



ETHIOPIA POVERTY ASSESSMENT

Harnessing Continued Growth for Accelerated Poverty Reduction

OVERVIEW

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Acknowledgements

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1. Introduction

The poverty headcount in Ethiopia is falling. The share of the population below the national poverty line decreased from 30 percent in 2011 to 24 percent in 2016. This decrease was achieved in spite of the fact that the 2015/16 survey was conducted during the severe El-Nino drought. The observed reduction in poverty is robust to the use of alternative deflators. The fall in the poverty headcount was driven mainly by Ethiopia's strong economic growth over that period.

Ethiopia has continued to pursue its developmental state model. The approach is characterized by a strategic focus on agriculture and industrialization, coupled with large public infrastructure investments facilitated by heterodox macro-financial policies. Economic growth in Ethiopia has remained exceptionally strong. GDP grew at an average rate of almost 10 percent per year between 2011 and 2016, resulting in a 39 percent increase in per capita GDP levels. This was mainly driven by services, which explained 42 percent of the expansion in GDP between 2011 and 2016. Agriculture contributed 25 percent to the growth in GDP over the same period, while industry accounted for 34 percent (Figure 1).

Economic output has been shifting from agriculture to industry, but employment shares have not changed as much. Agriculture's share in GDP decreased from 46 percent in 2011 to 38 percent in 2016, while the share of industry rose from 14 percent to 24 percent over the same period. Services remained fairly constant at 39 to 40 percent of GDP. Changes in sectoral employment shares have been less dramatic. Agriculture's share of employment modestly decreased to 74 percent in 2013 (year of the latest Labor Force Survey), down from 78 percent in 2005. Most workers shifted towards services (employment share of 18 percent in 2013) and, to a lesser extent, industry (share of 9 percent in 2013).



Ethiopia's performance in converting economic growth to poverty reduction has been relatively weak. Between 1997 and 2016, a one percent increase in per capita GDP was associated with a 0.33 percent decrease in poverty rates. Among a sample of comparators, only Mozambique and Rwanda had a lower "poverty-elasticity of growth" (Figure 2). The semi-elasticity, however, which measures the percentage point change in poverty for a one percent change in per capita GDP, was lowest in Ethiopia. Between 1997 and 2016, a one percent increase in per capita GDP was accompanied by only a 0.19 percentage point reduction in poverty, less than a guarter of Tanzania's semi-elasticity. Research shows that countries with low levels of initial development tend to have lower growth-poverty elasticities. It is possible that the baseline level of development in Ethiopia was so low that growth has increased incomes of the poor but not yet to the level of pushing them above the poverty line.

This poverty assessment focuses on the evolution of poverty and other social indicators in Ethiopia between 2011 and 2016. It uses data from a variety of sources, mainly the Household Consumption and Expenditure Survey (HCES), the Welfare Monitoring Surveys (WMS), the Ethiopia Socioeconomic Survey (ESS) and the Demographic and Health Surveys (DHS), to observe trends in monetary and non-monetary dimensions of living standards and to examine the drivers of these trends, with a special focus on government programs. The aim of the poverty assessment is to provide policymakers and development partners with information and analysis that can be used to improve the effectiveness of their poverty reduction and social programs.



Note: The elasticities are estimated by taking the first and last years between 1997 and 2016 when data on poverty is available. Myanmar is not included because poverty data is available only for 2015.

Source: World Development Indicators. World Bank staff calculations.

2. Poverty in Ethiopia

2.1 TRENDS IN POVERTY REDUCTION

Poverty declined much more in urban areas than in rural areas. Although the poverty headcount fell from 30 percent in 2011 to 24 percent in 2016, these gains were not spread evenly throughout the country. Economic expansion translated into strong household consumption growth for the urban population, but the impact for the rural population was very small in comparison. Consumption of urban households grew at 6 percent per year on average, while for rural households it was less than 1 percent. As a result of increased consumption, the poverty rate for urban Ethiopia decreased from 26 percent in 2011 to 15 percent in 2016, a drop of 11 percentage points (Figure 1) In contrast, poverty decreased in rural areas by only 4 percentage points in that time, from 30 percent to 26 percent. Consequently, poverty became somewhat more concentrated in rural areas. Close to 90 percent of the poor lived in rural areas in 2016, compared to a rural population share of 80 percent.

The depth and severity of poverty also decreased, but again the gains accrued mostly to the urban population. The depth of poverty, which measures how far on average the consumption of the poor is from the poverty line (also called the "poverty gap"), modestly dropped at the national level. However, when examined in more detail, this change represents a sharp decrease in the depth of poverty for urban areas and a weak one in rural areas. Similarly, the severity of poverty, another measurement of the average poverty gap for the poor that attaches more weight to the poorest, showed no improvement for rural areas despite a strong decrease for urban areas. At the regional level, poverty severity decreased strongly in Afar, Benishangul-Gumuz and Gambella, and in the city administrations (Addis Ababa and Dire Dawa). Conversely, poverty severity in Harari increased sharply from a low base.



Source: HCES, 2011; 2016. World Bank staff calculations.

The bottom 10 percent have not experienced any real consumption growth since 2005. A previous World Bank poverty assessment showed that consumption among the bottom 15 percent actually contracted between 2005 and 2011, both in rural and urban areas. This pattern continued into the latest period for the rural population but not for the urban population. For the country as a whole, growth for the bottom 15 percent was not statistically different from zero from 2011 to 2016, in contrast to the top of the distribution where growth rates reached a maximum of just under 6 percent per year. This uneven pattern was driven by rural areas, in which the bottom 20 percent of the consumption distribution experienced zero or negative consumption growth (Figure 4). In contrast, growth across the urban consumption distribution was always above 3 percent per year, even for the poorest, and was increasingly strong towards the upper end of the distribution (Figure 5). Because the bulk of the Ethiopian population live in rural areas, the national pattern of growth closely resembles the rural pattern.

Weaker growth in rural areas has meant that the relative contribution of urban areas to poverty reduction is increasing. One third of poverty reduction from 2011 to 2016 was attributable to urban areas, more than doubling its share in the previous period (Figure 6). Population shifts from rural to urban areas did not contribute to poverty reduction because rural-to-urban migration, while increasing, is still relatively weak. After a period of stagnation in per capita GDP between 2000 and 2005, strong and sustained economic growth began to drive robust consumption growth and poverty reduction at the household level, mainly in urban areas (Figure 7). The contribution of urban areas to poverty reduction is expected to further increase in coming years as improved rural education levels and land scarcity speed up rural-urban migration and the ongoing reforms create more job opportunities in the urban private sector.

Figure 4 WELFARE OF THE POOREST 20 PERCENT IN RURAL AREAS DID NOT INCREASE BETWEEN 2011 AND 2016...

Average annual growth rates of rural consumption by percentile between 2011 and 2016

Source: HCES 2011; 2016. World Bank staff calculations.

Figure 5 ...WHILE GROWTH WAS STRONG ACROSS THE URBAN WELFARE DISTRIBUTION

Average annual growth rates of rural consumption by percentile between 2011 and 2016

Source: HCES 2011; 2016. World Bank staff calculations.

Note: The population shift effect estimates the change in poverty due to a shift in population from rural to urban areas. Source: HCES 2011; 2016. World Bank staff calculations.

Figure 7 SUSTAINED ECONOMIC GROWTH HAS LIFTED MANY URBAN HOUSEHOLDS OUT OF POVERTY GDP per capita and urban poverty rates, 2000-2016

Source: HCES 2011; 2016. World Bank staff calculations.

Inequality increased slightly. The Gini coefficient rose from 0.30 in 2011 to 0.33 in 2016, but remains relatively low in comparison to other countries in the region. The rise in inequality is mainly due to an increasing disparity between rural and urban areas. Urban consumption was already higher

than rural consumption and grew much more quickly. The share of total inequality that can be explained by differences in welfare between urban and rural areas doubled to reach 29 percent in 2016 (Figure 8).

Figure 8 INEQUALITY INCREASED DUE TO THE INCREASING GAP BETWEEN URBAN AND RURAL AREAS

Decomposition of the Gini coefficient into a between rural-urban component and a within-component

Source: HCES 2011; 2016. World Bank staff calculations.

2.2 NON-MONETARY DIMENSIONS OF POVERTY REDUCTION

Non-monetary dimensions of household welfare improved alongside poverty reduction. The share of households with a television, mobile phone, or refrigerator increased from 2011 to 2016, as did the use of improved housing materials and access to electricity (Figure 10). The share of Ethiopian households living in a home with an improved roof rose dramatically, but having improved walls (cement, bricks, wood, etc...) nonetheless remained rare. Access to water and sanitation services improved considerably as well. In 2016, only 35 percent of Ethiopians used an unimproved water source, down from 46 percent in 2011. Nonetheless, a third of households still do not have access to any toilet facility.

Figure 9 ASSET HOLDINGS AND LIVING CONDITIONS IMPROVED BETWEEN 2011 AND 2016

Selected household characteristics in 2011 and 2016, % of households with asset/characteristic

Source: DHS, 2011; 2016

Human development indicators for the country improved but nonetheless remain low. The rate of delivery in a health facility more than doubled, while the share of fully immunized children increased by 14 percentage points and stunting rates fell by 6 percentage points (Figure 10). Infant and child mortality rates decreased accordingly. These development indicators nonetheless remained low, with only 26 percent of births taking place in a health facility and less than 40 percent of children being fully immunized. Both net enrolment in primary school and the completion rate went up, as well as gross enrolment in secondary school. These numbers also remained weak however, with only one in three people aged 15 to 24 having completed primary school.

Figure 10 CHILDREN'S MORTALITY DECREASED, AND THEIR HEALTH IMPROVED BETWEEN 2011 AND 2016

Selected health and education variables for children in 2011 and 2016

A. Child and infant mortality rates

Source: DHS, 2011; 2016

2.3 CHARACTERISTICS OF THE POOR

Ethiopia has a traditional poverty profile. As in most low-income countries in the world, the poor tend to live in rural areas in large households with high dependency rates, and that are headed by an older and little-educated person. The poor mainly engage in agriculture and casual labor for their livelihoods, are relatively isolated from key infrastructure, and have more limited access to basic services. Rapid urban poverty reduction in Ethiopia has meant that the poor are increasingly concentrated in rural areas.

Poor households tend to have more children and higher dependency ratios. In both rural and urban areas, the average poor household includes about 1.5 more members than non-poor households. In rural areas, the average poor household has 1.4 dependents for every working-age adult, compared to 1.1 for non-poor households. Given the limited resources available to poor households, having dependents creates relatively more financial strain. Households with less than 0.5 dependents per working-age adult have an average poverty rate of 16 percent, while households with 2 or more dependents for working-age adult have poverty rates in excess of 30 percent (Figure 11). While dependency rates have decreased since 2011, the poorest are lagging. The dependency rate in the bottom quintile remained constant at 1.5 dependents per working-age adult, reflecting the persistently high total fertility rate of 6.4 for this cohort.

Figure 11 CHARACTERISTICS OF THE POOR

A. The poor are largely uneducated

Poverty rate by education of household head

Source: HCES 2011; 2016. World Bank staff calculations.

B. Live in households with high dependency rates Poverty rate by household dependency rate

A lack of education is strongly correlated with pover-

ty. Poverty is highest among households with a head who never went to school and decreases with each extra level of education (Figure 11). A complete cycle of primary education seems to have the biggest returns in terms of poverty reduction. Households with a head who has completed primary school have poverty rates that are less than half of those of households with heads who never went to school. There is also a strong relationship between household welfare and educational attainment of the household's youth, suggesting a high degree of intergenerational transmission of poverty.

Returns to education in terms of consumption have increased, both in urban and in rural areas. Whereas in urban areas post-secondary education had a 45 percent return in terms of household consumption in 2011 (relative to a household with an uneducated head), it had a 64 percent return in 2016. This may reflect the increase in real hourly wages in urban Ethiopia as well as the modest decrease in unemployment. In rural areas, the reward for having

a household head that completed primary school doubled from 10 percent in 2011 to 21 percent in 2016, although few rural Ethiopians attain that much education. The significant increase in education returns in rural areas may reflect the adoption of agricultural technology such as improved seeds, fertilizers and herbicides. Such innovations are mainly taken up by more educated farmers.

The poor tend to live in more remote and badly-connected areas. Relative to the rural non-poor, the rural poor live further away from roads, health facilities, and urban centers. For instance, 57 percent of the poor live more than three kilometers away from an all-weather road, compared to 45 percent of the non-poor.¹ Similarly, 43 percent of the poor live more than three kilometers away from a health facility, compared to 34 percent of the non-poor. In general, better connectivity is correlated with lower poverty. While connectivity has increased in recent years, large parts of rural Ethiopia remain poorly connected.

2.4 GEOGRAPHIC DISTRIBUTION OF THE POOR

Poverty rates do not vary much by region, but do vary by agro-ecological zone. In contrast to many countries, there is no strong regional concentration of poverty in Ethiopia. Differences in consumption levels between regions explained a mere two percent of total inequality in 2016. Regional contributions to overall poverty thus largely reflect regional population shares (Table 1). However, some disparities in poverty are evident when considering the "five Ethiopias"– an agro-ecological classification based on altitude, rainfall, and predominant livelihoods. The drought-prone lowlands, which include the eastern and southern parts of Oromia and the southern parts of SNNPR (but do not include pastoral areas of Afar and Somali), had the highest poverty rate in 2016, at 32 percent. The depth and severity of poverty was also highest in this zone. In contrast, the drought-prone highlands had the lowest poverty rate (21 percent).

Table 1 POVERTY RATES, POVERTY SHARES, AND POPULATION SHARES BY REGION AND AGRO-ECOLOGICAL ZONE, 2016

	POVERTY RATE	POVERTY SHARE	POPULATION SHARE	
BY REGION				
Tigray	27.0%	6.6%	5.8%	
Afar	23.6%	1.9%	1.9%	
Amhara	26.1%	25.5%	23.0%	
Oromia	23.9%	38.3%	37.8%	
Somali	22.4%	5.5%	5.8%	
Benishangul Gumuz	26.5%	1.3%	1.1%	
SNNPR	20.7%	17.5%	19.9%	
Gambella	23.1%	0.4%	0.4%	
Harari	7.1%	0.1%	0.3%	
Addis Ababa	16.8%	2.6%	3.6%	
Dire Dawa	15.4%	0.3%	0.5%	
BY AGRO-ECOLOGICAL ZONE				
Moisture-reliable highlands	23.6%	58.5%	58.4%	
Drought-prone highlands	20.8%	19.9%	22.5%	
Moisture-reliable lowlands	25.4%	4.7%	4.3%	
Drought-prone lowlands	31.7%	7.5%	4.7%	
Pastoral areas	21.9%	6.9%	7.4%	

Note: Poverty share denotes the contribution of the region to overall poverty. Source: HCES, WMS, 2016. World bank staff calculations.

The persistent notion that the pastoral areas of Ethiopia are the poorest of the country is not confirmed by the data. The pastoral areas, which cover most parts of Afar and Somali region, have typically had average or below average poverty rates. Nonetheless these areas are significantly lagging on human development outcomes. Education, health, and other social indicators tend to be much worse in the pastoral regions (Afar and Somali). Other regions with a significant pastoral population, such as Oromia, also tend to perform below average on human development outcomes, reflecting the difficulty of providing public services in low-density areas with mobile populations.

2.5 CHARACTERISTICS OF THE EXTREME POOR

The characteristics of the extreme poor are like those of the poor, only more severe. The extreme poor are those in the bottom 10 percent of the consumption distribution. As discussed above, this cohort have not experienced any real consumption growth since 2005. Whereas the poor are characterized by large households, high dependency rates, and a lack of education, the extreme poor have still larger households, even higher dependency rates, and even less education. Compared to the poor, extreme poor are also more likely to be rural and more isolated from markets. The extreme poor are also lagging behind in Ethiopia's fertility transition. While the Total Fertility Rate decreased substantially in the third, fourth, and fifth wealth quintiles, it decreased only modestly in the second quintile (a decrease of 0.6 in 16 years) and did not change at all in the bottom quintile. The extreme poor are more likely to be located in SNNPR and Somali regions, in contrast to the fairly even distribution of the poor throughout all regions.

Extremely poor households experienced some improvements in non-monetary welfare, despite not experiencing any real growth in consumption. The share of the extreme poor living in a house with an improved roof increased sharply from a low base, from 1 percent in 2011 to 10 percent in 2016 (Figure 12). Net primary school enrolment reached 66 percent in 2016, up from 56 percent in 2011. Despite this increase in enrollment, completion of primary school remained unchanged at about 17 percent of the 15 to 24 age cohort.

Figure 12 LIVING CONDITIONS OF THE BOTTOM 10 PERCENT IMPROVED BETWEEN 2011 AND 2016

Source: WMS 2011, 2016; DHS, 2011, 2016. World Bank staff calculations.

Some development indicators for the extreme poor showed no improvement. The share of extremely poor children stunted or wasted remained stable at a high level, despite an improvement in reported food shortages. In 2016, a mere one in four extremely poor children had received all basic vaccinations, and about one in four had access to an improved water source. Only 7 percent of children were born in a health facility, although this represents a sharp increase from a low base (Table 2). These weak indicators highlight the enormous efforts that lie ahead in making access to basic public services less dependent on location and wealth.

Table 2

A MIXED PICTURE OF PROGRESS FOR THE EXTREME POOR

Means of selected variables for the bottom 10 percent, 2011 and 2016

	2011	2016	MEAN DIFFERENCE
Household head literate (%)	32.6	35.7	3.1
Household size	7.3	7.2	-0.1
Dependency ratio	1.38	1.41	0.03
Cumulative fertility	3.6	3.7	0.1
Births in health facility (%)	2.7	7	4.3
Children stunted (%)	47.1	45.2	-1.9
Children wasted (%)	13.9	14.4	0.5
Average annual household expenditures per AE (2015 Birr)	3,827	3,762	-65
Daily calorie intake per AE	1,633	1,777	144
Food shortage (%)	31	20	-11

Source: WMS, 2011; 2016. World Bank staff calculations. The food gap is only calculated for those households who reported a food shortage. Differences in bold are statistically significant.

2.6 AGRICULTURE AND POVERTY

Most Ethiopians are engaged in agriculture. Overall, 70 percent of household heads in Ethiopia have their main occupation in agriculture or livestock, but this increases to 84 percent for households in the bottom quintile (Figure 13). Beyond agriculture, poor households engage in non-farm self-employment but do not have the education or skills necessary to access non-farm wage employment. This pattern is widespread throughout the income distribution, and the occupational structure of the bottom 80 percent of households is fairly similar to the bottom 20 percent. The top quintile is remarkably different however, with more than half of households having a main occupation outside of agriculture.

Most of the poverty reduction took place in the agricultural sector, due to its dominance of the economy. Although the contribution of urban areas to overall poverty reduction is increasing, the rural nature of Ethiopia means that the agricultural sector remains crucial. Poverty fell fastest in the zones that had the strongest agricultural growth between 2000 and 2016.² Two thirds of the reduction in poverty from 2011 to 2016 can be explained by agriculture (Figure 14). Notably, this is less than the share it contributed over the previous period. Changes within the services sector accounted for about 15 percent of poverty reduction between 2011 and 2016. The role of structural transformation – shifts in the population out of agriculture and into manufacturing or services – was very limited over the last period, reflecting the familiar "growth without structural transformation" narrative for Ethiopia. Nonetheless, the importance of this factor is likely to increase in the future.

Figure 13 AGRICULTURE REMAINS THE MOST COMMON OCCUPATION, ESPECIALLY FOR THE POOR

Main occupation of household head, by guintile, 2016

² Zones are administrative entities below the regions and above the woredas.

Cash crops were more important for poverty reduction than cereals. In the latest period (2011-2016), a strong shift was observed away from the production of cereal crops in favor of cash crops. The expansion of cash crop cultivation was especially strong for coffee, khat, oil seeds such as sesame and noog (*guizotia abyssinica*), as well as kocho. The zones that showed particularly strong shifts towards cash crops were in Oromiya (Jimma, West Hararge and East Hararge), SNNP (Sidama) and Harari. Within the category of cash crops there was significant movement in prices, with the price of khat relative to the price of coffee rising by more than 40 percent in 10 years (Figure 15). West and East Hararge zones, where khat is cultivated, both experienced very sharp drops in poverty between 2011 and 2016. Despite the immediate economic gains, a focus on cash crops raises the exposure of farmers to market fluctuations, given that the impact of crop price changes on revenue is about twice as large for cash crops as for cereals.

Figure 15 THE RELATIVE PRICE OF KHAT OVER COFFEE JUMPED BY 40 PERCENT OVER A DECADE

The ratio of khat prices to coffee prices between 2007 and 2017

3. Special Topics in Poverty Analysis

3.1 HOUSEHOLD POVERTY DYNAMICS AND ECONOMIC MOBILITY

Although the poorest households were no better-off in 2016 compared to 2012 (in terms of consumption), in most cases these were not the same households. The cross-sectional nature of the Household Consumption and Expenditure Survey (HCES) data considered in the last chapter makes it impossible to assess whether the households that were poor in 2016 were the same ones that were poor in 2011. However, longitudinal surveys allow for the analysis of the consumption dynamics of individual households. The Ethiopian Socioeconomic Survey (ESS) is a longitudinal survey that interviewed a representative sample of households in rural areas and small towns of Ethiopia in 2012, and then interviewed them again in 2014 and 2016. Larger towns and cities were also covered in the last two rounds. Exploiting the time dimension of the data allows us to see who escaped poverty, who remained trapped in poverty, and the reasons why. Crucially, it also allows us to determine the profiles of those who were chronically poor.

Poorer households experienced better growth rates. For the rural and small-town population, comparing each individual household's consumption in 2012 to its consumption in 2016 shows that the households that were initially the poorest experienced the fastest rate of consumption growth (Figure 16). Although the consumption growth of the baseline poor was impressive in percentage terms, it was modest in real ETB terms and for many of the poor it was not enough to lift them over the poverty line. In contrast to the poor, the consumption of rural and small-town households that were initially in the upper part of the distribution actually contracted.

Figure 16 THE BASELINE POOR GREW FASTEST BETWEEN 2012 AND 2016

Growth rate of consumption conditional on decile in 2012 (non-anonymous quasi-GICs)

Source: Own calculations from ESS 2012, 2014 and 2016.

Most of the longer-term poverty in Ethiopia is transitory in nature, but a considerable share of households are trapped in chronic poverty. 16 percent of people in rural areas and small towns were chronically poor over the 2012 to 2016 period, and 31 percent experienced transitory poverty (Figure 17).³ Taken together, almost half of that population experienced at least one spell of poverty in that time, reflecting the high extent of consumption variability and vulnerability in rural Ethiopia. Chronic poverty was mainly concentrated in SNNPR, where 30 percent of households were considered to be chronically poor from 2012 to 2016. Most of the transitory poor were found in Amhara Region (Figure 18). Chronically poor households tend to be larger and have fewer resources, but are more likely to benefit from government assistance. Relative to the transitory poor and the never poor, the chronic poor have more children, higher dependency rates, less land per adult, fewer assets and less education. Interestingly, chronically poor households were not substantially more remote than households that were never poor, as measured by distance to the nearest road or population center of more than 20,000 people. As would be expected with efficient targeting, the chronically poor are more likely to benefit from the government's social protection programs.

³ Chronic poverty is defined as those households whose average consumption expenditure over all three rounds of ESS was below the poverty line. Transitory poverty means the household's average consumption expenditure over the three rounds of ESS was above the poverty line, but the household was poor in at least one round.

There was a large amount of mobility as measured by consumption expenditure, both upwards and downwards. Transitions into poverty were far more likely in rural areas than in small towns or urban areas. 26 percent of the initially non-poor population in rural areas had fallen into poverty by 2016, compared to only 14 percent in towns and 4 percent in cities.⁴ The same holds true in reverse, with upward mobility higher in towns and cities than in the rural hinterland. Although 58 percent of the rural population who were poor in 2012 had managed to escape poverty by 2016, this number was 62 percent in towns and 69 percent in cities. Other factors associated with a higher probability of escaping poverty are a higher level of education of the household head and living in pastoral areas (Figure 19). Male-headed households

and households living in the drought-prone lowlands were more likely to fall into poverty.

The analysis of the longitudinal data confirms many of the conclusions of the analysis of the cross-sectional data. Both the ESS and HCES show that (1) chronic poverty is mainly concentrated in SNNPR and transitory poverty in Amhara, (2) households in pastoral areas have done relatively well, and (3) households in the drought-prone lowlands have fared relatively poorly. Both datasets also show that female-headed households have higher consumption levels and were less likely to fall into poverty. Finally, they also agree that urban areas performed better than rural areas between 2011 (or 2012) and 2016.

Figure 19

MORE EDUCATED HOUSEHOLDS, HOUSEHOLDS HEADED BY WOMEN, AND PASTORALIST HOUSEHOLDS WERE MORE LIKELY TO EXIT POVERTY

Source: ESS 2012, 2014, 2016. World Bank staff calculations.

^{4 &}quot;Initially" refers to the baseline poverty status in 2012.

3.2 URBAN POVERTY IN ETHIOPIA

Ethiopia is rapidly urbanizing from a low base. While its urbanization level is still among the lowest in Sub-Saharan Africa, the urban population has increased by 6.2 percent annually since 2011, much faster than rural population growth rate of 2.7 percent. Consequently, the share of Ethiopians living in urban areas rose from 16.6 percent in 2011 to

19.1 percent in 2016. Nearly 1 million people are added to the urban population every year. Ethiopia's urban population is projected to reach 42 million by 2032 and its population share to hit 30 percent by 2028.⁵ Urban population growth will take place mainly in small towns and secondary cities (Figure 20).

Figure 20 SMALL TOWNS AND SECONDARY CITIES WILL ACCOUNT FOR THE BULK **OF URBAN POPULATION GROWTH** Urban population trends and projections, 2007-2035 52.6 50 5.81 40 20.242 31.1 Less than 50,000 Population (million) 05 05 50,000 to 100,000 4.561 100,000 to 500,000 5.593 9.225 17.5 Addis Ababa 3.273 11.9 3.284 3.488 20.929 10 27/ 1.782 2.276 14.002 8.916 5.708 0 2007 2015 2025 2035

Source: Schmidt, E., Dorosh, P., Jemal, M.K., & Smart, J. (2018). Ethiopia's spatial and structural transformation: Public policy and drivers of change. IFPRI/EDRI Strategy Support Program Working Paper 119.

5 World Bank. (2015b). Ethiopia Urbanization Review: Urban institutions for a middle-income Ethiopia. Washington, D.C.: World Bank.

Urban poverty has declined rapidly. The share of the urban population living below the national poverty line decreased from 26 percent in 2011 to 15 percent by 2016. Headcount ratios have declined by around 10 percentage points in Addis Ababa, major towns, medium towns, and small towns (Figure 21). Poverty gap and severity measures have also decreased across the board. The absolute number of poor also fallen, despite rapid urban population growth. Overall, urban poverty reduction between 2011 and 2016 has been robust and widespread.

Poverty reduction was mainly driven by small and medium-sized towns. Poverty rates tend to be lower in cities with a larger population, except for Addis Ababa. The poverty headcount ratios in towns of a population of less than 20,000 (20 percent) are higher than other bigger towns and cities. A third of Ethiopia's urban poor population lives in these small towns. Given their large contribution to the total urban population, small and medium-sized towns accounted for over half of urban poverty reduction between 2011 and 2016 (Figure 22). Population shifts across towns of different sizes accounted for only a limited proportion of poverty reduction, since the population shares across Addis Ababa, major towns, medium towns, and small towns have changed only marginally since 2011, indicating limited inter-city migration.

Figure 21

STRONG URBAN POVERTY REDUCTION ACROSS CITY SIZE

Poverty trends by city size

Note: Major towns have populations greater than 100,000 (excluding Addis Ababa); medium towns have populations between 20,000 and 100,000; and small towns have populations less than 20,000.

Source: HCES; 2016. World Bank staff calculations.

Figure 22 SMALL AND MEDIUM TOWNS, TRADE AND AGRICULTURE, AND THE LOW-SKILLED ACCOUNTED FOR THE BULK OF URBAN POVERTY REDUCTION

Note: the population shifts estimate the change in poverty due to a shift in population across towns (migration between towns). Source: HCES 2011; 2016. World Bank staff calculations.

Although employment growth has been strong, private sector wage employment has contributed little to poverty reduction. 74 percent of the working-age population participated in the labor force in 2016, up from about 71 percent in 2011. Over the same period, unemployment decreased from 19.6 percent to 17.3 percent.⁶ The fact that unemployment decreased even though more people are participating in the labor force indicates a solid pace of employment growth in urban Ethiopia. Female unemployment however remains high, with 1 in 4 women in urban Ethiopia unable to find a job. Real hourly wages increased by 10 percent from 2011 to 2016 in both the public and private sectors, which is not surprising given that private sector wages seem to be informally pegged to public sector wages. Nonetheless, wage levels in the private sector remain low and not sufficiently determined by their productivity. Real hourly wages increased most for the uneducated, which is consistent with the observation of strong urban poverty reduction among households headed by persons with low levels of education.

6 Urban Employment and Unemployment Surveys, 2011-2016.

Urban poverty reduction was mainly driven by households headed by self-employed workers. Returns to self-employment relative to wage-employment increased across the welfare distribution between 2011 and 2016, except for the very poorest (Figure 23). Households with a self-employed head accounted for 53 percent of the reduction in urban poverty though they represent only 46 percent of the urban population. Furthermore, the reduction in poverty for households with a self-employed head was strongest when additional household members also took up self-employment. This effect was especially important in raising consumption levels of the poorest households (Figure 24). The share of these urban households in which non-head household members engage in self-employment increased from 13 percent in 2011 to 19 percent in 2016. Although the returns to having a self-employed household head were not particularly strong for poor urban households, take-up of self-employment by non-head household members was a strong driver of consumption changes over time.

Source: HCES 2011, 2016. World Bank staff calculations.

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Living conditions in medium and small towns have not changed much in recent years. Access to piped water is relatively good in Addis Ababa, covering nearly 90 percent of households. However, in major towns, medium towns, and small towns, only about 70 percent of households have access to piped water and the situation has not changed since 2011. Access to improved sanitation is much worse, with only a fifth of urban households having access to an improved sanitation facility and no observable improvement since 2011. Residents of small towns face the worst living conditions, as the share of substandard housing⁷ in these communities slightly increased from 2011 to 2016. Similarly, the share of small town households with access to improved sanitation and an improved solid waste management is still less than 10 percent. On the other hand, the provision of electricity in medium and small towns is widespread, with nearly 90 percent having access.

The economic integration of rural migrants is better in smaller towns than in the capital. Though still limited, rural to urban migration is expected to increase substantially in the coming years. In Addis Ababa, recent migrants (less than 3 years in the city) have substantially worse employment outcomes relative to older migrants (between 3 and 10 years in the city) and the resident population. However, as they stay in Addis longer, rural migrants increasingly find a chance to work in public employment and private permanent jobs, and their employment structure becomes more comparable to the resident population. In other major towns outside Addis, that economic integration of migrants is relatively smooth compared to the capital city, and the employment status of recent migrants is fairly similar to that of older migrants and the resident population. Social integration however seems to be more difficult. The education level of children of rural migrants is substantially worse than that of the resident population of the same age, even for migrants that have been in the city for long.

7 Defined as lack of access to piped water and improved sanitation, and overcrowding (more than three persons per room).

3.3 POVERTY AND SOCIAL PROTECTION

The Productive Safety Net Program (PSNP) significantly contributed to poverty reduction. The PSNP provides conditional (on work) or unconditional cash or food transfers to targeted poor rural households during the lean season. At the zonal level, a one percent annualized increase in PSNP coverage was associated with a 0.1 percent annualized decrease in the poverty rate. This implies that the PSNP was well targeted overall. Indeed, in 2016, 34 percent of PSNP beneficiaries were in the bottom welfare quintile and over 60 percent were drawn from the bottom 40 percent (Figure 25).

PSNP targeting is progressive both in the highlands and lowlands. While the share of beneficiaries that is drawn from the bottom quintile is substantially higher in the highlands, the share that is drawn from the bottom 40 percent is higher in the lowlands. Inclusion of households in the top quintile is higher in the highlands. On the regional level the data show that, relative to what would be possible in case of perfect targeting, Afar obtains the best targeting performance. This counter-intuitive outcome is explained by the absence of first-stage woreda targeting – in Afar, all woredas are included in the PSNP, and hence there is no exclusion of the poor because of the selection of woredas.

The PSNP's contribution to poverty reduction can be further increased. The analysis in this poverty assessment highlights three main issues. First, the number of beneficiaries at regional level bears little relation to the prevalence of poverty or self-reported food insecurity, with the number of beneficiaries exceeding the number of poor and food-insecure people in certain regions and falling far short in others (Figure 26). Second, geographical targeting (selection of woredas) adds little to the PSNP's targeting performance, which is largely due to poverty and food-insecurity not being geographically concentrated in Ethiopia (Figure 27). Third, under-coverage remains an issue, with only 13 percent of Ethiopia's poor covered by the PSNP in 2016. Better aligning regional caseloads to regional needs and expanding PSNP to more woredas but with smaller beneficiary numbers per woreda are likely to increase PSNP's coverage of the poor and its contribution to poverty reduction.

Source: ESS 2012, 2014, 2016. World Bank staff calculations.

Note: Targeting differential is the difference between coverage of the poor (food-insecure) and that of the non-poor (food-secure) Source: ESS 2012, 2014, 2016. World Bank staff calculations.

Just like the PSNP, Humanitarian Food Aid (HFA) was reasonably well-targeted in 2016. As per the design, PSNP and HFA reach different types of households. PSNP households share many of the typical characteristics of the poor, including having few assets and livestock, being remotely located, and having little education. HFA households however are similar to the average household in rural areas, but with the difference that their calorie intake is substantially lower, hinting at a recent exposure to a negative shock. There are however substantial inclusion errors in HFA targeting, with 30 percent of beneficiaries in the top two consumption quintiles. These inclusion errors are due to HFA targeting in woredas where PSNP is not active. Further harmonizing the PSNP and HFA is likely to improve performance and targeting of the joint programs.

3.4 INEQUALITY OF OPPORTUNITY IN ETHIOPIA

Inequality in welfare is partly the result of inequities in access to opportunities earlier in life. If, for instance, education produces significant returns, an adult who had the opportunity to complete schooling when she was young will have higher welfare levels than an otherwise comparable person who did not have the opportunity to go to school. The resulting inequality can be considered unfair because it results from differences in circumstances early in life and not differences in talent or hard work. In an equitable society, an individual's circumstances at birth (such as being born a girl or a boy, in a rural or an urban area, in a poor or a better-off household, etc.) should not influence the individual's access to a set of important opportunities (such as education, health care, clean water, etc.). Ensuring that there is equal opportunity of access to services is linked to more sustainable and inclusive economic growth.

Equitable access to opportunities in Ethiopia is slow-Iy increasing but inequalities remain. The proportion of age-eligible children (7 to 14) enrolled in primary school increased from 61 percent in 2011 to 71 percent in 2016. There were also large increases in access to an improved water source and in the share of children that lived within 5km of a health post. Despite these improvements, access to electricity, health care, primary school completion and secondary enrollment remain low and unequal. Fewer than one in five children who were age-eligible for secondary school (15 to 18) were enrolled in 2016. The proportion of children with access to electricity improved marginally by about 3 percentage points but remained low at 20 percent in 2016.

The rural poor are at risk of being left behind. The gaps between rural and urban areas and between richer and poorer households remain large. Access to electricity provides a striking example, reaching 90 percent for urban areas but remaining less than 10 percent for rural areas (Figure 28). There are also significant gaps in access to education when considering dimensions of wealth and geography. In 2016, half of children aged 15 to 18 in households from the top consumption quintile had completed primary school, compared

LOCATION AND HOUSEHOLD WEALTH ARE THE MAIN SOURCES OF INEQUITY IN ACCESS TO OPPORTUNITIES

Note: Primary enrolled refers to children between 7 and 14 years of age. Completed primary and attending secondary refers to persons between 15 and 18-years-old. Access to electricity, improved water and a health post refers to children between 7 and 18-years-old. Source: WMS, HCES 2016. World Bank staff calculations.

to less than 20 percent of children in the bottom consumption quintile. Almost 90 percent of age-eligible children living in Addis Ababa are enrolled in primary school, while the figure for Somali is just over half. Secondary school enrollment also demonstrates major disparities, with 40 percent of children aged 15 to 18 in urban areas enrolled in 2016, compared to only 10 percent in rural areas.

Analysis of the Human Opportunity Index confirms that inequality of opportunity is mostly driven by differences between rural and urban areas and differences in wealth. The household's consumption quartile explained 17 percent and 22 percent of inequality in secondary school enrollment and access to an improved water source, respectively. Two thirds of unequal access to electricity is explained by a household's rural location, as is about half of unequal access to an improved water source. Differences by gender play a relatively minor role in explaining inequalities across all seven outcome variables. The effect of parental education on children's education is still strong but was somewhat reduced. If children's educational attainment is largely influenced by that of their parents, it will contribute to a high transmission of poverty or prosperity across generations. The extent to which parental education influences children's education in Ethiopia diminished between 2011 and 2016, but remained strong and significant. Improvements in access to education were observed for children with poorly educated parents in urban areas, as well as children with relatively better educated parents in rural areas. There is still a large education-effect of living in an urban area, as the average urban child had completed 1.44 more grades of education in 2016 than rural children, all else equal. Furthermore, although enrolment in primary school has become less dependent on parents' education levels during this period, enrolment in secondary school became even more dependent on parents' education levels.

Household consumption levels have a large and growing influence on whether the household's children go to school. The probability of the poorest children being enrolled in primary school did not significantly increase between 2011 and 2016, but this increase was significant at the top of the distribution (Figure 29). Changes in the predicted probability of secondary school enrollment were concentrated in the top quartile of households, while the probability of being enrolled in secondary school for children in the bottom half of the distribution was not different in 2011 and 2016. The effect of household welfare levels on children's schooling is significantly stronger in rural areas, indicating greater scope for upward mobility in urban areas (where access to schooling is far less dependent on household wealth). The implication of these results is that children of poor households and poorly-educated parents in rural areas are in danger of being left behind.

Figure 29 ENROLMENT IN SCHOOL BECAME MORE DEPENDENT ON HOUSEHOLD WELFARE BETWEEN 2011 AND 2016

School enrollment probabilities by household consumption, 2011 and 2016

Source: Calculations from WMS 2010/11 and 2015/16, and HCES 2010/11 and 2015/16.

4. Perspectives on Continued Poverty Reduction

The agricultural sector still holds the key for sustained poverty reduction. Given its large share in employment and livelihoods, especially among the poor, the agricultural sector will continue to drive national poverty reduction, though its contribution will progressively decrease. The role of structural transformation in promoting economic growth is still limited, and between 2000 and 2016 poverty fell fastest in areas that had the strongest agricultural growth. There is room to further increase yields, mainly through promoting the use of improved seeds, currently being used on only about 6 percent of cultivated land. Although the recent shift towards cash crop production and the rise in crop prices helped net producers, there are also potential losers from these changes. Agricultural policy will need to be nimble enough to ensure that the effects of rising prices on vulnerable households are effectively mitigated.

The agricultural sector in its present form will not be able to absorb the rapidly growing labor force. The Ethiopian working-age population is projected to grow at two million per year in the coming decade. The increasing scarcity of agricultural land in the highlands means that an ever-larger share of young people will not inherit enough land and will need to transition to livelihoods off the farm. Given the low education levels in rural areas, the bulk of the newcomers will not qualify for modern wage employment in the formal economy. This implies that most of the growing labor force will try to make a living in the informal or semi-formal sector, in both wage employment and self-employment. The projected increase in the size of the agri-food sector as Ethiopia urbanizes and urban incomes grow could be a large generator of employment for young people leaving the farm. Designing interventions and policies to boost the labor force participation of women and youth could further increase the labor market's contribution to poverty alleviation.

The role of urban areas in poverty reduction will continue to grow. Although Ethiopia is under-urbanized given its income level, urban areas of all sizes are growing substantially and poverty in cities and towns is falling rapidly. The contribution of urban areas to poverty reduction will further increase in the coming years as rural to urban migration accelerates and ongoing reforms create more job opportunities in the urban private sector. Given the close linkages between small towns and their surrounding rural hinterland, and the lower skills requirements for jobs in these towns, investing in small towns and removing any barriers to migration to those towns holds significant promise for the creation of relatively low-skilled jobs and continued poverty reduction. In this regard, it will also be important to better understand the challenges that rural migrants face in their new urban homes, particularly with respect to access to public services and rights to formally establish and operate businesses.

Spreading the benefits of growth will also require investment in services and infrastructure in small towns.

Small towns are expected to add much of the urban population in the future, and they will gain in importance as local centers of demand and employment for the surrounding rural areas. Though small towns have been important for urban poverty reduction, access to key services and amenities is not keeping up. Investments in small towns will be required to improve living standards and to reduce migration pressure on the bigger cities.

Well-functioning and well-targeted safety nets will remain essential. In 2016, only 13 percent of Ethiopia's poor were covered by the PSNP. Increasing the coverage of the poor will require either a scaling-up of the PSNP, improved targeting to reduce the coverage of the non-poor, or a combination of both. Analysis suggests that scaling up the PSNP to more woredas, while reducing beneficiary numbers per woreda to help manage the fiscal implications, would likely increase the program's contribution to poverty reduction. Harmonizing the PSNP and Humanitarian Food Aid (HFA) and revisiting the first-stage geographical selection would likely improve both performance and coverage. Going forward, the safety net should be flexible enough to scale up or down depending on the particular state of national and local economies.

Finally, improving the welfare of the poorest will require more investments in the human capital of children. In an ideal scenario, children of extremely poor households would accumulate more education and be able to move out and diversify into more productive activities, breaking the intergenerational transmission of poverty. This however is not taking place. Education gains between 2011 and 2016 were concentrated among the children of better-educated parents in rural areas and less-educated parents in urban areas. The children of poor and poorly educated parents in rural areas lag on education, and the effect of household wealth on child education has only strengthened since 2011. Crucial investments need to be made in providing access to services in rural areas, so that children born in rural households are afforded the same opportunities as those born in urban areas. More equal access to key opportunities will be needed to harness Ethiopia's strong economic growth for faster poverty reduction.

