



Evidence on trends in wellbeing of rural Ethiopian households during the COVID-19 pandemic

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Introduction

The COVID-19 pandemic continues to be a significant threat to public health throughout most of the world as the coronavirus continues to spread, mostly unchecked by scarce vaccines, and large-scale surges in cases are fed by new variants of the virus. In Ethiopia, occasional surges in COVID-19 cases after months of apparently low levels of infection have periodically required renewed local restrictions to control the virus's spread. Thus, we review available data to understand the effects of the COVID-19 pandemic on households in Ethiopia, and particularly on the poorest households, who are more vulnerable to protracted effects of the virus and associated restrictions on activity as a result of their limited resources.

We conducted two rounds of a phone survey, in June and August 2020, of around 1,200 rural households. All households in the sample are beneficiaries of the fourth phase of Ethiopia's Productive Safety Net Program (PSNP4) and also participate in the USAID-funded Strengthening PSNP4 Institutions and Resilience (SPIR) project, implemented by World Vision, CARE, and ORDA in the North Wollo and Wag Himra zones in Amhara, and primarily in the East and West Hararghe zones in Oromia. The targeted phone survey respondents were adult males from sample households in IFPRI's experimental impact evaluation of SPIR who provided a phone number during the 2019 midline survey. This is a subsample of the broader SPIR evaluation sample, as only 33 percent of households provided a phone number and thus were eligible for inclusion in the phone survey. Available evidence suggests that households who provided a phone number are characterized by higher socioeconomic status vis-à-vis other SPIR households in the study sample who did not provide a phone number. However, as all households in the phone survey are SPIR beneficiaries, they are still relatively poor in the broader context of rural Ethiopia.

We report evidence from the two survey rounds on coronavirus awareness and protective measures taken; changes in livelihoods, including crop production and livestock raising; access to and utilization of

markets; changes in food consumption and food security; experience with desert locusts and fall armyworms; and exposure to public programming.¹

Survey description

The first round of the COVID-19 phone survey was conducted from June 1–14, 2020, and the second round from August 20 to September 2, 2020, both in collaboration with the research and survey firm Laterite. Enumerators worked from their homes, calling respondents and recording survey responses on tablet computers. Out of a target sample of 1,326 households who indicated owning a phone in the SPIR midline survey, enumerators interviewed 1,188 households (a response rate of 89.6 percent) in the first round of the survey, and 1,210 households (91.3 percent) in the second round. Interviews were roughly 25 minutes in length on average for both survey rounds, and respondents were provided with a mobile phone credit of 100 Ethiopian birr for their collaboration.

The majority of the questions in the first survey round were asked about the impact of shocks since the beginning of Lent (February 24, 2020)—a date that was chosen both for its salience and its proximity to the initiation of the pandemic—while questions in the second survey round largely referred to the time period since the first survey round, meaning on average the last 11.5 weeks. Thus, the majority of the questions in both survey rounds had a recall period of roughly 3 months, which is how we refer to it in the following sections. The list of survey modules was similar for both surveys, with modules added on markets and children’s diets in the second round.

Coronavirus responses and reported effects

In the first survey round, virtually all households in the sample were aware of coronavirus. The vast majority (>80%) reported widespread use of protective measures in the last seven days, including hand-washing and social distancing (Figure 1). Respondents in Oromia reported somewhat higher adherence to social distancing measures than those in Amhara, and were more likely to report wearing face masks, keeping distance from others, and avoiding large gatherings. Across rounds, there was a decrease from June 2020 to August 2020 in the percentage of respondents who reported avoiding large crowds or public transportation, but there was an increase in the percentage of respondents who reported wearing a mask.

The main reasons for not using personal protective equipment (PPE) were the cost and lack of availability, both of which were more likely to be reported in Oromia compared to Amhara (Figure 2). About a third of respondents claimed no inhibiting factors to using PPE. The average amount spent on protective measures in the past four weeks was 113.7 birr (or about US\$3.00²).

¹ For more detailed information with respect to the first survey round of June 2020, please refer to the [SPIR Learning Brief 4](#) “Short-Term Evidence on Wellbeing of Rural Ethiopian Households during the COVID-19 Pandemic.”

² Using exchange rate from November 2, 2020, of US\$0.026 per Ethiopian birr.

Figure 1: Protective measures used in past 7 days, by region and survey round

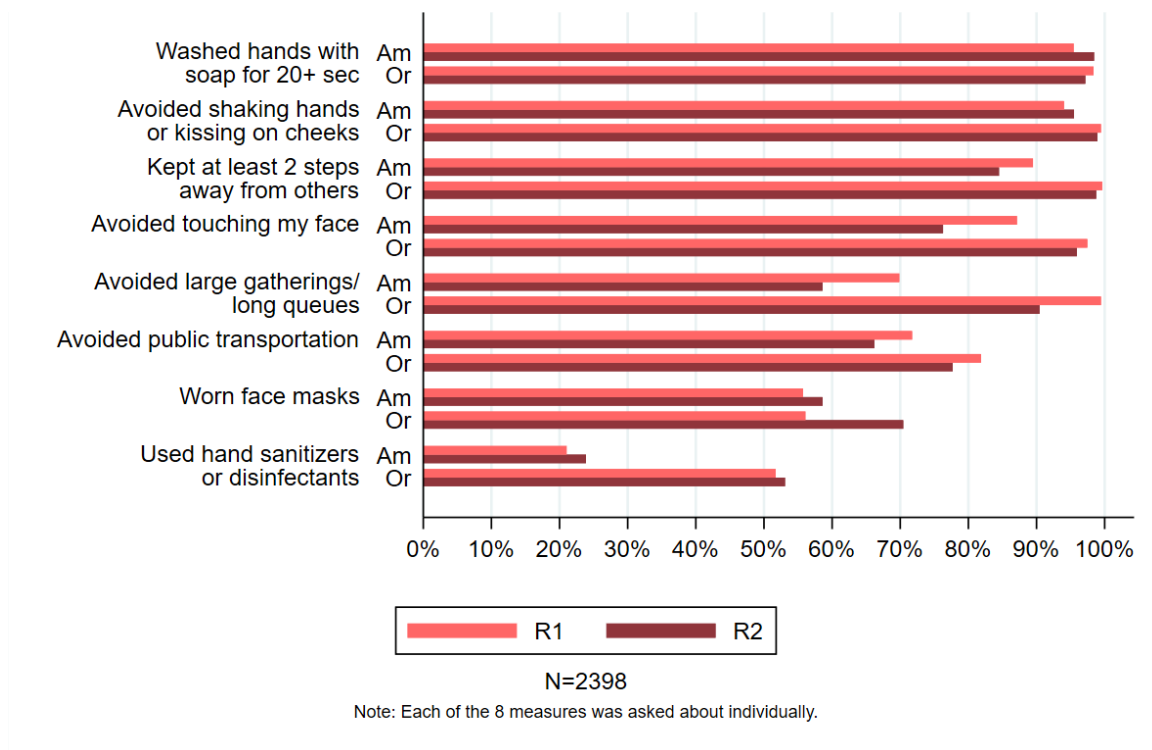
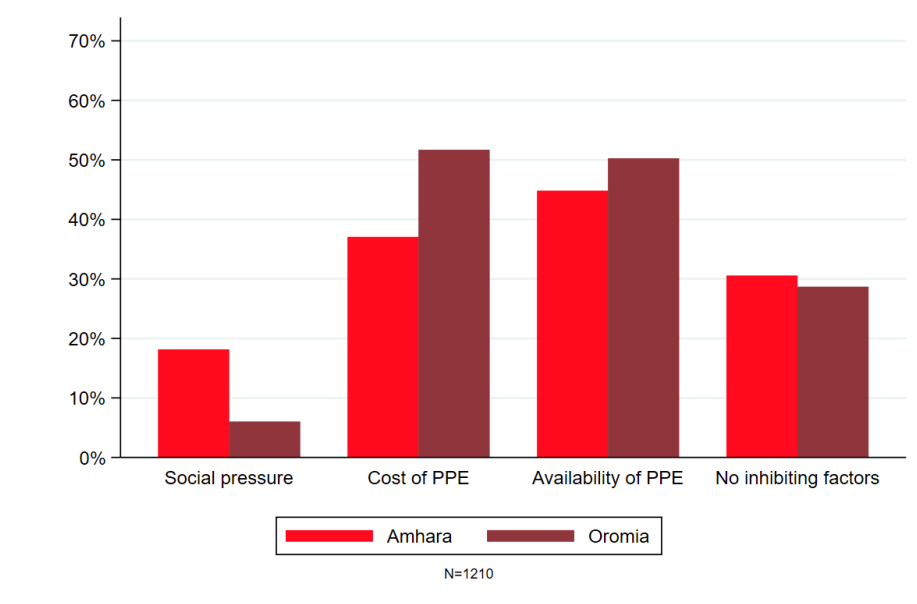


Figure 2: Inhibitive factors for using personal protective equipment (round 2), by region



Respondents' perceived risk of coronavirus infection declined from June 2020 to August 2020 (Figure 3) but remained high in Oromia, where half of respondents report a high perceived risk. In Amhara, about 30 percent of respondents believed their risk of infection was high, while about 20 percent perceived they had no risk of becoming infected.

The greatest effects of coronavirus reported by households were food shortages, income loss, and travel restrictions (Figure 4). In August, food shortages were reported most often as the greatest negative impact in Oromia, whereas loss of income was reported most often as the greatest negative impact in Amhara. Across rounds in both regions, there was a significant increase from June 2020 to August 2020 in the percentage of respondents who reported food shortages as the greatest negative impact, and a decrease in those who reported travel restrictions as the greatest impact.

Figure 3: Perceived level of risk of coronavirus infection, by region and survey round

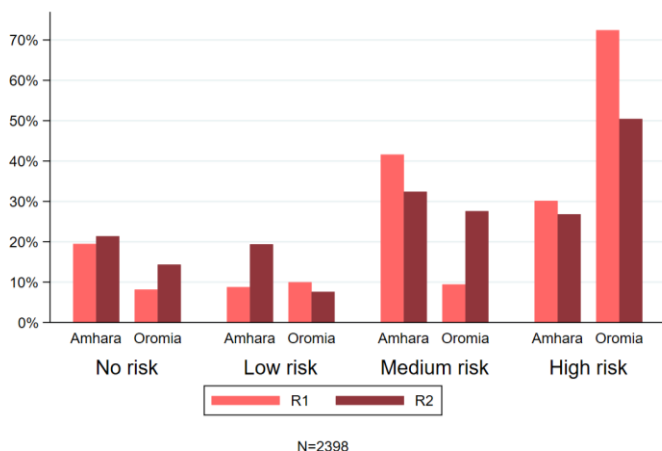
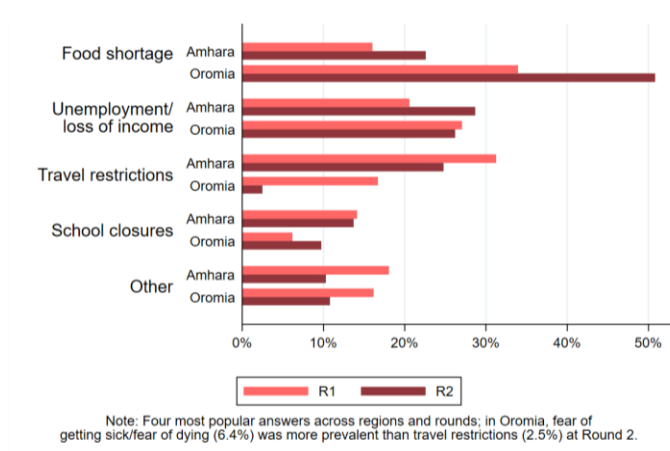


Figure 4: Aspect of coronavirus with the greatest impact on the household, by region



Impacts on livelihoods

We assessed households' self-reported shifts in income over the previous three months in both survey rounds (Figure 5). In the first round of the survey, the vast majority of households reported an income loss (including close to 90 percent of households in Oromia), but by the second round of the survey, roughly one-third of households reported income stability in both regions. Very few households reported increased incomes, however. Looking at reported shifts by source of income in the second survey round (Figure 6) shows that virtually all sources of income had been affected, though households in Amhara were more likely to report relative stability in income from farming as well as wage employment, while households in Oromia reported decreases in income for all major fields of employment.

Figure 5: Change in household income in the last 3 months, by region and survey round

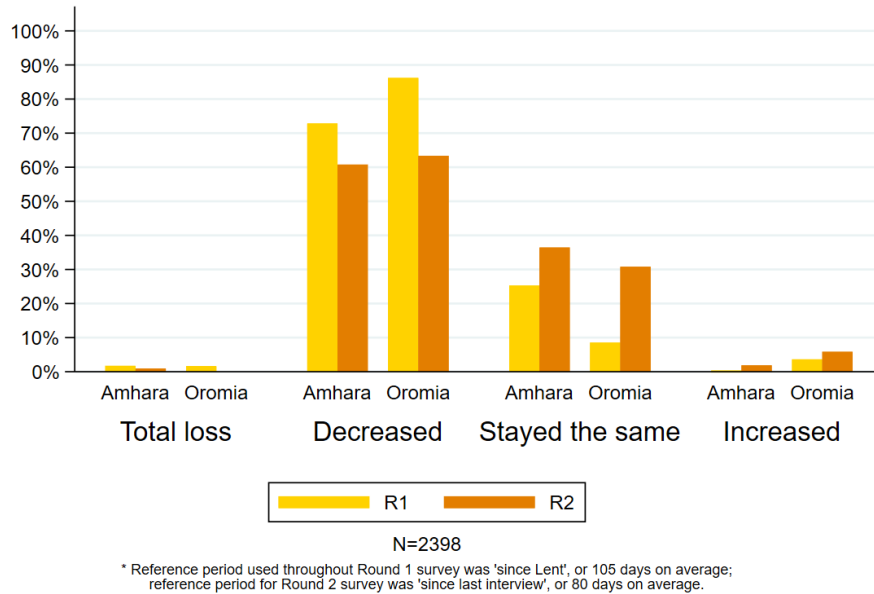
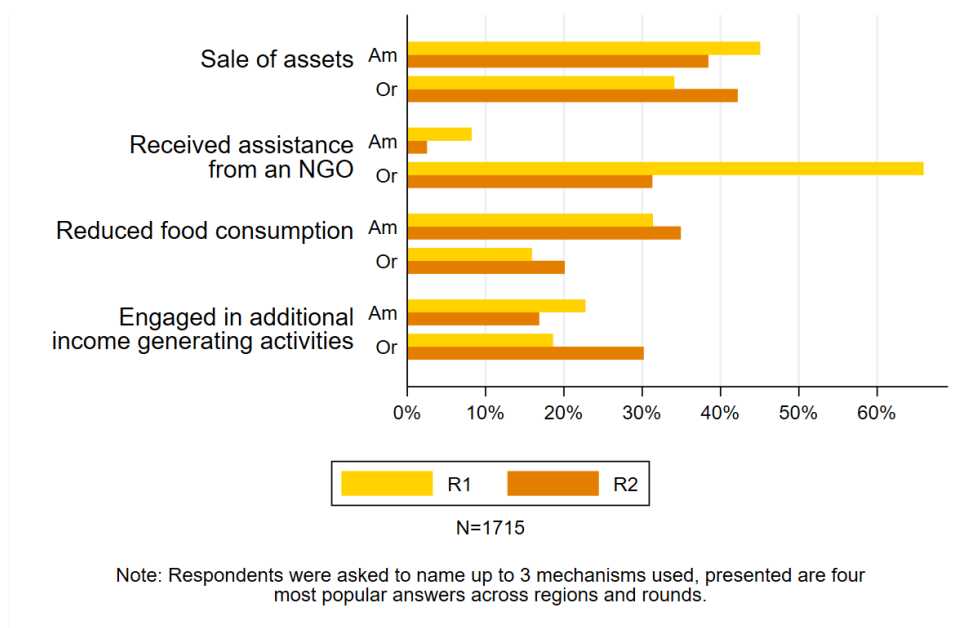


Figure 6: Change in household income, by source



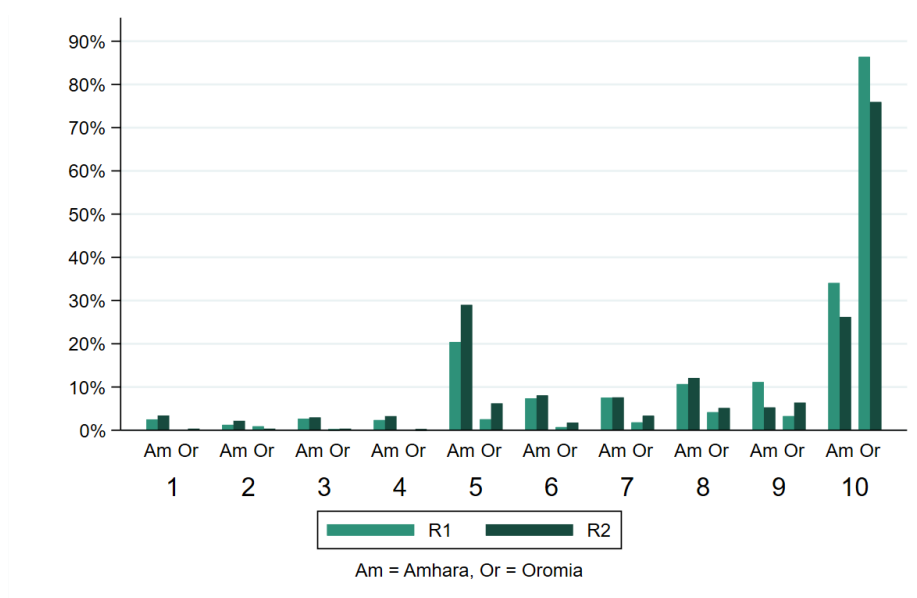
In addressing this reported income loss, households used a range of coping mechanisms as reported in Figure 7. Between 30 and 40 percent of households across the two regions reported sales of assets, and this pattern did not change notably across survey rounds. In Oromia, receiving aid from nongovernmental agencies was more prevalent, though the probability of reporting such aid decreased dramatically from the first round (more than 60 percent) to the second round (30 percent). Between 20 and 30 percent of households reported reduced consumption, and the probability of a reported decline in consumption increased across the two survey rounds. Between 20 and 30 percent of households also report engaging in additional income-generating activities.

Figure 7: Coping mechanisms used to deal with income loss, by region and survey round



Given the reports of rapidly shifting income sources and the use of diverse coping mechanisms, self-reported stress was perhaps unsurprisingly high (Figure 8): around 30 percent of households in Amhara and more than 80 percent of households in Oromia reported their stress level to be at a level 10 on a 10-point scale. This fraction declined only slightly from round one to round two.

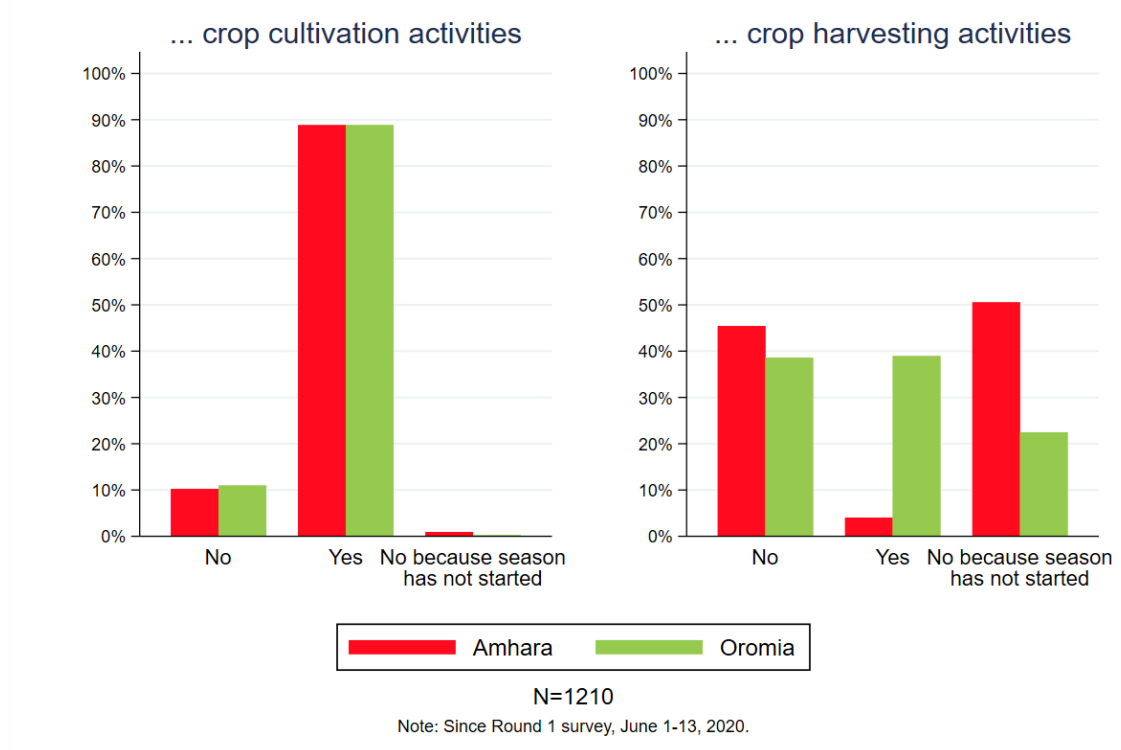
Figure 8: Self-reported stress levels, by region and round (1 = not stressed at all, 10 = extremely stressed)



Livestock raising, farming, and participation in markets

Households reported relatively little disruption to crop cultivation activities at the time of the second survey round, but more disruption to crop harvesting (Figure 9). In both regions, nearly 90 percent of households reported that they had performed normal crop cultivation over the last three months; however, around 40 percent of households reported they had not been able to perform normal crop harvesting activities during the same period. Only 10 percent of households had traveled to a market to sell crops over the last three months; for those who reported they had not traveled, this was primarily because they had not harvested any crops for sale in the reference period (38 percent) or their crops had failed (29 percent). Only 16 percent reported that they were frightened of potential infection at markets, and only 3 percent stated that the market was not open or functioning.

Figure 9: In the last 3 months, household was able to perform normal...



When asked about changes in their livestock and poultry stocks, around 30 percent of households in Amhara and 50 percent of households in Oromia reported decreases in livestock owned over the previous three months, and this is roughly consistent across the survey rounds (Figure 10). The reported reason for the decline in livestock was generally routine sales or deaths, though in Oromia, households were more likely to report the sale of animals for emergency income needs: 35 percent of households with declines in livestock holdings reported emergency sales in round one, and nearly 50 percent did so in round two (Figure 11).

Figure 10: Change in livestock owned in the last 3 months, by survey round and region

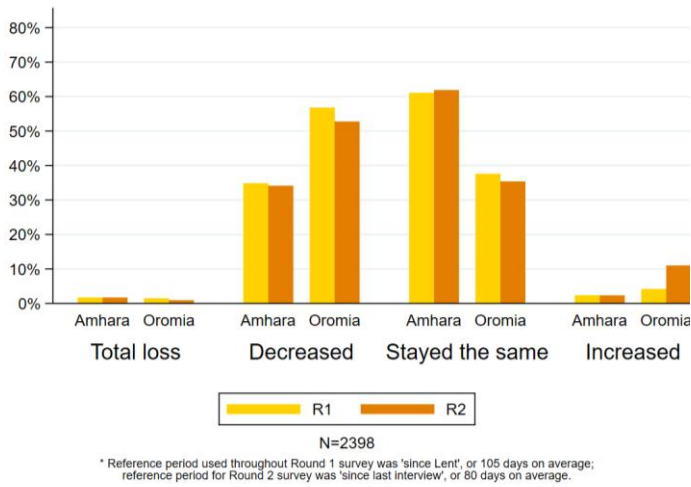
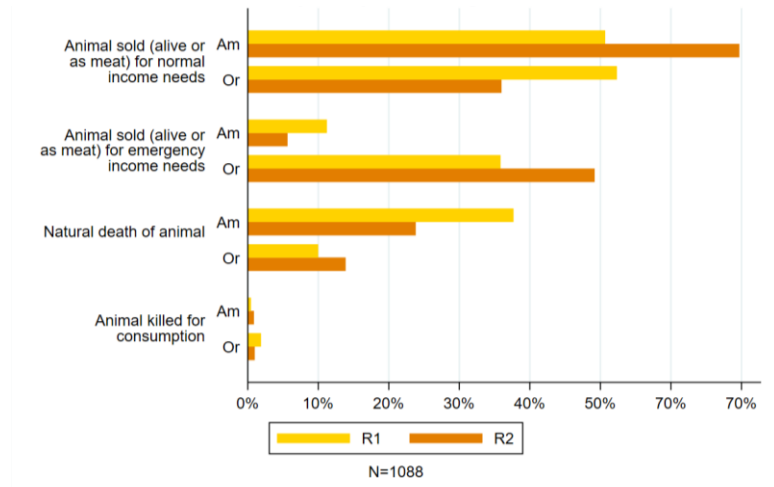


Figure 11: Reason for decrease in livestock, by survey round and region



If we narrow our focus to poultry, between 40 and 50 percent of households reported decreases in their poultry flock over the last three months (Figure 12). In Oromia, 30 percent of these households reported that this was due to a sale for emergency income; by contrast, virtually no households in Amhara reported emergency sales of poultry (Figure 13). Interestingly, some households (10 percent in Amhara and around 25 percent in Oromia) reported increasing their poultry flocks over the reference period.

Figure 12: Change in the number of poultry owned in the last 3 months, by region

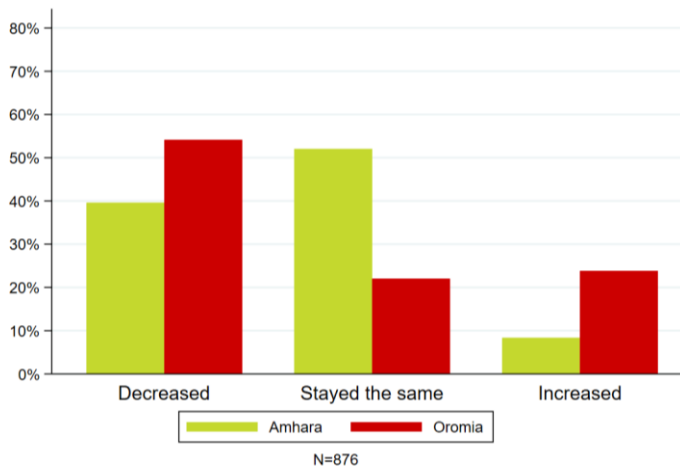
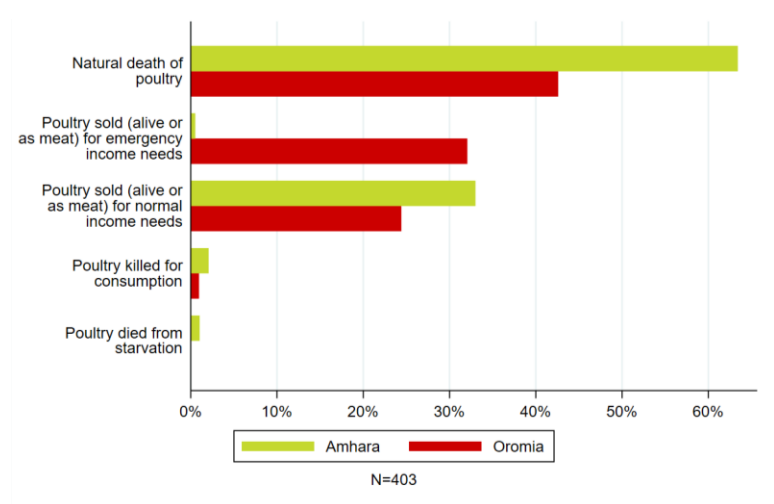


Figure 13: Reason for decrease in poultry owned



As indicated in Figure 14, relatively few households in both regions purchased eggs, as reported in the second survey round. In contrast, while there was virtually no trade in milk in Amhara, nearly half the households in Oromia purchased milk, including from the 10 percent of the households in the sample who sold milk. There was some heterogeneity in reported price movements. The number of purchasing households reporting increases in the price of milk and eggs is matched by the number of selling households reporting similar increases (Figure 15). However, while nearly half of the respondents reported price increases, a significant but smaller number saw prices decrease for these items since June. As the first rounds of the phone survey did not include any question on sales, no comparison between rounds is possible.

Figure 14: Since June 2020, household has...

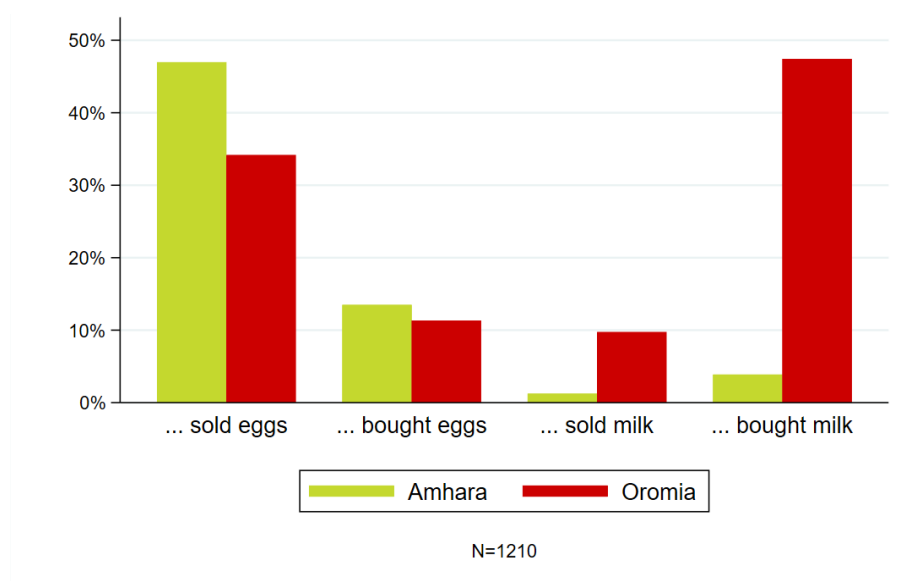


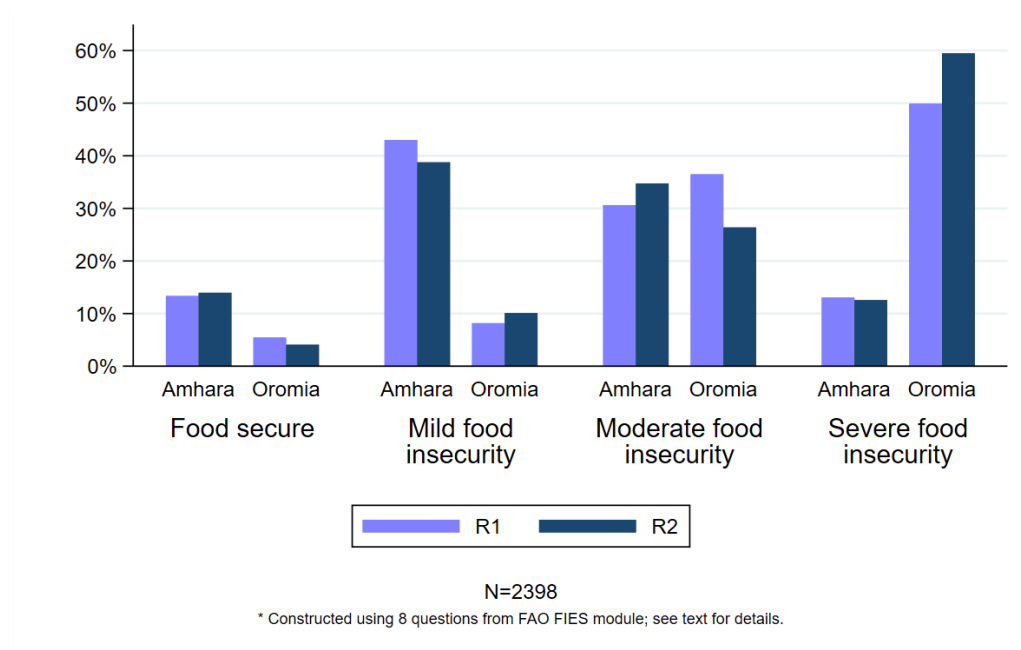
Figure 15: Perceived change in price for...



Food security and changes in food consumption

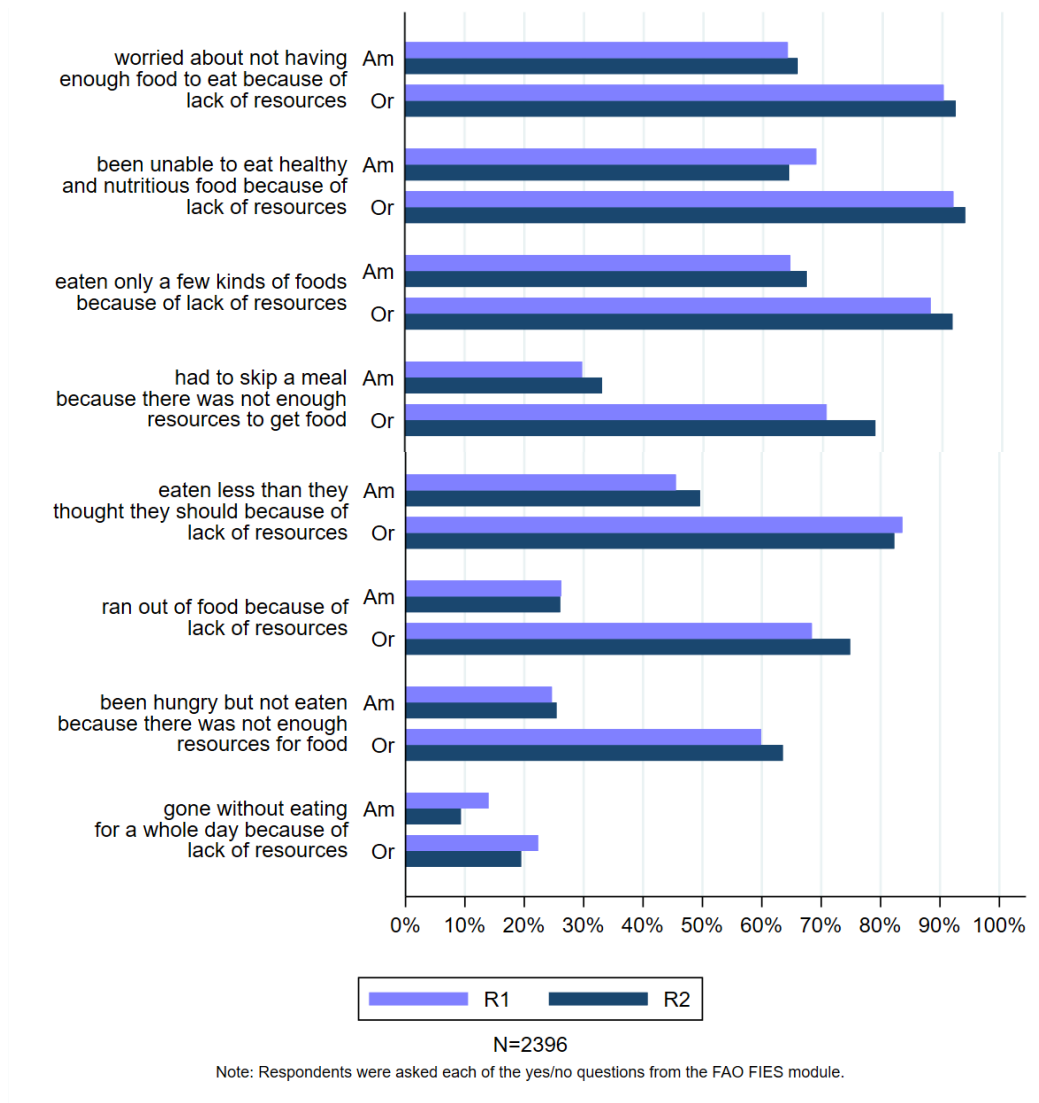
Food insecurity was assessed using three different measures: 1) the Food Insecurity Experience Scale (FIES)³; 2) a set of questions on previous day's food consumption of a child in the household; and 3) an assessment of whether the household had reduced the consumption of any major food groups. In both rounds, few households claimed to be fully food secure (Figure 16). However, the majority of households in Oromia were severely food insecure in both rounds, while few in Amhara experienced that level of insecurity. Moreover, severe food insecurity increased in Oromia between survey rounds, but not in Amhara. These patterns are evident in Figure 17, which shows that for almost all measures a greater share of the Oromia respondents reported food insecurity, with the share increasing slightly between rounds of the phone survey.

Figure 16: Food Insecurity Experience Scale,* by survey round and region



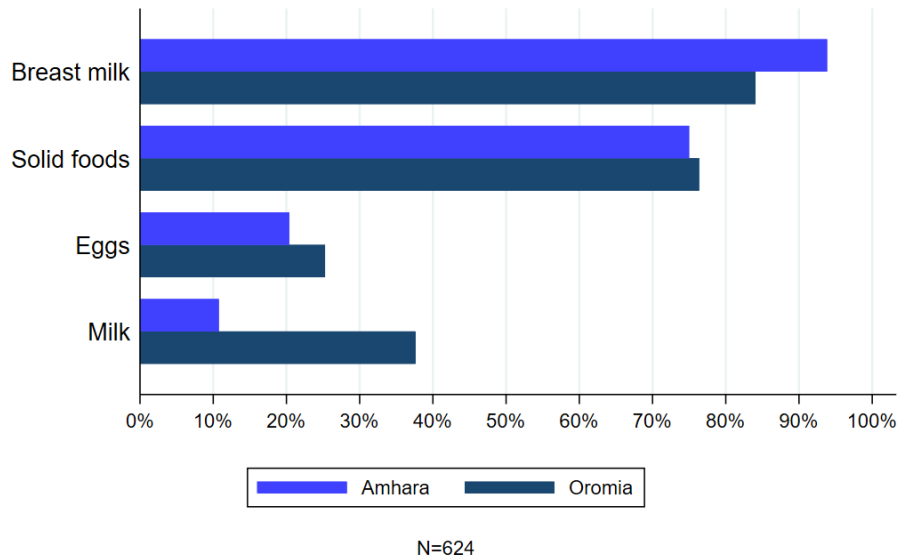
³ Raw scores are used to create the food insecurity categories; the thresholds for the classification are assigned by the authors.

Figure 17: In the last 14 days, household has...



As indicated in Figure 18, virtually all children age 6–24 months in the sample consumed breast milk at round 2, while three-quarters of these children in both regions consumed some solid foods. Consumption of animal-source foods—both milk and eggs—was relatively low in Amhara compared to Oromia. Consumption of cow milk in particular reflects the purchasing patterns noted in Figure 14.

Figure 18: Yesterday, household's youngest child of age range 6–24 months consumed...



In both regions, some households reported decreased purchases of virtually all commodities between February and August 2020 (Figures 19 and 20), with larger reductions in the food-insecure region of Oromia. The primary reason reported for buying less of each of the seven food groups was the high price; this figure is highest (>91 percent) for grains, oils, and meat. The second most frequently reported reason across food groups was a fear of infection risk at markets (up to 13 percent in the case of those who bought less dairy or meat). Among other reasons, respondents mention regular seasonal unavailability, especially for grains and pulses. Few households indicated that markets were not open.

Figure 19: Changes in household's consumption since February 2020, Amhara

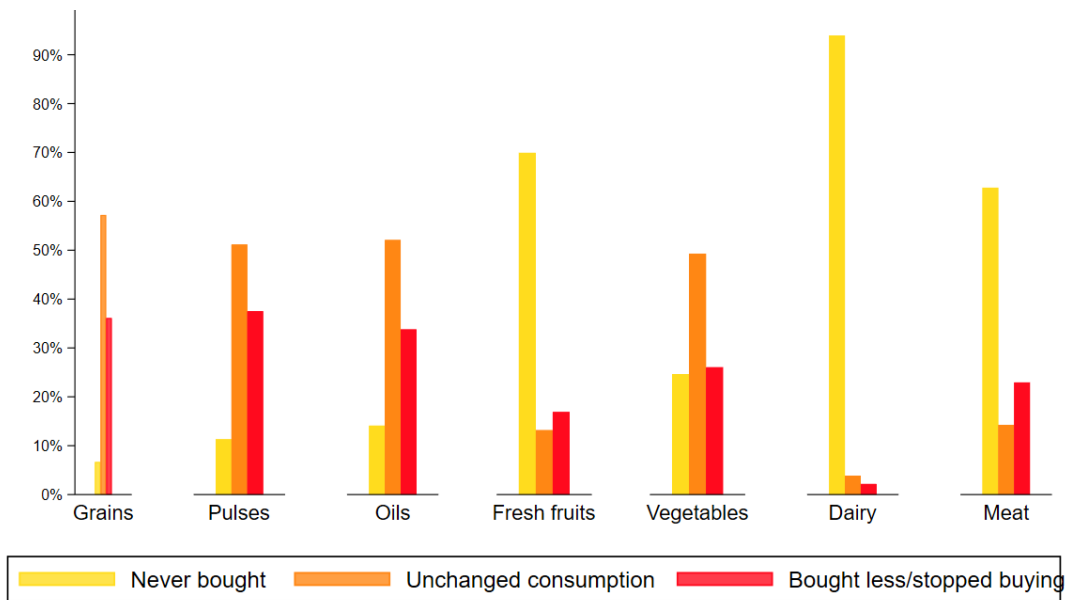
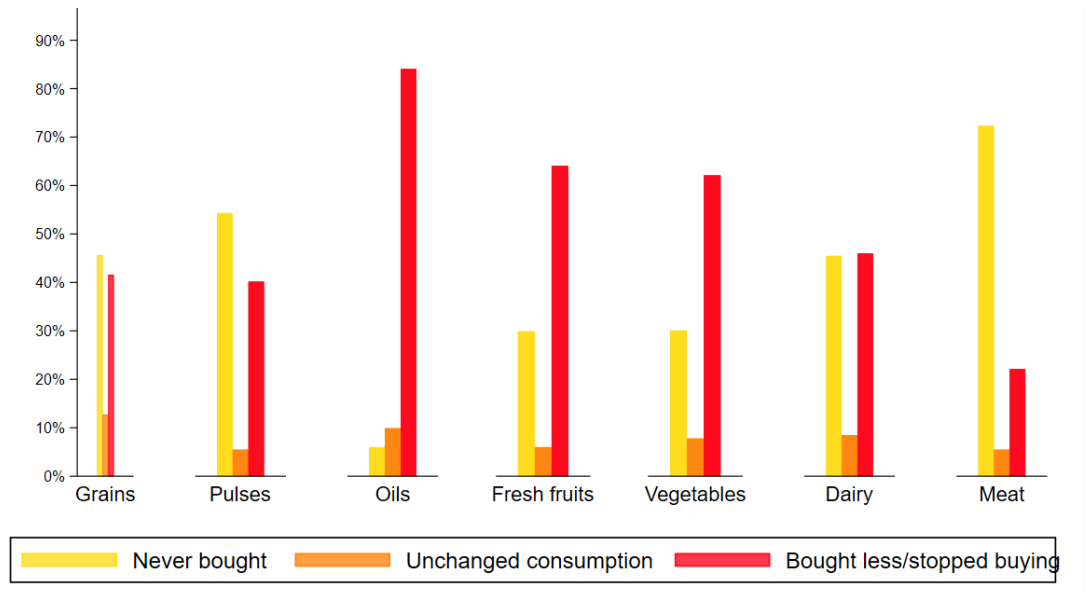


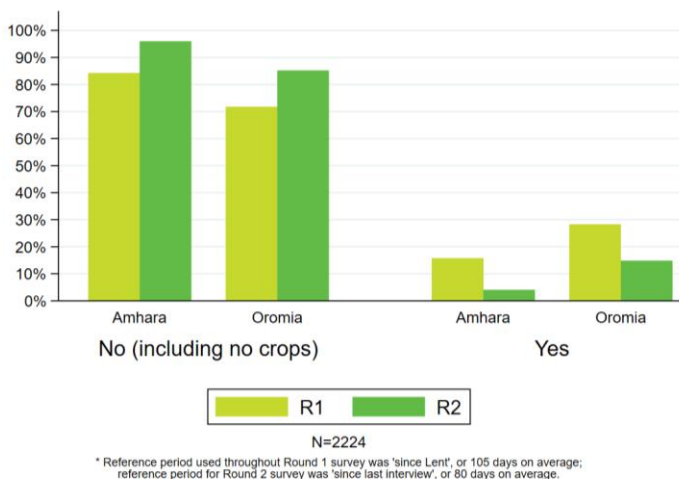
Figure 20: Changes in household's consumption since February 2020, Oromia



The shocks of desert locusts and fall armyworms

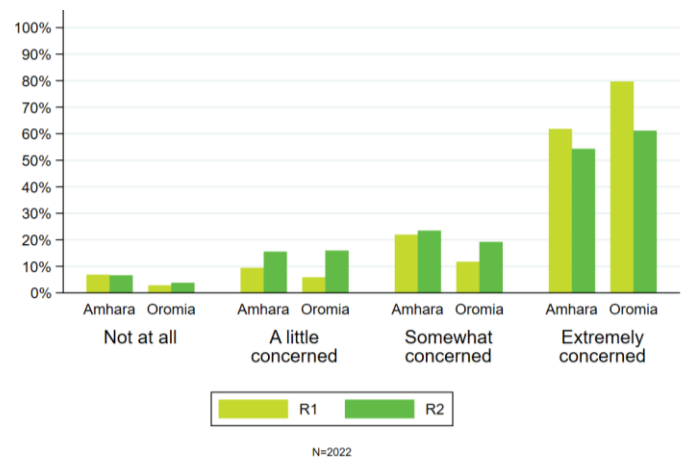
During the first survey round in June 2020, the damage caused by desert locusts to both crops and grazing land was significant, especially in Oromia. There, 25 percent of respondents reported damage to crops and 28 percent reported damage to vegetation on their grazing land in the previous three months; those reporting damages were also much more likely to experience extreme food insecurity. By the second survey round, these numbers were down to 24 percent and 14 percent, respectively, and much less damage was reported in Amhara (Figure 2). Levels of concern, however, remained high. In June, respondents in both regions expressed worries about desert locusts over the coming three months, with 80 percent of respondents in Oromia and 61 percent in Amhara being extremely concerned (Figure 22). By August, the levels had dropped, but over half of the sample in both regions still expressed extreme concern.

Figure 21: Any grazing land damage by desert locusts in last 3 months, by survey round and region



* Reference period used throughout Round 1 survey was 'since Lent', or 105 days on average; reference period for Round 2 survey was 'since last interview', or 80 days on average.

Figure 22: Level of concern about the effect of desert locusts over the next 3 months, by survey round and region



In the months between the two surveys, infestation by fall armyworm also worsened. The pest, introduced to Ethiopia only in 2017, thrived in the extremely wet conditions prevalent in Ethiopia in 2020. As with desert locusts, the damage was much more prevalent in Oromia: 75 percent of respondents reported damage to their crops or pastureland, compared to only 16 percent in Amhara (**Error! Reference source not found.23**). Of those who reported damages, over two-thirds lost up to half of their crop/grazing vegetation, with 28 percent reporting a loss of up to three-quarters and 1 percent reporting a loss of all of their crops/vegetation (**Error! Reference source not found.4**).

Figure 23: Any crop/pasture damage by fall armyworm since June 2020, by region

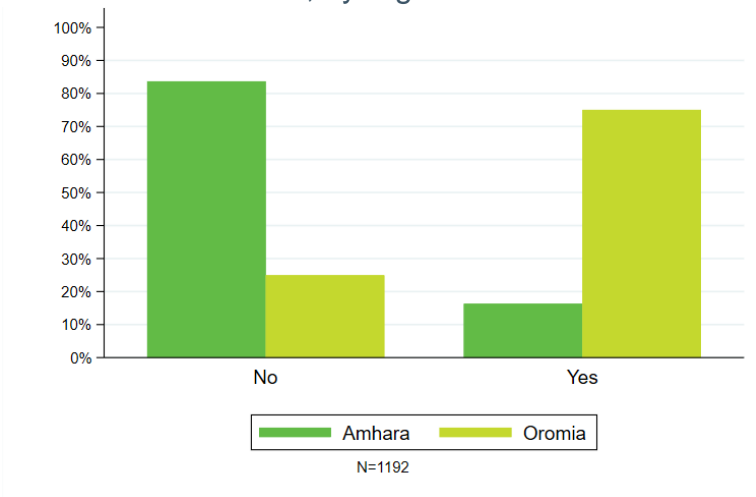
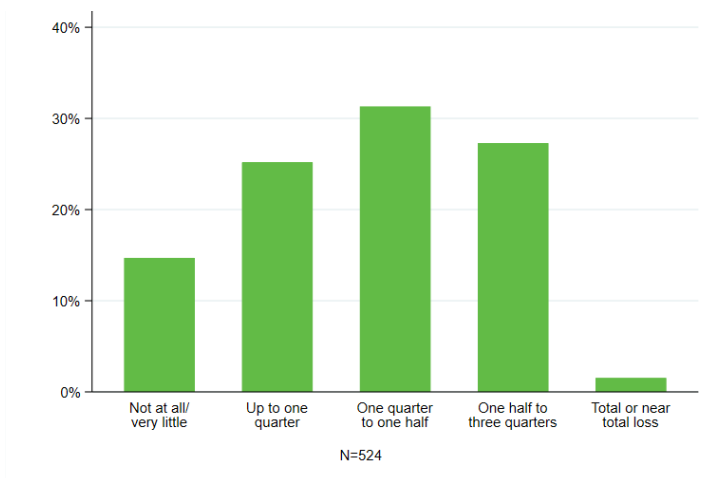


Figure 24: Extent of fall armyworm damage since June 2020, among those reporting any damage



Participation in SPIR programming

The first survey round revealed that people had substantially relied on assistance from NGOs as their coping mechanism against income losses, especially in Oromia (see Figure 7). By the second round, the share of those mentioning NGO help as their way to cope had decreased over two-fold in both regions. The second survey asked respondents about their access to and use of both PSNP and SPIR programming. Over two-thirds of respondents in Amhara and slightly over a third in Oromia reported receiving any food or cash transfers through PSNP Public Works or Direct Support in the previous three months (Figure 25). However, the share of people who had participated in other SPIR programming activities was higher in Oromia, while even there only 12 percent of respondents indicated any participation in the past three months (Figure 26).

Figure 25: Household received food or cash transfers through PSNP Public Works or Direct Support, by region

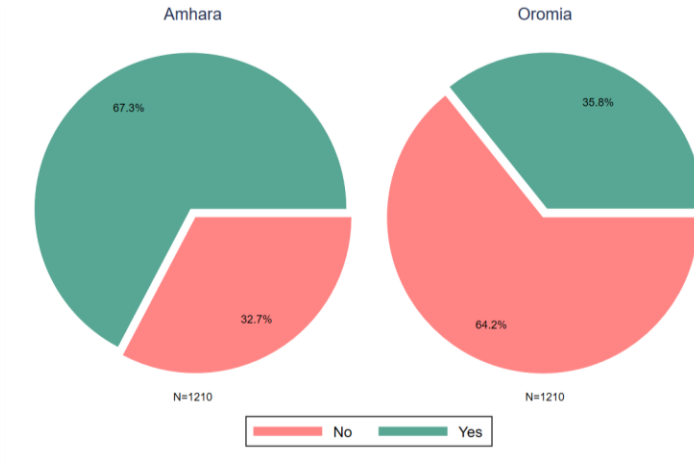
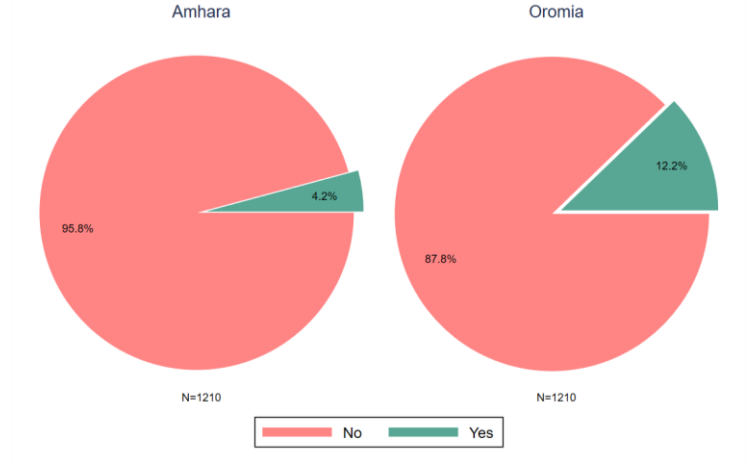
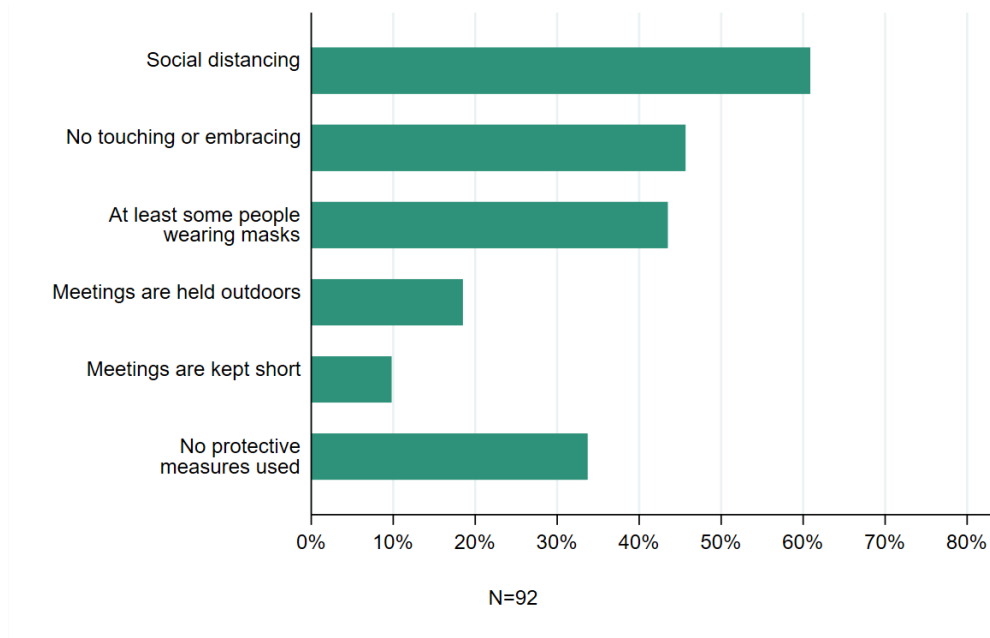


Figure 26: Household has participated in any other SPIR program activities, by region



The majority of those who participated in other SPIR program activities reported attending either one or two meetings or training sessions. The most frequently mentioned options were a poultry management training (67 percent of all of those who participated), an income-generating activity training (49 percent), and a training on protective measures against coronavirus (42 percent). Two-thirds of participants reported that there were protective measures used at SPIR meetings in the last three months: the most commonly mentioned measures were social distancing, limiting physical contact, and at least partial mask-wearing (Figure 27).

Figure 27: Protective measures used at SPIR meetings/trainings that household members attended



Conclusions

Evidence from two rounds of phone survey data from rural Ethiopia, conducted in June and August 2020, reveal a number challenges faced by poor households during the pandemic. While the perceived risk of coronavirus infection had decreased by August, most of the 1,210 respondents surveyed reported negative impacts of the pandemic, mostly in form of food shortages and unemployment. The majority of households indicated that their incomes had either further decreased or stayed the same compared to June, when over 80 percent of households reported losses in household income. To cope, households were selling assets and reducing food consumption, while reliance on NGO help dramatically decreased after June. Severe food insecurity had become even more prevalent in Oromia region, where 50 percent of households were already food insecure the first survey round. While consumption levels remained the same for all food groups other than fresh fruits and dairy in Amhara, in Oromia survey respondents reported consuming less of all the seven food groups asked about, with a notably large majority reporting decreased consumption of fruits, vegetables, and oils. The main reason for these changes in consumption was high prices, although market closures were not common in the survey areas.

While the losses caused by desert locusts were less in August than in June, the threat of another insect, fall armyworm, had risen dramatically in the survey area. That is especially true in Oromia, where three-quarters of respondents reported losses of crops or grazing land vegetation. The majority of those who experienced damage reported losing a quarter to a half of the vegetation. The significant income losses, worsening food security situation, and concerns over pest infestations continued to contribute to high stress levels in the study area: the average stress score had dropped somewhat since the first round, but remained at 8 out of 10 on average. In Oromia, three-quarters of the respondents still placed themselves at the maximum stress level of 10 points six months into the pandemic.

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