

Summary of the 2020 Food Security Crisis and Implications for Humanitarian and Development Assistance¹

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¹ This work summarizes joint food security work performed by the World Food Programme and the World Bank. However, the current work further discusses some potential implications of those results. The authors would like to sincerely thank Tania Meyer. Furthermore, the authors would like to thank Kevin Carey, Johannes Hoogeveen, Irina Klytchnikova, Nandini Krishnan, Utz Pape, Nadia Piffaretti, Peter Salisbury, Tara Vishwanath, and audience members at an event organized by the Global Solutions Group on Conflict and Fragility at the World Bank for helpful comments. The authors also sincerely thank the World Bank- UNHCR Joint Data Center on Forced Displacement for financial support and technical guidance. The views expressed here are those of the authors and may not be attributed to either the World Food Programme or the World Bank.

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Background

The food security situation in Yemen significantly deteriorated during 2020 and has reached crisis levels. According to the latest Integrated Food Insecurity Phase Classification (IPC) released in December 2020, 16.2million Yemeni are expected to face acute food insecurity (IPC Phase 3 or above) between January and June 2021; 47,000 of these people will likely be facing catastrophic outcomes (IPC Phase 5). The share of the population facing acute food insecurity is similar to that reported in the last IPC released in the midst of the 2018 currency crisis—arguably the closest the population has come to famine during the conflict (IPC 2018; OCHA 2019). However, many of the aggravating factors cited in the 2020 IPC have not yet resolved and are worsening, which suggests that the food security situation might become more dire in the coming year in the absence of a sustained policy response by stakeholders.

A number of strong shocks in 2020 further stressed the already vulnerable Yemeni population. These shocks include a currency crisis in regions held by the Internationally Recognized Government (IRG), intermittent blockages in fuel imports to regions held by the De Facto Authorities in Sana'a (DFA), the COVID-19 pandemic, a series of natural disasters, significant decline in humanitarian assistance, and a recent increase in violence.⁴ Some shocks reduced income and food access directly, while a number of the shocks increased food and fuel prices, making it harder for Yemeni's to buy food.⁵ Figure 1 demonstrates the large scale of each of these shocks and the risks Yemeni's currently face.

⁴ Throughout, when referring to IRG, we are referring to territories not controlled by the DFA. This includes territories where other groups are influential and the IRG has limited control. Furthermore, given the price data is only collected in the capital cities of each governorate, we exclude governorates where neither the DFA nor IRG controls the entire governorate. However, the patterns in the districts of those governorates are most similar to other regions with the same controlling authority.

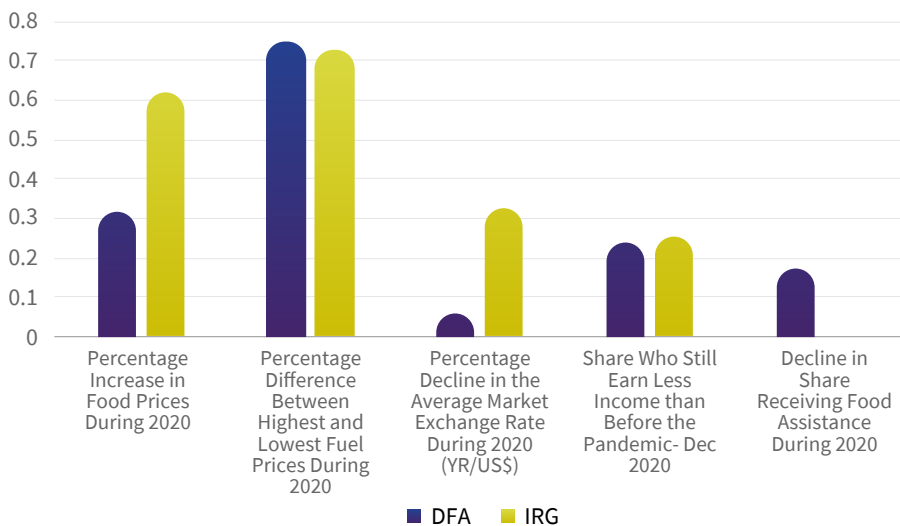
⁵ Additionally, some shocks affected both prices and had a direct adverse impact on food access.

Analytical work by the World Food Programme (WFP) and the World Bank (WB) describe the negative consequences of each shock, identifying which events likely had the largest and most immediate detrimental effects on food access in 2020. A number of potential drivers of food insecurity are common to the entire country, while others are region and time-specific. Triangulating between the location and timing of changes to prices and food access can help to identify the importance of individual shocks to inform first and second-best policy responses to the crisis. The analysis relied on two sources of data to infer likely drivers and their effects:

- I. WFP’s Global Food Price Database on dozens of separate food and fuel items collected each month from across Yemen, and
- II. WFP’s Mobile Vulnerability Analysis and Mapping survey (mVAM), a monthly household phone survey capturing access to food and basic services collected throughout the conflict.

FIGURE 1. Shocks Impacting Yemeni Households in 2020

1a. Shocks in Regions Controlled by the De Facto Authorities in Sana’a (DFA)



Notes: These figures were obtained from the WFP Global Food Price Database and the WFP Mobile Vulnerability Analysis and Mapping Survey.

The joint WFP-WB analysis was primarily intended to identify how food access has changed in the past year rather than fully characterizing the food security challenges facing the country. A number of other sources better describe the overall food security situation in the country and how the conflict has dramatically worsened food security (EFSNA 2016; IPC 2018; IPC 2020; etc.). This, on the other hand, is intended to help understand how the situation dramatically worsened since 2020 and the most pressing issues that need to be addressed to avoid a catastrophic outcome.

Our findings suggest that Yemen is in desperate need of more immediate humanitarian assistance in the short term, while in the longer term stakeholders need to address key drivers of the worsening food security situation. Unfortunately, the conflict and the divisions across the country both complicate the provision of sufficient humanitarian assistance and limit the ability of authorities to address key drivers of food insecurity across the entire country. We consider these limitations in offering policy implications based on the analysis. Ultimately, only resolution of the conflict in Yemen can address many of the issues causing the food security crisis.

Key Findings from Joint WFP–World Bank Work

1. **The timing and location of the largest declines in food access in 2020 suggest that rising prices and decreasing humanitarian assistance are particularly important shocks.** Food access did not start rapidly declining until June and July 2020, shortly after humanitarian assistance began to scale down in DFA-held regions and food and fuel prices escalated more rapidly. Further, analysis of previous food emergencies in Yemen underscores the importance of rapidly rising prices and declines in humanitarian assistance to the current crisis (WFP 2012; OCHA 2017; IPC 2018; OCHA 2019).

On the other hand, food access did not experience a large decline immediately following COVID-19 income losses and other shocks that affected more concentrated population segments. However, COVID-19 and other income shocks are still important factors in the overall insecure food security situation in Yemen. These factors may have large delayed effects on food security; and income shocks could have put additional strain on households and magnified the effects of escalating prices and declining humanitarian assistance.

2. **Given strong regional differences of both price increases and declining humanitarian assistance, the current crisis is significantly different in DFA-held regions and IRG-held regions.** In DFA-held regions, the decline in humanitarian assistance is large and fuel prices are more volatile than the rest of the country; and in IRG-held regions, the increase in food prices is larger. Importantly, the crisis is not caused by a single problem and addressing factors hindering food access in one region might not address all factors hindering food access in the rest of the country.

3. **The current food security crisis extends beyond the ability to afford food and is a crisis in which households have difficulty affording all urgent needs- both food and non-food.** The combination of rising food prices and declining incomes over the past year have significantly reduced the real income of the entire population, and these factors have led to a significant decline in resources available to purchase key non-food goods and services once a household has purchased a minimally sufficient amount of food. Households are likely being forced to choose between which urgent needs to satisfy more than at any other time during the conflict. In any given month, households might be forced to forgo a minimally adequate diet, needed medical care, schooling for children, adequate housing, and a number of other urgent needs.
4. **Analysis of the timing and location of food and fuel price increases during the current crisis suggests that high prices are primarily due to three factors:**
 - I. Increases in global food prices during the COVID-19 pandemic have led to substantial increase in food prices across all of Yemen.
 - II. Rapid increase in inflation and a substantial currency depreciation in IRG-held regions in 2020 has significantly increased prices in the region, most likely due to more monetary financing of the fiscal deficit (monetization) in the absence of alternative fiscal resources and a decline in foreign currency reserves.
 - III. Intermittent difficulties in importing fuel in DFA-held regions has contributed to high peak fuel prices in the region and high fuel price volatility, which are likely transmitted to food prices through transport costs.⁶
5. **Yemen has repeatedly been exposed to rapidly rising food and fuel prices, and these events provide lessons about the drivers of the current crisis and how to improve the situation. For example, rapid price rises disrupted food access during both the complete air and sea blockade of November 2017 and during the 2018 currency crisis (OCHA 2019). Importantly, sometimes food and fuel prices spiked simultaneously while sometimes only fuel prices spiked. These episodes can help untangle the potentially different effects that rising fuel and food prices have on the country, and**

⁶ See Favari et al. (2021) for more details.

which are especially relevant to the current crisis.⁷ However, it is important to note that the continued conflict might have reduced the resilience of the population since previous price shocks, potentially decreasing their ability to cope with and recover from the present crisis.

6. **Large price spikes have led to significant declines in Yemeni food access during previous crises.** The prominence of commodity price spikes during prior food security crises highlights the risk that households are facing from current escalating prices. Although there are other important determinants of food access, the largest deterioration in food access over the course of the conflict have occurred during periods of large food price spikes (IPC 2018; IPC 2020; Favari et al. 2021). The current situation is particularly risky for the population; past episodes illustrate that high food prices put already food-insecure households at high risk, and current food prices are higher than at any point during the conflict in much of the country.
7. **Rising food prices have created larger risks for the food-insecure population in the past than rising fuel prices.** The complete air and sea blockade in November 2017 caused fuel price rises similar to the 2018 currency crisis, but, unlike the 2018 currency crisis, food prices did not rise. Evidence from this episode suggests that rising fuel prices had the largest effects on the food access of relatively better-off Yemenis, likely because they consume more fuel and have a difficult time substituting from fuel consumption as prices rise. This is in stark contrast to instances where food and fuel prices rose simultaneously, causing a decrease in food access at all points of the welfare distribution.
8. **Food access in Yemen improved following price stabilization, even in previous cases where prices only leveled off and did not drop to pre-crisis levels. In both the complete air and sea blockade in 2017 and the 2018 currency crisis, food access improved within months of prices stabilizing. In the complete blockade, fuel prices only leveled off, while in the 2018 currency crisis many prices returned to pre-crisis levels.** However, the speed with which food access improved in Yemen following the stabilization of prices is surprising. When prices have increased in other contexts, households have spent savings, sold assets, borrowed money, or delayed spending in other dimensions to purchase food (Barrett 2002). In these sit-

⁷ Fuel price rises have been higher in DFA-held regions; food price rises have been higher in IRG-held regions.

uations, once a crisis ends, it is often difficult for household consumption to rebound after exhausting resources. Yemeni's quick improvement needs more investigation, but at least in the case of the 2018 currency crisis, the improvement is likely partially attributable to substantial increases in humanitarian and development assistance.

9. **Our analysis suggests that a significant portion of the decline in food access in Yemen is attributable to rapidly rising food prices, even in DFA-held regions spared from the ongoing currency crisis.** The current crisis has numerous causes that occurred at roughly similar times. However, using past crises as a guide, we estimate that rising food prices are responsible for about 89 percent of the decline in food access in IRG-held regions and 39 percent in DFA-held regions. Given that previous similar increases in food prices caused food emergencies without today's additional aggravating factors, the danger that the current rise in food prices presents is likely grave.

Key Implications:

Evidence highlights the urgent need to significantly increase humanitarian assistance, address key drivers of rising prices, and the need for additional analytical work and monitoring in the country:

Implications for Humanitarian Assistance

There needs to be an increase in the number of households and the amount of humanitarian assistance households receive. Prior to the recent food security crisis, the majority of the Yemeni population depended on humanitarian assistance (OCHA 2019). Even more humanitarian assistance is needed, beyond 2019 levels, to support households as prices continue to escalate and incomes continue decline due to the many shocks affecting the country. Further, more predictable assistance is needed in the current environment.

Importantly, given the current food security crisis extends beyond just food security, operations that improve access to all urgent non-food needs are also important tools needed to help struggling households. For example, emergency cash transfers and income support better enable households to have the flexibility to use a portion of their assistance or income to maintain access to the most urgent non-food needs; and emergency projects providing supplies to medical centers help limit price increases that would occur if medical equipment and personnel became even more scarce.

The possibility of continued increases in food prices changes the relative benefits of delivering assistance through cash versus in-kind transfers. Fixed quantities of in-kind assistance automatically increase in value as food prices increase, which helps maintain minimum consumption levels and reduces household uncertainty. Alternatively, linking the value of cash transfers to foreign currencies could also maintain their value in regions where the currency is rapidly depreciat-

ing, but could further introduce distortions in local prices, particularly in rural and remote markets (e.g., Cunha et al. 2018; Egger et al. 2019; etc.). Regardless of the modality by which benefits are delivered, the impacts on local prices should be monitored closely to adjust the type of transfer as necessary.

Furthermore, humanitarian and development organizations and projects could better coordinate on beneficiary targeting so that at least one program covers every struggling household. Despite a number of very large humanitarian and development projects delivering assistance in the country (OCHA 2021), a number of poor and food-insecure households are currently not receiving assistance (Ghorpade and Anmar 2021), a situation that will become more dire if prices continue to climb.

Lastly, increased humanitarian assistance and income support can be optimized to improve long-term problems. For example, there has not been a significant worsening of transportation networks or too large of a decline in agricultural production; but these and other long-term problems in the food supply chain could be magnifying shocks effects and contributing to price increases. Given that nearly all regions across the country and all sectors need income support, prioritizing sectors that could have secondary benefits on such issues might help limit the severity of future shocks. Even if these sector-specific investments do not have an effect on current or future crises, they could still address long-term issues important to Yemen's reconstruction and recovery.

Implications for Addressing Rising Food Prices

Given the many contributing factors to the rising food prices, one or two policy initiatives alone are not likely enough to fully address Yemen's current crisis. For example, even if the currency crisis was resolved, selected food prices in DFA-held regions (where there was no currency crisis) rose 31 percent over 2020 and are still higher than during the 2018 currency crisis and resulting food emergency. Furthermore, high fuel prices and price volatility predate the currency crisis, and fuel prices could spike again.

Given the many contributing factors to the current food security crisis, one or two policy initiatives alone are not likely enough to fully address Yemen's current crisis. For example, even if the currency crisis was resolved, selected food prices in DFA-held regions (where there was no currency crisis) rose 31 percent over 2020 and are still higher than during the 2018 currency crisis and resulting

food emergency. Furthermore, high fuel prices and price volatility predate the currency crisis, and fuel prices could spike again.

Unfortunately, the conflict in Yemen presents institutional challenges that make it particularly difficult to design policies to address key drivers of price increases. Ideally, Yemen would take steps to create a more coherent macroeconomic policy framework that enshrines foreign exchange reforms into a credible overall economic reform package, including reforms to close the fiscal financing gap. However, due to the conflict, it is likely impossible to take such steps across the entire country. Given these constraints, stakeholders must coordinate to outline a series of feasible steps to improve the situation in Yemen.

Although long-term solutions require peace and coordination across all of Yemen, some potential temporary and partial solutions might help limit future price increases. For example, monetization of the deficit is one potential cause of the currency crisis and rapid inflation in IRG-held regions, and one of the significant components of the deficit is partial payment of public sector salaries. Stakeholders are working to find a sustainable solution to partially fund public salaries through port fees and other revenues. Securing a sustainable funding mechanism for these salaries would likely reduce the deficit, and potentially limit the extent of money supply expansion and subsequent rapid inflation and currency depreciation in IRG-held areas.⁸

Implications for Additional Analytical Work and Monitoring

More analytical work is needed to better understand what sector-specific investments in food supply chains can best reduce food prices. Although it is not clear that supply chain blockages worsened in the past year, complications in supply chains have significantly increased transport costs and food prices since the start of the conflict (World Bank 2018; ACAPS 2020). However, the lack of data on Yemen makes it difficult to analyze these blockages, and more study is needed to understand the relative effect of each blockage on food prices. Furthermore, similar to difficulties in directly addressing other drivers of price increases, it might be impossible to address some issues causing increases in transport costs

⁸ The last currency crisis in mid-late 2018 was likely alleviated by balance-of-payments assistance by donor countries (World Bank 2020). However, relief was temporary and the currency began depreciating before the end of 2019. Furthermore, the current case is further complicated by the recent split in the currency and the fact that support would only address rising prices in IRG and not DFA-held territories.

(International Crisis Group 2021). Thus, in addition to identifying causes of prices increases, more research is needed to evaluate the feasibility of specific interventions to address them.

We need a better understanding of the urgent services that households are more frequently forgoing in the current crisis in order to better understand how to pivot existing emergency programs. For example, what types of medical care are households increasingly likely to skip? Are children less likely to attend school? If so, which children are more at risk? In order to better identify the urgent needs that are most necessary to support, it is important to continue to monitor access to a wide range of services and to better investigate the tradeoffs that individual households are being forced to make in these difficult times.

And lastly, the importance of rising prices to the country highlights the need for the government to develop the capacity to monitor prices across the country. The current climate precludes traditional data collection and monitoring that governments typically perform. Lengthy household surveys and measurement of either poverty or labor force participation are not feasible given the poor security situation, high costs, and the high number of shocks that make information collected to be quickly outdated. However, our analysis demonstrates that one of the key determinants of wellbeing over the course of the conflict is the price situation in the country, and thus it is possible to track the welfare situation, to an extent, by tracking prices. Developing official in-person and remote data collection of market prices could complement existing FAO and WFP price collection efforts, and could help to build vital capacity needed both during the conflict and Yemen's reconstruction and recovery.

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