

COVID-19 in Ethiopia: impact on diet and nutrition outcomes and policy responses

Case study report

April 2021

About the Nutrition Research Facility

The Knowledge and Research for Nutrition project of the European Commission (2020-2024) aims to provide improved knowledge and evidence for policy and programme design, management and monitoring & evaluation in order to reach better nutrition outcomes.

The project is implemented by Agrinatura - the European Alliance on Agricultural Knowledge for Development – which has established a Nutrition Research Facility, pooling expertise from European academia and having the ability to mobilise internationally renowned scientific networks and research organisations from partner countries.

The Nutrition Research Facility provides expert advice to the European Commission and to the European Union (EU) Member States and Partner Countries.

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List of acronyms

ACAPS	Assessment Capacities Project
ASFs	Animal Source Foods
BoARD	Bureau of Agriculture and Rural Development
CIP	International Potato Center
CSOs	Civil Society Organisations
DHS	Demographic and Health Surveys
EPRP	Emergency Preparedness and Response Plan
ETB	Ethiopian Birr
FAO	Food and Agriculture Organisation of the UN
FCS	Food Consumption Score
FEWS NET	Famine Early Warning Systems Network
FIES	Food Insecurity Experience Scale
GAIN	Global Alliance for Improved Nutrition
GNC	Global Nutrition Cluster
HDDS	Household Diet Diversity Score
IFPRI	International Food Policy Research Institute
IFPRI CPR Portal	IFPRI COVID-19 Policy Response Portal
IGC	International Growth Centre
ILO	International Labour Organisation
IMF	International Monetary Fund
IPC	Integrated Food Security Phase Classification
KFMW	Keeping the food systems working programme
LSE	London School of Economics and Political Science
LSMS	Living Standard Measurement Study (World Bank)
MoA	Ministry of Agriculture (Government of Ethiopia)
MoH	Ministry of Health (Government of Ethiopia)
MPRP	Multi-Sectoral Preparedness and Response Plan
NGOs	Non-Governmental Organisations
OECD	Organisation for Economic Co-operation and Development
OPM	Oxford Policy Monitoring
PPE	Personal Protective Equipment
PSNP	Productive Safety Net Programme
RUTF	Ready to Use Therapeutic Food
SAM	Severe Acute Malnutrition
SUN	Scaling Up Nutrition
UNICEF	United Nations International Children's Emergency Fund
UPSNP	Urban Productive Safety Net Programme
USAID	United States Agency for International Development
USD	United States Dollar
WASH	Water, Sanitation and Hygiene
WFP	World Food Programme
WHO	World Health Organisation

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Executive summary

This case study aims to analyse the effects of the COVID-19 pandemic on diet and nutrition outcomes in Ethiopia and to draw lessons on how interventions and policies can be implemented to mitigate potentially adverse effects in these areas. In low- and middle-income countries (LMICs), COVID-19 pandemic restrictions are expected to have adverse implications on food and nutrition security through a range of impact pathways. On the supply side, agricultural production may be limited by the availability of inputs (including workforce) due to travel and mobility restrictions; while the availability of food in markets and other vendors may also be reduced due to transportation limitations and mobility constraints. On the demand side, movement restrictions, lockdowns and drops in the availability of – and demand for – numerous goods and services may negatively impact income generation activities and, as a consequence, limit the available budget for purchasing food.

Containment measures

From the first case of COVID-19 in Ethiopia on the 13th of March 2020 to the time of writing the report (27th March 2021) there were 198,794 cumulative confirmed cases, with a cumulative incidence of 1,729 confirmed cases per million people. The Ethiopian Government rapidly implemented containment measures to curb virus transmission and protect the already fragile national health system. Restrictions were imposed by mid-April 2020 and gradually relaxed from September 2020 (more details are presented in the results section). The results gathered in this study indicate that Ethiopia is among the African countries that managed the first wave of the pandemic and economic crisis by means of rapid and context-specific measures. Due to a lack of intensive care facilities across the continent, Ethiopia implemented restrictive measures (closures of schools and religious institutions) before widespread transmission was detected, allowing time for health systems to prepare. Concomitantly, the government applied minimal stay-at-home measures and travel bans among regions. Government communication about measures to be taken to reduce the risk of contracting the virus, was effective. This is reflected by the highly widespread adoption of handwashing and physical distancing. However, since early 2021, infection cases in Ethiopia have been rising at unprecedented levels and have not yet been met with restriction measures similar to those implemented early on in the pandemic.

Impact on diet and nutrition outcomes

The analysis of available data since the COVID-19 outbreak illustrates the worsening of dietary diversity indicators, especially in the early stages of the pandemic. For example, the Household Diet Diversity Score (HDDS) collected in Addis Ababa, decreased at the beginning of the pandemic but later returned to pre-pandemic levels. However, further analysis showed that aggregate HDDS remained stable due to increased calorie-dense food consumption at the expense of more nutritious foods. Such reduction in the consumption of nutritious foods raises serious concerns for the Ethiopian population as dietary diversity, an important proxy of diet quality, was already reported to be low before the pandemic. Similarly, food insecurity was also adversely affected, especially among urban populations reliant on daily income and informal workers. Among other sub-groups that had reported to be most severely affected by the pandemic are female-headed households and young individuals between 19 and 25 years old living in urban areas. Reductions of income-generating opportunities represents the main channel of impact between the pandemic and its effects and food and nutrition outcomes. In October 2020, more than 80% of Ethiopian households reported that income decrease was the factor impacting their ability to purchase food items. Together with increasing food prices fuelled by continuous depreciation of the Ethiopian currency and regional conflicts, income reduction can undermine food affordability and consequently food security of vulnerable populations. Initial evidence indicates that the pandemic has reduced the types of services and treatments relative to children and maternal nutrition provided by health centres. However, a comprehensive assessment of the impacts of the pandemic and restriction measures on reproductive, maternal, newborn and child health (RMNCH) services and nutritional status of children under 5 is limited, due to lack of data.

Effective policy responses

From the production side, early indications suggest disruptions on Ethiopian food value chains were relatively contained and that specific production systems were largely resilient. Despite the difficulties to assess the specific impacts of policies at this stage, the resilience of the Ethiopian food system during the pandemic could be partly attributed to the swift agricultural policies put in place by the government at the beginning of the outbreak (e.g. distribution of fertilisers, pesticides and improved seeds; communication campaigns from extension services; public loans to cooperative unions to minimise supply shortages). However, critics pointed out that the national agricultural COVID-19 response strategy has so far prioritised crop production with a strong focus on cereals and cash crops whereas no protection of nutritional food consumption was implemented.

There are promising indications that in Ethiopia, employment and income support interventions played a key role in reducing the adverse effects of the first wave of the COVID-19 outbreak on food security for the most vulnerable groups. Social protection programmes have been shown to sustain incomes and food demand while preventing the aggravation of food insecurity among beneficiaries of the Productive Safety Net Programme (PSNP) directed at disadvantaged households. Similar conclusions were derived from an additional study that uses macroeconomic simulations.

Though the Ethiopian food and health systems seem to have been able to cope with the pandemic so far, a major concern for Ethiopia's progress in reducing malnutrition is represented by shifts of investment commitments away from areas necessary to strengthen both food systems and maternal and child services further to the COVID-19 emergency.

Introduction

The COVID-19 pandemic, with its impact on food and nutrition security in vulnerable populations, has created an immediate need for timely information to help monitor and mitigate the nutrition impact of the crisis. The Nutrition Research Facility has consequently analysed indicators on food and nutrition security and their trends in selected countries. This was complemented by an up-to-date overview of containment measures and policy responses. These sources of information will help draw lessons on how interventions and policies can be implemented to mitigate the negative effect of the COVID-19 pandemic on diets and nutrition.

The latest available data on the nutritional status of children under 5 in Ethiopia (2019), reported that 37% of children were stunted (below -2 SD), and 12% were severely stunted (below -3 SD) (1). Stunting among children was greater in rural areas (41%) than in urban areas (26%). However, stunting prevalence in Ethiopia has been declining steadily since the early 1990s (i.e. 1992 under-5 stunting levels was 66.9%) (2). The Mini Demographic and Health Survey conducted in 2019 reports that overall 7% of children in Ethiopia are wasted (below -2 SD), and 1% are severely wasted (below -3 SD) (1). Similarly to prevalence of stunting, wasting levels had gradually improved in recent decades and declined from 12% in 2005 (1). According to the UNICEF 2017 annual report, there is an overall increment of prevalence of children overweight, 1.7 to 3.6% in Ethiopia in recent years (3). Finally, DHS data from 2016 reported that 24% percent of Ethiopian women of reproductive age are anaemic. This makes anaemia a public health problem and despite its prevalence in women aged 15-49 declining from 27% in 2005 to 17% in 2011, there was an increase of 8% points in 2016 (4).

The first case of COVID-19 in Ethiopia was confirmed on the 13th of March 2020. On the 27th of March 2021, the cumulative incidence during the whole period was 198,794 confirmed cases, with a cumulative incidence of 1,729 confirmed cases per million people (5). However, due to limited testing capacity, the real burden of the disease may be difficult to assess.

The COVID-19 pandemic affected the already fragile livelihoods and food security of many Ethiopians (6). The country was one of the most food insecure in the world, despite the remarkable development gains made over the past two decades in reducing poverty and expanding investments in essential social services (7). In June 2020, the Government of Ethiopia and humanitarian partners released the revised 2020 Humanitarian Requirements, indicating that 16.5 million people needed emergency food and non-food assistance (8). Recent food insecurity projections have estimated that between 6.7 and 11.1 million people are in IPC Phase 3 (People in Crisis) or worse (IPC Phase 4 -People in Emergency) between October 2020 and June 2021 (9). The increase is driven by the combination of different factors including: below average food production due to desert locust infestation, localised poor rainfall, climate and conflict-induced displacement and low food affordability resulting from COVID-19 and government restriction measures. The most recent figures from the WFP hunger monitoring unit (December 2020) estimated that 34% of the Ethiopian population suffered from insufficient food consumption (calculated via the Food Consumption Score), with the north-western regions being particularly affected (10).

By using a comprehensive and methodologically sound assessment, this report aims at providing an overview on food and nutrition security in Ethiopia after a year since the first COVID-19 case in the country. The report is organised as follows: Section 1 defines the search methods used to gather information; Section 2 provides an overview of the measures that the Government of Ethiopia implemented to curb infection rates; followed by Section 3 which examines various aspects pertaining to food and nutrition security, including: dietary diversity; food security; economic and physical food access; food value chains situation; and access to health care. Section 4 maps government mitigation policies and initiatives supported by international organisations. Section 5 discusses Ethiopia's food security in comparison to predictions made at the beginning of the pandemic, and outlines some of the lessons that can be learnt, while also highlighting the limitations in the interpretation of heterogeneously generated data and the challenges of assessing the quality of large volumes of information.

1. Methods

The systematic literature review carried out on documented effects of COVID-19 on diet quality and nutritional status of children under-5 and women in low- and middle-income countries provided the groundwork for this case study¹. Firstly, peer review articles were retrieved from MEDLINE (PubMed), EMBASE, Scopus and Web of Science.

Grey literature search was conducted by screening relevant reports, analysis and primary data from a pre-set list of institutions (presented in **Erreur ! Source du renvoi introuvable.**, [Annex 1](#)). The first search was updated with two subsequent updates in November 2020 and January 2021. The institutions and websites were selected based on their activities in monitoring the evidence-based impacts of COVID-19 on nutrition and food security, publishing sound evidence-based analysis, or conducting web-screening and gathering evidence on this subject in LMICs. When publicly available, the analysis used data collected to monitor the effects of the pandemic on various aspects of food and nutrition insecurity. With regards to standardized indicators, we compared these to pre-pandemic figures, when collected among comparable population groups.

Secondly, to ensure that the most relevant reports or information sources were included, Google and RSS feeds searches were conducted, integrating the systematic review search strategy (search strings reported in [Annex 1](#)).

The quality of policy-related information retrieved from the web was assessed by checking their veracity against three renown reliable sources: [IFPRI COVID-19 Policy Response Portal](#) (11), [Our World in Data](#) (5), and the [Oxford COVID-19 Government Response Tracker](#) (12).

Finally, an early draft of the report was shared with selected stakeholders and experts based in Ethiopia which have specialised knowledge on food and nutrition security and agriculture (a list of stakeholder institutions contacted is presented in [Annex 1](#); see also acknowledgements section), asking for possible additional data, and comments and contributions². This process helped to assess the completeness and validity of the retrieved information and evaluate the analysis.

2. Government containment measures

The Ethiopian Government took swift actions to contain the virus and prevent transmission, through widespread public health and movement restriction measures common to most countries (see [IFPRI COVID-19 Policy Response \(CPR\) Portal](#) for an overview of containment measures (11)). According to the IFPRI CPR Portal³, the Government of Ethiopia introduced 18 policies limiting population movement and implementing governance restrictions. Schools were closed on the 16th of March 2020 and the Government declared a State of Emergency on the 8th of April 2020, which has remained in place since then. For example, under the rules governing the state of emergency, public gatherings of more than four people and movement at land borders, except for the flow of cargo and essential goods, were banned. General elections were also put on hold due to risks of increasing infections.

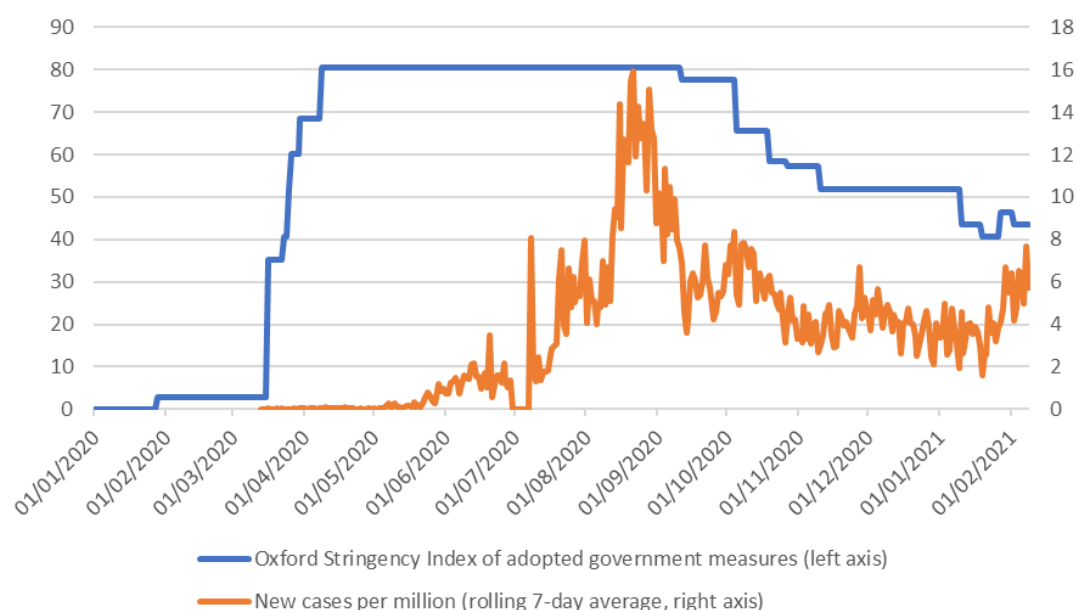
¹ The full methodological approach is documented in a forthcoming report: “Impact of COVID-19 pandemic on nutrition indicators”; conducted by the Nutrition Research Facility.

² Consultation took place between 29 January and 21 February 2021. Stakeholders were asked to react to the following three questions: i) Are you aware of other data or analysis on the effect of COVID-19 pandemic on diet and nutrition outcomes in Ethiopia?; ii) Are you aware of other programmes/policies set up to mitigate this effect?; iii) Have you any other comments regarding the content of the case study?

³ Last updated on the 18th December 2020.

The country did not impose an extended lockdown or stay-at-home orders⁴, most likely in recognition of the pressures a full lockdown would exercise on the economy. In August, with infections raising sharply, Ethiopia announced a nationwide and month-long testing campaign that planned to test 17 million people (13). Once the infection rates started to stabilise (October 2020), the government started lifting some of the population movement restrictions imposed at the beginning of the pandemic, as reflected by the Stringency Index calculated by the Oxford COVID-19 Government Response Tracker.

Figure 1. Ethiopia Stringency Index variations between January 2020 and February 2021



Source: Our World In Data for new cases statistics (5) and Oxford COVID-19 Government Response Tracker (12)

The Stringency Index is a composite measure based on nine response indicators including school closures, workplace closures and travel bans; and ranks their strictness on a scale from 0 to 100. On the scale, the strictest governmental response – representing a complete lockdown of borders, schools and the broader economy (but no social protection intervention) – rates 100, while 0 represents no governmental intervention. This index does not reflect the efficacy of these closures, or popular compliance.

The Ministry of Health and the Ethiopia Public Health Institute put in place the Emergency Preparedness and Response Plan (EPRP) and the government invested strongly in communication about prevention behaviours, such as social distancing and WASH (14). Knowledge of measures to reduce the risk of contracting the virus is extremely high in Ethiopia: data collected by the World Bank show that at least 80% of individuals are familiar with five of the six measures (Handwash with soap; Avoid physical contact; Use masks/gloves; Stay at home; Avoid crowds; Socially distance)(15). The survey also reveals that adoption of handwashing is near universal, as is avoidance of physical contact within the week prior to the interview, although this might not be the case in rural areas (16).

⁴ According to the IFPRI CRP Portal, lockdown measures were imposed on 1-14 April 2020.

3. Indicators of the food and nutrition security situation in Ethiopia

The following section provides an overview of selected Food and Nutrition Security indicators and assessments of food value chains undertaken since the start of the pandemic in Ethiopia. A limited number of studies include pre-COVID-19 data that allow the assessment of the effects of the pandemic. Therefore, most of the indicators provide a snapshot of the evolution of selected food security indicators during the pandemic. All dates in the following graphs refer to 2020.

Nutrition outcomes data and indicators

Data on nutrition outcomes (i.e. BMI, child wasting and stunting) since the outbreak of the pandemic were not retrieved. The latest child and nutrition survey conducted in 2019 indicated that under-5 child stunting and wasting was 37% and 7% respectively and 24% percent of women in reproductive age in Ethiopia were anaemic (1).

Dietary Diversity

Data on dietary diversity since the start of the pandemic were collected by IFPRI in Addis Ababa (17–19). Authors computed the HDDS⁵ and the Food Consumption Score (FCS)⁶ and the study was conducted among approximately 600 households across four different rounds of data collection (between May and August 2020), including a pre-COVID-19 baseline (January-February 2020) (Figure 2).

The reports indicated that HDDS dropped from 9.3 before the pandemic to 8.5 in May and June 2020. The indicator dropped further in July 2020 (8.1) but then increased to 9.4 points in August 2020, slightly exceeding the pre-pandemic levels. HDDS data collected from the same population in August-September 2019, also indicates the same levels of dietary diversity scores (9.2) (20).

The drop during the first months of the pandemic is mainly caused by reductions of fruit and animal source foods (ASFs) consumption, compensated by an increased consumption of other food groups (17–19, 21). The authors pointed out two reasons behind the reductions in ASFs consumption: i) in the early stages of the pandemic there were rumours on COVID-19 spreading through ASFs (22); ii) the drop of HDDS in July was likely caused by the Orthodox fasting season. This is further corroborated by the increase of HDDS to 9.4 points in the subsequent survey round conducted in August (21). However, the indicator does not provide information on the quantity of food consumed and therefore we cannot conclude that food consumption and diets had effectively improved.

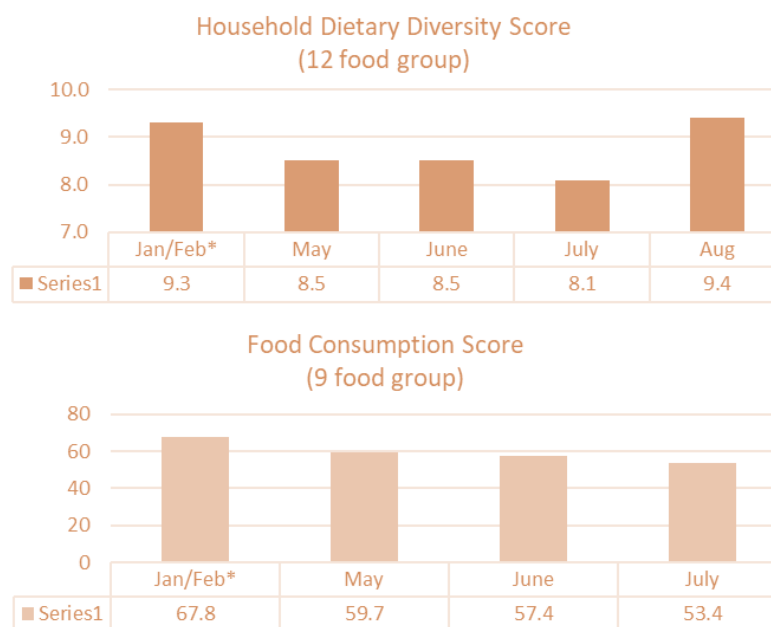
Similarly, the Food Consumption Score (FCS) also reduced during the pandemic, compared to the pre-pandemic baseline. The studies reported that households were consuming fruits, dairy, pulses and sugar products less frequently during the pandemic (17–19, 21). Therefore, the mean FCS was considerably lower in the three phone surveys in May, June and July 2020 than in the in-person survey conducted in January-February 2020. Similarly to the HDDS score, the consumption frequency of animal source foods in July was lower than in other rounds. In a different analysis, Hirvonen et al. (21) looked further into the mechanisms of COVID-19 on food consumption in Addis Ababa. They found that compared to the pre-pandemic period (August-September 2019) consumption of staple food had risen during the pandemic (August 2020), while consumption of legumes and vegetables had fallen. Consumption of fruits and animal source food remained the same on average. Therefore, even if the aggregated dietary quality indicators changed only marginally or not changed compared to pre-COVID-19 baseline, the pandemic had affected the diet composition and calorie sources among the interviewed households.

⁵ Household Dietary Diversity (HDDS) is a qualitative measure of food consumption that reflects household access to a variety of foods. Household dietary diversity can be described as the number of food groups (for a maximum of 12 food groups) consumed by a household over a given reference period (i.e. 7 days) (61).

⁶ Food Consumption Score (FCS) is an index that aggregates household-level data on the diversity and frequency of (normally 9) food groups consumed over the previous seven days. Each food group is weighted according to its relative nutritional value. The food consumption score is a proxy indicator of household caloric availability (62).

In rural Ethiopia (regions of Oromia and Amhara) changes in children's dairy and egg consumption was assessed in June 2020 among 1,188 households (23). When asked to compare whether the consumption of these products had changed between February 2020 and June 2020, 70% and 68% of parents reported that consumption of eggs and fresh dairy had decreased respectively. However, the drop in quantities and regional breakdowns were not provided.

Figure 2. Household Dietary Diversity Score and Food Consumption Score among households in Addis Ababa.



Source: Own elaboration from data by IFPRI (17–19) (data Addis Ababa only). All months refer to 2020.

Although not completely comparable, the WFP Comprehensive Food Security and Vulnerability Analysis conducted in 2016 (24), indicated that the percentage of households with low food consumption (i.e. households that consumed three or fewer food groups out of seven) in Addis Ababa was 7%, down by approximately 23 percentage points from 2011. Such figures typify the relatively lower proportion of households with inadequate dietary diversity scores in urban areas compared to rural areas (where on average 21% of households had sub-optimal dietary diversity). The COVID-19 pandemic, which appears to have hit urban areas and informal sector workers more harshly than farmers in rural areas, could represent in the medium and long term a reversal of the gains made in food consumption witnessed in recent decades in urban centres in Ethiopia.

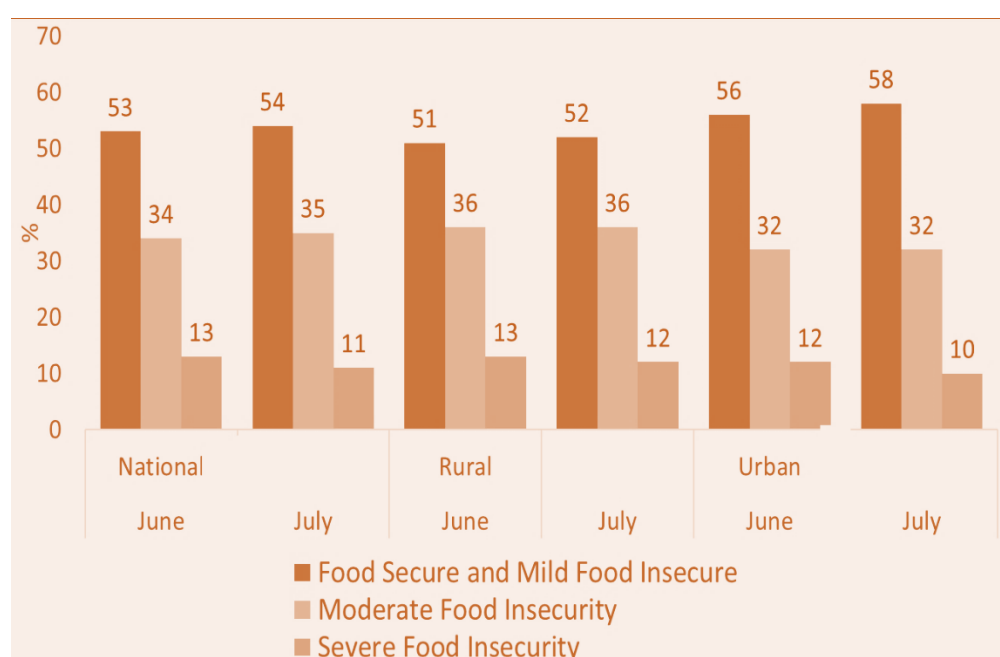
Food Insecurity

The World Bank's nationally representative High Frequency Telephone Surveys assessed the Food Insecurity Experience Scale (FIES)⁷ in Ethiopia since the COVID-19 outbreak in two rounds: June and July 2020 (15). Nearly half of the interviewed households (about 47% in June and 46% in July) had experienced moderate or severe food insecurity. The prevalence rates are constant in both rural and urban areas during the two rounds and the percentage of mildly food insecure households is higher (by 4% points) in rural areas. Compared to historical estimates on food insecurity, the results in **Erreur ! Source du renvoi introuvable.** Figure 3 are in line with previous FIES levels. According to the calculations from the FAO State of Food Insecurity report, the prevalence of moderate and severe food insecurity in Ethiopia was 56% in 2014-2016 and 58% 2017-2019 (the prevalence of severe food insecurity in both periods was approximately 14%) (25).

⁷ It consists of eight questions capturing a range of food insecurity severity during the previous 12 months, with yes/no responses (63).

However, the similarities between rural and urban FIES levels reported in Figure 3 raised a number of methodological concerns among participants of the stakeholder consultation. While the FAO flagship publication does not provide rural-urban differentiated figures, the Ethiopia Socioeconomic Surveys conducted between 2011 and 2018/2019 reported (albeit with a different indicator) significant differences in the prevalence of food insecurity between rural and urban areas (26). According to the latest report, in 2018/19 the prevalence of food insecurity (measured as the % of households that reported food shortage in the previous 12 months prior the survey) was 17.7% in total, with urban areas showing significantly lower prevalence compared to rural contexts (11% and 20% respectively in 2018/19). Indeed, the anomaly could be due to selection bias caused by the phone-survey methods, i.e. the people with a higher socio-economic status were more likely to respond either in rural or urban settings. Although the World Bank methodology attempts to take all precautions to limit selection bias, it is plausible that phone surveys are likely to miss poorer households.

Figure 3. Food Insecurity Experience Scale in Ethiopia (% of surveyed Households)

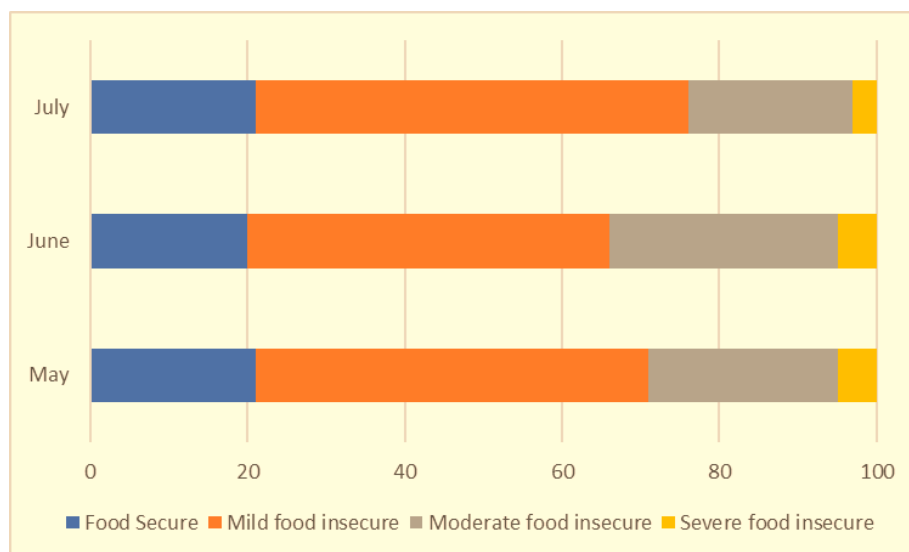


Source: Extrapolation from data by World Bank High-frequency Phone surveys in Ethiopia (15). All months refer to 2020.

Figure 4 reports the Food Insecurity Experience Scale between May and July 2020 in Addis Ababa (2,3) among 589 respondents. Approximately 20% of the population is food secure, and 80% suffers some level of food insecurity. In May and June about 6% of survey households were severely food insecure, while in July this falls to 3%. This marginal improvement in food security in July is not shared equally: the authors observed that in July FIES levels were higher among female-headed and poorer households (2,3). Compared to previous years data in Addis Ababa, the prevalence of food insecurity (calculated via FIES) was estimated at between 15-40% in 2012 (28). Another study in three sub-cities of Addis Ababa in early 2012 showed that the prevalence of moderate and severe food insecurity was 75% of the surveyed population, with 23% of households being severely food insecure⁸ (29).

⁸ The authors note that in 2012 Ethiopia experienced high food prices. According to the Central Statistical Agency, year-on-year food inflation in February 2012 increased by 47.4% compared to February 2011, while non-food inflation increased by 21.4% in the same period (29).

Figure 4. Food Insecurity Experience Scale in Addis Ababa (% of surveyed households)



Source: extrapolation from IFPRI data on Addis Ababa COVID-19 phone surveys (2,3)

A report by the Oxford Policy Management (OPM) provides a snapshot of COVID-19 impacts on urban poor households and “special segment” populations (i.e. particularly vulnerable groups such as day labourers). The study monitored the effects of COVID-19 and government responses on 436 households in 10 urban areas of Ethiopia in July 2020 (30)⁹. For these population strata, whose survival depends on daily generated income, restrictions and lockdowns led to food insecurity: the percentage of households who consumed an average of three meals a day dropped from 87.6% before COVID-19 to 62.2% at the time of the interview.

Finally, in a study conducted among 2,471 young individuals between 19 to 25 years old (31) who were part of a cohort study¹⁰, 17% of respondents reported running out of food at least once since the start of the outbreak¹¹. The authors pointed out that food insecurity before the pandemic was a risk factor. Individuals most at risk of food shortages during the pandemic were those already considered food insecure in the previous survey round in 2016. Such “long-term food insecurity” was more prevalent in urban areas, where 27% of those who were previously food insecure in 2016 also ran out of food during the virus outbreak. Fifteen of those who were classed as food secure in 2016, reported running out of food during the pandemic. Authors further explain that alongside food shortages due to the pandemic, some respondents also experienced crop damage caused by locust swarms in the north and east of the country.

Household Food Access

In this section we present data and information on two expressions of household food access: i) physical access to food, such as availability of food items in local markets and shops; and ii) economic access to food, assessed by the variations of available income or variations of food prices that hinder the ability to acquire appropriate foods for a nutritious diet.

⁹ The 10 selected cities in Ethiopia include: Addis Ababa, Mekelle, Dire Dawa, Adama, Gambela, Bahir Dar, Jijjiga, Bulehora, Logia, and Semera. The study was conducted among 436 households which are part of Urban Productive Safety Net Project (UPSNP), households who own a small-scale business (SSB), and refugees/IDPs/returnees. The study planned to conduct monthly interviews between July-December 2020.

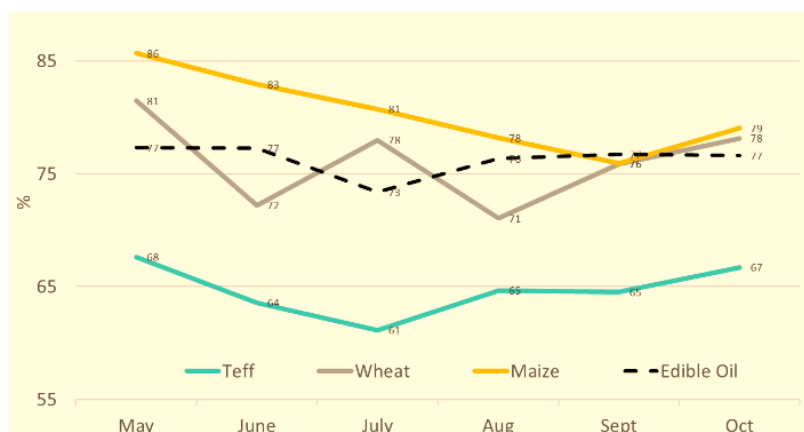
¹⁰ The Young Lives participants have been tracked since 2001 and are now aged 19 (Younger Cohort, C) and 25 (Older Cohort, OC).

¹¹ The project calculated food insecurity via the Household Food Insecurity Access Scale (64), but it does not report the results for the indicator in aggregate terms and raw data was not available at the time of writing the report.

Physical Access to Food

To assess physical access to food, the World Bank high frequency telephone survey in Ethiopia asked whether households had been able to purchase enough of some important food items during the seven days preceding the interview (15). Food items included: teff, wheat, maize and edible oil. From May to August 2020, most households were able to buy the items they needed. Of the five monitored items, teff was the most difficult to buy: one third of households reported not having been able to buy enough. All other staple food items maintained their baseline profiles, although access to maize gradually declined between May and September, but started to recover in October 2020.

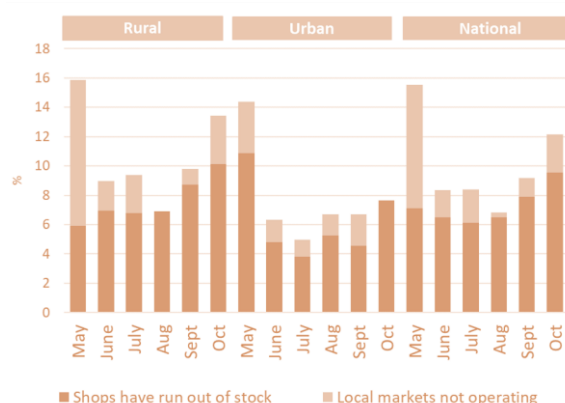
Figure 5. Household Ability to Purchase food Items (% of Households)



Source: Extrapolation from data by World Bank High-frequency Phone surveys in Ethiopia (15). All months refer to 2020.

When they were not able to access these foods, households were asked why. Inability to purchase food due to market physical access to food is shown in Figure 6. Households were asked to indicate the main reason they were not able to purchase a basic basket of items that included: edible oil, teff, maize, wheat and medicines¹². The answer options included: 1) Shops have run out of stocks; 2) Local markets not operating. Overall, food unavailability affected a small proportion of the respondents. At the beginning of the COVID-19 crisis, 10% of respondents in rural areas reported that the obstacle to buying basic items was due to closure of local markets. However, in urban areas, about the same percentage of respondents reported that shops running out of stocks was the main obstacle faced. Over time, with local markets being allowed to operate, shops' difficulties in replenishing stocks became the main problem among 10% of the population in rural areas and almost 8% in urban areas.

Figure 6. Inability to Purchase Items due to market availability (% of Households)



Source: Extrapolation from data by World Bank High-frequency Phone surveys in Ethiopia (15). All months refer to 2020.

¹² Data is only available in aggregate terms, so it is not possible to evaluate each item individually.

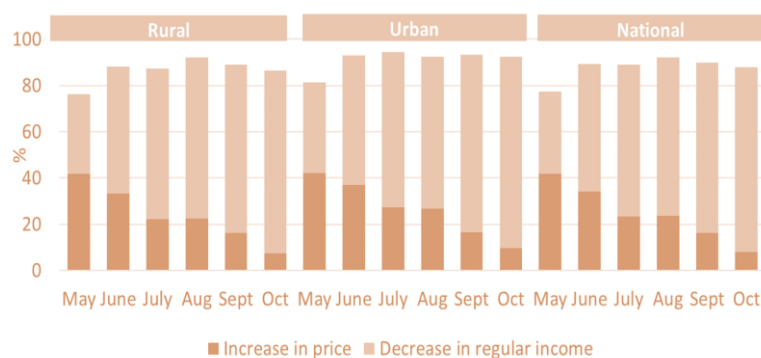
Economic Access to Food

Economic access to food is assessed by looking at the variations of available income and variations of food prices during the pandemic. The data is derived from various rounds of the nationally representative World Bank high frequency telephone survey (15). Similarly to the previous section, households that were not able to purchase edible oil, teff, maize, wheat and medicines **Erreur ! Source du renvoi introuvable.** (Figure 5) were asked to indicate the main reason between: 1) increase in price and 2) decrease of regular income. One of the limitations was to assess each item individually, as data is available in aggregate terms only. At the beginning of the pandemic, in both rural and urban areas, price increase and income decrease are reported in similar proportions as obstacles to purchase basic items (approximately 40% of households in each area). As the crisis matured, income decrease became a significant main reason, behind issues of economic access to basic items. By October 2020, more than 80% of households reported that income decrease was the factor impacting their ability to purchase such items.

These figures are in line with the negative impacts on the economy and employment caused by Covid-19 and the measures taken to contain its spreading. The high frequency household surveys from the World Bank (10) provide early indications that income loss represents one of the main channels through which food security in vulnerable populations was affected. The Ethiopian Jobs Commission estimates that in the first six months of the pandemic, 1.76 million jobs in manufacturing, construction and urban services were at risk and 1.9 million self-employed would suffer severe income losses¹³. The closure of businesses, particularly in the service sector, forced many wage workers to lose their source of livelihood, hence their access to food. It is estimated that this would have had cascading impacts on workers in both urban and rural areas. The sectoral impact of the closure of economic activities, especially informal workers and rural households, is still scant given the unfolding nature of the crisis and difficulties in conducting phone interviews with the poorer, marginalised and more mobile strata of the workforce and their households.

The study conducted by OPM with 436 urban poor households and day labourers (30) found that, in July 2020, the average monthly income of respondents had reduced by 12% since restrictions came into place (from ETB 2,580 to ETB 2,277 (USD 64 and USD 57 respectively – not statistically significant). Income decreases were driven by reduced work hours and income generation opportunities with small-scale businesses, households, refugees, and day labourers being highly affected. Alongside lack of income, increased prices of basic foods (i.e. teff, cooking oil, onions) and unavailability of food items in the market were among the major reasons for reduced food consumption among respondents in urban areas. Reduced quality of food consumed was the most common mechanism used to cope with reduced income during the survey period.

Figure 7. Household Economic Food Access during COVID-19 (% of Households)



Source: Own elaboration from data by World Bank High-frequency Phone surveys in Ethiopia (15). All months refer to 2020.

¹³ Ethiopia Jobs Creation Commission and International Labour Organisation 2020. Containing the epidemic and its impact on jobs and incomes in Ethiopia. Rapid assessment and response plan. https://www.ilo.org/wcmsp5/groups/public/---africa/---ro-abidjan/--sro-addis_ababa/documents/publication/wcms_747210.pdf

Alarming, limited access to transportation and movement restrictions have also impacted the ability of Civil Society Organisations (CSOs) and Non-Governmental Organisations (NGOs) to reach the communities they normally serve. The study by OPM (30) showed that CSOs and NGOs had to adapt to the pandemic, significantly affecting their ability to provide assistance and resources to their service users, further deepening the already difficult situation for vulnerable households (32). These grassroots organisations, often at the forefront of aid distribution, noted that government provision of in-kind support was often limited, and that the majority of support was focused on urban areas.

Food Value Chains

A set of studies conducted by IFPRI in Ethiopia offered an overview of the production systems of two food value chains in Addis Ababa: dairy (33) and vegetables (27). The Tesfaye et al. (33) study on the disruption of the dairy market in April-May 2020, reported that initial rumours/panic of transmission of COVID-19 through raw milk negatively affected distributors, collectors and rural farmers in the dairy sector. As a result, more milk was processed, butter supply rose, and butter prices fell sharply in rural areas. Some dairy producing households reported incidences of wasted milk while others indicated increases of own dairy consumption (no percentages are provided in the report). However, despite these initial adverse effects, markets stabilised and all farmers taking part in the study reported that overall production had not fallen since the start of the COVID-19 crisis. Hirvonen et al. (27) looked at the variations and disruption of marketing opportunities in the vegetable sector (tomatoes, onion, green pepper and cabbage) in Addis Ababa compared to before the pandemic (January and February 2020 pre-pandemic baseline, May 2020 post-pandemic period). They found heterogeneous price changes for different vegetables with relatively larger changes seen at the farm level. Authors believed that farm gate price increases (that were found for tomatoes and onions but not for cabbage and green peppers) were due to disruptions of established trade links due to movement restrictions and border closures. The reductions in both international trade and domestic trade between regions (Oromia and the Amhara region) seem to have increased the reliance of Addis Ababa on vegetables produced in the Central Rift Valley. This led to winners and losers among local vegetable farmers due to pandemic-related trade disruptions. They further note that the main effects on the value chain (transport and distribution) was affected during the early stages of the pandemic with relatively small impacts on marketing margins. However, reports provided by the European Union Delegation pointed out that in 2019/20 Ethiopia had a 2 million ton deficit of agricultural production (34). This means that before the pandemic, there were significant food supply challenges in the country¹⁴. Such levels of food deficit could explain the reasons behind the extensive and immediate measures implemented by the Ministry of Agriculture described in the next section.

Access to health services

Finally, access to health services was investigated during the various rounds of the World Bank high frequency telephone survey (15). Respondents were asked whether their household needed any medical treatment in the past four weeks¹⁵ (however the type of treatment was not specified). In rural areas, the percentage of households needing medical help doubled from May to September (15% and 29% respectively). In the same period, this proportion increased among urban households from 21% to 32%. The survey did not specify the reason for medical treatment. Respondents who needed medical treatment were also asked to confirm if they accessed medical treatment. 80 to 90% of households that needed to visit health services were able to access them, albeit rural households appear to face more difficulties compared to their urban counterparts.

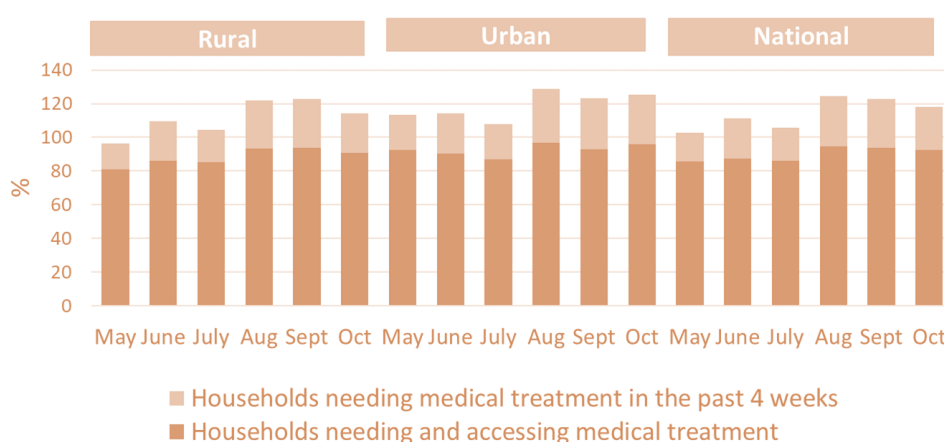
¹⁴ Information provided via personal communication and during stakeholder consultation.

¹⁵ With the exception of May, for which the timing of the question refers to the period since the outbreak.

Health centre operations were affected by the pandemic (35). Two recent studies¹⁶ on the impact of COVID-19 on health centre activities in Ethiopia pointed out that some maternal and child health and nutrition services, such as maternal deworming, infant and young children feeding and family planning counselling, were negatively affected in the early months of the outbreak. On the other hand, certain health and nutrition-related activities were preserved and allocations remained largely unchanged or increased since the outbreak (vitamin A supplementation, management of severe malnutrition, HIV/AIDS counselling).

The main reasons behind changes in health centre activities include: a) the need to provide outreach and training on COVID-19 and on WASH, crowding out time for other more time-intensive services (i.e. family planning); b) movement restrictions that have made more difficult to access certain services. Authors also point out that a number of mitigation strategies adopted by health centre workers helped with maintaining non-emergency health and nutrition-related services ongoing. For example, during door-to-door COVID-19 awareness campaigns and infection prevention, health centre workers may have performed rapid malnutrition checks. Although details of approaches used by health centre workers were not provided, the authors suggested that they might have been particularly important to address drops of demand for routine services due to fears of COVID-19 infections during health centres visits or perception that health centres were only delivering emergency services. Results presented by Harris et al. (30) corroborated that health managers and healthcare providers observed a decrease in the number of people seeking health services from health facilities since the COVID-19 pandemic began. Perceived risk of exposure to coronavirus was the main reason affecting health-seeking behaviour.

Figure 8. Healthcare Service Access (% Households)



Source: Extrapolation from data by World Bank High-frequency Phone surveys in Ethiopia (15). All months refer to 2020. In May, the timing of the question refers to the period since the outbreak.

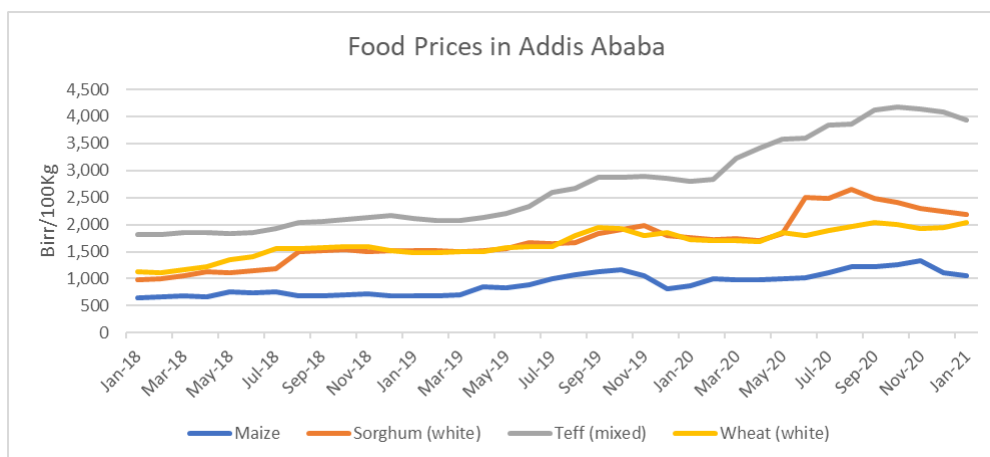
Food Price Variations

Food prices started to increase since March 2020 due to insecurity and movement restrictions in response to the COVID-19 pandemic. In general, prices were well above their year-earlier levels, mainly due to the depreciation of the country's currency, which resulted in increased transport and production costs (36). In April 2020, the Ethiopian government implemented price control measures for staple foods.

¹⁶ At the time of concluding this report, these studies were unpublished. They were conducted by Tufts University and Cornell University, and were presented during the Feed the Future webinar "[Key health, nutrition and agricultural services in the face of COVID-19 in Ethiopia: Lessons Learned](#)" 3rd February 2021.

More recently, prices of locally produced maize, sorghum and teff, declined in January 2021 in Addis Ababa, for the second consecutive month as the main “Meher” harvest increased supplies, while prices of wheat, partly imported, increased. However, cereal prices in early 2021 were well above their year-earlier levels, mainly due to the continuous depreciation of the country’s currency, which resulted in increased transportation and production costs.

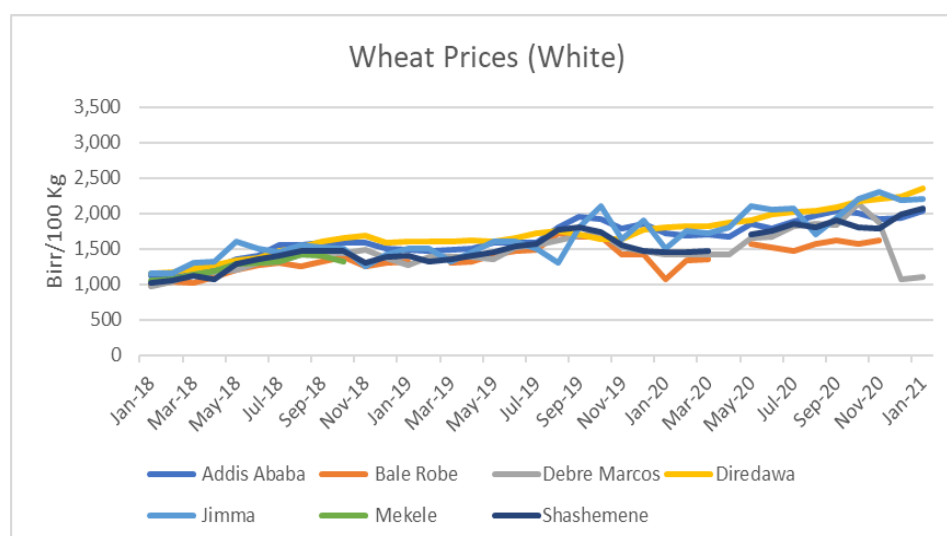
Figure 9. Cereal prices in Addis Ababa (2018-2021)

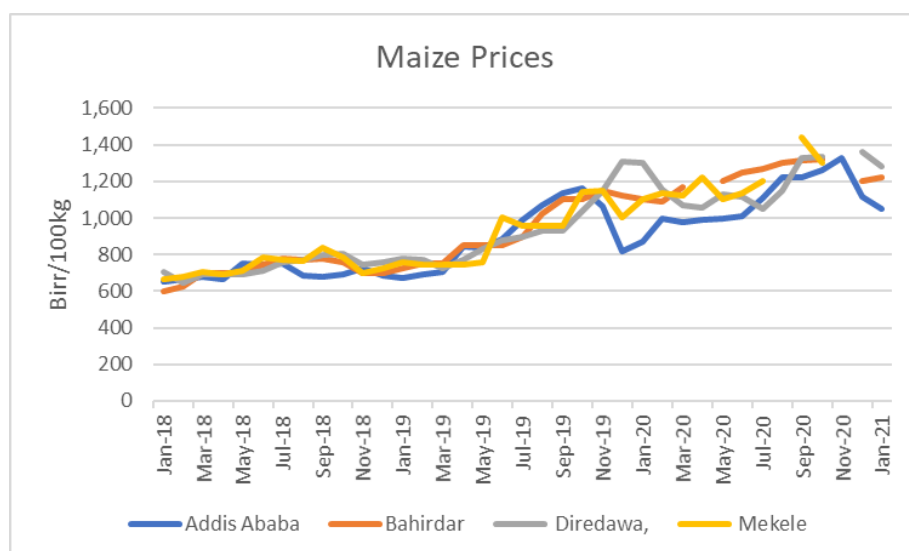


Source: FAO Food Price Monitoring and Analysis tool (36). All prices are wholesale and in real terms.

According to the FAO, the ongoing conflict in the Tigray Region resulted in widespread shortages of food commodities and in sharp price increases. In the regional capital, Mekele, between November and December, prices of several key staples increased by 50-100 percent (36). Food prices in Ethiopia have however been increasing on a yearly basis since the 2008-2009 food price crisis. Such upward trends makes food price increases (and their seasonal variations) a long-term problem that has been exacerbated by the pandemic.

Figure 10. Wheat and Maize prices in selected Ethiopian Markets (2018-2021)



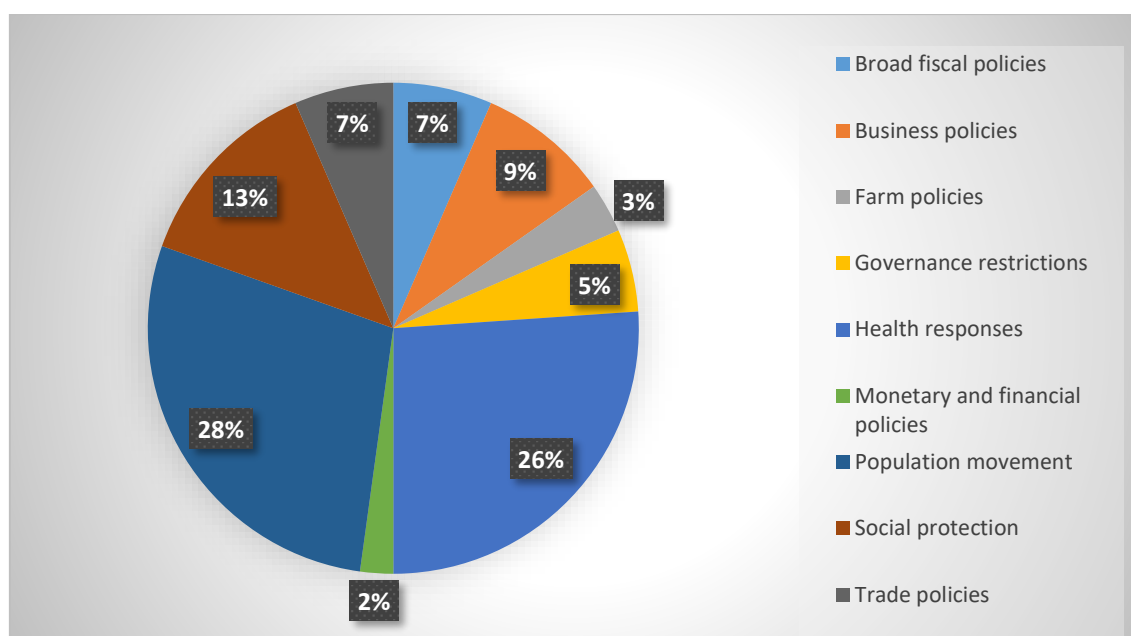


Source: FAO Food Price Monitoring and Analysis tool (36). All prices are wholesale and in real terms.

4. Government Policy Responses

The following section maps government policy responses relevant to food and nutrition security. According to the IFPRI CPR Portal, Ethiopia has announced 92 policies since the outbreak of the pandemic (37). A sectoral breakdown of these policies is illustrated in Figure 11. **Erreur ! Source du renvoi introuvable.**

Figure 11. Breakdown of Government Policy Responses in Ethiopia



Source: Extrapolation from data by IFPRI COVID-19 Policy Response Portal (37)

Food security

Agricultural Supply

In April 2020, facing the challenges of both the desert locust invasions and COVID-19, the Government of Ethiopia focused on the distribution of farm inputs, including the announcement of¹⁷:

- Seasonal availability of fertiliser: a total of 1.75 million tons made available for the 2020 production season.
- Improved seeds: about 100,000 tons of improved seeds of different crops (mainly wheat and maize) ready for distribution.
- Protection chemicals: about 745,000 litres of chemicals ready for distribution.
- Extension services: 69,000 development extension staff to work alongside health professionals to raise the awareness of the farmers and pastoralists as well as on ways of preventing the coronavirus.
- Loans: the government supported an 800 million ETB (USD 20.3 million) loan to cooperative unions to avoid shortages in supplies of agricultural products due to COVID-19.

Details of sectoral program developed by the Ministry of Agriculture (covering value chains, extension services, export sector, nutrition and safety nets) and expected budget needs are presented in [Annex 2](#).

Local food production capacity

Government efforts to increase localised production of food include¹⁸:

- Irrigated cereal agriculture (mainly wheat) will be expanded through irrigated production. Some activities started in June 2020 in a number of regions on 20,000 hectares of land. About 10,000 water pumps were also distributed to support irrigation expansion.
- Urban and peri-urban agriculture expanded by Addis Ababa city administration, jointly with the Ministry of Agriculture (MoA). Fruit and vegetables are prioritised with the aim of meeting about 15% of the city's demand. Formerly expropriated farmers and organised young and women's groups are being allocated land and are receiving extension advice from the MoA. Urban and peri-urban agriculture plans will also expand to other cities. The city considers this as a very important employment generation intervention as well.
- Expanding cluster farming has helped Ethiopia to extend appropriate extension and management practices to farmers. Economies of scale, use of mechanisation, proper input applications and appropriate farm management practices are expected to increase the seasonal yield and total harvest.

Food aid and distribution

- In April 2020, the Ethiopian Ministry of Revenues and the Customs Commission jointly donated food and clothing worth over 1.4 bn ETB (USD 35.5 million) to nine regional states, two city administrations and 26 charities. The donation included over 28,557 litres of oil and 4,648 kg of rice (38).
- A month later, Prime Minister Abiy launched the 'Each One Feed One' National Challenge, a nationwide effort to mobilise individuals to provide a meal, matching their own meal, to the most vulnerable sections of society (11).
- Concomitantly, food rationing and food distribution were rolled out as part of the initiative in the city administration of Addis Ababa (that had higher infection rates than other parts of the country). This included dry food items donated to 1,000 households of a larger pool of households identified as extremely vulnerable and needing support within the city.
- Food distribution was extended to 15 million individuals vulnerable to food insecurity and not currently covered by the Productive Safety Net Programme through the Multi-Sectoral Preparedness and Response Plan (MPRP) (details below).
- Anecdotal evidence of food support from religious institutions (mainly churches and mosques) was gathered from some of the stakeholders consulted by the NRF.

¹⁷ This section was completed thanks to personal communication with the European Delegation in Ethiopia.

¹⁸ This section was completed thanks to personal communication with the European Delegation in Ethiopia

Productive Safety Net Programme (PSNP) and Urban Productive Safety Net Programme (UPSNP)

The Productive Safety Net Programme (PSNP) and Urban Productive Safety Net Programme (UPSNP) are public work programmes directed at food insecure and disadvantaged households, identified by their communities. Through close collaboration between local authorities and communities, a payment is made in either cash or food (mainly cereals sometimes combined with lentils, dried beans and oil). The aim of the PSNP/UPSNP is to make sure people enrolled have sufficient food. This is one of the Government of Ethiopia's flagship reform programmes in place since 2005. However, it is expected that 1-4 million more people will be in need of food aid and financial support than those who are currently targeted by the PSNP and UPSNP.

As a result, the Multi-Sectoral Preparedness and Response Plan (MPRP) launched by the Office of the Prime Minister includes USD 635 million to extend the PSNP across the territory (39). According to a recent study by the World Bank, the PSNP is very effective in mitigating the effect of COVID-19 pandemic on household food insecurity (see Box 1).

The MPRP is expected to be allocated as follows:

- USD 293 million for agricultural sector support, nutrition, the protection of vulnerable groups, additional education outlays, logistics, refugee support and site management support;
- USD 430 million for health sector response under a worst-case scenario of community spread with over 100,000 COVID-19 cases of infection in the country, primarily in urban areas;
- USD 282 million for the provision of emergency shelter and non-food items.

Box1. Do social protection programmes protect? Impacts of the Productive Safety Net Program (PSNP) on food and nutrition security during COVID-19.

A recent World Bank study assessed the impact of Ethiopia's flagship social protection program, the Productive Safety Net Program (PSNP) on the adverse impacts of the COVID-19 pandemic on the food and nutrition security of households, mothers and children (under 24 months)(40). The analysis used pre-pandemic in-person survey (March-August 2019) and a post-pandemic phone survey (June 2020)¹⁹.

60% of the 1,497 respondents reported that their incomes had fallen after the pandemic began and almost half reported that their ability to satisfy their food needs had worsened. The percentage of households reporting a food gap²⁰ had increased by 11.7% points and the duration of the food gap by 0.47 months in the aftermath of the onset of the pandemic. Estimations from the study show that participation in the PSNP offsets virtually all of adverse changes caused by COVID-19 on food insecurity. The likelihood of becoming food insecure increased by only 2.4 percentage points for PSNP households and the duration of the food gap increased by only 0.13 month.

PSNP participants were less likely to reduce expenditures on health and education by 7.7 percentage points and less likely to reduce expenditures on agricultural inputs by 13 percentage points. Mothers' and children's diets changed little, despite some changes in the composition of diets, with consumption of animal source foods declining significantly. The protective role of the programme was greater for poorer households and those living in remote areas.

The findings of the evaluation of the PSNP offer a success story of a well-functioning social protection program and highlight the importance and value of having them in place prior to the pandemic in order to protect the food security of poor households.

¹⁹ Sampling strategy during the pre-COVID-19 period included: 1) having a child less than 24 months of age; 2) having been included in the PSNP; or 3) if not included in the PSNP, being considered poor (using a subjective poverty measure in which households were asked to rank themselves on a seven rung poverty ladder). In June 2020, 1,497 (about 59%) of the 2,551 households who took part in the pre-COVID-19 survey were interviewed for the follow-up study.

²⁰ Food gap is defined as the number of months the household was not able to satisfy its food needs (40).

Employment Support (Fiscal Policy)

In April 2020, the Council of Ministers approved another set of economic measures to support firms and employment. These included: forgiveness of all tax debt, a tax amnesty on interest and penalties and exemption from personal income tax for firms which keep paying employee salaries despite not being operative due to COVID-19. Increased support for jobs and businesses included: a) funds to cover salaries in manufacturing, construction and services; b) business support for micro, small, medium and large enterprises. However, several analysts point out that these types of support measures do not reach casual labourers in the agricultural sector (41). Some informal reports mention funds being raised by local communities (including local authorities and religious leaders) to support severely affected households.

Annex 2 reports more government interventions in the areas of public health, fiscal and monetary policy.

International interventions in support of government food and nutrition security

The government responses were completed by the interventions of various international organisations such as Save the Children, FAO, UNICEF and GAIN. As an illustration, we summarise hereunder the activities carried out by these organisations.

Save the Children

Save the Children's Growth through Nutrition Activity, a USAID funded multi-sectoral nutrition project, has been supporting the Government of Ethiopia since 2017 to reduce undernutrition in 120 districts with a population of about 14 million (42). As the coronavirus pandemic hit, the programme was pivoted to provide complementary services and support to government initiatives (communication campaigns; transport of personal protective equipment and nutrition commodities; promotion of personal hygiene and available water, sanitation and hygiene products). In particular, Save the Children supported the Ministry of Health to monitor the use of nutrition services and cases of wasting in 3,287 health facilities; and initiated research to monitor the impact on health, nutrition and agriculture services. Data has not yet been made public, but they will help the Ministry of Health identify districts and health facilities with poor trends to provide targeted supportive supervision and promotion of infant and young child feeding.

Food and Agriculture Organisation (FAO)

Within the framework of the FAO's Corporate COVID-19 Response and Recovery Programme, a number of cross-cutting actions were identified to meet the urgent short-term needs of the most vulnerable food insecure populations (43). These actions were aimed at ensuring the continuity of public and private services in agriculture and the rural economy; supporting food supply, especially of nutrient dense foods; supporting communication campaigns on good practices in response to the pandemic; carrying out rapid gender assessment to address the specific needs of women and girls.

UNICEF

Preparedness and response actions in the nutrition domain rolled out by UNICEF include (44):

- Dispatching 100,000 cartons of Ready to Use Therapeutic Food (RUTF) to meet the existing and expected increased number of Severe Acute Malnutrition (SAM) cases in June-August 2020. UNICEF expects SAM cases to increase by 30%, thus an additional 36,630 cases.
- Support for the Ministry of Health (MoH) in the development of a Technical Guide for Nutrition Services in the Context of COVID-19, which has been shared nationally (45).
- Creating radio and TV scripts (in local languages) to promote safe child feeding and healthy diets in the context of COVID-19.
- Supporting the MoH in developing messages and materials on safe infant and young child feeding practices, the management of acute malnutrition and adult nutrition in the context of COVID-19.

Global Alliance for Improved Nutrition (GAIN)

In response to the global pandemic, GAIN developed a programme of targeted support to help sustain core food systems, workers and markets during the COVID-19 emergency²¹. Keeping the food systems working (KFMW) programme in Ethiopia has the overarching goal of mitigating the risk of economic collapse of food systems in order to sustain the availability and affordability of nutritious and safe foods, as well as contributing to lowering the burden of ill health, particularly for the most vulnerable.

The KFMW project includes three priority areas for planned interventions, plus cross-cutting research:

- Assess and identify urgent risks and opportunities to improve the market through rapid consumer and vendor communication exchange.
- Mitigate short-term health safety risks in prioritized informal food markets in Addis Ababa, informed by vendor, consumer and stakeholder insights into risks and opportunities.
- Leverage informal food markets to become safer and more resilient by introducing human-centred market setup designs.
- Build capacity of market governance authorities, subject matter experts and key stakeholders to develop locally adapted guidance and actions for safe, resilient markets over the medium to longer term.

GIZ

In response to the ongoing COVID-19 pandemic, the International Potato Centre (CIP) donated ETB 120,000 (USD 3,274) worth of Personal Protective Equipment (PPE) in June 2020 to the regional Bureau of Agriculture and Rural Development (BoARD) of Tigray to assist in the effort to combat the COVID-19 pandemic. The donations included 352.5 L of hand sanitizer and 2,500 masks. PPE was distributed to frontline agricultural extension workers who are working in GIZ-CIP intervention areas in order to protect the communities they serve and themselves from COVID-19 infection.

Discussion

Since the beginning of the pandemic, there have been alarming concerns on the ability of LMICs – particularly in Africa – to cope with the pandemic and its devastating effects on the economy (46). COVID-19 pandemic and its economic consequences were expected to cause widespread disruptions of health services and food systems, with the worst consequences borne by young children (47). A strong impact of COVID-19 restriction measures on maternal and child nutrition and death in LMICs was expected (48,49). These studies were not intended to be predictions but were aimed at highlighting the need to balance stringent public health measures with the daily material needs of poorer communities and vulnerable segments of the population.

Ethiopia had its first case of COVID-19 on the 13th of March 2020. At the time of finalising the report (27th of March 2021) there were 198,794 cumulative confirmed cases, with a cumulative incidence of 1,729 confirmed cases per million people (5). The results gathered in this study indicate that Ethiopia was among the African countries that managed the first wave of the COVID-19 pandemic and economic crisis with rapid and context-specific measures. Due to a lack of intensive care facilities across the continent, Ethiopia implemented restrictive measures (closures of schools and religious institutions) before widespread transmission was detected, allowing time for health systems to prepare (50). Concomitantly, the government had minimal stay-at-home measures and travel bans among regions (11). Government communication about the measures that could be taken to reduce the risk of contracting the virus was effective (15,50). This is reflected by the highly widespread adoption of handwashing and physical distancing (50).

²¹ This information was provided during the stakeholder consultation, with more information available here: <https://www.gainhealth.org/impact/our-response-covid-19>

By the end of 2020, Ethiopia was among the six African countries performing the bulk of the COVID-19 testing in the continent (51). However, the country has been recently facing a second wave of cases. Despite new and more transmissible variants of the virus, restriction measures were not implemented to the same degree and were introduced at earlier stages of the pandemic²². Additionally, there is some evidence indicating adherence fatigue in relation to mask wearing and social distancing (51).

As documented in other countries, COVID-19 pandemic restrictions had adverse implications on food and nutrition security through a range of impact pathways (50,52,53). On the production side, movement restrictions impacted agricultural labour movement, limited farm inputs supply and disrupted transportation and markets (54). On the demand side, movement restrictions and drop in demand for numerous goods and services may have negatively impacted income generation activities and food security of poorer households. In turn, a poor nutritional status linked to food consumption reductions or shifts towards cheap calorie-dense but nutritionally poor foods may result in reduced immunity and increased COVID-19 fatality (55).

The analysis of available data since the COVID-19 outbreak illustrated the worsening of dietary diversity indicators, especially in the early stages of the pandemic. For example, the HDDS, collected in Addis Ababa, decreased at the beginning of the pandemic, but later returned to pre-pandemic levels. However, further analysis showed that aggregate HDDS remained stable due to increased calorie-dense food consumption at the expense of more nutritious foods (21). In rural Ethiopia (Oromo and Amhara regions), parents reported significant reduction of animal source foods among children since the outbreak of COVID-19 (23). Such reductions in the consumption of nutritious foods raise serious concerns for the Ethiopian population as dietary diversity, an important proxy of diet quality, was already reported to be low before the pandemic (56). The Food Insecurity Experience Scale (FIES), collected in the nationally representative phone surveys conducted by the World Bank (15), indicated that in June and July 2020 almost half of the population suffered some level of food insecurity. These are alarming figures and they remain comparable with food insecurity estimates computed before the pandemic (25). Therefore, the link with the COVID-19 pandemic cannot be established unambiguously. Surprisingly, figures between rural and urban areas were similar, despite significantly higher levels of food insecurity among rural populations in previous nationally representative surveys (26). The report also found that urban population, especially those reliant on daily income and informal employment, were affected differently from rural populations. Among the sub-groups that had reported being most affected by the pandemic, are female-headed households and young individuals between 19 and 25 years old living in urban areas. The main channel of impact on food and nutrition outcomes has been through the impact of COVID-19 and restriction measures on the employment, income and associated purchasing power. In October 2020, more than 80% of households reported that income decrease was the main factor impacting their ability to purchase such items (15). Together with the continuous depreciation of the Ethiopian currency and regional conflicts that are increasing food prices, income reduction can undermine food affordability and consequently food security of vulnerable populations. Finally, the pandemic has reduced the types of services and treatments on children and maternal nutrition provided by health centres²³. Containment measures were coupled with mitigation strategies, including communication campaigns on handwashing and social distancing, agricultural input distributions, food aid, employment support measures and expansion of social safety net programmes (11,15). However, a comprehensive assessment of the impacts of the pandemic and restriction measures on reproductive, maternal, newborn and child health (RMNCH) services and the nutritional status of children under-5, is limited by the lack of data.

²² The Stringency Indicator for March 2021 is 38. During the peak of the first wave (Spring-Summer 2020) the stringency level of the Ethiopian Government measures was 80 (12).

²³ Information retrieved from unpublished studies. They were conducted by Tufts University and Cornell University and were presented during the Feed the Future webinar [“Key health, nutrition and agricultural services in the face of COVID-19 in Ethiopia: Lessons Learned”](#), on 3rd February 2021.

From the production side, the evidence on food supply chains in Ethiopia is not yet complete and a comprehensive sectoral analysis of the national food system is yet to be produced. Early indications suggested disruptions were relatively contained and that specific production systems were largely resilient (27,33). Despite the difficulties in assessing the specific impacts of policies at this stage, the resilience of the Ethiopian food system during the pandemic could be partly attributed to the swift agricultural policies put in place by the government at the beginning of the outbreak (e.g. distribution of fertilisers, pesticides and improved seeds; communication campaigns from extension services; public loans to cooperative unions to minimise supply shortage). However, the national agricultural COVID-19 response strategy prioritised crop production with a strong focus on cereals and cash crops (maize, wheat, rice, sorghum, sesame, soya beans, mung beans, onion, tomato, pepper, potatoes, and sweet potatoes). Crops were mainly selected for their ease and reliability of production, their export or import substitution value. Crops with a high nutrition potential were not specifically prioritised (41). In regard to cooperatives, a report by Wageningen University exhibits scepticism about the effectiveness to promote their role in food distribution and loans, as: a) the main obstacles in food distribution are transportation limitations due to movement restriction; b) earlier research shows mixed results on the effectiveness of cooperatives in distributing loans and in microfinance (41).

To mitigate the effects of the COVID-19 pandemic, the government implemented nearly 100 policy responses, including social protection policies, health responses, farm policies, and market policies. International partners were also active in supporting government measures. Probably the most important finding of the report relates to the effectiveness of social safety nets programmes. There are promising indications that in Ethiopia, employment and income support interventions played a key role in reducing the adverse effects of COVID-19 on food security for the most vulnerable groups (40,57). Social protection programmes have shown to sustain incomes and food demand and prevent the aggravation of food insecurity among beneficiaries of the Productive Safety Net Programme (PSNP) directed to disadvantaged households (40). By using macroeconomic simulations, the Joint Research Centre of the European Commission reaches similar conclusions: Ethiopian government measures (such as income support and business aid) can provide a buffer against the adverse effects of COVID-19 on food demand, by supporting incomes, especially in urban areas (57).

In conclusion, the analysis of the impacts of COVID-19 on food and nutrition security in Ethiopia highlighted that pandemic restriction measures put in place to curb infections and alleviate the pressure on health systems should be coupled with holistic and context-specific support of employment, income and businesses. The evaluation of the PSNP provides solid grounds to underline the importance of having established social protection programmes in place prior to the onset of shocks, in order to protect the food security of poor households. Social safety nets are complex to design and expansive fiscal policies can face obstacles. Low-income countries in particular often lack the fiscal space to do so, which had led to hesitation towards such programs (40). The COVID-19 crisis has reignited interest in social protection policies and government welfare support as instruments to enhance the capacity of the poor against catastrophic shocks.

Social safety nets can play a role in making sure that Ethiopia's progress in reducing malnutrition is not reversed due to the COVID-19 pandemic. The health and economic crisis has temporarily shifted investment commitments from areas necessary to strengthen the food systems and maternal and child nutrition services. But social safety nets cannot be effective on their own and there is a need for broader food systems interventions and investments to support food and nutrition security. These include (and are not limited to): i) investing in long-term climate adaptations to mitigate the risks of widespread hunger and starvation from adverse climate impacts on food production; ii) building resilience of health and food systems to withstand climate- and conflict-related shocks; iii) strengthening and ring-fencing maternal and child essential health and nutrition services so that they are not sacrificed for emergency measures; iv) enhancing nutrition programme coordination and implementation (58); iv) engaging effectively with young people and women to support both the immediate COVID-19 efforts and the long-term aim of building back better (42).

Limitations

In Ethiopia, a number of international organisations and national initiatives (i.e. World Bank, World Food Programme, International Food Policy Research Institute, Oxford Policy Monitoring, Ethiopian university departments²⁴) have been collecting data on different aspects of food and nutrition security and their evolution during the pandemic. However, each report estimates varied sets of food and nutrition security indicators and targets different population groups in different areas of the country. The heterogeneity in methods and approaches poses challenges in interpreting the data and in comparing indicators. We compared some of the standardised indices with pre-COVID-19 data whenever possible. However, given the methodological heterogeneity and different population samples, caution should be exercised when interpreting variations between pre-pandemic and post-COVID-19 data. Moreover, the limited availability of longitudinal studies including the pre-COVID-19 period has made it difficult to provide definitive assessments of the impacts of COVID-19 on food and nutrition security in Ethiopia, particularly to disentangle the seasonal variations of food insecurity indicators from the effects of the pandemic.

We presented some of the first results about the impact of the global pandemic on food security in Ethiopia. COVID-19 has posed significant obstacles to collect information on maternal and child nutritional outcomes (59). Although data from phone and online surveys have been extremely valuable to monitor the evolution of poverty and food insecurity in times of social distancing and movement restrictions, we need to seriously consider the challenges in reaching poorer and marginalised population groups. The nutrition status of populations also needs to be monitored and remote anthropometric assessment needs to be carried out (60), possibly complemented by COVID-19 safe in-person visits to minimise selection bias.

²⁴ Stakeholders indicated that a number of data collection initiatives lead by Ethiopian academic institutions were taking place at the time of drafting the report. However, data is not yet available.

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Annexes

Annex 1 – Search and consultation strategy

Table 1. Data sources on the impact of COVID-19 pandemic on diet and nutrition, and policies put in place by authorities

COVID-19 policy response portal - IFPRI	https://www.ifpri.org/project/covid-19-policy-response-cpr-portal
Oxford Tracker of Government Response	https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker
Policy response to COVID-19 - IMF	https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19
COVID-19 policy response tracker - IGC	https://www.theigc.org/covid-19/tracker/
Country policy responses-ILO	https://www.ilo.org/global/topics/coronavirus/regional-country/country-responses/lang--en/index.htm#ET
Office for the Coordination of Humanitarian Affairs (UN OCHA)	https://fts.unocha.org/appeals/952/flows
Food And Agriculture Policy Decision Analysis Tool - FAO	http://www.fao.org/in-action/fapda/tool/#main.html
FAO's Big Data tool on food chains under COVID-19 pandemic	https://datalab.review.fao.org/
Data to inform the COVID-19 response - UNICEF	https://data.unicef.org/topic/covid-19-and-children/
ACAPS	https://www.acaps.org/countries
Impact of COVID-19 on SMEs in the food system - SUN	https://scalingupnutrition.org/news/impacts-of-covid-19-on-smes-in-the-food-system/
COVID-19 Food Price Monitor - IFPRI	http://tools.foodsecurityportal.org/COVID-19-food-price-monitoring
Food Price Monitoring and Analysis - FAO	http://www.fao.org/giews/food-prices/home/en/
The impact of COVID-19 on African Civil Society - INCLUDE	https://includeplatform.net/publications/the-impact-of-covid-19-on-african-civil-society-organisations-challenges-responses-and-opportunities/
The Market Monitor - WFP	https://www.wfp.org/publications/market-monitor
COVID-19 and the food and agriculture sector - OECD	https://www.oecd.org/coronavirus/policy-responses/covid-19-and-the-food-and-agriculture-sector-issues-and-policy-responses-a23f764b/
Safeguarding Africa's food systems through and beyond the crisis - McKinsey	https://www.mckinsey.com/featured-insights/middle-east-and-africa/safeguarding-africas-food-systems-through-and-beyond-the-crisis#
WHO African Region COVID-19 Dashboard	https://who.maps.arcgis.com/apps/opsdashboard/index.html#/0c9b3a8b68d0437a8cf28581e9c063a9
FAO Food Outlook (predicting global shortage of protein intake)	http://www.fao.org/3/ca9509en/CA9509EN.pdf
FEWS NET COVID-19 and Food Security	https://fewsn.net/covid-19-pandemic-impacts-food-security
Food Security Portal	http://www.foodsecurityportal.org/COVID-19
WFP Dashboard Covid	https://dataviz.vam.wfp.org/Dashboards/Hunger-Snapshots-Countries
LSE Blog Series on COVID-19 in African Countries (including policy analysis)	https://blogs.lse.ac.uk/africaatlse/category/shifting-spaces/
COVID-19 and the Risks to the Nutritional outcomes of Children and Women in Eastern and Southern Africa	https://reliefweb.int/sites/reliefweb.int/files/resources/ESAR%20Joint%20Nutrition%20Partners%20Call%20to%20Action%2022%20JULY%202020.pdf
Global Nutrition Cluster (GNC) support dashboard	https://app.powerbi.com/view?r=eyJrjoiY2I5YmJmMDItZmJmMi00NDk4LTgyNmItMzViZGE2ZTM5OTVhliwidCI6IjYjYjA1YzYyLTQ5ZGItNDJfMi05Zjg5LW11ZjQ3MjQzNzg5Ni99
IFPRI: Food Export Restrictions during the COVID-19 crisis	https://public.tableau.com/profile/laborde6680#!/vizhome/ExportRestrictionsTracker/FoodExportRestrictionsTracker
LSMS-Supported High-Frequency Phone Surveys on COVID-19	https://www.worldbank.org/en/programs/lsmis/brief/lsmis-launches-high-frequency-phone-surveys-on-covid-19

Google search and RSS feed search strings

- COVID AND (food OR nutrition) AND ethiopia site: FAO.org OR site:WFP.org OR site:UNICEF.org OR site:WHO.org OR site:UNDP.org OR site:IFAD.org OR site: WorldBank.org OR site:OECD.org OR site:IMF.org OR site:Europa.eu OR site:scalingupnutrition.org OR site: IFPRI.org OR site:GAIN.org OR site:OXFAM.org OR site:Savethechildren.org OR site:Actionagainsthunger.org filetype:pdf
- COVID AND (food OR nutrition) AND ethiopia site: nipn-nutrition-platforms.org/ OR ephi.gov.et filetype:pdf

List of Ethiopian institutions contacted for the stakeholders consultation

- Ministry of Health
- Ministry of Agriculture
- EU Delegation
- Ethiopia Civil Society Coalition (ECSC) SUN
- IFPRI
- GAIN
- Save the Children
- WFP/Nutrition Department
- Partner Forum USAID/NDPF
- Ethiopian Public Health Institute/NiPN
- Jimma University
- Hawassa university (Centre of excellence in nutrition)
- Addis Ababa University

Annex 2 – Additional government initiatives

Ministry of Agriculture

Table 2. Planned Interventions on the Corona Emergency in the Agriculture Sector: Ministry of Agriculture in collaboration with the Ministry of Health and other government and non-governmental organizations.

Predicted Hazards	Planned mitigation strategies	Estimated cost (USD)
Protection of MoA staff and clients from contracting the Corona virus	Information campaign, hand washing, use of PPE on site (although limited in availability).	406,500
Desert Locust control program continuity	Surveys and surveillance by desert control programs; Immediate Livelihood support for Farmers and pastoralists.	65,000,000
Agricultural Inputs Distribution	Increase the number of distribution sites to avoid large gatherings; Staggering of distribution cycles; Facilitate e-payments; Implement the precaution procedures at the unloading and distribution sites and availing handwashing facilities & inputs, sanitiser, and PPE; Give special emphasis to nutrient dense and biofortified crops and livestock; Organise social media messaging apps for timely information sharing.	499,988
Agricultural extension service	Adherence to procedures for personal protection against COVID-19; effective communication methods to allow social distancing; advisory content tailored to agricultural extension's needs (local language, crop specific advises).	2,864,638
Veterinary Services	Priority to maintain operation of veterinary services to ensure animal health services and vaccination campaigns; communication campaigns on the use of PPE and social distancing provided in collaboration with Public Health and Veterinary Services; One Health approach to share information and conduct a risk assessment to monitor the human-animal interaction.	655,250
Agricultural commodities supply value chain		604,765,625
• Food value chain	Ensure use of correct crop storage practises and availability of storage and logistics; activate short circuit value chains for both input and output delivery; improve communication of price signals for farmers (e.g. via a hotline); ensure output finance for cooperatives and unions, traders; support for food banks; precautionary measures in markets; communication campaigns.	
• Export Value chain	Loan rescheduling of existing loans for export sectors impacted by Covid-19; concessionary working capital loans to ensure continuing operations of agriculture companies; Ensuring efficient logistics; Passes for export sector employees in cases of citywide lockdowns.	
• Live animals and animal products & by-products	Practices and leal measures to guarantee quality control, animal welfare, stop illegal trade, support pastoralist communities in difficulty, public awareness on zoonotic measure of COVID-19.	
Nutrition Sensitive Agriculture		453,125
• Ensure optimal food consumption practice	Include nutrition indicators and targeting criteria in the MoA programmes; Promote safe food handling and preparation methods at Household level; Improve shelf life of perishable produce; use improved food processing methods to improve bioavailability of nutrients; Promote home gardening, production and consumption of nutrient dense plant and animal source foods; Promote urban agriculture and incentivise use of neglected/underutilised nutrient dense foods; Promote nutrition information on consumption of optimal healthy diets; Adapting postharvest technology to foods availed through in-kind support and also farmers own produce, to reduce food loss.	
• Youth and women employment	Ensure passes for staff working in small agricultural businesses in cases of citywide lockdowns; guarantee better access to affordable inputs; Ensure market linkages with major distributors and retailers; Give due attention to gender issues as during times of high labour force, women might be sidelined in preference for stronger men in the labour market; Ensure engagement of women and youths on small-scale, safe, food processing and packaging activities.	
Rural Safety Net (affected by logistical difficulties in carrying on payments and activities due to the pandemic)	Provide additional financing to support the programs including the livelihood strengthening components. For example, the PSNP could also consider the application of fresh food voucher from locally produced food supply to the beneficiaries to improve consumption of diversified diet and also reduce contact with multiple individuals in markets.	588,712,500

Table 2. Continued.

Predicted Hazards	Planned mitigation strategies	Estimated cost (USD)
National Initiatives and Programs	Promote (or minimise negative impacts on) flagship programs such as wheat import substitution, policy reforms, national tree planting initiative's, Acid soil reclamation programs, soil conservation programs and land registering programs will suffer from lockdown and reduced labour on the ground. To mitigate the reduced performance, the MoA will launch the following interventions: Frequent communication, monitoring and supervision through virtual means; Smart scheduling of technical expert field missions; balanced prioritisation of logistics needs, Covid 19 mitigation vs national programs; Virtual meetings/workshops and training; ensure sustainable supply of labour that align with the precautionary measures; Ensure sustainable supply of inputs.	
Establishing Quarantine Centres	Prepare measures if the farmers are affected by the pandemic (identification and arranging quarantine centres, blankets, food, etc. in consultation with the MoH).	

Source: Ethiopia Ministry of Agriculture. Agriculture sector response to COVID 19 pandemic. April 2020

Public health

In June 2020, the government introduced a new and innovative approach, the Enhanced Community Mobilisation Activities and Testing. One of the key strategic shifts in the new approach has been the introduction of community/self-isolation sites within households. This included:

- Laboratory and testing capacity - since early February 2020, the national capacity of confirmatory testing has increased substantially, from no in-country capacity to approximately 69 functional labs with COVID-19 testing capacity across all regions (as of January 2021).
- Screening at Points of Entry – health screening for travellers from abroad takes place at points of entries.
- Isolation, quarantine, and treatment centres – In June 2020 (latest figures available), 332 isolation, 50 quarantine, and 64 treatment centres had been established.
- Surveillance and contact tracing - toll-free call centres are up and running 24 hours a day, seven days a week, at the national and subnational levels, with an average of 8,000-10,000 calls being responded to daily. Home-based quarantine is being implemented for contacts of confirmed cases, accompanied by laboratory testing and follow-ups by health professionals.
- Communication - a Risk Communication and Community Engagement Strategy to disseminate health and prevention messaging.

Fiscal Policies

Ethiopia initially announced a 300 million ETB package to bolster healthcare spending in early March 2020. On March 23, the Prime Minister announced the aid package would be increased to 5 billion ETB (USD 154 million or 0.15 percent of GDP) but details on the precise modalities of the assistance were not made available.

Monetary and Macro-financial policies

The central bank has provided 15 billion ETB (0.45 percent of GDP) of additional liquidity to private banks to facilitate debt restructuring and prevent bankruptcies. It has also provided 33 billion ETB of additional liquidity to the Commercial Bank of Ethiopia.