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Economic impacts of COVID-19 pandemic in Ethiopia

A review of phone survey evidence

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CONTENTS

TABLES

ABSTRACT

As in most low and middle-income countries, the paucity of timely economic data in Ethiopia makes it difficult to understand the economic impacts of the COVID-19 pandemic. To mitigate this, several organizations have launched phone surveys to gather more information about the crisis. This research report reviews the available phone survey evidence as of mid-August 2020 and identifies knowledge gaps. First, the available evidence suggest that the pandemic has not led to unusually large increases in food prices. However, a case study in the vegetable sector suggests that price dynamics are highly context and crop specific, calling for more comprehensive price monitoring to identify food value chains and areas where food price increases may have been unusually rapid. Second, employment losses have concentrated on informal sector workers while redundancies in the formal sector have been less significant. Third, there is considerable uncertainty about the income, poverty, and food security implications of this crisis. While most households report income losses, the qualitative and subjective nature of these questions mean that the magnitudes of these losses are unknown. In Addis Ababa, less subjective food security measures indicate only small negative changes in household food and nutrition security. Finally, due to limited access to mobile phones in rural areas, we have imperfect and incomplete information on how this crisis is affecting rural households.

1. INTRODUCTION

The COVID-19 pandemic is resulting in a major global recession (World Bank 2020b). Widespread fear of contracting the virus combined with strict policy measures to contain its spread have caused severe disruptions in livelihoods. Virtually all high-income countries are reporting large decreases in economic output, massive increases in unemployment rates and government deficits, and large downward adjustments in households' views on their financial situation over the near future (Ambrocio 2020; OECD 2020).

While analysts in high-income countries can base their research on near real-time economic data, their counterparts in low-income countries have to work with considerably more limited information. In low-income countries, economic information rests heavily on surveys in which enumerators visit households, firms, or markets to gather information about household consumption and income levels, firm profits, and prices. COVID-19 has halted such in-person surveys, making it difficult to understand the economic impacts of the pandemic. To address this, many research organizations working in low-income countries have switched to phone surveys. While phone surveys can be used to provide useful information about the ongoing situation, they cannot fully replace in-person surveys. The main limitations relate to sampling bias because they can only be administered to respondents with a working phone. This is a major concern in Ethiopia where only 40 percent of rural households have access to a phone (Wieser et al. 2020a). Phone-owning households are more educated and wealthier with better access to other amenities (Wieser et al. 2020a), implying that rural phone surveys are likely to miss the most vulnerable rural households. Another limitation of phone surveys relates to the need to keep the interviews short, which limits the type of data that can be collected (Dabalen et al. 2016).

In Ethiopia, several organizations have launched (or are in the process of launching) phone surveys to gather more information about the crisis (for details, see Appendix). The World Bank is conducting large-scale phone surveys with firms (600 firms in Addis Ababa) and households (3,249 households across the country) as well with industrial park workers (3,200 female respondents in

Hawassa Industrial Park). The International Food Policy Research Institute (IFPRI) has ongoing phone surveys in Addis Ababa (600 households), in areas benefitting from the Productive Safety Net Program (1,200 households), and in a major vegetable value chain (433 farmers, 260 wholesale or retail outlets). The Young Lives research team is following their longitudinal sample (2,500 respondents, aged 19 or 25 years) with a series of phone surveys. Finally, Oxford Policy Management (OPM) is conducting phone surveys with 436 poor and vulnerable households (safety net beneficiaries, internally displaced people, refugees, and small-scale business owners) in 10 cities. The purpose of this research note is to review available phone survey evidence from Ethiopia to form a picture of the economic impacts of the COVID-19 crisis and to identify evidence gaps.[1]

2. CONTEXT

The first COVID-19 case was confirmed in Ethiopia on 13 March 2020. By 2 August, more than 437,319 laboratory tests had been conducted out of which 18,706 were positive (4 percent of all tests) (MoH and EPHI 2020). The overwhelming majority of these positive tests have been in the capital, Addis Ababa. By 2 August, there had been 310 deaths in Ethiopia attributed to the virus.

The first policy measures to limit the spread of the virus in Ethiopia were declared on 16 March, just three days after the first confirmed case. The government of Ethiopia closed schools, banned all public gatherings and sporting activities, and encouraged physical distancing. Travelers from abroad were put into a mandatory quarantine, bars were closed until further notice, and travel through land borders was prohibited. Several regional governments imposed restrictions on public transportation and other vehicle movement between cities and rural areas.

The federal level State of Emergency was declared on 8 April. Land borders were closed, except for cargo. Facemasks became compulsory in public spaces. Restrictions on cross-country public transportation and city transportation were also declared, e.g., by limiting the carrying capacity of public transportation providers by half of their regular capacity. Moreover, the government prohibited employers from laying off their workers and property owners from evicting their tenants or increasing rents during the State of Emergency. Some administrative regions took even stricter measures by closing restaurants and limiting movement between rural and urban areas. However, unlike some other countries in the region, the country never went into a full lockdown that severely restricted movement, imposed curfews, or fully closed all borders. As of July, movement across regional states was allowed and humanitarian organizations were permitted to operate without restrictions (UNOCHA 2020).

The main social protection response to COVID-19 in Ethiopia has come through the Productive Safety Net Programme that operates in urban and rural areas. Launched in 2005 in food insecure rural areas and in 2017 in selected urban areas, PSNP is managed by the Government of Ethiopia and is mostly funded by a consortium of international organizations and development partners. The PSNP provides monthly cash or food transfers against labor-intensive public works that build community assets. Eligible households with limited labor capacity receive unconditional cash transfers. Due to the pandemic, the public works requirement was waived and thus all beneficiaries now are receiving unconditional transfers. At the beginning of the pandemic, beneficiaries also received three months of payments in advance (Gentilini, Almenfi, and Dale 2020). In addition to the PSNP, a number of smaller scale initiatives have been launched to support poor and

[1] This review focuses on phone surveys carried out in Ethiopia that are based on rigorous sampling approaches that permit as assessment to be made of the degree of representativeness of the sample. A number of organizations are also carrying out qualitative phone surveys that offer a deeper dive into some of the topics covered here; see e.g., Amdeselassie, Emirie, Gezahegne, et al. (2020); Amdeselassie, Emirie, Iyasu, Gezahegne, et al. (2020); Amdeselassie, Emirie, Iyasu, Jones, et al. (2020); Emirie et al. (2020b, 2020a).

vulnerable households. These include food banks set up by city administrations, community support, and NGO programs (Abate, de Brauw, and Hirvonen 2020).

3. EVIDENCE ON IMPACTS BY THEME

3.1. Food availability and prices

The pandemic's impact on food availability and prices depends on what happens to the demand and supply of foods. At the beginning of the pandemic, many experts feared that the crisis would lead to food price increases (e.g., Reardon, Bellemare, and Zilberman 2020). So far, global staple food prices have been remarkably stable, most likely due to good harvests in the previous season and sufficient global storage (Glauber et al. 2020).

Short term changes

In recent years, Ethiopia has been battling with double-digit inflation rates. Just before the pandemic began, annual food inflation was 21 percent (New Business Ethiopia 2020). The latest inflation estimates from July 2020 puts year-on-year food inflation at 24 percent, suggesting that food prices have risen somewhat faster during the pandemic than before (Addis Fortune 2020).

Comprehensive analyses of food price dynamics during the pandemic do not yet exist. The analysis carried out by the Ethiopian Public Health Institute and World Food Programme (EPHI and WFP 2020) shows that the cost of a healthy diet in Addis Ababa increased by about 11 percent between February and May. Meanwhile, IFPRI's vegetable value chain survey in the main value chain connecting farmers in East Shewa zone in Oromia to consumers in Addis Ababa suggests that price changes vary enormously across crops. For example, in Addis Ababa, retail prices of tomato and onion increased by 33 percent and 20 percent, while the prices of green pepper and cabbage went down by 13 and 12 percent, respectively (Hirvonen, Mohammed, et al. 2020). For some crops (e.g., onion), transportation disruptions and border closures meant a serious decline in supply as imports from regional states or neighboring countries, e.g., from Sudan in the case of onions, came to halt. For other crops, e.g., green pepper, there was over-supply as exporting to neighboring regional states became more difficult. Lower incomes due to COVID-19 disruptions and misperceptions that the virus is transmitted through certain foods contributed to lower demand, especially in urban areas (Hirvonen, Abate, and de Brauw 2020).

Even less is known about food price dynamics and food availability in rural areas. The World Bank household surveys suggest that the majority of rural households were able to access food items during the pandemic (Wieser et al. 2020a). In April, some respondents stated that they could not buy certain food products because food markets were closed, but this was no longer the case in May (Wieser et al. 2020b).

Longer term changes

More than 90 percent of Ethiopia's crop output is produced during the *Meher* season that takes place between June and October (Taffesse, Dorosh, and Gemessa 2012). This is particularly the case for cereals, e.g., maize, wheat, teff, and sorghum, that constitute 36 percent of the average household's food budget (Hassen Worku et al. 2017). Therefore, the outcome of the *Meher* harvest will be key in determining food availability in the next Ethiopian calendar year that starts in September 2020. The outlook for the *Meher* rains is good in most parts of the country (FEWS-NET 2020). Desert locust invasion is a major cause for concern locally but unlikely to cause a major drop in crop output at the national level. This is because the locusts are not a threat in high altitude locations where the country's high agricultural potential areas are located. Another key factor in determining the harvest is access to key inputs, such as fertilizers, herbicides, and labor.

Moreover, there is little systematic information on how access to agricultural extension services has been affected by the pandemic. While we do not have phone survey reports from all high agricultural potential areas of the country, it is encouraging that farmers in selected PSNP woredas in Amhara and Oromia reported that they had no major problems in accessing inputs during the *Belg* season, which runs roughly from March to June (Alderman et al. 2020).

3.2. Employment

Most Ethiopians reside in rural areas and the majority of the workforce is engaged in agriculture, which is largely based on family labor. Considering this, the employment impacts of the pandemic are likely to remain small in rural Ethiopia. In urban areas, the concern about negative employment effects is more real.

The World Bank household phone surveys conducted in April showed that about 18 percent of urban respondents and 10 percent of rural respondents reported that they had lost their job since the onset of the pandemic (Wieser et al. 2020a). However, nearly 40 percent of those who lost their job during this period attributed the job loss to non-pandemic reasons, primarily the seasonal or temporary nature of the work (Wieser et al. 2020a). Job losses were highest in hospitality, construction, and wholesale/retail sectors and were most likely to be reported by casual workers, private sector employees, and self-employed people (Wieser et al. 2020a). However, the overall decline in employment rates seems to have been short-lived. Already in May, the World Bank surveys document considerable improvements in employment rates, though they remained slightly below pre-pandemic levels (Wieser et al. 2020b). The firm surveys conducted by the World Bank corroborate these trends. In April, only four percent of the firms had laid off workers during the two-weeks prior to the interview (Bundervoet, Abebe, and Wieser 2020a). More than half of the large firms and about 25 percent of the small-scale firms reported that they had granted their workers (mostly paid) leave (Bundervoet et al. 2020a). However, at that point in April, the outlook was quite pessimistic with 17 percent of the firms expecting to lay off part of their workforce in the next two weeks (Bundervoet et al. 2020a). Fortunately, the situation improved considerably and in June this share of firms had dropped to 7 percent (Bundervoet, Abebe, and Wieser 2020b). Overall, the World Bank surveys show that between April and June, 15 percent of firms in Addis Ababa discharged workers and five percent hired new workers.

The job loss rates reported by the Young Lives survey conducted in June are considerably higher, possibly because the survey focused on young adults (aged under 25 years) with less stable jobs. This survey finds that 27 percent of the respondents reported that at least one member of their household had lost their job because of the pandemic (Young Lives 2020). Informal sector workers were more likely to report job losses than others were. The OPM survey with poor and vulnerable urban households finds that more than 60 percent of the households reported to have reduced their working hours since the onset of the pandemic (Harris et al. 2020). Households with small-scale businesses were more affected than other vulnerable households, such as urban PSNP beneficiaries, displaced people, or returnees.

Finally, the employment effects seem to have been modest in industrial parks. Out of the 3,163 women working in the Hawassa industrial park at some point since January, 56 percent were still working in April, 24 percent were on paid leave, 7 percent on unpaid leave, and 11 percent had left voluntary. Only 2 percent reported that their contract was terminated between January and April (Demeke et al. 2020).

3.3. Incomes

The latest poverty headcount estimates for Ethiopia are 23.5 percent based on the national poverty line and 27 percent based on the international poverty line ($1.90 adjusted for purchasing power)

(World Bank 2020a). It is important to note that these estimates are based on household consumption expenditure data collected in 2015/16 leaving us with considerable uncertainty about the immediate pre-pandemic poverty rates. Updating these estimates with phone survey methods is difficult. First, administering comprehensive consumption modules over the phone is difficult due to respondent fatigue and the burden on mobile phone batteries. Second, since only 40 percent of households in rural areas own a mobile phone (Wieser et al. 2020a), carrying out a nationally representative survey over the phone is practically impossible.

Most phone surveys conducted in Ethiopia have asked survey respondents to compare their recent incomes to their usual incomes at this time of the year. The response options are typically qualitative, for example: 'incomes were much lower'; 'somewhat lower'; 'same'; 'higher'; 'much higher'. While these responses provide us some idea of the direction of income trends, they are very difficult to interpret when it comes to magnitude or severity of the income loss (De Weerdt, 2008) and, thus to link back to the poverty estimates. Apart from genuine differences in incomes trends across households, variation in responses can also arise from differences in interpretation of the response option thresholds, e.g., 'much lower' versus 'somewhat lower', or because some respondents are not willing to truthfully answer questions about their incomes. Moreover, despite the retrospective nature of this question, responses may also be affected by expectations about future income streams amid the widespread uncertainty during the pandemic. Finally, incomes are highly seasonal in rural areas and, therefore, somewhat lower incomes during the slack season when incomes are low to begin with may not translate into serious welfare consequences so long as households have sufficient food or cash stocks.

With these important caveats in mind, virtually all phone surveys indicate widespread income losses.

- In the Addis Ababa survey conducted by IFPRI in early May, 58 percent of respondents said that the incomes in the past month, i.e., in April, were lower or much lower than usual (Hirvonen, Abate, et al. 2020). In early June, this number had increased to 67 percent, while in early July (Abate et al. 2020), 64 percent of respondents reported their incomes were lower in the past month than usual (de Brauw, Hirvonen, and Abate 2020). In each survey round, poorer households (based on pre-pandemic asset levels) were considerably more likely to report income losses than were other households.
- The World Bank household surveys report similar percentages. In April, 61 percent of urban households and 52 percent of rural households reported income losses since the pandemic began (Wieser et al. 2020a). A month later, 49 percent of urban and 44 percent of the rural households reported income losses during the same period (Wieser et al. 2020b). A sector specific analysis indicates that non-farm businesses were particularly affected by the pandemic.
- In the Young Lives sample of young adults, 43 percent of the urban respondents and 31 percent of the rural respondents reported to have lost income or employment since the COVID-19 outbreak (Young Lives 2020).
- In the SPIR study, 80 percent of the respondents report that they had experienced a decrease in income since the outbreak began in Ethiopia (Alderman et al. 2020).

The survey conducted by OPM with poor and vulnerable urban households is the only one that asked households to report their incomes before and during the pandemic. The authors report that the mean monthly income of households reduced from 2,580 birr before the pandemic to 2,277 birr during the pandemic (Harris et al. 2020). The difference of 303 birr is not statistically different from zero, possibly because collecting accurate income data in countries like Ethiopia is difficult and

often subject to considerable margin of error (Deaton 1997; Hirvonen, Mascagni, and Roelen 2018).

The surveys conducted by IFPRI and the World Bank suggest that existing safety net programs have protected incomes in rural and urban areas. Households benefitting from the urban or rural PSNP were less likely to report income losses than for example households relying on non-farm business income (Hirvonen, Abate, et al. 2020; Wieser et al. 2020b).

The evidence on remittance income is more mixed. First, only a small share of households received remittances from abroad prior to the pandemic.[2] In the World Bank survey, less than 4 percent of rural households and 6 percent of urban households reported to have received remittances from abroad in the last 12 months. The corresponding figure in the representative survey conducted in Addis Ababa by IFPRI is 9 percent. The World Bank surveys indicate large declines in remittance incomes (Wieser et al. 2020b), while in the IFPRI survey, remittance-receiving households in Addis Ababa were neither more nor less likely to report income losses, though the confidence intervals were wide, indicating large heterogeneity in this regard (Hirvonen, Abate, et al. 2020). It is likely that the origin of the remittances play an important role here, as the impacts of the pandemic have varied enormously across countries in Europe, North America, and the Middle East and North Africa region, all of which have significant populations of Ethiopian origin.

3.4. Food security

Over the past two decades, Ethiopia has made remarkable progress in improving food security (De Waal 2017). Still, seasonal food insecurity persist and in non-exceptional years approximately five million people on average are in need of humanitarian food assistance (NDRMC 2018). The seasonal nature of food insecurity in the country makes it difficult to disentangle the impact of the pandemic from seasonal peaks that typically occur between June and September.

The various phone surveys in Ethiopia have used different types of questions to assess food insecurity, making it difficult to compare findings across surveys. The World Bank household survey used three qualitative questions focusing on households' experience with food insecurity and hunger. The April survey found that 23 percent of households had ran out of food in the previous 30 days; in 21 percent of the households, an adult went hungry but did not eat; and in 14 percent, an adult went a whole day without eating. The differences between rural and urban areas were negligible, while the incidence of food insecurity was generally higher among poorer households.

In the Young Lives survey, 17 percent of the households (18 percent urban and 16 percent rural) reported that they ran out of food at least once since the COVID-19 outbreak began in Ethiopia (Young Lives 2020). In the SPIR survey covering PSNP woredas in Amhara and Oromia, data from the Food Insecurity Experience Scale (Ballard, Kepple, and Cafiero 2013) indicated that 50 percent of households in Oromia and 12 percent of the households in Amhara were severely food insecure in the past 30 days (Alderman et al. 2020).

The IFPRI survey in Addis Ababa was specifically designed to assess changes in food security during the pandemic. The Food Insecurity Experience Scale module fielded in May and June identified that 6 percent of the sampled households were severely food insecure, while in July, this percentage had fallen to 3 percent (de Brauw et al. 2020). The survey instrument also included a household dietary diversity module that can be used to compute the Household Diet Diversity

[2] Balance of Payments data for Ethiopia suggests a considerably larger role of international remittances in Ethiopia. Previous work in this area has documented a disconnect between micro and macro data and attributed this to measurement issues and differences in definitions of remittances (Clemens and McKenzie 2018).

Score (Swindale and Bilinsky 2006) and the Food Consumption Score developed by WFP (2008). These diet based indicators are typically good proxies of food security at the household level (Hoddinott and Yohannes 2002). Compared to the survey carried out in January and February with the same households, household dietary diversity fell significantly during the pandemic. The average household consumed from 9.3 food groups (out of a maximum of 12) just before the onset of the pandemic. In May and June, the mean household diet diversity score was 8.5 food groups, while among the poorest households, the average score was 7.6 food groups. It is worth noting that even this score is well-above the average pre-pandemic score in food insecure areas supported by the rural PSNP. The mean household diet diversity score in the surveys conducted by the Central Statistical Agency of Ethiopia in June 2018 was 4.3 food groups in PSNP woredas in the highland regions (Amhara; Oromia; Southern Nations, Nationalities, and People's (SNNP); and Tigray) and 4.8 in PSNP woredas in the lowland regions (Afar and Somali) (Berhane et al. 2019b, 2019a). Similarly, the Addis Ababa phone surveys administered in May, June, and July found that the WFP food consumption score was borderline or poor for only about 3 percent of households in each survey round.

4. SUMMARY AND CONCLUDING REMARKS

Since the first case in March 2020, COVID-19 infection rates have been on a steady rise in Ethiopia. It seems likely that it will take several months before the epidemic is over in Ethiopia. During this period, policymakers in the country are making decisions under considerable uncertainty as the usual flow of information from in-person surveys has come to halt. To address this, several research organizations have launched phone surveys with households and firms to gain a better understanding of the socio-economic impacts of this crisis. In this paper, I have attempted to synthesize the available phone survey evidence and identify evidence gaps.

After the first confirmed COVID-19 infection, the Ethiopian government acted swiftly by closing land borders, restricting vehicle movement, and recommending social distancing. The State of Emergency prohibited employers from laying off their workers and property owners from evicting their tenants or increasing rents. Yet, unlike some other countries in the region, a full lockdown that completely restricted mobility was not imposed.

The official inflation estimates imply that food prices have increased at a slightly faster rate over the last 3 to 4 months. Because inflation rates have been increasing steadily over the past couple of years, it is not clear whether these increases are due to the pandemic or just reflect the increasing inflation trend that had begun before the pandemic. The IFPRI analysis of a major vegetable value chain suggests that food price dynamics are extremely context and crop specific. Therefore, more comprehensive price monitoring and analyses are urgently needed to identify food value chains and areas where food price increases have been unusually rapid.

The phone survey evidence suggests that the pandemic has not resulted in a large-scale unemployment in the formal sector, possibly due to the State of Emergency directive that forbids layoffs. However, the livelihoods of those without written contracts, e.g., casual or seasonal workers, and self-employed workers were more at risk. Fortunately, the economic outlook among firms has considerably improved since the early weeks of the pandemic, suggesting that, overall, the negative employment effects will be less than what was initially feared. Finally, the fact that most of the workforce remains in agriculture based on family labor also meant that the jobs of most Ethiopians were unaffected by the crisis.

A large majority of households in all phone surveys report lower than usual incomes during the pandemic. The share of households reporting income losses are somewhat higher in urban areas. The widespread income losses in rural areas are at odds with the fact that the pandemic began

during a season during which most rural households were not engaged in agricultural activities. Three hypotheses can be offered to explain this. First, the World Bank surveys indicate that income losses are concentrated on non-farm incomes. It is also possible that rural households in this sector are more likely to own mobile phones and therefore are somewhat over-represented in these phone surveys relative to households that only receive income from farming activities. Second, commercial farmers may be more likely to own mobile phones. As shown by the IFPRI vegetable value chain survey, these farmers are vulnerable to price volatility (e.g., due to lower urban demand, border closures and transportation restrictions). Third, it could be that those farm households that reported income shocks are mostly located in areas in which the *Belg* season, which runs roughly from March to June, is relatively more important for agricultural output.

The available evidence suggests that the widespread government-led safety net programs have been successful in protecting incomes. Moreover, some phone surveys show major declines in remittances, but there is likely to be widespread heterogeneity in this regard depending on the origin of the remittances. In addition, it is important to note that, unlike in some other countries in the region, remittances from abroad are not widespread in non-pandemic times.

The phone surveys administered in Ethiopia have provided highly useful information about the short-term economic impacts of the COVID-19 crisis. Still, major evidence gaps remain. First, while the phone survey evidence indicates that many households have experienced income losses, a major limitation is that we have no idea about the magnitude of the reported income losses. Getting a better sense of the magnitude and poverty implications of these income shocks would require administering more comprehensive consumption modules in these surveys. These are often time-consuming modules to administer, making it cumbersome to administer over the phone. Second, the outcome of the ongoing *Meher* season will largely determine the food security outcomes in the next Ethiopian calendar year that begins in September 2020. Appropriately timed and geographically widespread phone surveys with farmers and extension agents would provide highly useful information that could be used to predict the *Meher* harvests and plan policy responses accordingly. Finally, long-term impacts of the COVID-19 pandemic remain unclear and are likely to be a sum of several factors. School closures, limited access to health care, and impacts of the crisis on mental health and domestic violence are factors that will have long-lasting negative consequences that are difficult to repair later on. Therefore, the duration of the epidemic in Ethiopia will largely determine the scale of the crisis.

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APPENDIX: PHONE SURVEYS COVERED IN THIS REVIEW

This review focuses on phone surveys carried out in Ethiopia that are based on rigorous sampling approaches that permit an assessment to be made of the degree of representativeness of the sample and for which results were accessible to the author at time of writing. Against this backdrop, Table A1 lists the surveys covered in this review.

Appendix Table A1: Phone surveys covered in this review

#	Description of survey	Lead organization	Sample	Interval and duration
1	High frequency phone survey of households	World Bank	3,249 households (978 in rural areas, 2,271 in urban areas)	Every 3 to 4 weeks for a planned six months, starting in April 2020
2	High frequency phone survey of firms	World Bank	645 firms in Addis Ababa	Every 3 weeks, for a planned eight rounds, starting in April 2020
3	Household food & nutrition security in Addis Ababa	IFPRI	600 urban households	Once a month, beginning of months of May, June, July and August 2020
4	Hawassa industrial park workers	World Bank	3,163 female respondents	Every 2 weeks for a planned six months, starting in May 2020
5	Vegetable value chain actors	IFPRI	433 farmers in central Rift Valley and 30 wholesale & 225 retail outlets in Addis Ababa	One-off survey,* May 2020
6	PSNP4 Institutions and Resilience (SPIR) project	IFPRI	1,188 rural households	One-off survey,* June 2020
7	Young Lives phone survey	Young Lives, University of Oxford	2,471 young people	1st survey in June-July; 2nd survey in August-October
8	Building Resilience in Ethiopia (BRE) program phone survey	Oxford Policy Management	436 poor and vulnerable households in 10 cities/towns	1st survey in June-July; 2nd survey in August-September.

* Based on current information.

Both IFPRI and the World Bank have conducted surveys with households in rural and urban areas of the country during the pandemic. The relatively low mobile phone penetration in rural Ethiopia poses major challenges. According to the World Bank, only 40 percent of rural households have access to a phone, while the corresponding figure for urban areas is 90 percent (Wieser et al. 2020a). Moreover, households with a mobile phone are not a random sample of rural households. Rather, phone-owning households are wealthier, more educated, and have better access to basic amenities, such as electricity, water, and sanitation (Wieser et al. 2020a). Taken together, the sample in phone surveys conducted in rural Ethiopia will likely to be biased towards wealthier, more connected, and more educated households.

The World Bank is conducting high-frequency phone surveys with respondents in the recent Ethiopia Socioeconomic Survey (ESS) that was conducted in 2019 (Wieser et al. 2020a). Out the 6,770 households covered in ESS, 68 percent had a mobile phone and another 15 percent provided a reference phone number. The phone surveys targeted all ESS households that provided a valid phone number. The first survey round occurred between 22 April and 13 May 2020 and covered 3,249 households (978 rural; 2,271 urban). The World Bank team is planning to re-contact these households every 3 to 4 weeks over a period of six months. At the time of this review, the survey findings from the first two survey rounds were available.

IFPRI is monitoring the food security situation in the capital, Addis Ababa, through monthly household phone surveys (Hirvonen, Abate, et al. 2020). These phone surveys build on a recent food and nutrition focused research project that conducted an in-person household survey in January and February 2020, just before the onset of the pandemic. Comparisons of household

characteristics to other representative surveys suggests that this survey was roughly representative of households residing in Addis Ababa (Hirvonen, Abate, et al. 2020). Out of the 895 households included in the survey, 99 percent provided a mobile phone number, limiting concerns about representativeness. The survey team randomly selected 600 originally interviewed households to be part of the phone surveys. At the time of this review, the survey findings from the first three survey rounds were available.

IFPRI conducted a phone survey in areas benefitting from the PSNP4 Institutions and Resilience (SPIR) project managed by the international non-governmental organization, World Vision (Alderman et al. 2020). The phone survey built on the project evaluation surveys with the latest mid-line evaluation survey conducted in-person in 2019. The sampled households were poor households targeted by the SPIR project. Only 33 percent of households interviewed in the midline survey provided a phone number. The final sample for the phone survey was 1,188 households.

The University of Oxford-managed Young Lives (YL) project team conducted a phone survey in June and July. This followed a longitudinal sample of young people who were first interviewed in 2000 when they were young children. The YL phone survey reached 2,471 respondents (more than 90 percent of the original sample). The survey focused on incomes, employment, food security, health, and education.

Oxford Policy Management and the Maintains research program are carrying out phone surveys with poor and vulnerable households in 10 cities and towns (Harris et al. 2020). This is a mixed methods research project combining quantitative and qualitative approaches. The sample size for the quantitative survey is 436 and is formed of households of UPSNP beneficiaries, internally displaced persons, refugees or returnees, and households that own a small-scale business. The survey focused on knowledge and behavior related to COVID-19, water, sanitation and hygiene, income and expenditures, health (including mental health), education, and aid.

Other surveys focus on firms, industrial park workers, and vegetable value chains. The World Bank is conducting high-frequency phone surveys with firms in the capital, Addis Ababa, as well as in four other major cities – Adama, Bahir Dar, Hawassa, and Mekelle (Bundervoet et al. 2020b). The sampling frame is based on firm registries maintained by the Ministry of Trade and Industry with phone numbers obtained from EthioTelecom. The final sample was stratified by firm size and sector and included 1,550 firms for Addis Ababa and 200 firms in each of the other four cities – 2,350 firms in total. Starting in April 2020, the survey team plans to call these firms every three weeks for a total of eight rounds. At the time of this review, the survey findings from the first three survey rounds were available.

A team of researchers from the World Bank, Oxford University, New York University in Abu Dhabi, and Vassar College are conducting high-frequency phone interviews with factory workers in the Hawassa industrial park (Demeke et al. 2020). The sampling frame for this study is based on workers who had worked in the park at some point in 2020. The research team is aiming to reach a representative sample of 4,600 workers and call them every two weeks over six months. At the time of this review, the survey findings from the first survey round with 3,163 female respondents were available.

IFPRI also conducted a phone survey with vegetable value chain actors (Hirvonen, Mohammed, et al. 2020). This phone survey built on an in-person survey conducted in January and February 2020. The phone survey took place in May and covered 433 farmers, 30 wholesaler traders, and 235 retail outlets in the vegetable value chain connecting a major vegetable producing area in the Central Rift Valley to Addis Ababa.

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