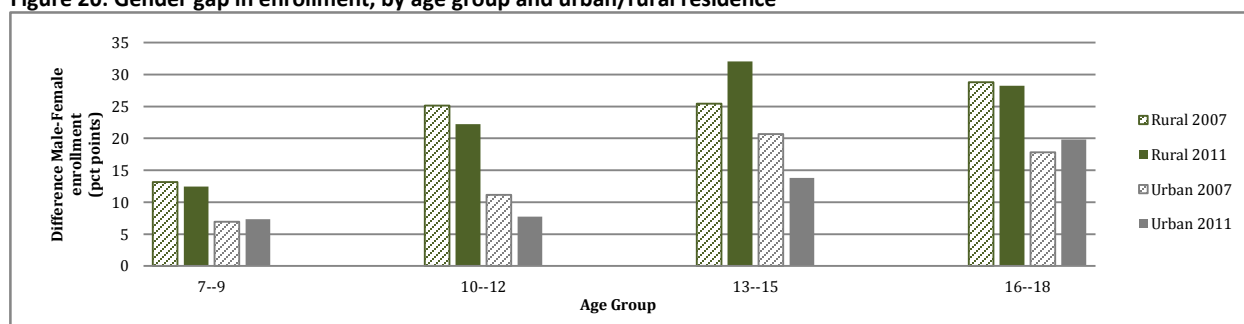
Source: Authors' calculation using NRVA 2007-08 and 2011-12.

The urban-rural gap in access to basic services decreased, but not the education gap. As shown in Figure 19, enrollment for children aged seven to 12 improved at an equal rate in urban and rural areas, leaving the urban-rural gap unchanged between 2007-08 and 2011-12. Over the same period, the urban to rural gap in enrollment for children aged 13-18 increased, mostly due to deteriorating girls' enrollment in rural areas. Public investment in rural areas has been particularly effective in closing the urban-rural gap in access to basic services. Figure 19 shows that the access to service gap between urban and rural areas decreased between 2007-08 and 2011-12, except for improved sanitation, for which access remain almost exclusively restricted to urban areas.

Limited improvement in rural girl's education explains the lack of progress in reducing differences in educational outcomes between rural and urban areas. As shown in Figure 20, differences in enrollment rates between boys and girls remained sizeable, and changes between boys and girls varies depending on the age group and location. In general, the enrollment gap between boys and girls is highest in rural areas and increases with age. Between 2007-08 and 2011-12, the gender gap in enrollment remained near constant for the seven to nine and the 16-18 age groups, narrowed for the 10-12 age group, and increased for the 13-15 age group, due to the lack of improvement over time in rural girls' enrollment.²³

Increased insecurity poses a severe challenge to reducing the gender gap in education. Insecurity, together with poverty and early marriage, is a top obstacle to the improvement of women's education outcomes²⁴. As shown in Figure 21, the ratio of girls to boys net attendance rates tend to be lower in high conflict provinces at both the primary and the secondary level. Conflict affects education outcomes of children through two main channels. First, conflict decreases demand for schooling as parents fear sending their children to school. Returns to education are higher for boys, so girls may be affected relatively more by conflict²⁵. Parents may also perceive the risk of violence to be higher for girls. Second, conflict limits the ability of government to deliver services, and since local support for girls' education is traditionally weaker in areas affected by insurgency, lack of civil servant access could be particularly detrimental to girls' education²⁶.

Figure 20: Gender gap in enrollment, by age group and urban/rural residence



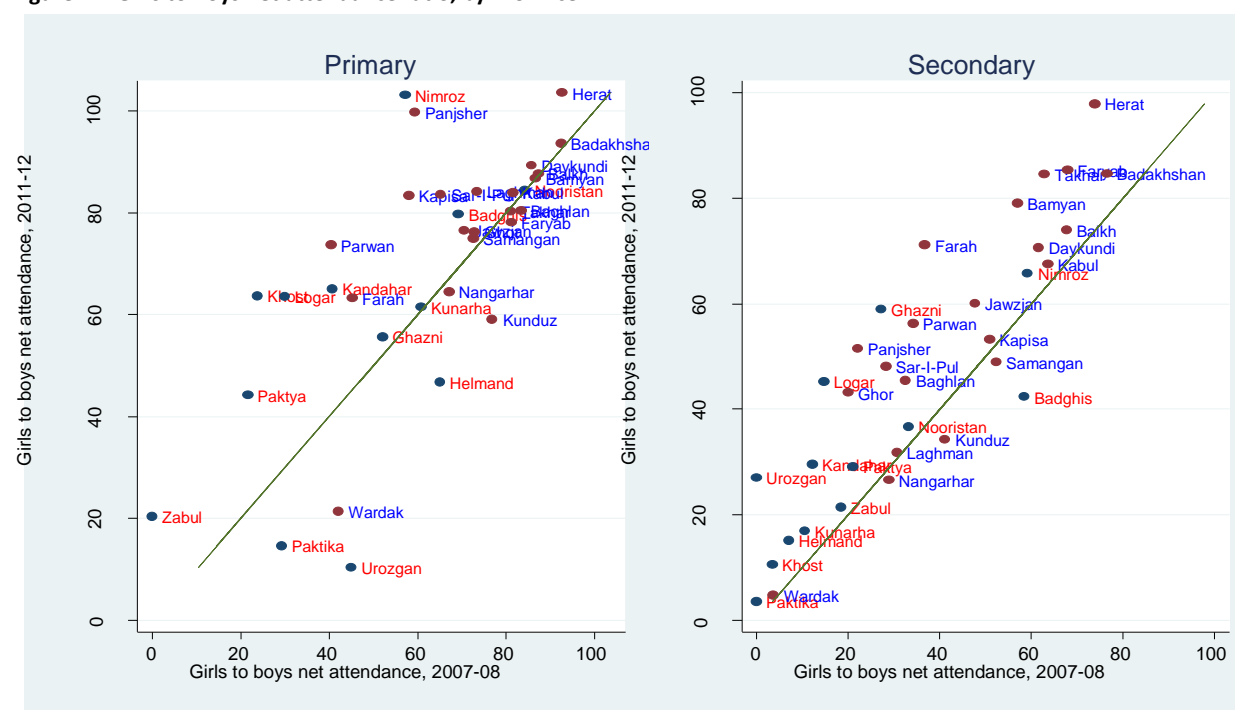
Source: Authors' calculation using NRVA 2007-08 and 2011-12.

²³ For the 10-12 age group, the improvement in girls' enrollment outpaces that of boys in both rural and urban areas. On the other hand, for the 13-15 age group, enrollment of girls in rural areas did not change over time, against a 6.4 percentage point improvement of boys' enrollment.

²⁴ Security shocks have the greatest negative effect on children's school attendance and disproportionately affected girls' secondary schooling. Households exposed to security shocks were fifty percent more likely to have a girl than a boy (aged 10-15) not attending school. See Chapter 4.

²⁵ Similarly, faced with scarcity of resources (inputs in the production of human capital) or job opportunities (return to investments in human capital), families may decide to spend their resources on the investments that are more likely to yield higher returns. See Justino 2010; Chamarbagwala and Morán 2011, and Shemyakina 2011.

²⁶ See World Bank (2014b).

Figure 21: Girls to Boys net attendance ratio, by Province

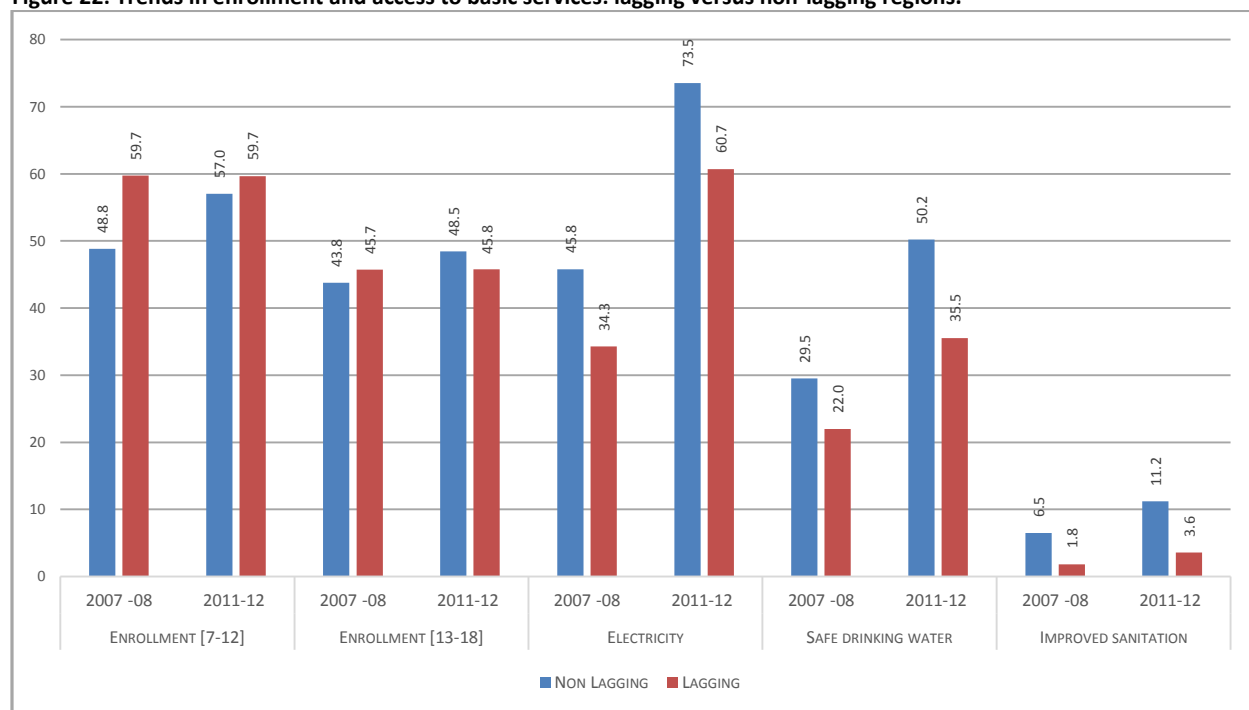
Notes: High conflict provinces indicated in red

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Educational outcomes in lagging regions stagnated, while the gap in access to basic services increased for non-lagging regions. As shown in Figure 22, in 2007-08 lagging regions (i.e. East, Northeast and West-Central) enjoyed better educational outcomes, but worse basic service access. Four years later, lagging regions lost much of this education advantage—largely due to a drop in enrollment rates in the Northeast—and fell further behind in access to basic services. Moreover, the gaps between lagging and non-lagging regions in access to safe drinking water, improved sanitation, and electricity increased by 7.2, 3, and 1.3 percentage points, respectively.²⁷ These results are in line with observed trends in welfare described in Chapter 1. As lagging regions benefited relatively less from the increase in aid between 2007-08 and 2011-12, it is not surprising to observe a widening of the gap in access to services over time. Moreover, the higher incidence of shocks in lagging regions and the associated drastic reduction in consumption in the Northeast could be the main driving force behind the decline / lack of improvement in education outcomes in these regions.²⁸

²⁷ All changes to gaps between lagging and non-lagging regions are statistically significant with 99 percent confidence.

²⁸ Shocks can account for deteriorating human capital investments and performance in lagging regions. This is discussed further in Chapter 4.

Figure 22: Trends in enrollment and access to basic services: lagging versus non-lagging regions.

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

TRENDS IN EQUALITY OF OPPORTUNITIES

Has improved service delivery helped equalize opportunities for Afghan children? Improvements in service access have been very unequal. Inequalities weaken overall prosperity and future economic growth, so understanding how they limit opportunities for new generations is important. Equality of opportunity requires that access to services not depend on circumstances beyond a child's control, such as gender, location of a child's home, or other household characteristics. The Human Opportunity Index (HOI) (Barros et al., 2009), which combines service coverage and equity in a single measure, is useful to analyze the evolution of equality of opportunity in Afghanistan (Box 3)²⁹. Using HOI, we measure how the circumstances of different social groups—such as gender, the location of a person's home (rural or urban; province of residence), and the literacy status of the household head—impact opportunities for children as measured by access to schools, electricity, safe drinking water, and improved sanitation.

Between 2007-08 and 2011-12, opportunities for Afghan children have become more equal, especially when considering access to electricity and safe drinking water. Between 2007-08 and 2011-12, equality of opportunities, as measured by the HOI, increased for all dimensions of education and basic services. As shown in Figure 23, equality of opportunity increased most in access to electricity and to safe drinking water³⁰, while improvement in equality of opportunities for access to education and sanitation were less strong.

²⁹ HOI considers: (a) how far a country is from universal coverage of basic goods and services; and (b) the equality to which these good and services accrue across different groups.

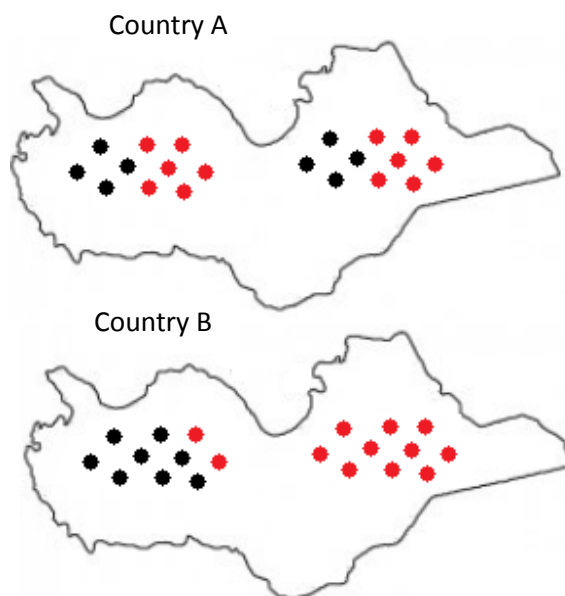
³⁰ Between 2007-08 and 2011-12, the HOI for access to electricity increased by 19 percentage points and the HOI for access to safe drinking water by 14 percentage points.

Box 3: Stylized example of the Human Opportunity Index (HOI).

Consider two countries, A and B, each with total population distributed equally in ten Western communities and ten Eastern communities. The average rate of access to school is 60 percent for both countries. In the figure, red-colored communities illustrate communities with access to school.

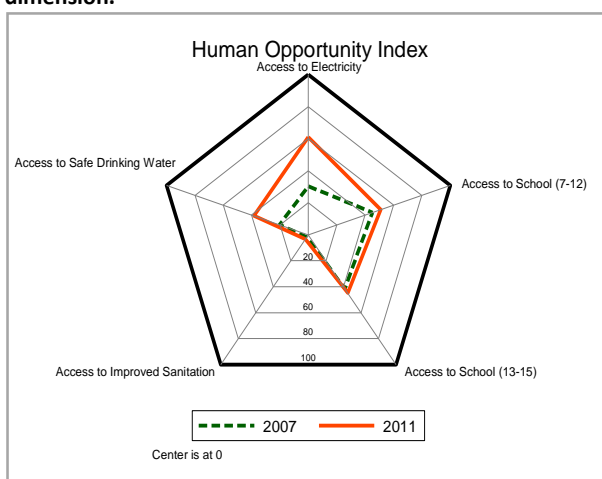
It is evident that access to school is distributed differently among the population in country A and B. In country B, children in Western communities have a 20 percent probability of accessing schooling, and children in Eastern communities have a 100 percent probability.

Equality of opportunity will hold true for each country if Western and Eastern communities have the same rate of coverage. But, while school coverage in country A is 60 percent for both Western and Eastern communities, this is not true in country B. This suggests that inequality of opportunities is therefore higher in country B. The “dissimilarity index” (D-index) is the share of total enrollment that is “misallocated,” namely is 0/12 for country A and 4/12 for country B. The Human Opportunity Index (HOI) is then calculated as the school coverage rate multiplied by 1 minus the D-index (i.e. by the share that is equitably allocated). In other words, HOI penalizes country B for its inequitable coverage rate. Therefore, $HOI_A = C_0 (1-D) = 0.6 * (1-0) = 0.60$; $HOI_B = C_0 (1-D) = 0.6 * (.33) = 0.40$.



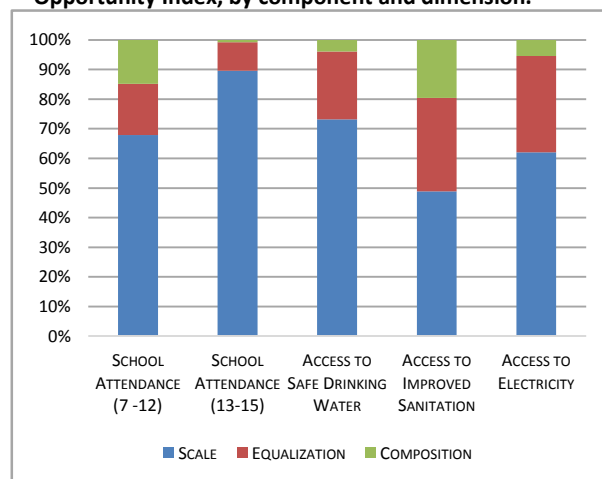
Expansion in service coverage drove most of the improvement in equality of opportunities between 2007-08 and 2011-12. Changes in the HOI can be broken down into three components: (i) a *scale effect*, or the proportional change in coverage across all different circumstances groups; (ii) an *equalization effect*, or the change in coverage of “under-covered” groups while keeping overall coverage constant, and (iii) a *composition effect*, or the changes in the distribution of circumstances among the population. As shown in Figure 24, the “scale effect” is the single-most important determinant of HOI improvement in Afghanistan, and particularly for school attendance and access to safe drinking water. The equalization component has been relatively more important in explaining improvement in opportunities for access to sanitation and electricity, accounting for about 30 percent of the change. Lastly, the composition effects has been relatively more important in explaining improvement in opportunities for access to improved sanitation (19 percent) and access to school for kids aged 7-12 (15 percent), possibly reflecting increased literacy of head of households.

Figure 23: Trends of the Human Opportunity Index, by dimension.



Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Figure 24: Decomposition of changes in the Human Opportunity Index, by component and dimension.

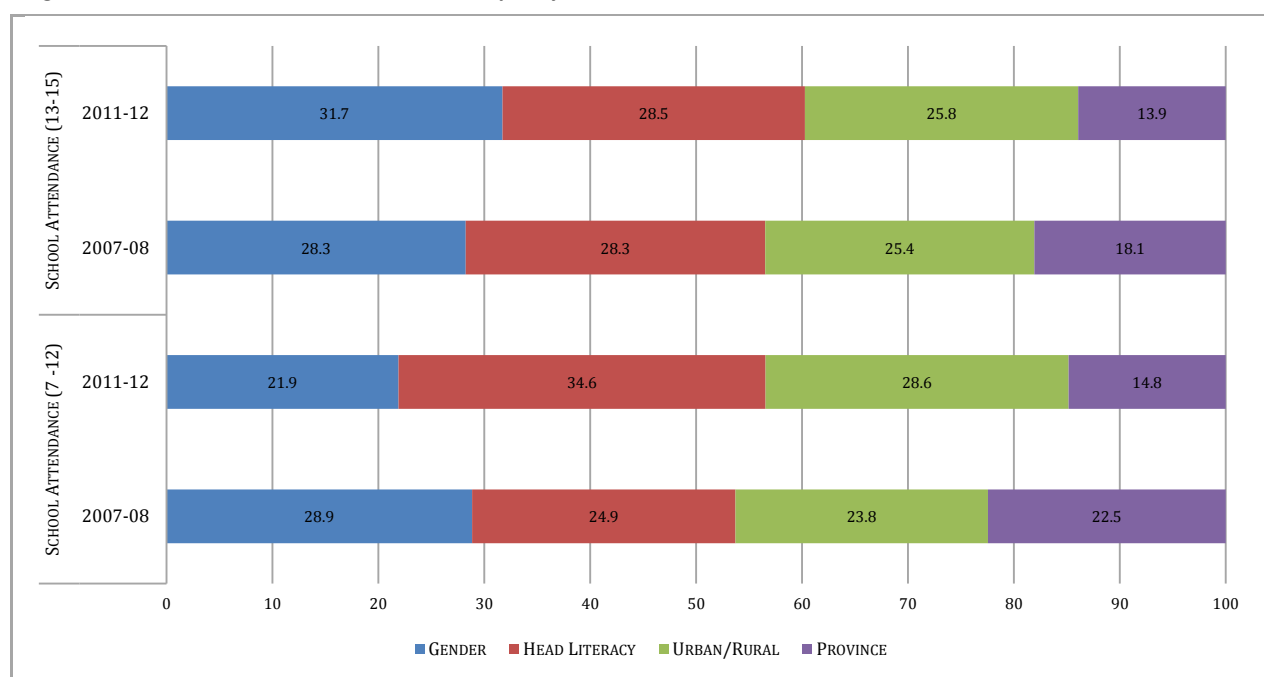


Individual and household background characteristics are important in explaining differences in educational opportunities. Gender and literacy status of the head of household combine to account for more than half of differences in opportunities in education of Afghan children (Figure 25). Consistent with previous findings, the importance of gender in explaining unequal education opportunities for the 13-15 age group increased between 2007 and 2012. In 2007, gender explained slightly more than one-fourth of the differences in access to education for this age group. Four years after, gender explained almost one-third of the difference, likely because of deteriorating security and its disproportional effect on girls' education.

Urban versus rural, and provincial disparities, explain most of inequality in opportunity for basic service access. Living in an urban or rural location explains anywhere from about 48 to 66 percent of inequality in infrastructure opportunities, and all spatial inequalities altogether explain from 60 to 84 percent of these inequalities (Figure 26).³¹ The relative contribution of provincial inequality has increased over time, possibly reflecting the impact of unequally distributed aid/investment throughout Afghanistan's territory. It is noteworthy that equalizing expansion of access to electricity, driven by solar energy, has both reduced spatial inequalities while increasing the importance of household head literacy. This provides a useful example of how investments in infrastructure and human capital can complement one another.

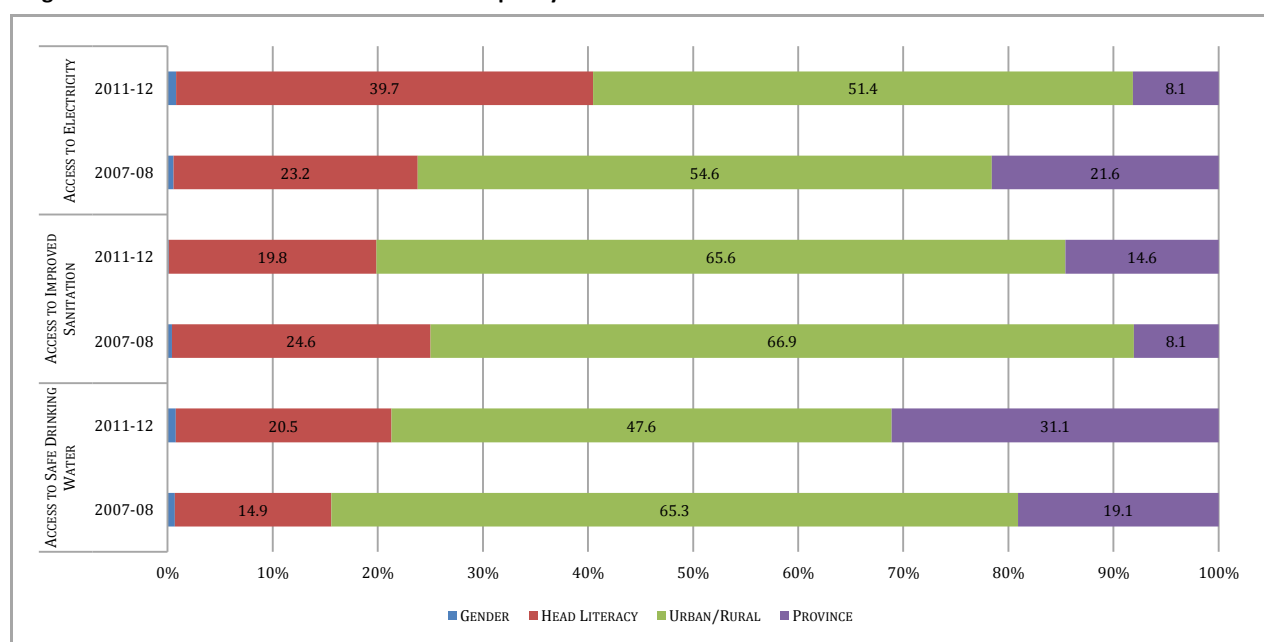
³¹ Note that gender is not contributing to inequality in access to basic services as the survey collects information at the household level and does not include information disaggregated by gender on access/use of basic services.

Figure 25: Contribution of circumstances to inequality index in access to school.



Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Figure 26: Contribution of circumstances to inequality index in access to basic services.



Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Chapter 3 –Labor Market Trends and Poverty Reduction

Summary: Growth is “inclusive” and contributes to poverty reduction when it creates better employment opportunities for the majority of the labor force, and particularly for the poor. Between 2007-08 and 2011-12, aid-led growth contributed to job creation outside the agriculture sector and to the reduction of more vulnerable, informal types of employment. However, improvement in labor market opportunities did not benefit Afghan workers equally. The service sector was the primary driver of employment, but 80 percent of new jobs were in informal day labor arrangements. The public sector and employment in health and education-related services also spurred job growth, but the new formal jobs in these sectors were primarily for high skilled workers. Lacking the human capital necessary to take advantage of better quality jobs, the poor were left at the margin of labor market improvements in Afghanistan. Moreover, improvement in labor market outcomes did not benefit Afghanistan’s regions equally and were strongest in non-lagging regions, possibly reflecting the relatively greater inflow of aid into these regions.

LABOR MARKET PROFILE

Low female participation in the labor force, and high youth unemployment, are major labor market challenges in Afghanistan. Changes in the questionnaires between the two NRVA household survey rounds limit analysis of trends in labor market outcomes of Afghan women and youth³². Still, analysis of 2011-12 data alone reveals that low female labor force participation and high youth unemployment persist in Afghanistan (Table 13). Female labor force participation is extremely low, especially in urban areas, reflecting and increasing their social and economic vulnerability. Youth unemployment is estimated at 9.7 percent, only two percentage points above the national unemployment rate, but the youth unemployment gap is strongest in urban areas, as much as 50 percent higher than overall urban unemployment.

With a young and growing population, high economic dependency represents a key poverty reduction constraint. According to the NRVA 2011-12 data, for every 10 Afghans aged 16 and above, less than five have jobs. Of these five, two are likely to be underemployed; that is, working less than 40 hours per week. With only 3.9 million Afghans fully employed in a total population of over 27 million, reducing poverty is depends on improving the quality of jobs and creating more opportunities for economic participation, especially for women and youth.

Box 4: Definition of labor market indicators

Labor market indicators used in this chapter follow official definitions. Minor deviations from official definitions were introduced to allow comparability between the two survey years (see Annex2).

Working Age Population (WAP). All persons aged 16 and over (*note: 14 + in official definition*);

Labor Force (LF): All persons in WAP who are active, i.e. employed or unemployed

Labor Force Participation Rate (LFPR): Labor Force as a share of the Working Age Population (WAP).

Employed. All persons in WAP who, during the reference period of one week, engaged in paid employment or self-employed, and who worked for at least eight hours.

³² Due to data limitations, we can only analyze labor market trends between 2007-08 and 2011-12 for the subsample of males in the 25 to 50 age group. See Annex 2 for a detailed discussion.

Underemployed. All persons aged 16 and over who, during the reference period of one week, are employed but worked for less than 40 hours. (*note: official definition also includes requirements of availability/willingness to work for additional hour*)

Unemployed. All persons in WAP, during the reference period of one week, were: (i) without any work, or working less than eight hours, and (ii) seeking work.

Labor under-utilization (not gainfully employed). All persons in WAP who are unemployed or underemployed.

Informal (vulnerable) employment. All persons in WAP who are either (i) self employed; (ii) day laborer, and (iii) contributing family workers.

Table 13: Labor market indicators by gender and area of residence, 2011.

		Labor Force Participation	Under-Employment	Unemployment
Urban		45.5	23.4	9.1
	Female	12.8	58.4	16.9
	Youth	35.9	23.4	13.7
Rural		53.8	42.4	7.2
	Female	21.2	71.0	15.3
	Youth	49.7	40.1	8.5
National		51.7	38.2	7.7
	Female	19.1	68.8	15.6
	Youth	45.7	36.5	9.7

Source: Authors' calculation using NRVA 2011-12.

Figure 27: Sectoral distribution of employment by area of residence, 2011.



Source: Authors' calculation using NRVA 2011-12

Despite service sector-led growth, agriculture remains the primary employment sector in Afghanistan. In 2011-12, approximately 40 percent of the Afghan labor force worked in the agriculture sector, 31 percent in services, and ten percent in construction. The sectoral distribution of employment differs

markedly between urban and rural areas (Figure 27), with agriculture more prominent in rural areas and services more prominent in urban areas. The public sector is the second largest source of employment in urban areas (16 percent), followed in roughly equal shares by employment in construction, manufacturing, and health and education services. Despite the expansion of service delivery in rural areas, public employment and employment in health and education together represent less than 10 percent of rural jobs.

Informality and labor under-utilization are prevalent in rural areas. A strong urban-rural divide distinguishes the Afghan labor market. Informal labor arrangements—such as day labor, self-employment, and family labor—represent the vast majority of jobs in rural areas (83 percent compared to 55 percent in urban areas), denoting the vulnerability of rural employment opportunities (Figure 28). Labor under-utilization is also stronger in rural areas; about 46 percent of the labor force in rural areas is either unemployed or underemployed, compared to 30 percent in urban areas (Table 13). Interestingly, while underemployment is higher in rural areas, the opposite holds for unemployment, reflecting relatively better urban living standards and higher reservation wages. In urban areas, 45 percent of the 140 thousand unemployed individuals are relatively more educated youth in the 16 to 25 age group³³.

Informal jobs are associated with higher risk of poverty. The share of poor workers varies considerably across employment type, with day laborers and the agricultural self-employed being particularly exposed to the risk of poverty. According to the 2011-12 NRVA, 47.8 percent of day laborers and 37.4 percent of agricultural self-employed workers were poor. On the other hand, only 22.7 percent of non-agricultural self-employed workers, 26 percent of private salaried workers, and 23.4 percent of public salaried workers were poor.

Figure 28: Distribution of employment by job type and area of residence, 2011



Source: Authors' calculation using NRVA 2011-12

³³ Approximately two-thirds of unemployed youth have in fact completed primary education and 49 percent also completed lower secondary education.

GROWTH AND LABOR MARKET TRENDS³⁴

Between 2007-08 and 2011-12, economic growth contributed to job creation and to a reduction in unemployment and underemployment. Between 2007-08 and 2011-12, Afghanistan's economy grew on average 9.6 percent annually, and employment grew at an annual rate of 4.3 percent, adding approximately 490 thousand new jobs for men aged 25 to 50. Economic growth also contributed to reducing unemployment and underemployment rates (Table 14). Unemployment reduction seems to have been especially responsive to growth. On average, a one percent annual increase in GDP resulted in a 1.3 percent reduction in unemployment, and to a 0.69 percent decline in underemployment.

Improvement in labor market outcomes was strongest in rural areas. Reduction in labor underutilization was particularly evident in rural areas, where underemployment and unemployment declined by 17 and 7 percentage points respectively. Labor market dynamics in urban areas were less clear, showing both a decline in unemployment and a slight increase in underemployment, possibly due to increasing rural to urban migration (Table 14).

Table 14: Trends of labor market indicators, male [25,50].

	Employment / WAP		Underemployment		Unemployment	
	2007-08	2011-12	2007-08	2011-12	2007-08	2011-12
National	88.12	93.36	44.16	30.68	9.78	4.04
Urban	90.11	91.58	14.65	16.72	6.56	4.77
Rural	87.64	93.9	51.49	34.88	10.54	3.82

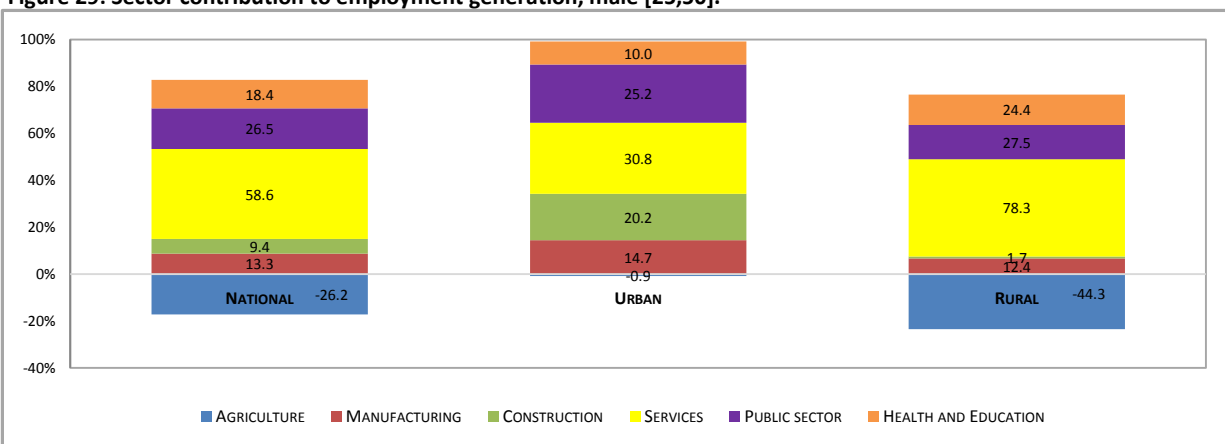
Source: Authors' calculation using NRVA 2007-08 and 2011-12.

The service sector was the main driver of employment generation, while jobs were lost in the agriculture sector. Aid inflows and military spending in Afghanistan have contributed to a progressive increase in the service sector's contribution to national GDP, and to a corresponding decline in the agriculture sector (Chapter 1). As shown in Figure 29, the service sector contributed 60 percent to job creation over the period between 2007-08 and 2011-12, against a 26 percent decline in agriculture's contribution³⁵. As expected, sectoral reallocation was strongest in rural areas, where expansion of the service sector, increase in public employment, and increased employment in health and education-related services³⁶ matched the decline in agricultural employment. Job creation in urban areas was more homogeneous, with service sector expansion accompanied by equally strong expansion of employment in public sector, construction and manufacturing.

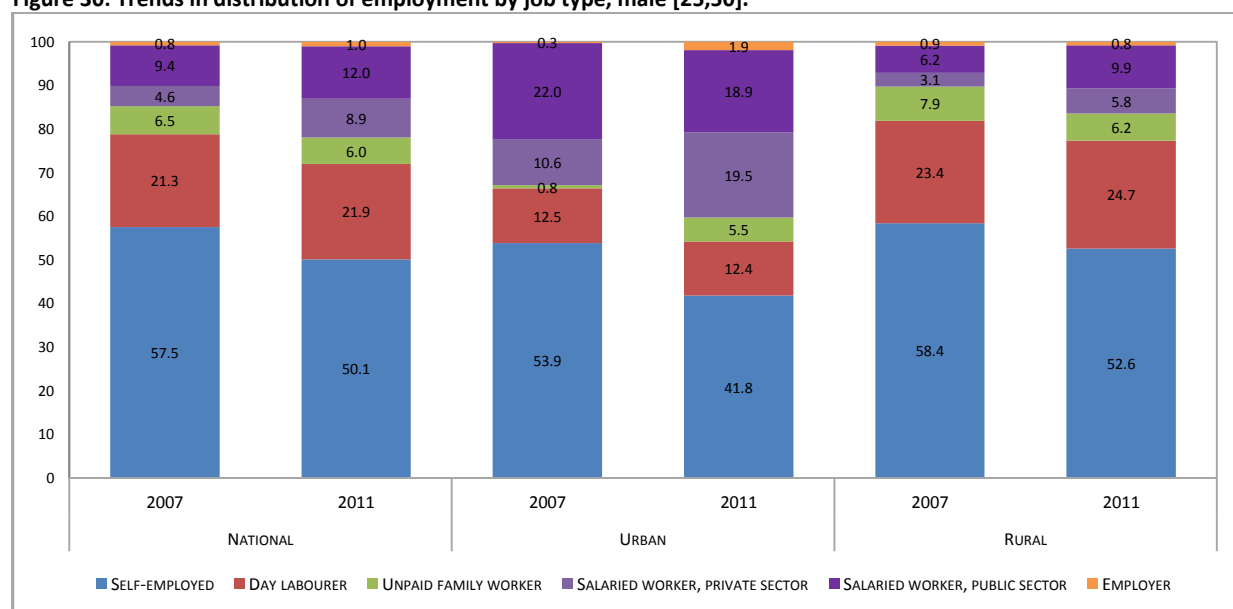
³⁴ Due to data limitations and comparability issues between the two NRVA rounds, labor market trends can only be assessed for the subsample of male individuals in the 25-50 age group. See Annex 2 for further details.

³⁵ Overall, employment in agriculture declined by 10 percent between 2007-08 and 2011-12.

³⁶ Focusing on the male [25,50] demographic group alone, jobs in Health and Education services in rural areas increased from 54.5 thousand in 2007-08 to approximately 121.5 thousand in 2011-12. When considering total employment, male and female, the increase of jobs was even higher, increasing from 95 to 188.4 thousand.

Figure 29: Sector contribution to employment generation, male [25,50].

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Figure 30: Trends in distribution of employment by job type, male [25,50].

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

An overall decline in informality accompanied the employment shift out of agriculture. Between 2007-08 and 2011-12, informal employment for men aged 25-50 declined from 85 to 78 percent (Figure 30). The increase in salaried jobs was sizeable in both urban and rural areas, driven by the private and public sector respectively. Public sector growth and the expansion of employment in health and education services also contributed to an increase in salaried employment for Afghan women, which grew from 31.3 to 45.7 thousand units³⁷. On the other hand, the contribution of day labor to total employment remained

³⁷ As discussed in Annex 2, changes in survey questionnaires between the two survey rounds make comparison of vulnerable forms of employment more problematic, especially for population segments with weaker labor market attachment (youth, women and elderly).

stable in urban areas while increasing in rural areas, largely due to increased employment in the service and construction sectors.

However, 80 percent of new jobs created in the service sector were informal, and more than 50 percent were day-labor jobs. Between 2007-08 and 2011-12, the service sector added approximately 275 thousand new jobs, 56 percent of which were in employment as day labor, and 80 percent in informal employment. Expansion of day labor in service sector employment was particularly strong in rural areas, possibly reflecting lower human capital endowments of the rural labor force.

Between 2007-08 and 2011-12, the education profile of the labor force improved. Reflecting continuous investment in education, the human capital profile of workers improved over time, especially for younger segments of the population (Table 15). Looking at men aged 25-40, the ratio of skilled versus unskilled workers increased by approximately 60 percent in both the overall population and in the labor force. Despite this fast progress, the labor force has remained largely unskilled, with only two in every five workers having at least primary education.

Table 15: Ratio of skilled to unskilled in labor force and WAP, by age group and sector (male only).

Ratio Skilled/Unskilled: Age group	in Population		in Labor Force	
	2007-08	2011-12	2007-08	2011-12
15-24	0.61	0.88	0.36	0.55
25-40	0.25	0.40	0.24	0.39
40-50	0.26	0.31	0.26	0.32
51+	0.13	0.18	0.14	0.25
Total	0.33	0.46	0.26	0.40

Note: "Skilled" is defined as having completed at least primary education.

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

LABOR MARKET DYNAMICS AND POVERTY REDUCTION

The employment profile of the poor remained stable. As discussed in Chapter 1, households headed by someone lacking a good job are much more likely to be poor. As shown in Table 16, higher poverty risk is indeed associated with underemployment and informal/vulnerable forms of employment. Poor Afghan households remain predominantly rural, and engaged in own account agricultural production. In urban areas, about 54 percent of the poor live in households headed by someone employed in the service sector, while an additional 30 percent works in construction or in the public sector (about equally split).

Nationally, expansion of employment opportunities outside the agriculture sector did not reduce poverty. As shown in Table 16, the vulnerability profile of employment—in terms of informality, underemployment and poverty incidence—vary considerably across sectors. Employment in agriculture has the highest vulnerability³⁸. Between the two survey periods, the incidence of poverty for agricultural workers remained stable, whereas it increased for workers employed in the service sector, possibly due to large incidence of day labor in the service sector.

³⁸ Vulnerability of employment in agriculture is also associated with higher exposure to shocks (see Chapter 4).

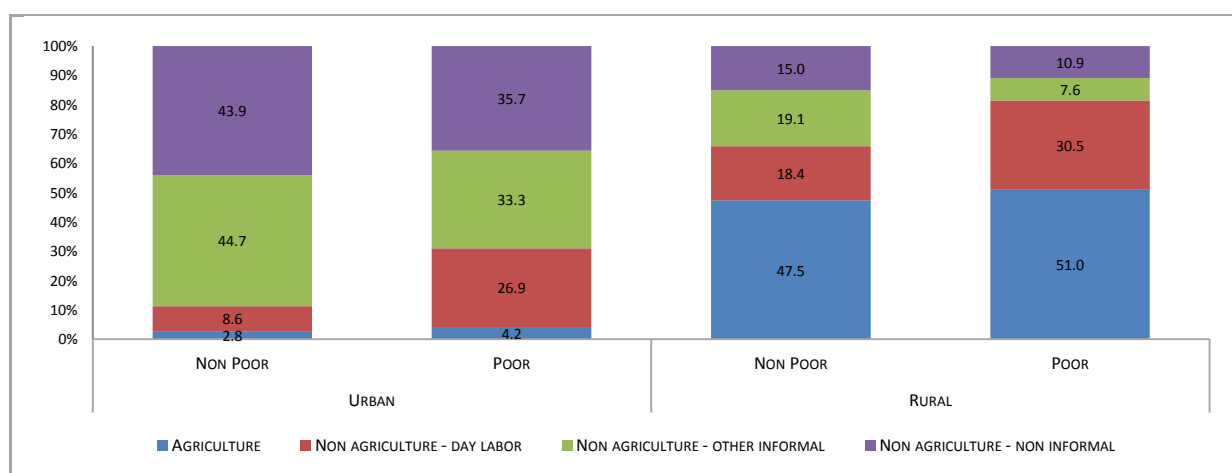
Lacking human capital endowments necessary to take advantage of better quality jobs, the poor benefitted little from labor market improvements. Differences in human capital endowments between the poor and the non-poor are very high: only 17 percent of workers living in poor families have completed primary education, compared to 31 percent of workers in non-poor families. Lacking the human capital necessary to take advantage of better employment opportunities, poor workers remain concentrated in informal employment and less productive sectors. In particular, as shown in Figure 31, poor urban workers are more likely to work in informal jobs than non-poor workers, and the poor are more likely to engage in informal day labor. High incidence of day labor among poor workers is also common in rural areas, where day labor represents the vast majority of poor workers' jobs outside the agriculture sector.

Table 16: Vulnerability profile of sectors, by survey year (Male 25,50)

		% Informal Employment	% Day labor	% Underemployed	% Poor	Average years of education
Agriculture	2007-08	98.99	14.37	57.07	38.44	1.17
	2011-12	98.15	13.62	42.01	38.97	1.35
Manufacturing	2007-08	92.74	10.26	31.78	36.33	2.79
	2011-12	81.67	12.14	18.35	27.46	3.55
Construction	2007-08	91.84	78.67	57.3	38.14	1.82
	2011-12	81.25	61.45	34.68	36.36	2.75
Services	2007-08	86.27	16.93	25.81	28.51	3.53
	2011-12	84.82	26.63	20.1	30.43	3.69
Public sector	2007-08	2.47	--	16.01	24.09	10.02
	2011-12	8.39	1.37	15.8	22.5	8.51
Health and Education	2007-08	10.2	--	59.19	27.31	10.50
	2011-12	14.21	2.54	58.5	25.93	12.08

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Figure 31: Distribution of employment by sector/informality, poverty status, and area of residence, 2011



Source: Authors' calculation using NRVA 2007-08 and 2011-12

LABOR MARKET DYNAMICS AND SPATIAL INEQUALITIES

Improvements in job opportunities have not been uniform across regions. The Northeast—one of Afghanistan’s three “lagging” regions, and the region where poverty increased the most between 2007-2012—added the most jobs over the period. Following the Northeast in job creation were the Central-Kabul – where poverty remained constant -- and the North, where poverty declined significantly between the two study periods³⁹ (Figure 32). Consistently with observed poverty trends, job creation in the Northeast did not lead to improvement in job quality. As shown in Table 17, underemployment declined in all regions but the Northeast, where it actually increased from 51.7 percent in 2007-08 to 54.8 percent in 2011-12.

Labor market dynamics in the Northeast indicate a shock to the region. The increase in employment and underemployment in the North suggests that lower living standards—possibly due to a shock in agriculture, the main employment sector⁴⁰—induced more people and marginal workers to join the labor market to make ends meet. However, the poor quality of employment opportunities did not help smooth consumption through the crisis, resulting in poverty increase.

Sectoral transformation was the strongest in provinces benefiting from high levels of international spending. In line with the aid-led nature of economic growth in Afghanistan, sectoral shift out of agriculture and reduction in vulnerable employment were strongest in provinces receiving higher levels of international spending (Figure 33)⁴¹. These results confirm the “exogenously-driven” nature of the Afghan economy’s structural transformation and possibly suggest that a decline in civilian and military aid might affect the sustainability of labor market improvements since 2007-08. The forthcoming Afghanistan Living Condition Survey⁴² (ALCS) 2013-14 will provide further evidence to test the structural nature of Afghanistan’s sectoral transformation.

Table 17: Labor market trends by region, male [25,50].

	LFPR		Employment / WAP		Underemployment		Unemployment	
	2007-08	2011-12	2007-08	2011-12	2007-08	2011-12	2007-08	2011-12
Central	97.07	96.61	88.79	91.17	27.45	22.14	8.53	5.62
South	98.07	97.62	82.03	90.68	52.77	35.83	16.36	7.11
East	97.49	97.66	92.73	95.72	55.12	30.28	4.88	1.99
Northeast	97.49	97.73	84.90	95.22	51.72	54.83	12.91	2.57
North	97.95	96.19	84.32	93.15	38.98	24.10	13.92	3.16
West	98.14	97.39	90.72	94.53	59.99	36.57	7.56	2.94
Southwest	97.26	99.17	93.31	97.15	48.86	20.82	4.06	2.04
West-Central	99.23	96.73	89.74	90.13	29.38	23.71	9.56	6.83

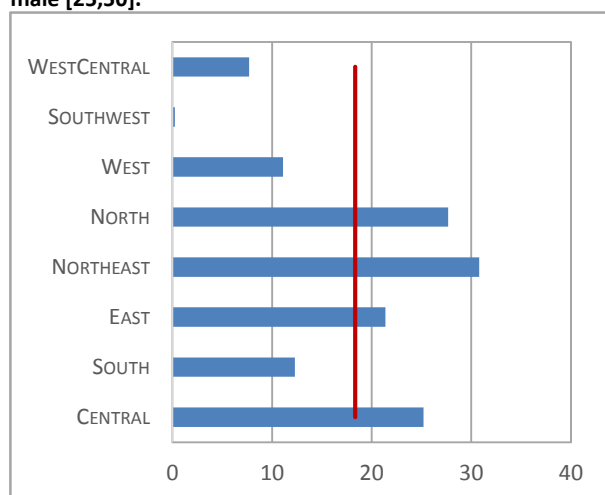
Source: Authors’ calculation using NRVA 2007-08 and 2011-12.

³⁹ See Chapter 1.

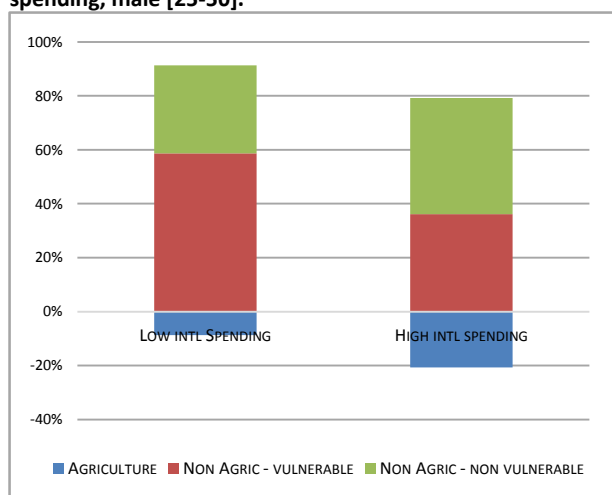
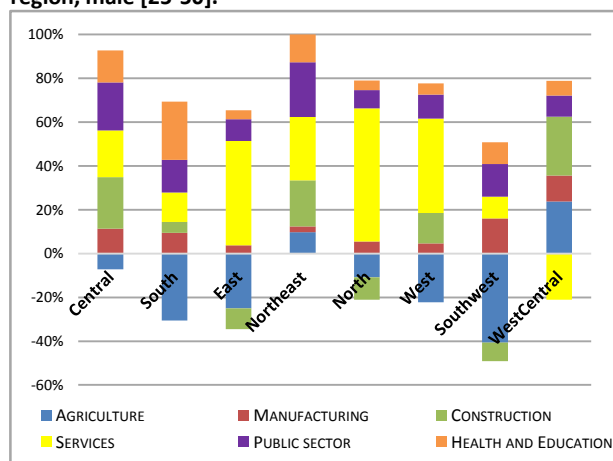
⁴⁰ See Chapter 4.

⁴¹ See Chapter 1.

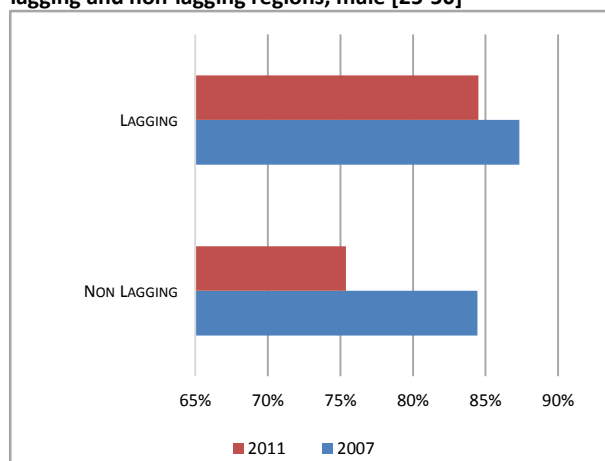
⁴² With the 2013-14 household survey round, the name of the household survey has been changed from NRVA to ALCS.

Figure 32: Employment generation by region (% change), male [25,50].

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Figure 33: Sectoral transformation by level of international spending, male [25-50].**Figure 34: Sector contribution to employment generation by region, male [25-50].**

Source: Authors' calculation using NRVA 2007-08 and 2011-12

Figure 35: Trends in the share of informal employment in lagging and non-lagging regions, male [25-50]

Accordingly, transition out of agriculture and reduction of informal employment were strongest in non-lagging regions where aid increased the most. As shown in Figure 34, the contribution of each employment sector to changes in employment varies considerably between Afghan regions. The service sector's contribution was stronger in the North, East, and West regions, while a sectoral shift out of agriculture did not occur in two of the three lagging regions. On the contrary, employment in agriculture increased by five percent in the Northeast and by four percent in the West-Central regions. As discussed in Chapter 1, aid flowed into non-lagging regions at twice the rate of lagging regions. Consequently, labor market conditions improved most in non-lagging regions (Figure 35).

Similarly, improvements in labor force productivity were strongest in non-lagging regions. Besides differing sectoral dynamics between 2007-08 and 2011-12, lagging and non-lagging regions also experienced differing human capital improvements. As shown in Table 18, labor force productivity—as measured by human capital endowments—increased sizably in non-lagging regions while changing little in lagging ones. This evidence is consistent with the hypothesis that a portion of relatively more educated Afghans migrated out of lagging regions in search of better employment in non-lagging regions (“sorting effect”).

Table 18: Trends in the human capital endowments of the labor force, male [25,50].

	% completed primary		Average years of education	
	2007-08	2011-12	2007-08	2011-12
Non Lagging	21.46	30.67	2.99	4.20
Lagging	17.22	17.72	2.47	2.54

Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Chapter 4: Vulnerability to Shocks

Summary: Vulnerability to shock of Afghan households is exceptionally high. Exposure to shocks is pervasive and likely to have long lasting welfare and poverty implications. Nearly half of all households experiencing shocks report using at least one harmful coping mechanism, such as disinvesting in assets or in human capital accumulation, which traps them further into poverty. Poor households and households in lagging regions—particularly the Northeast and West-Central regions—are most vulnerable to shocks.

VULNERABILITY TO SHOCKS

Vulnerability to shocks is one of Afghanistan’s most defining social and economic challenges. Vulnerability to shocks is an important dimension of fragility in Afghanistan.⁴³ The country’s unsophisticated economic structure, heavy reliance on subsistence agriculture, geography and climate-change risk, the absence of formal safety nets, and protracted history of conflict all contribute to Afghan people vulnerability. With 36 percent of Afghans consuming below the poverty line, and 50 percent of the population consuming under twice the poverty line, shocks have a devastating impact on welfare, human capital accumulation, and on poverty reduction (Figure 36).

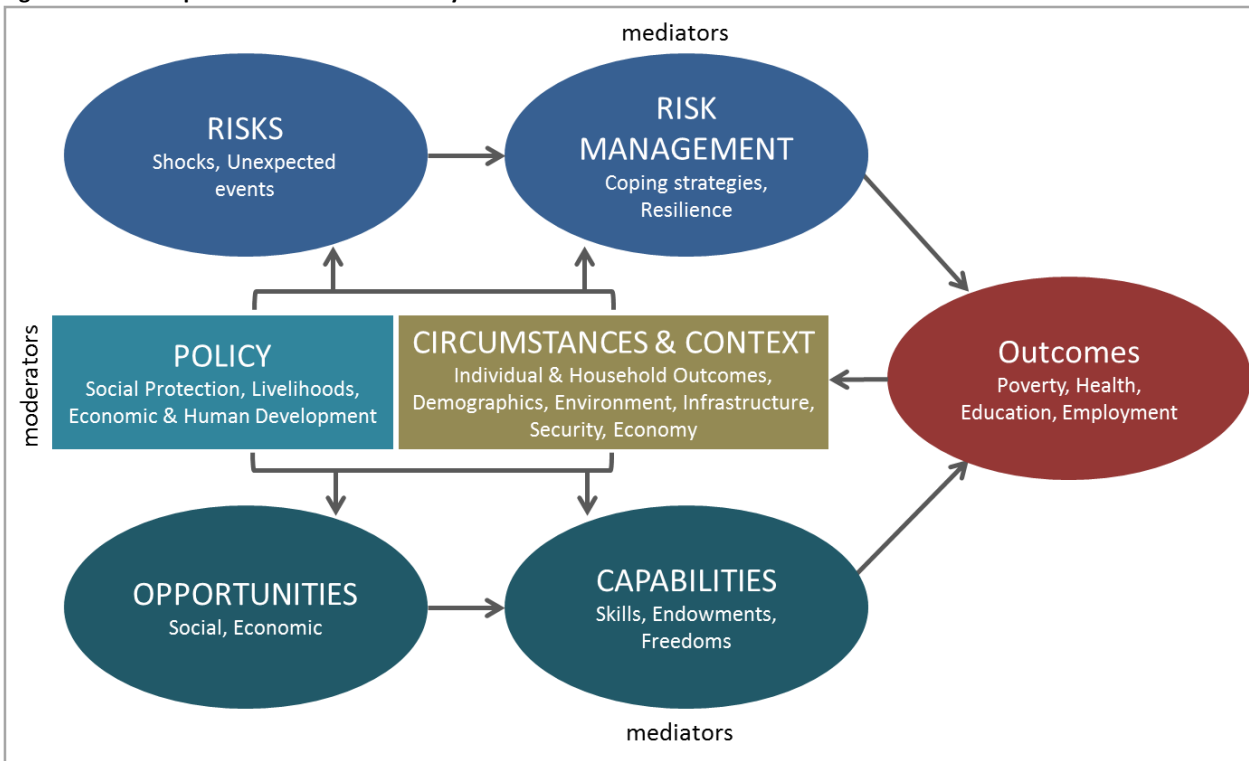
For Afghan households, exposure to shocks is pervasive and increasing. Approximately 84 percent of Afghan households experienced at least one shock in 2011-2012, up from 71 percent in 2007-2008.⁴⁴ Moreover, 53 percent of households reported three or more shocks, up from 45 percent. The largest increase in shocks between 2007-2008 and 2011-2012 was in urban areas and lagging regions (Figure 37). While methods and instruments are not exactly comparable, shock incidence in Afghanistan far exceeds other comparable developing countries, such as India, Lao PDR, Malawi, Pakistan, Peru, and Uganda (World Bank, 2013b).⁴⁵

⁴³ The narrative on Afghanistan often refers to country conditions as an example of “durable disorder” (FAO, 2007). Households in Afghanistan have weathered many shocks, and vulnerability results from decades of exposure to macro shocks, weather-induced production shortfalls, and demographic pressures for (limited) natural resources. Households have had to cope with more than twenty years of conflict, which have led to the collapse of the state, forced population movements, and the destruction of physical and human capital and the socio-economic environment. Afghanistan’s geography and terrain makes the country prone to catastrophic climatic events that challenge the traditional, subsistence-based livelihoods of its population.

⁴⁴ The NRVA questionnaire asks respondents to report shocks with the following question: “In the past year, has the household been negatively affected by any of the following [...]?” Rather, they are asked to report only events they interpret as having adverse consequences for the household, not events to which the household was exposed. *Exposure* to events, such as food price increases or severe winter conditions, counts as a *shock* only if consequential to the household’s welfare.

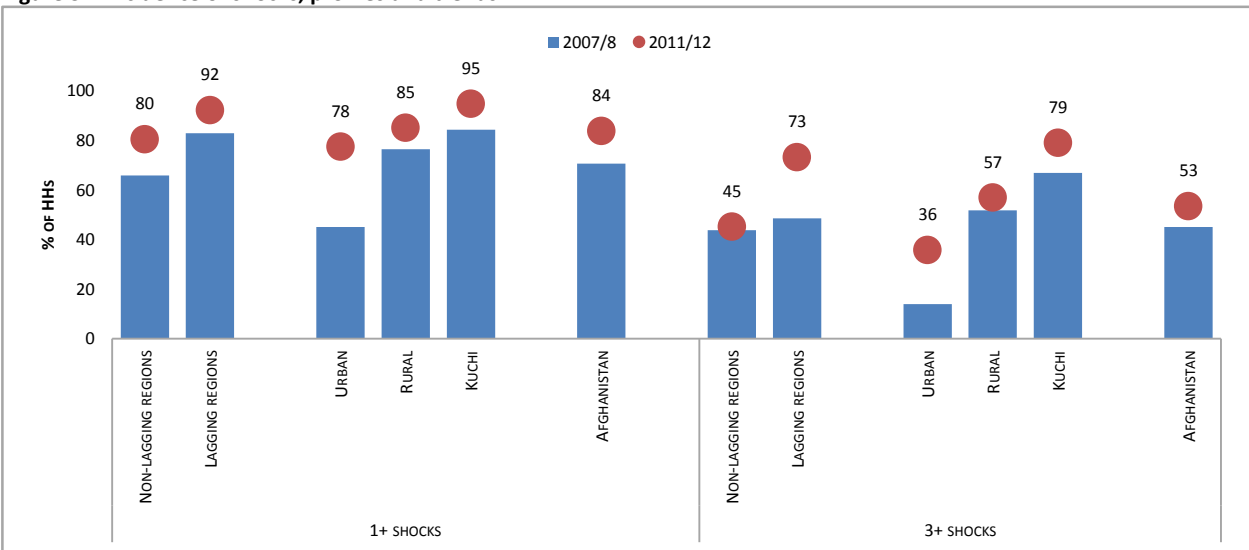
⁴⁵ World Bank. (2013b). World Development Report 2014: Risk and Opportunity: Managing Risk for Development. World Bank: Washington, D.C. (p. 55).

Figure 36: A conceptual model of vulnerability.



Source: Authors' elaboration.

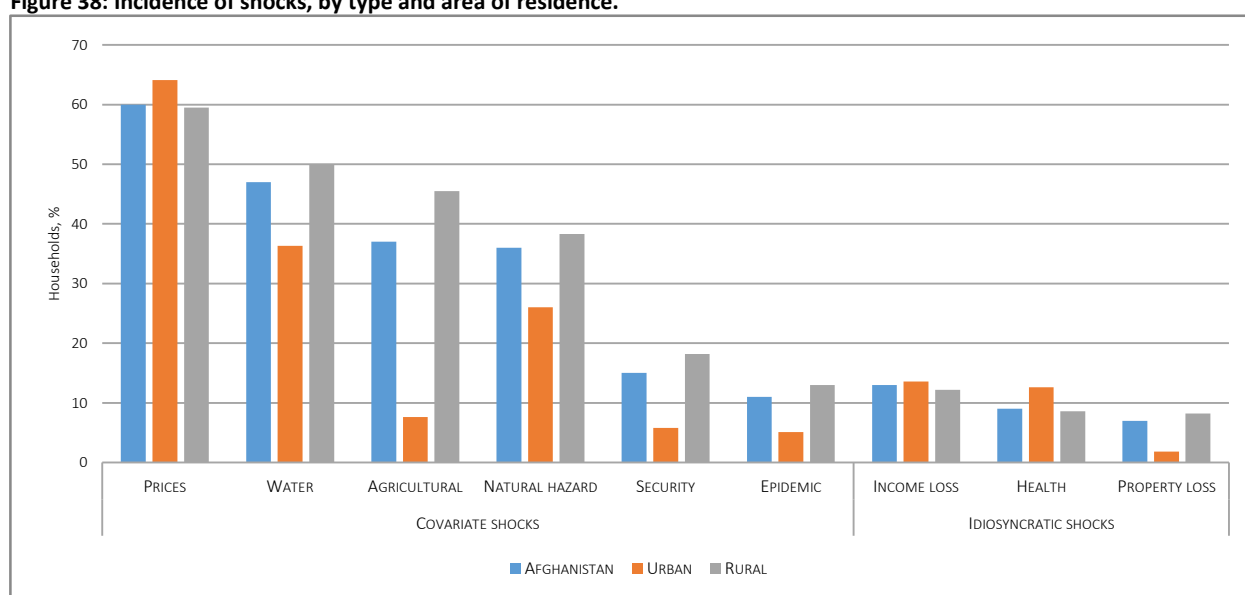
Figure 37: Incidence of shocks, profiles and trends.



Source: Authors' calculation using NRVA 2007-08 and 2011-12.

Food price shocks were the most common type of shock affecting Afghan households in 2011-12. Among community-level (covariate) shocks,⁴⁶ 59 percent of households reported rising food prices as negatively affecting welfare (Figure 38). Food price shocks – most of the times triggered by weather-induced production shortfalls – are recurrent in Afghanistan and have huge negative consequences on food security and poverty vulnerability (Box 5). Studies based on NRVA 2007-08 data⁴⁷ find that price shocks correspond to declines in food security and real per capita food consumption. Despite widespread perceptions of insecurity,⁴⁸ only 15 percent of households report that security or conflict-related shocks affected them. Unlike most other types of shock, households were more likely to report insecurity or violence if they were above the poverty line, and if the head of the household had achieved a secondary education or higher. Households with employed women were also more likely to report security shocks. These trends warrant deeper investigation. Taken together, these findings suggest that wealthier and more progressive households are more susceptible to the negative consequences of conflict.

Figure 38: Incidence of shocks, by type and area of residence.



Notes: Note: Water shocks include reduction of quality or quantity of drinking water. Agricultural shocks include crop or livestock disease, reduced grazing area, reduced agricultural water, opium eradication and reduced Kuchi migration routes. Natural Hazards include earthquake, landslide or avalanche, flooding, heavy rains preventing work, late damaging frost, severe winter weather, hailstorm.

Source: Authors' calculation using NRVA 2011-12.

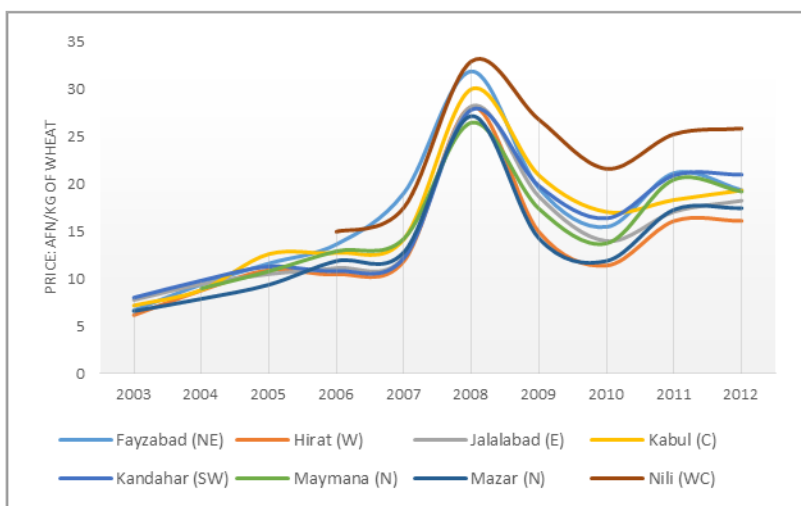
⁴⁶ Risk can be classified as idiosyncratic, meaning one household's experience is typically unrelated to neighboring households, or covariate, meaning that many households in the same locality suffer similar shocks. In this analysis, the covariate shocks are classified into six major categories (prices, agriculture, security, epidemics, drinking water, and natural hazards), following the same taxonomy used by the Central Statistical Organization.

⁴⁷ D'Souza and Jolliffe, 2011 and 2012.

⁴⁸ According to an opinion poll conducted by the Asia Foundation (2014), 59 percent of Afghans reported fearing for their safety, and more than three out of four Afghans said they are afraid to travel in Afghanistan.

Box 5: Food price shocks in Afghanistan.

According to the World Food Programme, Afghanistan is among the world's most vulnerable countries to food price shocks. Like other vulnerable countries, Afghanistan has consistently high food insecurity, is heavily dependent on food imports, and has a large poor population who spend a significant share of income on food (Sanogo, 2009). Moreover, mountainous terrain and poor infrastructure combine with weak governance, insecurity and corruption to limit government's ability to manage food distribution and supply.



Both the 2007-08 and 2011-12 NRVA surveys took place in a context where an event triggered increase in food prices. International food commodity prices increased substantially in 2007-08. During this same period, Afghanistan experienced several shocks disrupting food supply networks, causing prices to soar. The 2008 wheat harvest of 1.5 million metric tons was the worst since 2000

because of drought and early snow melt (Persaud, 2010). Similar drought conditions in 2011-12 in the Northern half of the country led to a 24 percent reduction in wheat production compared to the previous year ^(a). For both survey years, increase in food prices was strongest in Nili (WestCentral) and Fayzabad (Northeast), two lagging regions with the most difficult terrain and the worst connectivity, according to the Famine Early Warning Systems Network (FEWS Net, 2011).

(a) Due to a lack of rain, losses of ground water and an approximately two million MT cereal production deficit, the Afghan government declared the Northern half of the country to be "drought-affected" on 23 July 2011. Fourteen out of Afghanistan 34 provinces experienced drought: Takhar, Sar-e-Pul, Samangan, Kunduz, Jawzian, Herat, Ghor, Faryab, Daykundi, Bamyan, Balk, Baglan, Badghis and Badakshan. [See UN Consolidated Appeal –Emergency Revision in Response to Drought](#)

POVERTY, VULNERABILITY TO SHOCKS AND COPING STRATEGIES

Vulnerability to poverty is shaped by shocks incidence and by households' ability to cope. Vulnerability to shocks is determined by the interaction between the *presence* of risks and the *ability* to deal with them. Households exposed to shocks but possessing the means to cope with them—without changing their behavior in ways that compromise their welfare—have relatively low vulnerability to poverty. Conversely, households without the means to mitigate and cope with risks are more vulnerable to future or deeper poverty, even more so, if they reside in areas more prone to shocks.

Some coping mechanisms are more likely than others to put households at risk of future or deeper poverty. Not all coping strategies have the same implications on vulnerability. Some coping mechanisms are more likely to increase the risk of poverty or to have long lasting welfare impacts. In particular, coping strategies are classified as “harmful” if they are likely to have long lasting welfare impacts on health, human capital, or asset accumulation ⁴⁹. NRVA questionnaires lack information to construct coping severity scores (Box 6), so this analysis uses the number of harmful coping strategies as a proxy for coping severity.

Box 6: Improving measurement of coping severity.

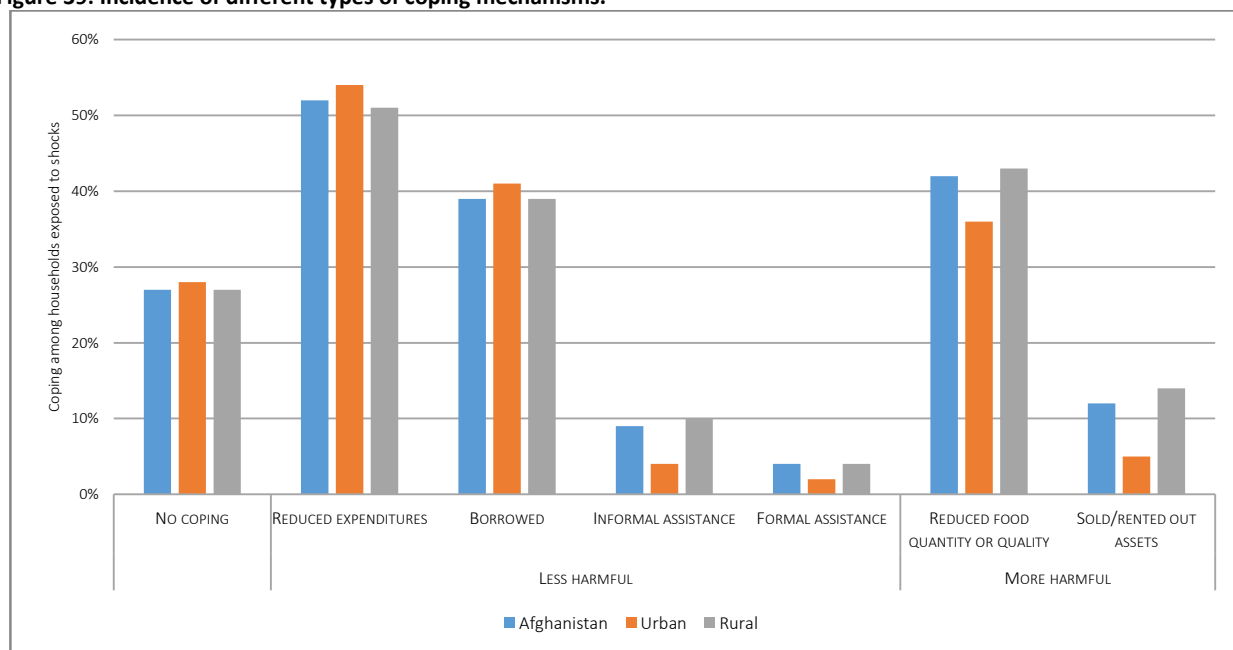
Coping severity is the extent of a household’s inability to cope with shocks. Coping strategies are pivotal to understand the policy implications of vulnerability. NRVA instruments collect information on coping strategies in two modules: (1) male questionnaire: coping in response to a generic shock (without indication of shock type); (2) female questionnaire: coping in response to food shortages. The first module does not include information on severity and frequency, and only includes a one-year reference period. The second module includes self-reported assessments of severity for each strategy, and one-week and one-year reference periods, but also no information on frequency of food shortages.

The World Food Programme (WFP) provides guidance for developing instruments for coping severity indices (CSIs) and for computing coping severity scores. Unlike the coping-with-shocks module used in the NRVA, the WFP’s CSIs:

- Include a list of more, and less severe, coping strategies. This allows for more varied measures of severity to better differentiate households’ vulnerability.
- Assign a country-specific severity weight to each strategy. WFP advises forming these weights through focus groups and key informants. Biases in household assessments of their own coping strategies are not reliable for use in coping severity indices. Households often unreasonably consider any coping strategy that involves a significant change in their living standards as severe. For example, a household might consider an automobile sale as a severe response to shocks, although a more objective assessment would rate this less severe than strategies like begging, consuming less food, or putting children to work.
- Include frequency information for each strategy over a one-week recall period. There is a significant difference in vulnerability, for instance, between a household that reduces its food quality in response to shocks once in a year compared to a household that does so repeatedly.

Improving measurement of coping severity in future surveys along these dimensions would enable more thorough assessments of vulnerability to shocks and food insecurity in Afghanistan.

⁴⁹ Harmful coping strategies include: (i) reducing food quantity or quality; (ii) selling assets; (iii) renting or mortgaging land; (iv) selling homes, land, or livestock; (v) pulling children from school; (vi) increasing child labor; (vii) selling child brides.

Figure 39: Incidence of different types of coping mechanisms.

Notes: Urban-Rural differences are statistically significant at 95% for all indicators except reduced expenditure and borrowing.

Source: Authors' calculation using NRVA 2011-12.

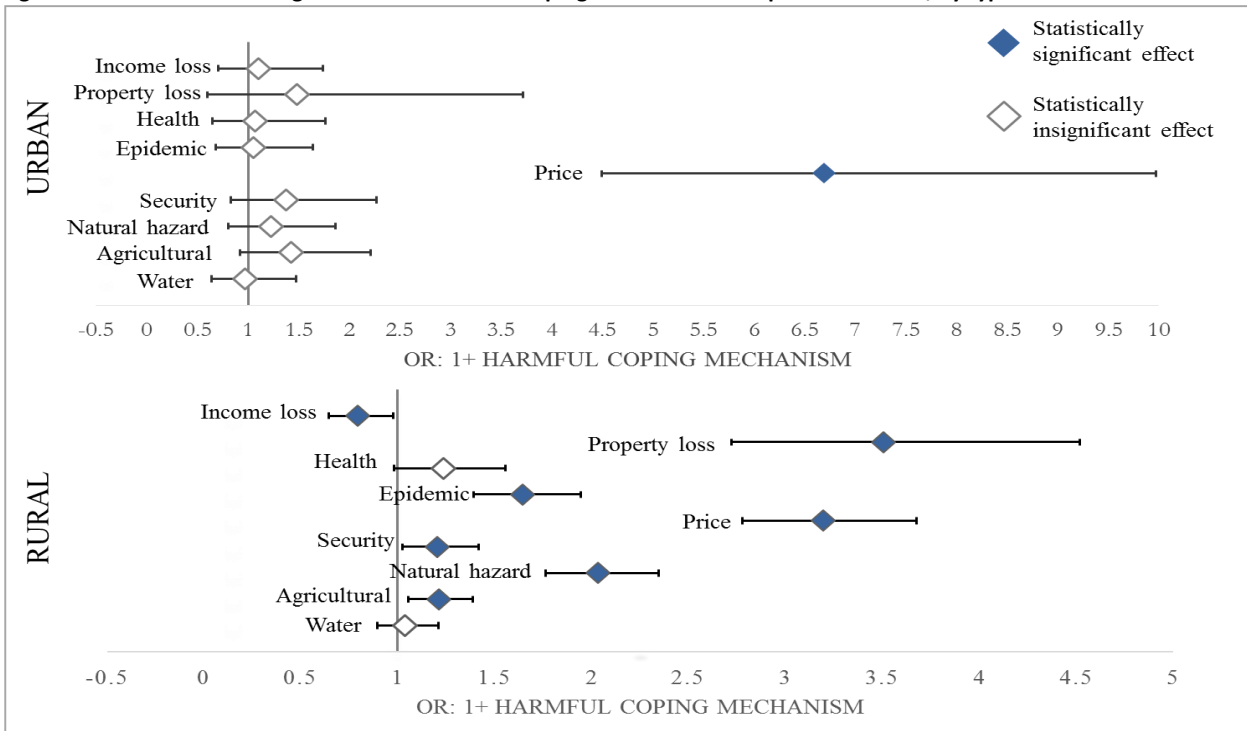
Seventy percent of households reporting shocks said they used at least one coping mechanism, and 48 percent reported using at least one harmful coping mechanism. Rural households exposed to shocks were more prone than urban households to using harmful coping mechanisms (Figure 39). Households exposed to shocks on average employed two coping mechanisms, while a quarter of households used three or more.

Higher vulnerability is associated with price shocks, livestock losses, and natural hazards. Not all types of shocks affect vulnerability to the same extent, and the vulnerability to of shocks might be different for rural and urban households (Figure 40). Price shocks—the most common shock in Afghanistan—cause more households to use harmful coping strategies, but the relative effect is higher for urban households.⁵⁰ For rural households, property losses —usually livestock—most increase the use of harmful coping, followed by price shocks and natural hazards.⁵¹

Poor households are more vulnerable to shocks. The poor in Afghanistan are not only more likely to suffer from shocks, but also less equipped to deal with their consequences. As shown in Figure 41, poor households are more likely to adopt harmful coping strategies, perpetuating poverty. Higher shock incidence and combined with heavier reliance on harmful coping strategies make poor households more vulnerable to shocks.

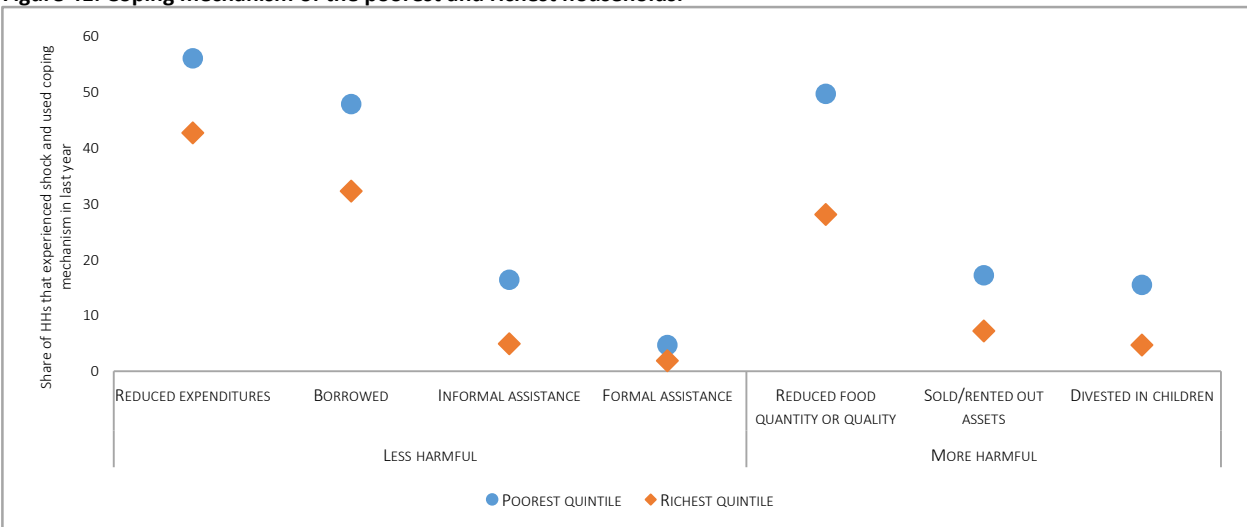
⁵⁰ This is consistent with literature on the global food crisis, which demonstrates disproportionate impacts on urban areas. D'Souza and Jolliffe (2012) find that food price shocks, besides reducing real monthly per capita consumption (reduction in expenditure), impact households' quality of diet (harmful coping strategy). The authors find for every one percent increase in food prices (wheat), the percentage decline in real monthly per capita food consumption in urban areas is over double the decline in rural areas.

⁵¹ Natural hazards include earthquakes, flooding, hailstorms, late frosts, severe winter weather, landslides or avalanches, and heavy rains preventing work.

Figure 40: Odds ratios of using one or more harmful coping mechanism in response to shocks, by type.

Notes: The diamonds represent odds ratios (effect sizes), while the bars represent 95% confidence intervals. Confidence intervals that overlap a value of “1” imply that the effect is statistically insignificant. Odds ratios greater than one indicate the shock increases the likelihood of using a harmful coping mechanism, while odds ratios less than one indicate the shock decreases the likelihood of using a harmful coping mechanism. Results were derived from logistic regressions by urban-rural subgroups holding household size, household head education level, log pc consumption, having a toilet, and other shocks constant.

Source: Authors’ calculation using NRVA 2011-12.

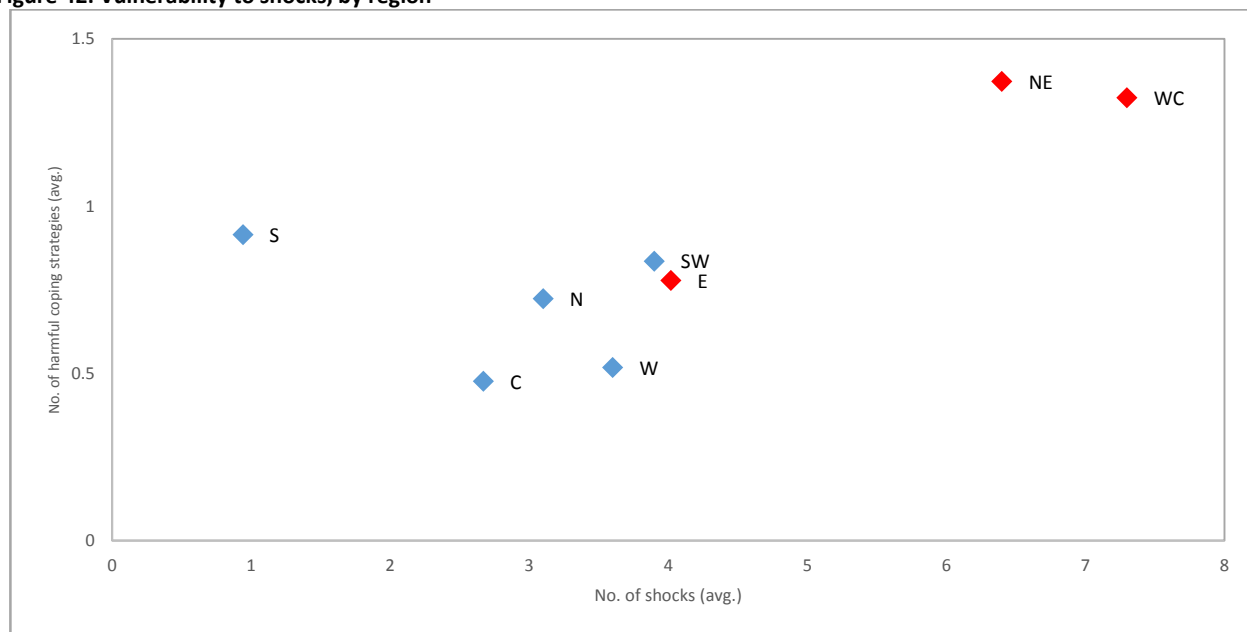
Figure 41: Coping mechanism of the poorest and richest households.

Source: Authors’ calculation using NRVA 2011-12.

VULNERABILITY TO SHOCKS IN LAGGING REGIONS

Households in lagging regions are more vulnerable to shocks. As shown in Figure 42, households in lagging regions, notably Northeast and West-Central, suffer more shocks and are more likely to rely on harmful coping strategies.

Figure 42: Vulnerability to shocks, by region

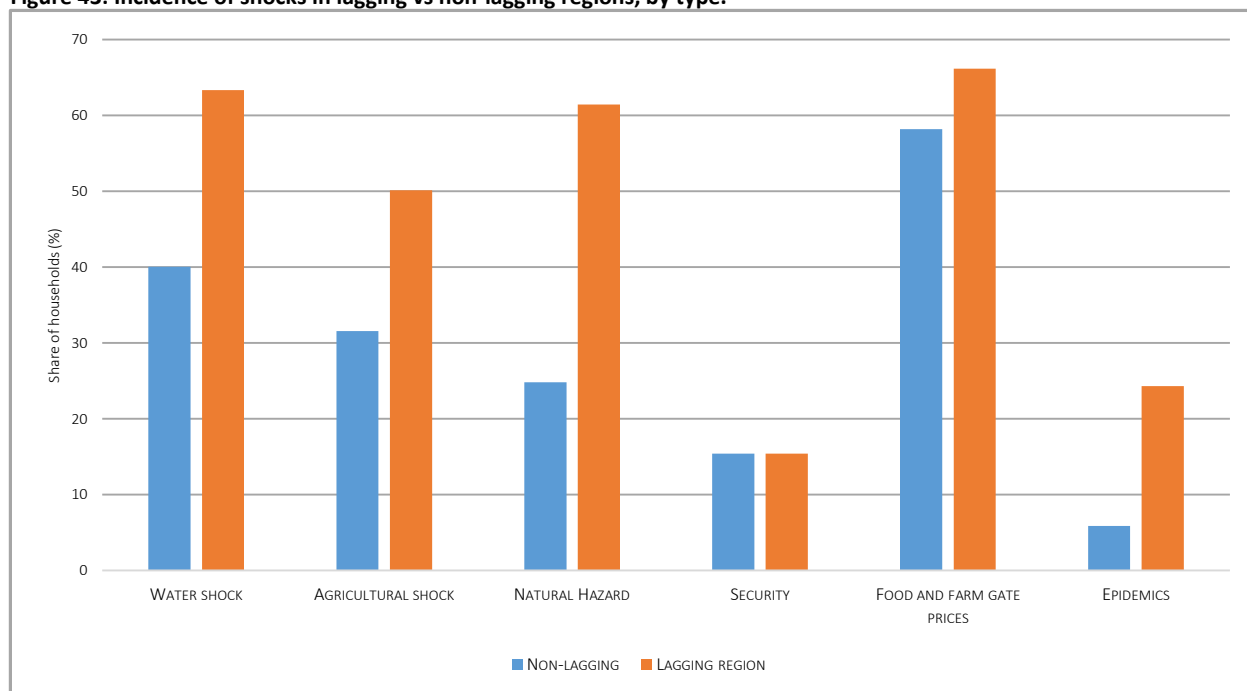


Note: Lagging regions indicated by red marker.

Source: Authors' calculation using NRVA 2011-12.

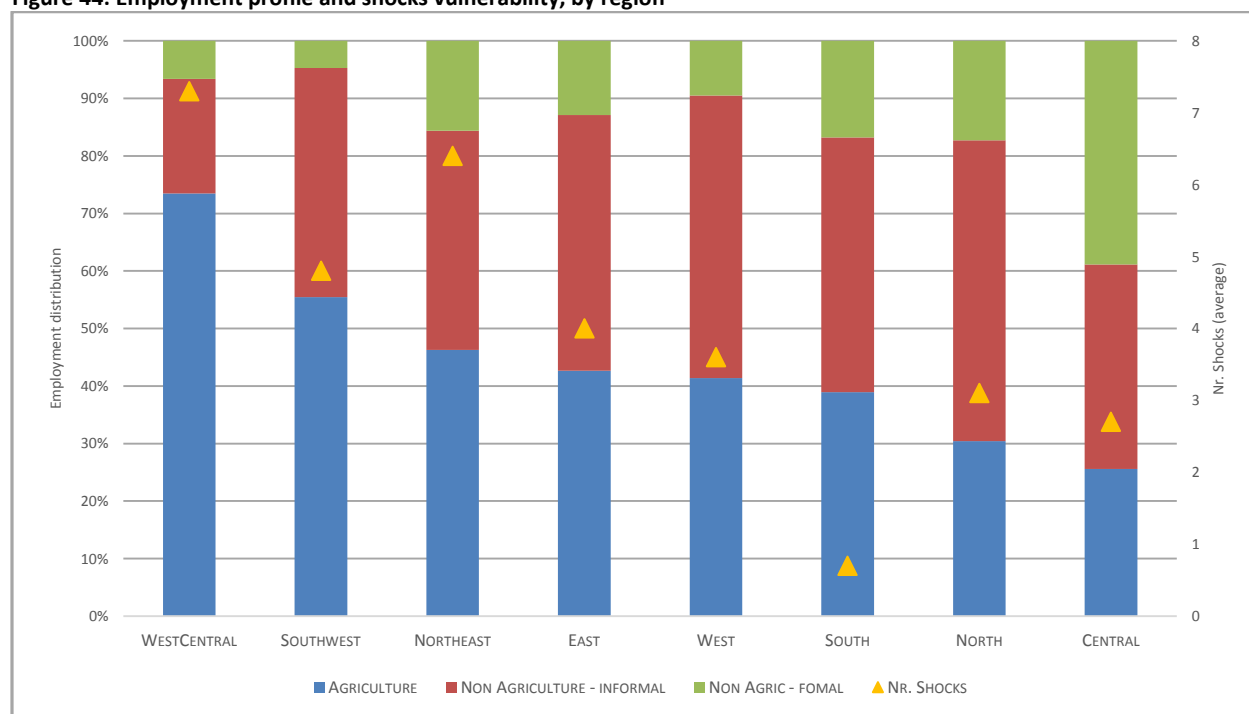
Natural hazards play a major role in accounting for lagging regions' vulnerability. As shown in Figure 43, natural hazard shocks—earthquakes, landslides or avalanches, floods and heavy rains preventing work, late damaging frosts, severe winter weather and hailstorms—occur much more frequently in lagging than non-lagging regions. Lagging regions, especially Northeast and West-Central, are more prone to natural hazards because of issues of geography and terrain which increase their exposure to extreme weather conditions.

High dependence on rain-fed agriculture, and prevalence of vulnerable employment, contribute to lagging regions' vulnerability to shocks. As discussed in Chapter 3, international aid-driven labor market improvements and economic growth did not widely reach lagging regions. As shown in Figure 44, higher reliance on agriculture sector employment in the West-Central and Northeast regions is associated with higher incidence of shocks. The Southwest, despite a similar employment profile, has relatively fewer shocks, possibly due to less dependence on rain-fed irrigation.

Figure 43: Incidence of shocks in lagging vs non-lagging regions, by type.

Note: Water shocks include reduction of quality or quantity of drinking water. Agricultural shocks include crop or livestock disease, reduced grazing area, reduced agricultural water, opium eradication and reduced Kuchi migration route. Natural Hazard include earthquake, landslide or avalanche, flooding, heavy rains preventing work, late damaging frost, severe winter weather, hailstorm.

Source: Authors' calculation using NRVA 2011-12.

Figure 44: Employment profile and shocks vulnerability, by region

Source: Authors' calculation using NRVA 2011-12.

Chapter 5 –Policy Directions

Complex interaction between decades of war, continuous fragility, and unparalleled inflows of international assistance has shaped the profile and evolution of poverty and human development in Afghanistan. The main finding of this report is that aid-led growth did not reduce poverty in Afghanistan, but rather widened inequalities between lagging and non-lagging regions and between skilled and unskilled workers.

This report points to numerous, deep-rooted constraints to poverty reduction in Afghanistan, and it suggests a possible policy framework for promoting poverty reduction. Poverty reduction requires a multi-sector approach, with policy interventions aimed at:

1. Sustaining growth by strengthening agriculture.

While not sufficient by itself, economic growth remains a necessary condition for poverty reduction. As aid dwindles, Afghanistan will need new sources of growth to ensure poverty reduction. Given the country's narrow economic base and the large share of households still engaged in the sector, *strengthening agriculture—with a specific focus on small-holder agriculture*—will remain a top priority for improving welfare of the poor and for stimulating internal demand and job creation in other sectors.

According to the recently completed “Agriculture Sector Review”⁵², developing small-holder agriculture will require development of commercial value chains with greatest potential to affect the poor (i.e. wheat, horticulture, livestock). The sector also needs improvements in productivity of rain-fed farming and small-scale livestock, which provide subsistence for many of the near poor. Interventions to raise productivity and reduce weather-related risks to agricultural production include investments in irrigation, extension services, regulation of inputs, security of land tenure and access to credit. In addition, interventions aimed at improving productivity of agriculture in rural areas will have to be accompanied by investments aimed at *improving access to markets and urban-rural linkages*.

2. Reducing welfare inequalities by leveling the playing field for human development

Inequality has played a major role in diluting the poverty-reduction effect during a period of economic growth. Massive inflow of international assistance targeted to high-conflict areas has contributed to widening geographic inequalities. Moreover, investments in rural areas did not contribute to poverty reduction as the poor lacked the human capital to take advantage of better employment. With education and health levels among the lowest in the world, Afghanistan will need to continue expanding access and improving equity in education, health, and basic services to promote equal opportunity, inclusive job creation and broad-based growth. The country needs to reduce the educational disadvantage of poor children and girls. Afghanistan should consider strengthening demand-side interventions to improve access to secondary schools in rural areas, particularly for girls, including exploring using cash transfers and scholarships. Moreover, to promote equality in human capital accumulation Afghanistan needs interventions to ensure that children receive adequate nutrition, immunization and care before reaching school age⁵³.

⁵² World Bank (2014c) Agricultural Sector Review, Revitalizing Agriculture for Economic Growth, Job creation and food security, World Bank, 2014

⁵³ A growing body of research shows that benefits of health and nutrition for infants can have long lasting effects that persists through life, and that damages from childhood disease and malnutrition in terms of lost opportunity for learning can be difficult to undo.

3. Protecting from shocks by developing safety nets

Shocks affect the poor disproportionately, especially in rural areas and in lagging regions. Developing an effective and efficient social protection system—with a particular focus on safety nets—is crucial to mitigate the impact of shocks. Social protection in Afghanistan faces a number of challenges including limited budgets and weak coordination and population targeting. A recent review of social protection in Afghanistan found that most existing safety net initiatives are small and fragmented schemes financed and implemented off the Government’s official budget. Afghanistan needs to improve coordination of its social protection programs, and the country needs to improve targeting to design a sustainable and effective safety net system. This includes development of the ability to pilot and test promising interventions.

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ANNEX 1

Data Source – the National Risk and Vulnerability Assessment (NRVA)

The *National Risk and Vulnerability Assessment* (NRVA) is the main data source for measurement of poverty and other socio-economic indicators in Afghanistan. The NRVA is a multi-purpose household survey covering a comprehensive set of demographic and socio-economic information about Afghan households and their individual members.

The first NRVA round was implemented in 2003, with subsequent rounds in summer 2005 and spring 2007. In spite of contributions to understanding Afghan households' wellbeing and vulnerabilities, these first surveys failed to provide a comprehensive picture due to methodological constraints.⁵⁴ The third NRVA in 2007-08 saw major revision of its sample design and survey instruments. In particular, it extended fieldwork operations to a 12-month period, used a redesigned sample to measure seasonal variation in Afghan wellbeing, and improved survey questionnaires to better capture food consumption and measure labor market indicators. While improved, the 2007-08 revision makes NRVA 2007-08 findings not comparable with the previous surveys. However, implementation of the NRVA 2007-08 coincided with the approval of a comprehensive implementation plan for future NRVA rounds that aims at establishing a reliable poverty monitoring system for Afghanistan.

Taking advantage of the improved survey design and of the institutionalization of the NRVA survey, the 2007-08 round of data collection was used to set the official poverty line for Afghanistan and to lay a baseline for the future analysis of poverty trends. The NRVA 2011-12 results, comprehensive of the first poverty trends analysis over two consecutive and comparable survey rounds, were released to the public on February 2nd, 2014.

Methodology for Poverty Measurement – the Cost of Basic Needs Approach

Measurement is an important step towards addressing poverty. By identifying who the poor are and where they are located, poverty measurement can help direct and focus policy efforts. The measurement of poverty requires two steps: first, choosing a measure of living standard, in this case per-capita consumption⁵⁵; second, choosing a threshold value – the poverty line – that distinguishes the poor from the non-poor. In line with international best practices, the poverty line in Afghanistan is estimated following the Cost of Basic Needs (CBN) approach. Accordingly, the poverty line represents the level of per capita expenditure (consumption) at which the members of the household can meet their basic food and non-food needs.⁵⁶ Once the poverty line is estimated, all individuals whose per capita consumption

⁵⁴ For example, the NRVA 2003 is not a probability-based sample, meaning that it is not representative of any reference population. See World Bank (2005) "[Afghanistan Poverty, Vulnerability and Social Protection: An Initial Assessment.](#)" Human Development Unit, South Asia Region. Report No. 29694-AF. The 2005 and spring 2007 NRVA estimates are population estimates, but are somewhat more narrowly defined than recommended by Bank best practices. They also are based on different seasons of the year, one from the harvest and the other from a lean season, therefore failing to provide a comprehensive picture of seasonality in household wellbeing.

⁵⁵ This approach is commonly referred to as "welfarist approach", and it is based upon the notion that individuals express their needs through their expenditure on consumption and therefore consumption reveals individuals' preferences, utility and ultimately welfare level.

⁵⁶ Non-food consumption includes, for example, expenditure for clothing, housing, schooling, consumer durables, and so on. To reflect yearly coverage of the survey and the existing spatial differences in the cost of living, estimation of the poverty line takes into account both temporal and spatial differences in the cost of obtaining the nationally

falls below the poverty line are considered to be “poor”, that is, unable to sustain the level of consumption that would be required to satisfy their basic food and non-food expenditure needs.

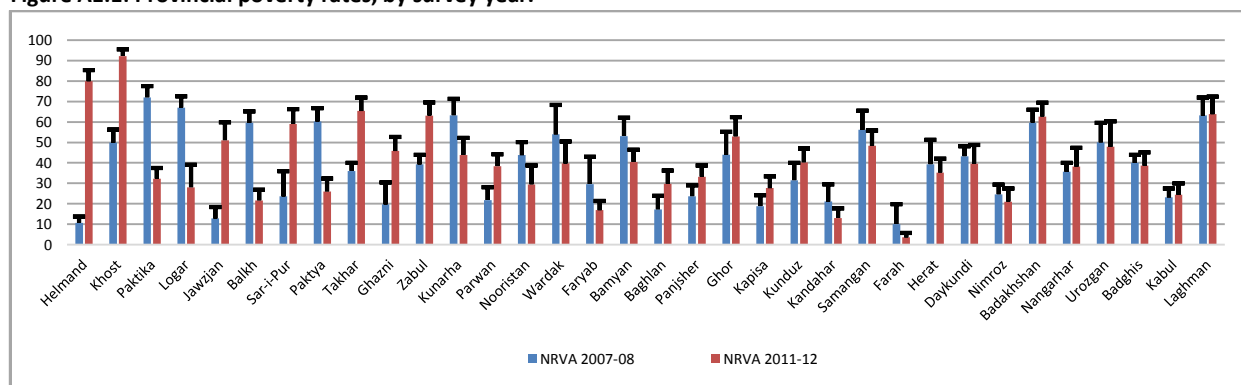
We estimated the official poverty line for Afghanistan using NRVA 2007-08 data.⁵⁷ The release of NRVA 2011-12 allowed us to compare poverty estimates in Afghanistan reliably over time for the first time, and therefore to analyze both the temporal as well as spatial evolution of poverty. To construct comparable poverty estimates across the two survey rounds, we maintained constant both the “consumption aggregate” and the reference “basic needs basket” used to estimate poverty in 2007-08.⁵⁸ The new poverty estimates in NRVA 2011-12 reflect the cost of accessing the 2007-08 basic needs basket estimated at prices prevailing in 2011-12.

Data quality issues

Conducting provincial-level welfare analysis is one of the most desirable features enabled by the 2007-08 and the 2011-12 NRVAs. To ensure the reliability of province-level trends in a context of deteriorating security, and concomitant field data-collection challenges, Afghanistan’s Central Statistical Organization collaborated with the World Bank to conduct tests and sensitivity analysis to validate NRVA data quality.

Great attention was devoted to the validation of trends in the poverty indicator. As shown in Figure A1.1, provincial poverty trends are vary widely, both in terms of the absolute magnitude of poverty change and in terms of direction (poverty increase or reduction). The magnitude of poverty change was particularly large in eleven provinces, where the absolute poverty change was above 20 percentage points.

Figure A1.1: Provincial poverty rates, by survey year.



Note: Provinces have been sorted in descending order based on the magnitude (in absolute value) of the poverty change over the two survey years.

Source: Authors’ calculation using NRVA 2011-12

defined “basic needs basket.” For an in-depth discussion of the methodology adopted to estimate the poverty line for Afghanistan, see Afghanistan (2010b).

⁵⁷ In particular, the average national poverty for Afghanistan, estimated using NRVA 2007-08 data was set at 1250 Afs per capita per month, expressed in prices of the Urban Central region during the fall of 2007.

⁵⁸ Because of changes in survey instruments, the measurement of health expenditures in 2011-12 was not comparable with the one in 2007-08. As a result, and to guarantee comparability over time, poverty estimates for 2007-08 were revised to exclude health expenditures from the consumption aggregate. Health expenditures are therefore not included in the consumption aggregates for both survey years. The inclusion or exclusion of health expenditures from the consumption aggregate does not affect the quality of poverty estimates. For a detailed discussion of this issue in the literature on poverty estimation see Deaton and Zaidi (2002).

These provinces were flagged as potentially affected by data quality anomalies and selected for further investigation.

As a first step, the direction of the poverty change in these provinces was validated through consultations. Lacking any provincial level data on economic output that could help validate poverty trends, extensive local consultations were conducted to obtain subjective perceptions about the trends in wellbeing. Results of the consultations corroborated the direction of the poverty trend for each of the 11 “problematic provinces”. Secondly, we analyzed the magnitude of the poverty change to identify potential outliers in welfare shocks. In particular, we conducted simulations for each “problematic province” to identify the magnitude of the shock to 2007-08 welfare distribution (expressed as percentage of the poverty line) that would be compatible with the actual change in poverty between 2007-08 and 2011-12.

The rationale behind this exercise is that a large change in poverty does not necessarily correspond to a large welfare shock, and therefore identifying “problematic provinces” based on magnitude of change in poverty rate alone could be misleading. In fact, depending on the number of individuals who consume very close to the poverty line, provinces could experience different changes in poverty rate even if faced with a shock of the same magnitude. As an example, as shown in Table A1.1, a shock to 20 percent of the poverty line creates a 41.7 percentage points of increase in Logar’s poverty rate. This result reveals that the large change in poverty observed in the actual data (39 percentage points) can result from a relatively small shock to welfare.

As shown in Table A1.1, Helmand and Khost Provinces emerge from this analysis as data outliers. The shock to welfare compatible with the observed change in poverty in these two provinces is significantly larger than that observed in any other “problematic province”. Based on this analysis, and on subsequent review of the food consumption data, we excluded Helmand and Khost provinces from the poverty analysis due to data quality issues.

Table A1.1: Sensitivity analysis results.

Province	Trend	Shock (expressed as % poverty line) compatible with observed poverty change	Actual change in poverty (in pc points)	poverty change (in pc points) for given magnitude of shock (expressed as % poverty line)						
				20	25	30	35	40	45	50
Balkh	Down	~35	38	20.7	27.9	33.0	38.5	43.1	49.1	52.9
Ghazni	Up	~25	26	19.8	25.1	29.5	34.3	38.1	42.4	46.2
Helmand	Up	~70	69	18.0	25.3	30.6	38.9	47.2	51.6	56.8
Jawzjan	Up	~35	38	18.6	26.4	32.9	39.9	46.7	50.7	54.1
Khost	Up	(70-75)	42	17.3	19.6	22.5	26.4	29.2	32.0	35.3
Logar	Down	(15-20)	39	41.7	49.5	55.3	59.9	61.1	63.1	65.9
Paktika	Down	~30	40	24.4	31.5	39.4	47.1	55.2	62.7	67.5
Paktya	Down	(20-25)	34	29.7	37.9	43.5	47.7	50.8	53.1	55.8
Sar-i-Pur	Up	~40	35	17.5	23.0	27.4	30.5	34.8	40.4	42.4
Takhar	Up	~45	29	16.8	19.1	21.3	24.1	26.6	29.3	31.1
Zabul	Up	(25-30)	24	20.0	21.2	24.0	27.6	30.0	32.2	32.2

Source: Authors’ calculation using NRVA 2011-12

ANNEX 2

Changes in survey questionnaires between the NRVA 2007-08 and 2011-12 complicate the analysis of labor market trends in Afghanistan. Comparability issues caused by these changes can be broadly classified into (i) issues that can be addressed by changing the working definition of labor market indicators, and (ii) issues that can be addressed (or at least partly mitigated) after understanding the channels through which questionnaire changes might impact labor market outcomes.

The following changes in questionnaires fall under the first category (see Box 4):

- (a) *Differences in the age of respondents to the labor module*: NRVA 07-08 collects labor market information for individuals aged 16+; NRVA 11-12 on individual 14+. The problem can be circumvented by deviating from the official definition (14+), and defining the working age population (WAP) as composed by individuals aged 16+.
- (b) *Introduction of new questions to improve definition of labor market indicators*: NRVA 11-12 includes new questions to improve the definition of underemployment to elicit information on workers' "willingness" and "availability" to work additional hours. The problem can be circumvented by omitting the use of this additional information.

Under the second typology, we include the following changes in questionnaires:

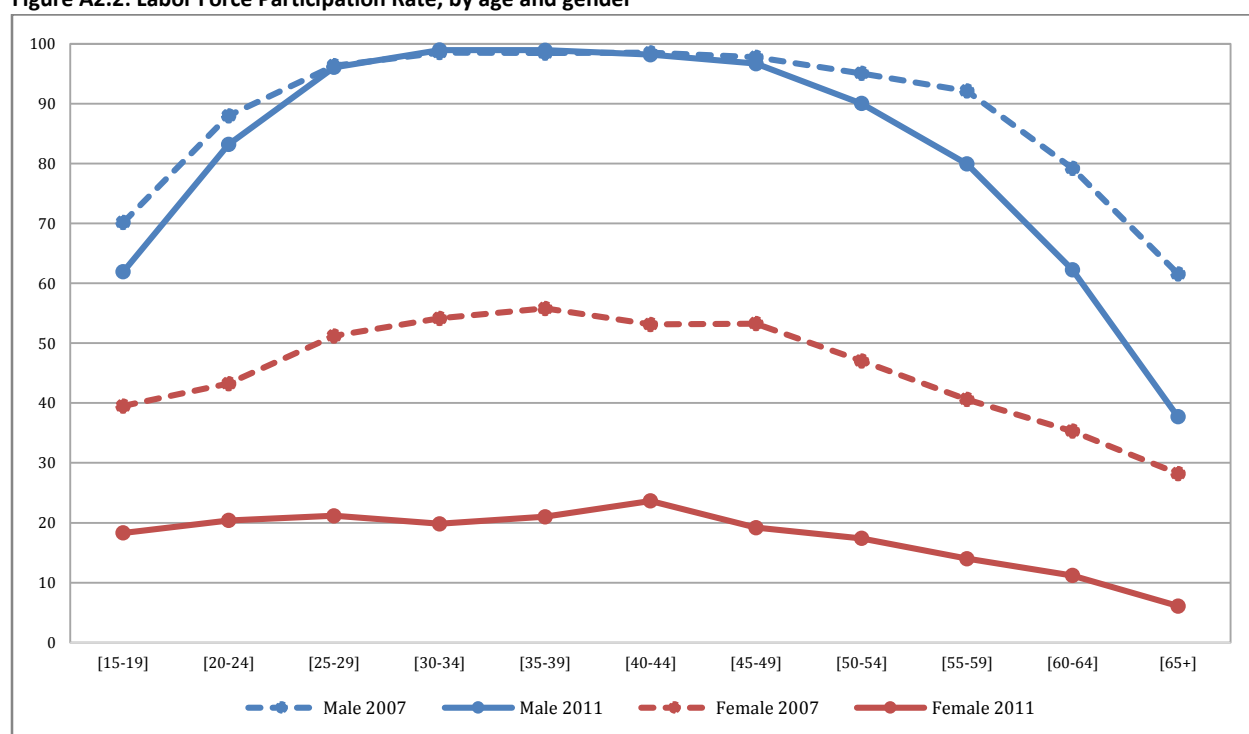
- (a) *Changes in the reference period*: NRVA 11-12 collects information on labor market status during the week prior to the survey, while the recall period in the NRVA 07-08 is the month prior to the survey. While a sizeable body of experimental research assesses the impact of changes in the recall period on measurement of food consumption, much less is known about the impact of different recall periods on the measurement of labor market indicators. Bardasi et al. (2010) and Fox, Pimhidzai (2013) both find that *shorter recall periods tend to underestimate labor force participation*, possibly related to seasonal variation in activity status for vulnerable segments.
- (b) *Changes in the screening question on employment*. As shown in Figure A2.1, the number and precision of screening questions on employment declined dramatically between the two survey years. Such changes, as found in Bardasi et al. (2010), tend to underestimate labor force participation of categories with weaker labor market attachment, namely youth, elderly and women. Consistent findings emerge from the analysis of trends in age-specific participation rates between NRVA 2007-08 and 2011-12.

The approach followed to mitigate the impact of questionnaire changes on the measurement of labor force participation (and related labor market indicators) is to restrict the sample to the subgroup of workers with the strongest labor attachment, namely to male workers in the 25-50 age group.

Figure A2.1: Changes in employment screening questions

	NRVA 2007-08	NRVA 2011-12
1	In the last 30 days, did this person work for any organization or any individual?	In the last week, did this person do any work for pay, for profit or family gain, including farm work or tending livestock or poultry, or any occasional work?
2	In the last 30 days, did this person do any agricultural work, even free, on land owned, rented or used by household – such as cultivating/harvesting crops, taking care of livestock or poultry in your household?	
3	In the last 30 days, did this person do any non-agricultural work, on own account, in a business enterprise belonging to the household or member of the household, - e.g. as a trader, barber, shop owner, dressmaker, carpenter, taxi driver, processing farm produce, weaving carpets, making handicrafts, etc.?	

Source: NRVA questionnaires, CSO.

Figure A2.2: Labor Force Participation Rate, by age and gender

Source: Authors' calculation using NRVA 2007-08 and 2011-12.



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