

## Improvements in living conditions in Ethiopia between 2000 and 2016: Evidence from Ethiopian Demographic and Health Survey data

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### RESEARCH OVERVIEW

Ethiopia has experienced rapid economic growth over the past 15 years – among the highest growth globally. Rising living standards for the average Ethiopian household reflect this. This research shows how basic living conditions have improved markedly since 2000, albeit somewhat unevenly, with urban areas witnessing the greatest improvements. Still, better access to safe drinking water and proper toilets, together with better housing quality, are indicative that the benefits of economic growth are reaching rural areas.

### CONTEXT AND APPROACH

According to Ethiopia's national accounts data, real growth of Gross Domestic Product (GDP) averaged nearly 11 percent between 2004 and 2014 (World Bank 2015). During the same period, both official and unofficial agricultural data suggest considerable growth in crop yields (Bachewe et al. 2017). Moreover, poverty rates have been declining (Stifel and Woldehanna 2016) and the share of chronically undernourished (stunted) children fell from 52 to 38 percent between 2000 and 2016 (CSA and ICF 2016). However, recent severe droughts have raised doubts about the progress made, especially so in rural areas.

To assess qualitatively changes in living standards in Ethiopia between 2000 and 2016, nationally representative Demographic and Health Survey (DHS) data for 2000/01, 2005, 2010/11 and 2016 are used – specifically, data drawn from the household modules of the questionnaires. Importantly, all the DHS rounds used nearly identical questionnaires, including questions on households' access to water, sanitation, and electricity; ownership of durable assets, such as radio, TV, and vehicles; and housing conditions. The four survey rounds encompass sample sizes ranging between 14,100 (2000/01) and 16,700 (2016) households.

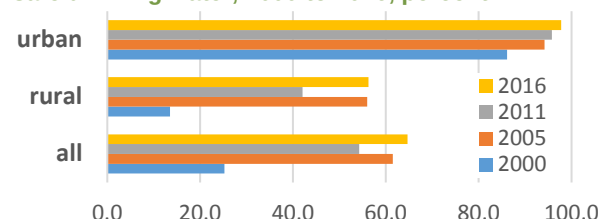
### RESEARCH ACTIVITIES

This research considers improvements in six aspects of household living conditions:

#### 1) Drinking water getting safer

Safe drinking water is defined as water coming from piped water, borehole, protected well or spring, tanker truck, or bottled water. In 2000, 25 percent of Ethiopian households had access to safe drinking water (Figure 1). This increased to 65 percent in 2016. However, there is considerable rural-urban disparity with a 98 to 56 percent split, urban versus rural, in access to safe water.

**Figure 1: Ethiopian households reporting access to safe drinking water, 2000 to 2016, percent**

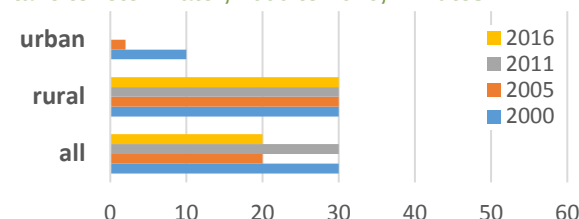


Note: Estimates based on survey weights provided in the DHS data. Source: DHS data for 2000/01, 2005, 2010/11 and 2016.

#### 2) Time to fetch water has decreased in urban areas only

Fetching water is typically a task of women in rural Ethiopia (Dessalegn et al. 2013). Reducing time on this task will enable women to pursue other activities important for the well-being of their households. The DHS data show that the median time to fetch water has decreased, but only in urban areas (Figure 2). For rural households, the median travel time, 30 minutes, to fetch water did not change between 2000 and 2016.

**Figure 2: Median time that Ethiopian households take to fetch water, 2000 to 2016, minutes**

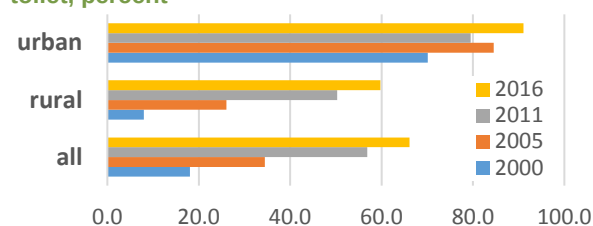


Note: See Figure 1. The median time in minutes for urban households to fetch water in 2011 and 2016 was zero.

### 3) Toilet facilities are improving fast

Better access to proper toilets, defined as a flush toilet or pit latrine, is considered an important driver of improved nutrition outcomes (Spears 2013). While only 8 percent of rural households had access to an improved toilet in 2000, 60 percent had access to such toilets by 2016 (Figure 3). More than 90 percent of urban households had access to improved toilets in 2016.

**Figure 3: Households that have access to a proper toilet, percent**

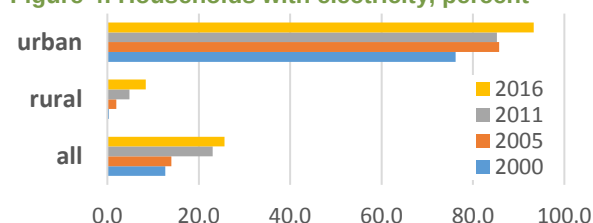


Note: See Figure 1.

### 4) Accelerating access to electricity for urban households

Ethiopia has invested heavily in electricity supply over the past 10 years (Fried and Lagakos 2017). But, urban households disproportionately benefit from these investments – in 2016, 93 percent of urban households had power versus 8 percent of rural households. However, almost no rural households had electricity in 2000. So, this marks a significant improvement (Figure 4).

**Figure 4: Households with electricity, percent**



Note: See Figure 1.

### 5) Ownership of durable consumer goods remain rare in rural Ethiopia

Very few rural households in 2016 owned a television or refrigerator (Figure 5), most likely due to the limited access to electricity. Also, vehicle ownership among rural households remains rare. Moreover, radio ownership has declined in recent years possibly due to in-built radios in mobile phones, with nearly half of rural households reported to own a mobile phone.

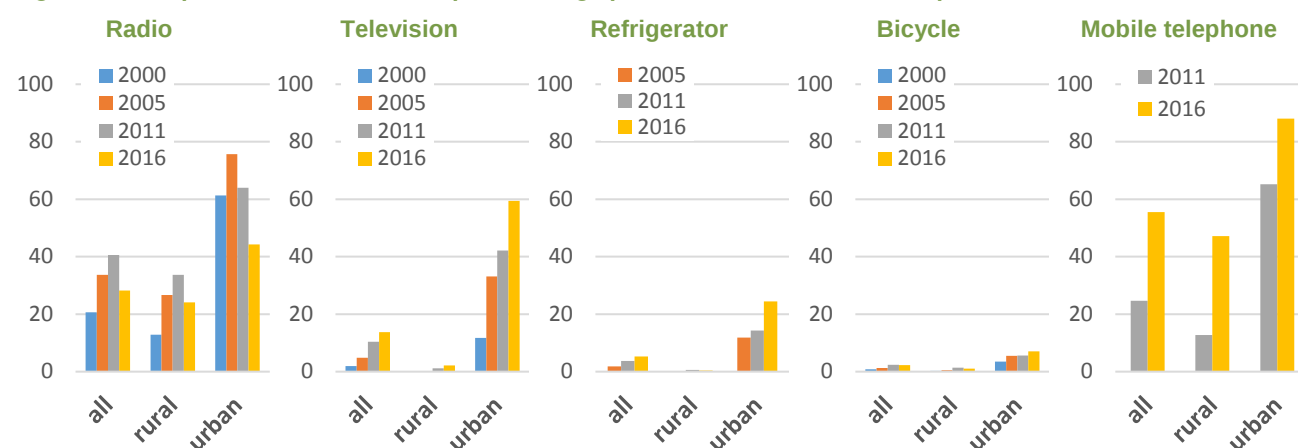
The story is different in the urban areas where an increasing number of households reported owning modern household appliances, such as TVs and refrigerators. Still, only 3 percent of urban households own an automobile and 2 percent own a motorcycle, possibly because of the extremely high tax levied on vehicles. In 2016, almost 90 percent of urban households owned a mobile phone.

### 6) Rural households are investing in their roofs, but not in floors

Housing improvements are essential components of changes in household wealth and welfare. In rural Ethiopia, improving the quality of housing is considered an important household investment – second only to meeting food requirements. In 2000, only 13 percent of rural households had a roof that was constructed of metal or other finished materials (Figure 6). By 2016, more than half (53 percent) of rural households reported having one (Figure 7).

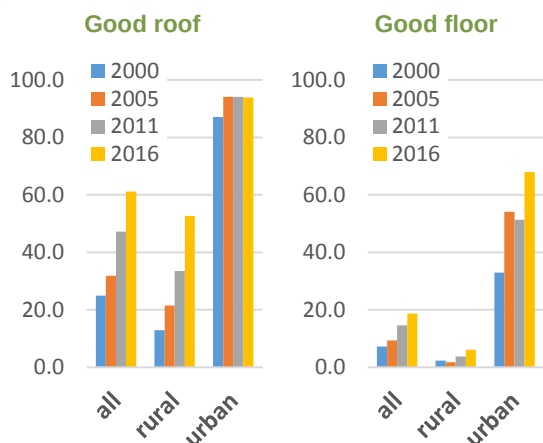
Regarding the floor of household homes, only 6 percent of rural households had a good floor (not earth or dung) in 2016, but this was up from 2 percent in 2000. Roofs and floors in the houses of most urban households are of good quality.

**Figure 5: Ethiopian households that report owning specific assets, 2000 to 2016, percent**



Note: See Figure 1.

**Figure 6: Households with good roof or floor, percent**



Note: See Figure 1.

## CONCLUSIONS

Great changes in the living conditions in Ethiopia related to the economic growth have occurred over the past 15 years. However, we see sharply contrasting differences between urban and rural households, with urban areas experiencing the greatest improvements in living conditions.

For rural households, improvements in access to safe drinking water and proper toilets, together with improvements in housing quality, especially of roofs, can be considered signs that the benefits of

**Figure 7: Plastering a new house with a corrugated iron roof in a newly electrified rural community**



Photo: P. Brown

economic growth are also reaching rural areas. But not all indicators are positive. For example, travel times to safe water sources have remained stagnant for rural households. Moreover, the sizable public investments in electricity infrastructure are yet to reach the rural masses, as is evident in the low ownership of household electric appliances in rural areas.

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