YEMEN Food Security Outlook December 2018 to May 2019

World's largest food security emergency continues as conflict enters its fifth year

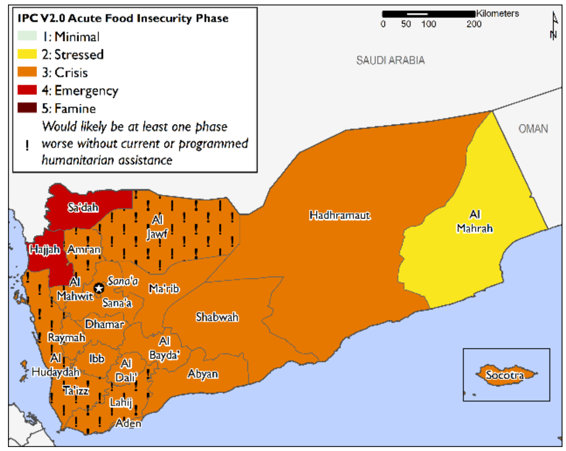
KEY MESSAGES

- FEWS NET estimates that approximately 17 million people in Yemen would be in need of urgent action (IPC Phase 3 or higher) in the absence of ongoing humanitarian food assistance. Sa'ada and Hajjah governorates are in Emergency (IPC Phase 4), which is associated with large food consumption gaps and/or extreme depletion of livelihood assets. Of the remaining governorates in Crisis (IPC Phase 3), six would be in Emergency (IPC Phase 4) in the absence of ongoing assistance.

- Between December 2018 and January 2019, large areas will remain in Crisis (IPC Phase 3), as large-scale assistance prevents a deterioration to Emergency (IPC Phase 4) in many areas. In the most likely scenario, humanitarian food assistance will continue through early 2019 and large areas will remain in Crisis through May 2019.

- While ceasefires have recently been announced in Al Hudaydah, FEWS NET's most likely scenario is based on the assumption that conflict will continue. As such, the potential for continued conflict near Al Hudaydah City remains concerning. Damage, closure, or disruption of land routes to the Red Sea ports could significantly restrict staple food availability and lead to sharp increases in staple food prices across the country. In a worst-case scenario, significant declines in commercial imports and conflict that cuts populations off from trade and humanitarian food assistance for an extended period could lead to Famine (IPC Phase 5). In addition, should humanitarian food assistance fail to materialize in 2019, the risk of Famine (IPC Phase 5) would increase, and the number of people in Emergency (IPC Phase 4) or worse would likely exceed 5 million.

Current food security outcomes, December 2018



Source: *FEWS NET*

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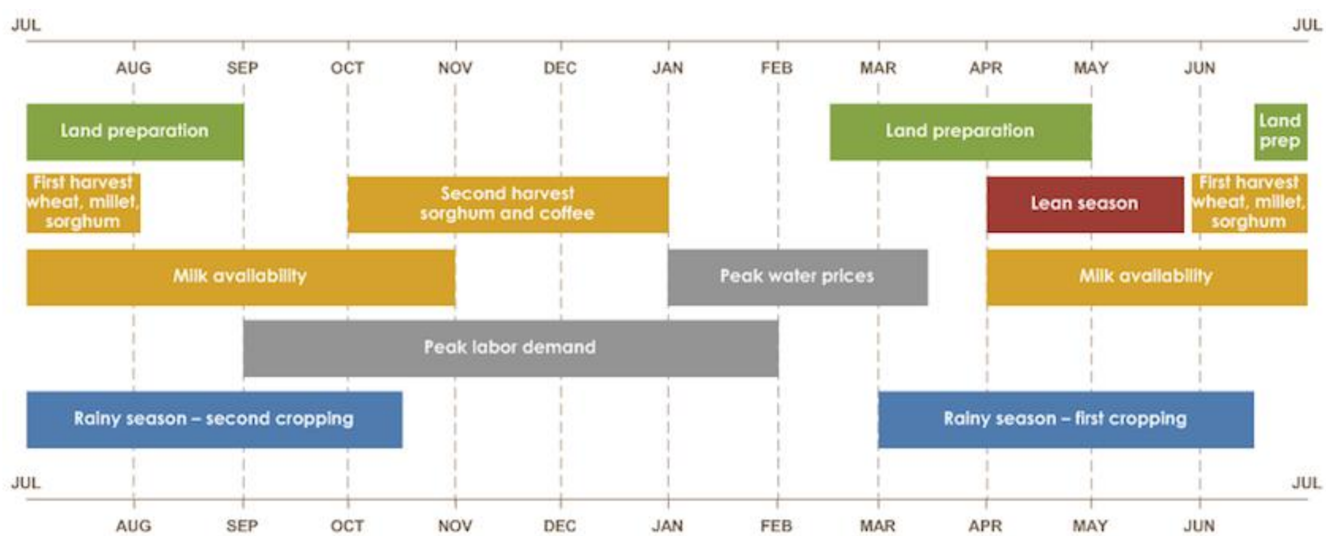
SEASONAL CALENDAR FOR A TYPICAL YEAR



Source: *FEWS NET*

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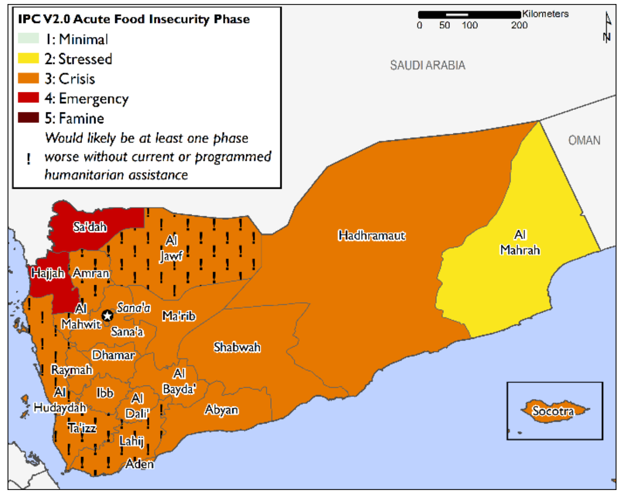
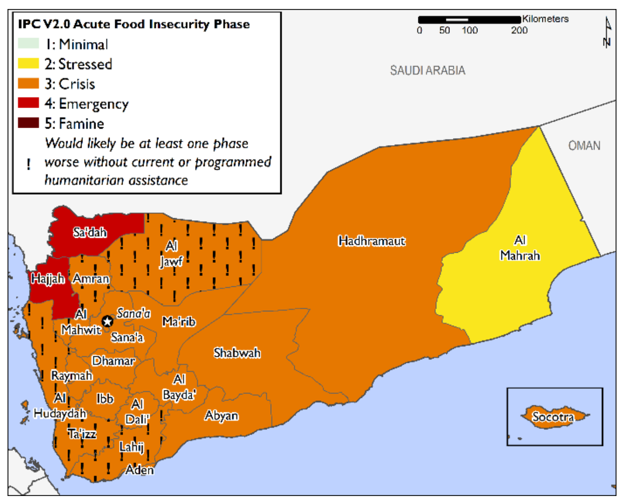
NATIONAL OVERVIEW

Projected food security outcomes, December 2018 to January 2019



Source: *FEWS NET*

Projected food security outcomes, February 2019 to May 2019



Source: *FEWS NET*

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Current Situation

Conflict

In recent weeks, parties to conflict in Yemen have reached agreements to cease fighting in Al Hudaydah City and Al Hudaydah governorate more broadly. On December 13, the Saudi-led coalition and Houthi militia agreed to a ceasefire in Al Hudaydah City, while mutually committing to the redeployment of their forces from Al Hudaydah governorate more broadly. In addition, further peace talks are currently scheduled to take place in January 2019. The scaledown of military conflict is a positive development for food security in Yemen, particularly regarding keeping essential infrastructure – such as the ports of Al Hudaydah and Salif – in operation.

Nevertheless, the persistence of conflict over the past three years, coupled with the uncertain security situation following the recent ceasefire agreement, remain sources of concern for the resolution of conflict in Yemen. Following international calls for a resolution of conflict and for peace talks beginning in November, conflict further increased in and around Al Hudaydah City. According to Save The Children, almost 100 airstrikes during November 2-3 were reported in and around Al Hudaydah City, which is five times more than during the whole first week of October. The Civilian Impact Monitoring Project (CIMP), also reported heavy clashes on the outskirts of Al Hudaydah City, with heavy airstrikes and shelling impacting civilians in districts around the city. Moreover, following the implementation of the ceasefire in mid-December, some clashes have occurred in Al Hudaydah, highlighting that the security situation remains uncertain.

The potential for conflict to disrupt maritime imports through nearby Al Hudaydah and Salif ports remains a significant concern. Approximately 70 percent of monthly food imports and 40–50 percent of monthly fuel imports into Yemen typically enter through Al Hudaydah and Salif. Should conflict either result in significant damage or disruption to port facilities and operations or cut off trade access from the port to markets, Yemen would likely face significant difficulty meeting its basic staple food import needs.

As of mid-December, the Red Sea ports remain open as commercial and humanitarian imports continue, according to UNVIM reports. However, the main route connecting Al Hudaydah with Sana'a City and Taiz remains closed. The only road access to Al Hudaydah City to Sana'a City is from the north on the Al Hudaydah-Hajjah road. Humanitarian warehouses at the eastern entrance to Al Hudaydah City were also affected by the intensified conflict and were inaccessible. Although decreases in conflict would be expected to improve road and trade access, additional time is needed to verify whether sustained improvements in trade are being observed.

Based on June 2018 data from the Task Force on Population Movement, approximately 2.3 million people were displaced across Yemen, and an additional 424,000 were displaced by late August 2018, largely due to conflict in Al Hudaydah, Sana'a City, and Hajjah governorates. According to UNHCR, nearly 90 percent of IDPs have been displaced for more than one year. Ta'izz, Hajjah, Sana'a City, Ibb, and Amran are estimated to have the highest populations of displaced people.

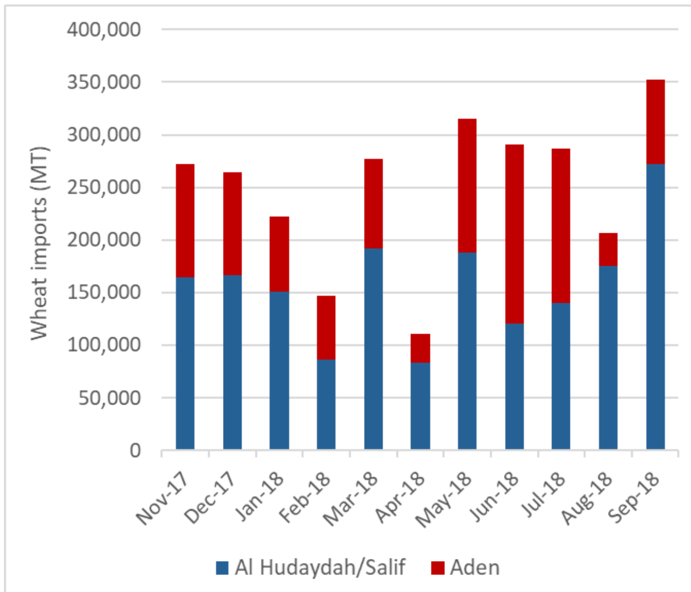
Macroeconomic conditions

The macroeconomic crisis in Yemen is ongoing and the value of the Yemeni Rial has fluctuated sharply in recent months. Over the past three months, the value of the Yemeni Rial has been very volatile. In October 2018, the Yemeni Rial continued to depreciate sharply, reaching approximately 745 YER/USD, an 18 percent decline in value since September. However, in November 2018, the value of the Yemeni Rial has partially rebounded, following commitments by the government of Saudi Arabia to provide significant transfers of foreign exchange in order to help stabilize the macroeconomy. Preliminary data collected December 1-17, 2018 suggest the YER/USD exchange reached approximately 515 YER/USD in Sana'a City. Still, this represents a lower value of the YER than in January 2018, when the exchange rate was approximately 470 YER/USD, and prior to the start of conflict in 2015, when the exchange rate was fixed at 250 YER/USD. At present, given limited government revenues and foreign reserves, the Central Bank of Yemen is still not paying most government salaries or providing lines of credit and favorable exchange rates for private food and fuel importers.

Food imports and staple food availability

Yemen's major seaports in Al Hudaydah remain open and monthly import levels have been volatile over the past several months. According to UNVIM reporting in mid-December, Al Hudaydah and Salif seaports remain open and operational, while the Ras Isa Fuel Terminal remains closed. Overall, ship tracking data suggest the number of bulk carriers, which typically transport most cereals in Yemen, has remained generally stable between September and December, and generally higher than those observed in the first half of 2018.

Figure 1. Wheat imports through Al Hudaydah, Salif, and Aden ports



Source: *Red Sea Ports Corporation, Gulf of Aden Ports Corporation data*

According to UNVIM data, average monthly food imports through Al Hudaydah and Salif ports are approximately 16 percent lower in 2018 than in 2017. UNVIM estimates the average imports of food commodities per month between January and November 2018 were approximately 267,075 MT, compared to a January to December 2017 monthly average of 317,866 MT. Due to the nature of the data available, it is difficult to compare these totals with import requirements for any particular commodity or staple cereal, such as wheat. According to OCHA, approximately 233,700 MT of food commodities were imported in November 2018, a 15 percent increase compared to October 2018.

Average monthly wheat imports are likely 10 to 15 percent below import needs in 2018, although wheat import levels are volatile on a month-to-month basis. Since January 2018, quarterly wheat imports into Yemen have generally increased. Based on data from the Yemen Gulf of Aden Ports Corporation and Yemen Red Sea Ports Corporation (Figure 1), imports increased from approximately 645,000 MT between January and March to approximately 717,000 MT between April and June, and then to approximately 846,000 MT between July and September. In total, wheat imports into Yemen through Al Hudaydah, Salif, and Aden ports are estimated at approximately 2.2 million MT between January and September 2018, or approximately 245,300 MT per month. National wheat imports prior to the conflict in 2014 totaled an estimated 3.16 million MT, or approximately 263,000 MT on a monthly basis. Maritime imports through Al Hudaydah, Salif, and Aden contribute the overwhelming majority of wheat imports into Yemen, although imports through some minor ports and through overland trade also contribute some supply.

As of mid-November 2018, WFP estimated the quantity of in-country available stock of food commodities was approximately 1.1 million MT. Wheat commodities are expected to be sufficient to cover the national requirement for about three months. On the other hand, the estimated amount of rice and vegetable oil was sufficient for between 1-2 months.

Fuel imports

According to UNVIM and available data from the Yemen Gulf of Aden Ports Corporation, fuel imports into Yemen between January and September 2018 totaled approximately 2.5 million, or approximately 277,000 MT per month. In November 2018, fuel imports declined by approximately 27 percent compared to the average levels observed between January and October 2018 and covered only approximately 19 percent of monthly needs. According to the WFP Yemen Market Watch Report for October 2018, total gasoline and diesel availability in Yemen is estimated to meet national needs for less than one month, which is likely to continue negatively affecting supply and prices of essential commodities in markets across the country.

Internal trade

Conflict and insecurity have made road access more difficult in Yemen, with the Yemen Logistic Cluster reporting in mid-December 2018 that more roads were reported closed than in May 2018, prior to the onset of the June 2018 military offensive in Al Hudaydah. According to the Logistics Cluster, many roads are closed in western, southwestern, and northwestern Yemen, with all routes in Sa'ada governorate reportedly closed. In May, road access in many of these areas was reportedly difficult, but still passable, according to the Logistics Cluster. In particular, the main road between Al Hudaydah and Sana's via Al Marawaha is closed, while access was open in May. In response, people are now using the road from Al Dahi to Bajil to reach Sana'a City, which is longer and costly.

Commodity availability on markets

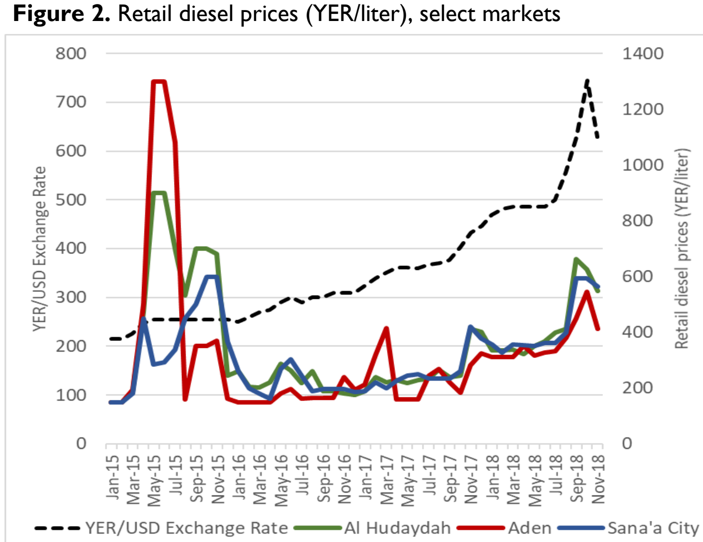
Across most markets in Yemen, staple food commodities remained available in October 2018, in line with findings over the past three months. According to the WFP Market Watch Report for October 2018, wheat flour was "available" (the highest of five rankings) in 20 out of 22 governorates in Yemen, "sparsely available" in Al Hudaydah governorate (the third highest of five rankings, meaning it was found in at least half of the visits to all markets of the governorate), and was "not available" (the lowest of five rankings) in Socotra. WFP indicated that sparse availability of food commodities in Al Hudaydah was due to conflict, while the lack of availability of wheat flour and red beans in Socotra was due to difficulties associated with the recent cyclone and the strong windy season, which were constraining the movements of traders and disrupting market performance.

Diesel, petrol, and cooking gas were "sparsely available" in October 2018 across most markets in Yemen, in line with findings over the three months prior. Diesel and petrol were "sparsely available" in 20 of 22 governorates, "mostly not available" in Al Bayda, and "available" in Al Mahrah. Cooking gas was "sparsely available" in 13 of 22 governorates, "widely available" in Al Bayda, and "available" in Abyan, Aden, Al Dali, Al Jawf, Al Mahrah, Hadramout, Lahij, and Marib. In general, the availability of fuel declined in October compared to September in Marib and Al Jawf and improved in Al Mahrah.

Fuel prices

After sharply increasing in September 2018, prices for diesel and gasoline (petrol) remained volatile in most markets in October and November 2018 (Figure 2). Between September and October 2018, prices for diesel and gasoline (petrol) in some markets decreased by as much as 17 percent, while increasing on others by as much as 37 percent, according to WFP data. In November, fuel prices declined by as much as 25 percent on major markets such as Al Hudaydah and Aden. Still, diesel and petrol prices in November 2018 were more than 100 percent higher than in October 2017 and more than 200 percent higher than before the crisis. Preliminary data collected in Al Hudaydah City suggest prices for petrol continued to decrease in mid-December. These recent improvements are attributed, at least in part, to improvements in the YER exchange rate. Nevertheless, well above-average fuel

Figure 2. Retail diesel prices (YER/liter), select markets



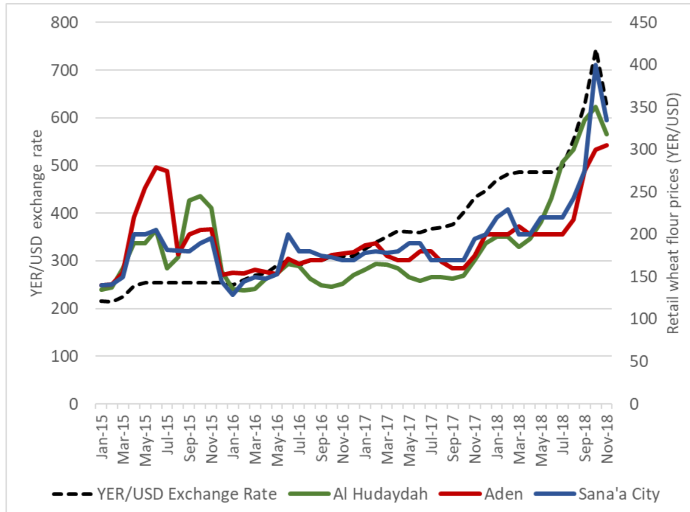
Source: *WFP*

prices continue to negatively affect typical livelihood activities, such as agriculture, and contribute to increased prices of food and non-food commodities through higher transaction costs. High prices and limited availability have also constrained water access as many areas rely on pumping water for human use.

Wheat flour prices

Wheat flour prices remain above average across major markets in Yemen, increasingly sharply in September and then decreasing moderately in November. Following the sharp depreciation of the Yemeni Rial starting in July, staple food prices increased sharply in September, even though staple food prices had previously withstood more moderate currency depreciation over the past year (Figure 3). In October, wheat flour prices increased by as much as 30 percent in Socotra, Hadramout, and Al Jawf. In Al Hudaydah, wheat flour prices reached 350 YER/kg in October 2018, which is 44 percent higher than in June 2018 and 155 percent higher than the pre-crisis period. In November, prices declined in Al Hudaydah and Sana'a City between 10 and 15 percent, and remained stable in Aden.

Figure 3. Retail wheat flour prices (YER/kg), select markets



Source: *WFP*

The potential for staple food prices to increase sharply well beyond current levels remains a significant concern. Despite decreases in wheat flour prices in recent weeks, prices of imported staple foods remain subject to changes in the YER/USD exchange rate. Given the inability to generate foreign exchange sufficient to support a stable exchange rate, Yemen faces the prospect of future depreciation of the YER and sharp increases in staple food prices. Should this occur, food access for millions of Yemenis, who are highly reliant on purchases of staple foods to meet their basic needs, would be significantly impacted.

Income sources

Many households in Yemen continue to face difficulty accessing typical levels of income, which remain a major constraint on household purchasing power. Payment of salaries to public employees continues to be a major challenge in Yemen, although anecdotal reports suggest the regularity of these payments may have improved during the past two to three months in certain areas. In August 2018, a needs assessment by the Yemen Family Care Association in Ad Dali district of Ad Dali governorate and Wusab As Safil district of Dhamar governorate indicated that casual labor, farming, and transportation work are important sources of income among households surveyed. Reports of reliance on casual labor are consistent with reporting in Al Hudaydah governorate, as well as prior reporting from Action Against Hunger (ACF) in Lahij and Abyan governorates in March 2018. In Lahij and Abyan, respondents reported that their main income sources before the crisis were livestock production, agriculture, and casual labor, but due to the war their sources of income have been severely affected, and community members are now relying on daily labor work.

Social Welfare Fund-like payments are helping to supplement household income for a large number of poor households. According to UNICEF, the third round of payments to Social Welfare Fund (SWF) beneficiaries were conducted in October 2018 through a UNICEF/World Bank project that covered approximately 1.5 million former SWF households (approximately 9 million people). These transfers average approximately 15,000 YER per household, which is equivalent to approximately 31 percent of the cost of the minimum food basket (48,000 YER), as estimated by the Food Security and Agriculture Cluster (FSAC) partners. These additional cash resources have likely helped to support household purchasing power and food access among some of Yemen's poorest households. According to UNICEF, during previous rounds of cash transfers, approximately nine in ten beneficiaries used transfers to purchase food, while nearly half used the transfers to purchase medicine, and one quarter of beneficiaries used the transfers for debt repayment.

Remittances are a major source of income in Yemen, and new taxes in Saudi Arabia and restrictions on some occupations for foreign workers may negatively impact some households' ability to earn income through remittances. Anecdotal information from currency traders suggests that remittance levels are much higher in late 2018 compared to pre-crisis levels. As such, these remittances likely remain a major source of income for many households in Yemen. However, after imposing additional taxes on all foreign workers and their dependents in 2017, the government of Saudi Arabia began to implement a job Saudization plan in September 2018. This plan seeks to reserve approximately 60,000 jobs for Saudi citizens, who would replace expatriate workers. Once fully implemented in January 2019, this policy could limit some Yemeni workers' ability to send remittances back to Yemen.

Food sources

Market purchases using cash and credit, humanitarian food assistance, and reliance on community support remain major sources of food for many households in Yemen. Over the past several months, rapid field assessments have indicated that households in Yemen continue to purchase food on markets using cash and credit, while continuing to rely on humanitarian food assistance and community support in order to try to meet their food needs. In August 2018, a rapid food security assessment by the Yemen Care Family Association (YCFA) in Al Dali district of Al Dali governorate and Wusab district of Dhamar governorate indicated that purchases of food on credit, borrowing food, and assistance from friends and relatives were important sources of food for surveyed households. In July and August 2018, a multi-sectoral rapid needs assessment conducted by the Norwegian Refugee Council (NRC) in Amran City and Houthi-controlled districts of Amran governorate, in Qufl Shamr and Abs districts of Hajjah governorate, in Jabal Habashi district of Ta'izz governorate, and in Maqatera district of Lahij governorate, reported that roughly one quarter of respondents indicated humanitarian food assistance as a major source of income. In Al Khukha district in Al Hudaydah governorate, a rapid assessment by the Danish Refugee Council reported in May 2018 that IDPs had severely restricted access to livelihood opportunities, with some relying on casual labor work and fishing.

Humanitarian assistance

Large-scale humanitarian food assistance continues to play an important role in reducing higher levels of food insecurity outcomes. Between July and September 2018, WFP reached between 6.8 and 7.3 million people per month with emergency food assistance that ranges in amount from a two-thirds ration to a full ration. In addition to WFP, local and international actors continue to operate food distribution or cash transfer programs throughout the country. Overall, FSAC reports that, on average, approximately 8.5 million people in Yemen received emergency food assistance each month between July and September 2018. In October, humanitarian partners provided assistance to a total of 6.8 million people, which represents approximately 81 percent of the monthly target of 8.4 million beneficiaries per month. In general, it is believed that some humanitarian assistance beneficiaries share assistance outside the household with other community members, which dilutes the beneficial impact of that assistance on food security outcomes. Likewise, particularly in the areas worst affected by conflict, targeting of assistance is likely a challenge and in some cases, diversion of assistance has been reported. Meanwhile, UNICEF continues to support provision of safe drinking water to over 3,300,000 people through the rehabilitation and operation of the water supply systems at the community level. This effort covers approximately 1,600,000 children in 15 cities in Amanat Al Asimah, Al Hudaydah, Amran, Ibb, Hadramout, and Sa'ada governorates.

Humanitarian access constraints are "high" in approximately 9 percent of districts in Yemen, while slightly more than one quarter of districts face "medium" access constraints, according to OCHA. Most of these constraints are reportedly related to administrative difficulties such as signing of sub-agreements and approval of humanitarian activities and movements. Armed conflict and insecurity are also affecting humanitarian actors' ability to reach people in need, and checkpoints continue to be a major constraint reported by humanitarian actors.

Cholera, diphtheria and measles outbreaks

The weekly number of suspected cholera cases remained high in late October, following a surge in reported cases starting in July 2018. Between March and June 2018, the number of suspected cholera cases in Yemen remained stable at approximately 2,000 to 3,000 cases per week. Starting in July, the caseload began to climb, reaching more than 15,000 cases per week in mid-September. Since then, the weekly number of cases continued to approach 15,000 per week through late October 2018. According to the most recent information available from the Electronic Disease Early Warning System's report for November 12-18, 2018, a sharp decline in the number of suspected cases was observed in early November 2018. Although overall the number of suspected cases is concerning, the caseload remains substantially lower than when the cholera outbreak peaked in mid-2017 at more than 50,000 suspected cases in a single week.

The weekly number of probable diphtheria cases identified has remained generally stable over the past several weeks, according to the Yemen Ministry of Public Health and Population (MOPHP). Less than five new probable cases were confirmed during the last week of December 2019), according to the MOPHP. These levels are slightly lower than those reported over the previous month and are significantly lower than those observed since the peak of the outbreak in January 2018, when the number of probable cases identified approached or exceeded 100 cases per week. In terms of cumulative numbers, the governorates worst affected by the diphtheria outbreak include Ibb, Sana'a, Hajjah, and Al Hudaydah governorates.

Measles cases continue to be reported in Yemen, with the highest numbers of cases reported in Aden, Abyan, and Lahij governorates. Between July and November 2018, the number of suspected cases decreased in August before starting to increase again. In December 17-23, 2018, the most recent week for which data is available, the caseload was approximately 470 cases, which is two and a half times the number recorded at the same time in 2017. According to UNICEF, the number of suspected measles cases has ranged between 2,000 and 4,000 cases per year between 2013 and 2017. The number of cases identified so far in 2018 is more than 18,000, according to MOPHP data.

More than 24,000 cases of dengue fever have been reported in Yemen in 2018, with the largest numbers of suspected cases in Al Hudaydah and Ta'izz governorates. Since January, approximately 7,935 cases have been reported in Al Hudaydah governorate, with another 6,990 suspected cases reported in Ta'izz governorate. In total, 1,714 cases have been confirmed nationwide. The weekly number of suspected cases peaked in early to mid-September, when nearly 1,200 cases were reported in a single week. Since then, the weekly number of cases declined to approximately 424 cases in late November, before jumping to more than 800 in early December, and 578 in December 17-23, 2018.

Current food security and nutrition outcomes

FEWS NET estimates that approximately 17 million people in Yemen would be in need of urgent action (IPC Phase 3 or higher) in the absence of ongoing humanitarian assistance. In mid-to-late 2018, partners and government organizations collected food security data in most districts in Yemen. Among the indicators collected were Food Consumption Score, the reduced Coping Strategies Index, Household Hunger Scale, and a Livelihoods Coping module. Separately, multiple SMART surveys in 2018 collected anthropometric data on children aged 6 to 59 months, and in some cases mortality data was collected. In general, the data suggest large numbers of people in Yemen are facing moderate to large food consumption gaps or are engaging in negative and irreversible livelihoods-based coping strategies in order to try to meet their food needs. In the absence of assistance, approximately 17 million people would be facing Crisis (IPC Phase 3) outcomes or worse. At present, emergency food assistance continues to reach 7 to 8 million people each month, although due to community sharing and other issues, it is likely that assistance is impacting food security outcomes differently among households who receive assistance. Likewise, assistance is not necessarily in all cases reaching those in greatest need. Moreover, given that needs are significantly greater than current assistance programming, sustained improvements in security and significant additional assistance is needed to help protect food consumption and improve food security outcomes for millions of people in Yemen. Acute food insecurity is classified as Emergency (IPC Phase 4) in Sa'ada and Hajjah governorates, while the remaining 20 governorates are facing Crisis-level outcomes. Of those classified in Crisis, six would likely be in Emergency in the absence of ongoing emergency food assistance and are thus classified in Crisis (IPC Phase 3!).

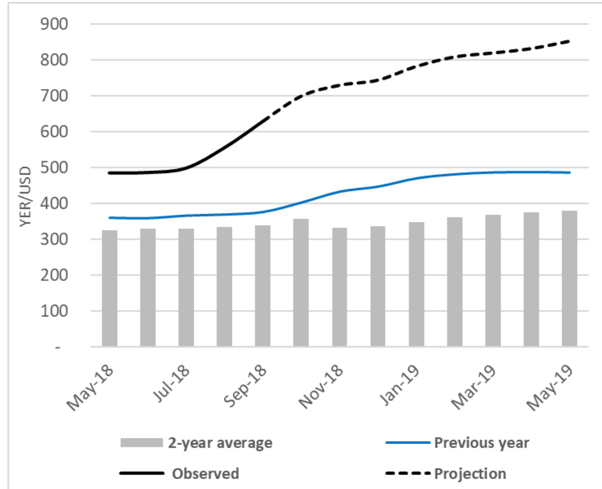
Assumptions

The most likely scenario for the December 2018 to May 2019 period is based on the following national-level assumptions:

- **Conflict:** For the purpose of this scenario, FEWS NET assumes that conflict will continue similar to levels observed during the last quarter of 2018 and will drive increases in displacement through at least May 2019. Should major parties to conflict achieve a lasting ceasefire that improves security, livelihood and economic activities could begin to return to normal in the medium term.

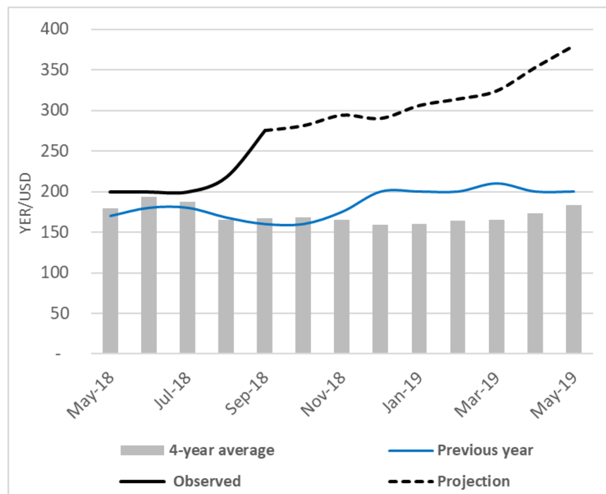
- **Economy:** For the most likely scenario, FEWS NET assumes that the current macroeconomic crisis will continue. More specifically:
  - **Central Bank**: The Central Bank's current split in management will continue. The Central Bank will not receive any additional major funding from external donors and will not provide credit to the private sector for food importation during the scenario period.
  - **Oil Exports:** Oil exports will not return to pre-conflict levels during the scenario period.
  - **Foreign reserves:** Despite Saudi Arabia's deposits in Yemen's Central Bank, foreign reserves within the country will continue to decline compared to current levels, given the assumptions of significantly reduced oil exports and no additional funding from external donors.
  - **Exchange rate**: Given the decline in foreign reserves and limited government revenues, the YER will continue to depreciate against foreign currencies due to the inability of the two central banks to intervene due to operational constraints and the shortage of hard currency. By May 2019, the YER/USD exchange rate is likely to reach more than 800 YER/USD (Figure 4).
- **Liquidity constraints:** Liquidity constraints at banks within Yemen will continue to worsen and will limit general economic activities and complicate import activities.
- **Imports:** Cargo will continue arriving into Al Hudaydah, Salif, Aden, and Al Mukalla ports. Cargo arriving into Al Mokha will remain limited. While large traders will continue to find alternative methods of accessing foreign currency to continue operations, import levels will likely remain volatile and transaction costs associated with these imports will increase. Informal food flows across land borders will also continue at status quo levels, but their transport into the western areas of Yemen will remain difficult due to civil insecurity and difficult market access. However, the financial crisis within the Central Bank of Yemen in Aden, and the shortage of foreign currency and accessing lines of credit through private sources, would likely increase the difficulties and make it costly for the private sector to continue food imports into the country. Moreover, the transport of commodities to Sana'a City and other neighboring governorates from Al Hudaydah ports will also be difficult due to the road access constraints along the main highway between Al Hudaydah and Sana'a governorate. FEWS NET is assuming, however, that the average quantity of food imported from the Red Sea and Aden ports will continue at levels similar to the last six months, whereas the quantity of imported fuel will meet less than two-thirds of monthly requirements.
- **Government salaries and the Social Welfare Fund:** Many government employees will continue not to receive regular salaries or pensions due to the Central Banks' lack of adequate financial resources. In addition, at least one round of Social Welfare Fund-like payments is expected during the scenario period.
- **Internal trade flows:** Active fighting, damaged transportation infrastructure, high fuel prices, and additional security and transaction costs (e.g., commissions at checkpoints), will continue to complicate trade flows within the country. In the absence of additional information about the evolution of conflict, FEWS NET assumes that areas where trade flows will be particularly constrained will be the same areas where roads are currently closed, as shown by the Logistics Cluster's most recent access constraints map.

Figure 4. Projected Yemeni Rial (YER) to U.S. Dollar (USD) exchange rate, October 2018 to May 2019



Source: *FEWS NET*

Figure 5. Projected retail wheat flour prices (YER/kg), Aden market, October 2018 to May 2019



Source: *FEWS NET*

- **Market demand:** Demand from consumers will remain atypically low during the scenario period due to weak household purchasing power caused by below-average incomes, high levels of debt, and well above-average prices for essential commodities. However, purchasing power may improve temporarily at times during the scenario period as households receive erratic salary payments and/or cash transfers.

- **Wheat flour prices:** Between December 2018 and May 2019, wheat flour prices will remain well above average and above pre-conflict levels due to increased transaction costs and the continued depreciation of the Yemeni Riyal. Given sharp increases in staple food prices in recent months and based on the assumption that the macroeconomic situation in Yemen will continue to deteriorate, wheat flour prices are expected to increase by an additional 20 to 50 percent by May 2019 in the major import markets of Aden (Figure 5) and Al Hudaydah. As most consumption markets rely on supply from these two markets, prices in other areas of the country will likely follow those in Aden and Al Hudaydah. However, in markets where prices have been particularly volatile due to conflict-related disruptions to trade, such as in Ta'izz, prices will likely be more volatile and sharper increases are possible.

- **Fuel prices:** Given a tightening of supply due to fuel imports well below national requirements, continued conflict, persistent currency depreciation, and increased transaction costs for imports and transportation, FEWS NET anticipates that fuel prices will remain high and volatile and will likely show monthly increases.

- **Agricultural production:** The seasonality of agricultural production varies depending on the zone in Yemen. In the western and central wadi zone, vegetable harvesting will take place between now and March 2019, while fruit harvesting will start in January and May. The first rainy season (March to May) is expected to be average in terms of total cumulative rainfall. However, production will likely be below average due to a lack of availability and/or access to inputs and limited access to fields in conflict zones. Related agricultural labor opportunities will also be atypically low. Qat production, however, will continue to be generally average. Locusts may be present in coastal Red Sea areas and near Aden (FAO) but will cause minimal damage. In areas where Fall Armyworm (FAW) infestations are most intense, FAW may cause significant damage to crops in localized areas.

- **Remittances:** Although the remittances have increased during the crisis and remittance service offices will remain open in most urban areas, significant difficulties (e.g., delays, closed offices, lack of liquidity, new taxes, and Saudization policies) will limit the ability of some households to receive remittances from abroad. Overall, remittances are likely to be higher than prior to the ongoing crisis, but for households worst affected by labor policies in Saudi Arabia, income from remittances will be well below normal.

- **Fishing**: Fishing activities along Red Sea coastal areas and on the Gulf of Aden coast will increase seasonally starting in March/April, but will remain well below average due to reduced fishing assets, high fuel prices, and civil insecurity, especially in the western coastal areas.

- **Livestock sales:** Reduced livestock assets caused by several years of food insecurity, livestock parasites, and disease will limit household income from this source. Therefore, the income from livestock sales will likely be below average during the scenario period. In addition, given increasing staple food prices expected during the scenario period, livestock-to-cereal terms of trade will also likely be below average.

- **Incomes from other sources:** The deteriorating macroeconomic situation and conflict will disrupt household livelihoods across much of the country, resulting in below-average household incomes. The largest declines in incomes will be among IDP populations and households residing in intense conflict zones, such as Taiz, Al Hudaydah, Sa'ada, Al Bayda, and the coastal area of Hajjah governorate.

- **Cholera and diphtheria:** Ongoing fuel shortages will continue to limit the availability of clean water, as well as the functioning and delivery of vaccines and medical supplies to health centers and hospitals around the country. As a result, the spread of cholera and diphtheria is expected to continue through the scenario period.

- **Humanitarian assistance:** FEWS NET assumes that humanitarian partners will continue providing in-kind assistance through early 2019 near the levels observed during the last quarter of 2018. However, inter-household sharing and other issues are likely to limit the impact of assistance on food security outcomes in some cases.

Most Likely Food Security Outcomes

The ongoing food security emergency in western Yemen is likely to continue to drive very high assistance needs through at least May 2019. The poor macroeconomic situation and the persistence of conflict will continue to disrupt household livelihoods, limiting purchasing power and access to food. While harvests during the scenario period will provide some rural households with small food stocks, these stocks are not expected to have major impacts on food security outcomes given the small-scale nature of agricultural production in Yemen and the fact that these harvests will be below average. Household food access will likely further be constrained by higher than usual food prices. The severe depreciation of the Yemeni Rial (YER) starting in July and closure of key trade routes could result in sharper price increases for food and essential commodities, and further worsen the food security situation.

Under the most likely scenario for December 2018 to January 2019, most areas of western Yemen will be in Crisis (IPC Phase 3) or would be at least one IPC Phase worse in the absence of humanitarian food assistance, and will therefore be classified in Crisis (IPC Phase 3!). Approximately 17 million people are likely to require emergency food assistance each month, many of whom would face food consumption gaps large enough to lead to increases in human mortality in the absence of assistance and are likely to be in Emergency (IPC Phase 4). IDP populations and poor households in conflict zones will likely continue to face the most severe food security outcomes. Conditions for the displaced will vary based on location, depending on access to labor markets, support from the host community, access to humanitarian aid, and the functioning of local markets. However, in the areas most isolated and cut-off from trade by the conflict, many of the displaced are likely to enter or to remain in Crisis (IPC Phase 3) or Emergency (IPC Phase 4) through at least January 2019. Even in the absence of additional disruptions, additional populations may begin to move into Catastrophe (IPC Phase 5) as worst-affected households begin to exhaust their coping capacity.

Under the most likely scenario for February to May 2019, humanitarian food assistance will continue through early 2019 and large areas will remain in Crisis (IPC Phase 3) through May 2019, while Hajjah and Sa'ada remain in Emergency (IPC Phase 4). As humanitarian food assistance is expected to continue protecting food consumption for many food assistance beneficiaries through early 2019, many areas of western Yemen areas are expected to remain in Crisis (IPC Phase 3!). Despite ongoing assistance, Hajjah and Sa'ada are expected to remain in Emergency (IPC Phase 4), while food security in Al Mahrah will be Stressed (IPC Phase 2).

In a worst-case scenario for December 2018 to May 2019, significant declines in commercial imports far below requirement levels and conflict that cuts populations off from trade would likely drive food security outcomes in line with Famine (IPC Phase 5). In June, the start of the ongoing military offensive in Al Hudaydah significantly increased the probability that key port facilities would be damaged, or that trade from the ports to urban areas of the country would be cut off for a prolonged period. In FEWS NET's analysis, these events would likely lead to Famine (IPC Phase 5) in Yemen. As of December 2018, this worst-case scenario has not yet occurred, though the threat of significant import disruptions persists. The areas where Famine (IPC Phase 5) would be likely to develop most quickly include areas more highly dependent on imports through Al Hudaydah and Salif, particularly those with intensive conflict and high numbers of IDPs, such as Hajjah, Sa'ada, and Ta'izz. In addition, many of the millions who receive humanitarian food assistance imported through the Red Sea ports would begin to face more immediate and substantial food consumption gaps as stock shortages begin to limit assistance delivery. Even for areas that can access imports from Aden, a risk of Famine (IPC Phase 5) would persist given the already severe levels of acute food insecurity that would be exacerbated by the increased competition for available goods. Second, given very low levels of foreign exchange in country, well below normal oil revenues, and continued conflict, FEWS NET expects the depreciation of the Yemeni Rial to continue. This could result in further price shocks for essential commodities, increasing the risk of Famine (IPC Phase 5) even in the absence of the physical limitations on imports described above. Additionally, should assistance beyond January 2019 fail to materialize, it is likely that a large number of the more than 7 million people who receive emergency food assistance each month would begin to face larger food consumption deficits and/or be required to engage in more extreme coping strategies in order to try to meet their food needs. Moreover, as assistance currently contributes to overall supply of food in Yemen, the absence of this assistance could lead to wider price impacts as supply tightens. Together, these factors would increase the number of households whose food security would be at risk of deteriorating to Catastrophe (IPC Phase 5) levels. Areas of northwestern Yemen, particularly Sa'ada and Hajjah, would face an increased risk of Famine (IPC Phase 5) as the number of households in Catastrophe increases.

AREAS OF CONCERN

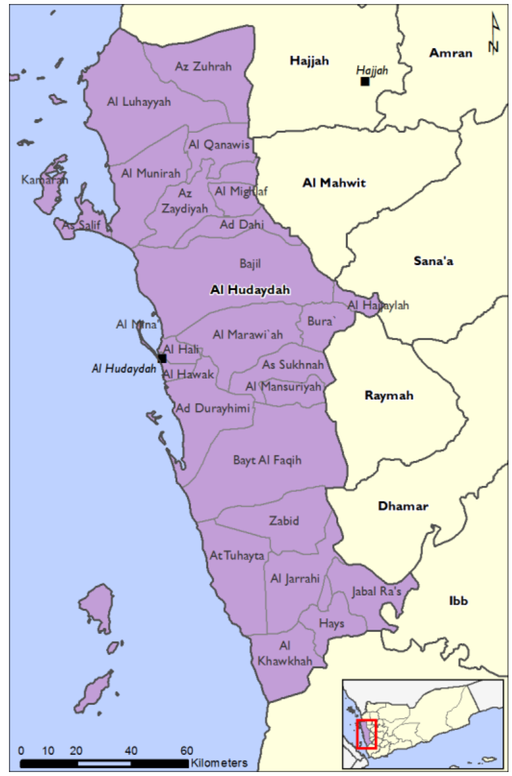
Al Hudaydah Governorate (Figure 6)

Current Situation

Conflict and displacement

The conflict situation in Al Hudaydah governorate remains relatively calm following ceasefires agreed upon by conflicting parties in December 2018. With the onset of the assault by the Saudi and UAE-led coalition to retake Al Hudaydah City in June, the frontlines of conflict shifted from the Hays and At Tuyahat districts in southern Al Hudaydah to areas immediately south and east of Al Hudaydah City, according to OCHA. In early November, many international organizations called for a resolution to the conflict in Yemen, with some calling for peace negotiations to begin later in the month. Following these calls, the number of airstrikes spiked, particularly on November 2-3, when it was reported that as many as 100 airstrikes occurred in Al Hudaydah City. On December 13, 2018, the parties to conflict in Yemen agreed upon a ceasefire in Al Hudaydah City and plans to withdraw their forces from Al Hudaydah governorate. Following this agreement, conflict has declined significantly.

Figure 6. Reference Map for Al Hudaydah Governorate



Source: *FEWS NET*

Prior to the recent ceasefire, attacks on civilians and humanitarian facilities remained a source of high concern. In late July 2018, airstrikes hit the water station in Al Mina District, which is the main source of water supply in Al Hudaydah City, according to UNICEF. On September 14, a mortar shell struck a WFP storage unit holding enough food to assist 19,200 people in need for one month, which led WFP to use the alternative storage units in Bajil and Al Marawiah districts. The Red Sea Mill Silos for humanitarian operations storing 45,000 MT of food commodities, enough to feed 3.5 million people for a month, reportedly became inaccessible due to the hostilities. In November, it was reported that fighters within Al Hudaydah City took up positions on the roofs of hospitals, potentially endangering the safety of patients and staff inside. Médecins Sans Frontières warned about the close proximity of fighting to its health facilities.

Conflict over the past several months, including the assault on Al Hudaydah City, has driven significant increases in displacement. In June 2018, the Task Force on Population Movement (TFPM) estimated 133,830 IDPs were located in Al Hudaydah, representing nearly 6 percent of the total IDPs in the country, most of whom are reportedly living with host communities. According to IOM, approximately 455,040 individual IDPs were displaced within Al Hudaydah governorate, or from Al Hudaydah to other governorates, between June 1 and November 6, 2018.

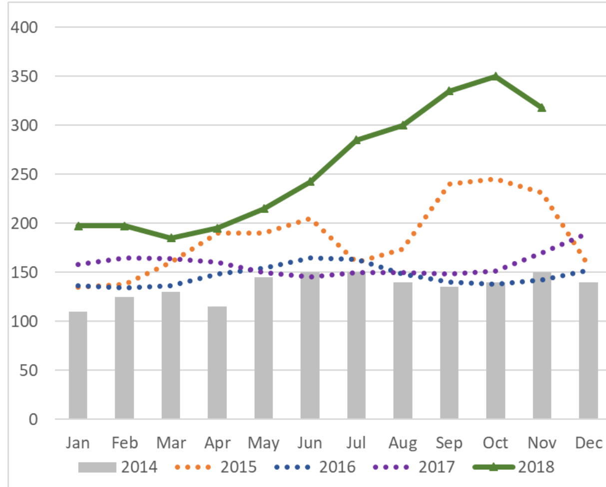
Trade, markets, and prices

According to UNVIM, Al Hudaydah and Salif ports remain open as of late December, with vessels currently at various stages of clearance, berthing, and discharge. Estimated import levels are described in the National Overview section of this report. According to OCHA, the main Al Hudaydah-Sana'a road is closed due to insecurity, and the only remaining road out of Al-Hudaydah to Sana'a is the road to Hajjah, to the north of the city. This road is also used by humanitarian organizations for the movement of humanitarian staff and cargo. This route is longer than the normal route to Sana'a. As such, it is costlier to use for the transportation of commodities between Hudaydah and populations to the east.

The availability of wheat flour, red beans, and sugar in Al Hudaydah declined from "widely available" to "sparsely available" between September and October 2018, according to the WFP Market Watch Report for October 2018. Since March 2018, availability of these commodities has fluctuated on a month-to-month basis. Wheat flour has been either "available" or "widely available" most months, while hitting "sparsely available" levels in both August and October 2018.

Wheat flour prices in Al Hudaydah increased sharply in October, following significant depreciation of the Yemeni Rial and the assault on Al Hudaydah City. Based on WFP price reporting, retail wheat flour prices in Al Hudaydah governorate increased slightly to 350 YER/kg, before declining by nearly 10 percent in November 2018. Nevertheless, in November, retail wheat prices were nearly one and a half times higher than in early 2015, and more than twice as a high as in October 2017.

Figure 7. Retail wheat flour prices (YER/kg), Al Hudaydah market



Source: *WFP*

Diesel, gasoline, and cooking fuel remained "sparsely available" in Al Hudaydah, with prices well above pre-crisis levels as of November 2018. According to the October 2018 Yemen Market Watch Report, diesel, gasoline, and cooking fuel were "sparsely available," consistent with reporting over the prior four months. Gasoline prices increased by 13 percent between September and October 2018, while diesel prices decreased 6 percent in October, and another 12 percent in November. Gasoline and diesel prices are approximately 150 percent higher than at the same time in 2017. Data collected in Al Hudaydah City suggest prices for petrol decreased sharply by as much as 30 percent in mid-December. In addition, diesel prices decreased in mid-December by 23 percent compared to November prices.

WFP indicates that the main reason for the rapidly increasing prices of food commodities was the ongoing currency crisis, alongside increased transportation costs due to shortages and high prices of fuel, movement restrictions, and limitations on trade flows due to conflict. Increasing diesel prices are likely resulting in greater costs for agricultural households using diesel pumps and for fishermen using diesel engines for their boats, which could have a negative impact on these activities. Increased fuel prices are also resulting in higher milling and transportation costs, contributing to increased prices of food.

Household livelihoods and incomes

Second season rainfall was above average in Al Hudaydah, but the impacts of conflict are likely hindering agricultural and livestock productivity. Generally, cereal and crop production in Al Hudaydah is the highest compared to other governorates in Yemen. Grains, fruits, and vegetables are the primary cash crops in Al Hudaydah. Agriculture in the two rural livelihood zones in the governorate (YE-11 and YE-14) is both rainfed and wadi-irrigated. During the second rainy season between July to September 2018, rainfall was above average throughout much of the season. However, to the extent agricultural productivity is dependent on fuel-powered cultivation tools, water pumping, and fertilizer, production prospects are likely to be below average. Livestock raising is also an important livelihood activity in a typical year, providing milk and meat for consumption, and livestock sales for income.

Household income is likely significantly below levels typically earned prior to the start of conflict in March 2015. For example, OCHA reported that teachers in six districts of Al Hudaydah governorate (Al Hali, Al Hawak, Al Mina, Hays, Al Khawkhah, and Ad Durayhimi districts) were paid their full salaries for only the second time in a year in August 2018. Meanwhile, OCHA also reports that public employees in the other 27 districts have been receiving half salaries once every three months since June 2016. Meanwhile, according to WFP, the daily wage rate for skilled laborers has declined in recent months from approximately 6,000 YER/day in mid-2017 to 5,000 YER/day in April 2018, and then to 4,000 YER/day between May and September 2018. However, WFP reports the daily wage rate for unskilled laborers has remained constant at 3,000 YER/day between July 2016 and September 2018, with an increase to 3,500 YER/day reported in by November 2018.

IDPs in particular are facing difficulty accessing income in Al Hudaydah governorate. The Danish Refugee Council (DRC) reported that in May 2018, some IDPs in Al Khawkha district were engaging in casual labor and fishing, based on interviews conducted during distribution of non-food items and based on focus group discussions in an area where approximately 3,900 IDPs were located. The Society for Humanitarian Solidarity reported in April 2018 that small numbers of IDPs in Al Khawkha district were engaging in casual labor and fishing.

UNICEF is continuing to provide significant cash transfers to poor households through World Bank-funded Social Welfare Fund-like payments. In October 2018, UNICEF conducted a third round of cash transfers to approximately 144,000 households, or approximately 800,000 people, in Al Hudaydah governorate. At these levels, approximately 25 to 30 percent of the population of Al Hudaydah governorate would be receiving cash transfers. These transfers average approximately 15,000 YER per household, which is equivalent to approximately 31 percent of the cost of the minimum food basket (48,000 YER), as estimated by FSAC partners, likely helping to support purchasing power among a large portion of the governorate population.

Humanitarian assistance

Large-scale assistance continues to reach nearly 20 percent of the population in Al Hudaydah governorate, although significant access constraints remain. According to the FSAC, approximately 565,308 people in Al Hudaydah received emergency food assistance in October 2018, out of a target population of 899,030 people. During January and September 2018, WFP reached approximately 643,000 beneficiaries per month. Moreover, FSAC also indicated that a total of 645,789 beneficiaries received emergency livelihood assistance (agricultural, fisheries, and livestock inputs support) out of 1,226,305 targeted people between January-August 2018. Partner reports indicate that humanitarian access in Al Hudaydah remains very difficult, with high access constraints reported in seven districts (Ad Durayhimi, At Tuhayat, Al Garrahi, Jabal Ra's, Hays, As Salif, and Kamaran). As of October 2018, these high access constraints were reportedly due to administrative constraints, restrictions on movement, and armed conflict.

Disease outbreaks

Cases of cholera and diphtheria continue to be reported in Al Hudaydah governorate. According to WHO data, Al Hudaydah had the highest number of suspected cholera cases at more than 45,664 between January 1 and November 18, 2018 (15 percent of reported cases during that time). Since the beginning of the cholera outbreak in April 2017, more than 200,000 suspected cases have been reported in Al Hudayday governorate. In October, Save the Children reported that the number of suspected cholera cases in Save the Children-supported health facilities increased from 497 in June to 1,342 in August, an increase of approximately 170 percent. Most of this increase occurred following the airstrikes on the Al Mina water facility supplying Al Hudaydah City. According to the WHO Weekly Epidemiological Bulletin, between mid-2017 and late December 2018, there have also been approximately 379 suspected cases of diphtheria, and 29 deaths associated with suspected cases. Moreover, approximately 300 suspected measles cases have been reported in Al Hudaydah between January 1 and late December 2018. In addition, approximately 8,637 suspected cases of dengue fever were reported in Al Hudaydah governorate in 2018.

Food security indicator data

Data collected by partners on food consumption and coping strategies in Yemen suggest outcomes in Al Hudaydah remain a concern. According to Food Consumption Score, more than one in five households have “borderline” food consumption, while more than 40 percent of households engaged in “severe” levels of consumption-based coping strategies during the 30 days prior to data collection. According to the Household Hunger Scale, a small percent of households faced “severe” hunger, and approximately 20 percent of households engage in “emergency” levels of livelihoods coping.

In Al Hudaydah governorate, WFP mVAM[1] data indicate that the proportion of households with “poor” food consumption increased between July and September, while the proportion of households with “acceptable” food consumption has decreased. Between October 2017 and March 2018, the proportion of households surveyed in Al Hudaydah with “poor” food consumption, according to Food Consumption Score, ranged between 11 and 21 percent. Then, mVAM data suggest that proportion declined from 4 to less than 2 percent between April and June 2018. Subsequently, the proportion of households with “poor” food consumption increased to 7.5 percent in July and to 9 percent in September 2018. In addition, the proportion of households with “acceptable” food consumption ranged between 60 and 75 percent between October 2017 and March 2018, before increasing to nearly 90 percent in April and May. On the other hand, the proportion of households with “acceptable” decreased again to about 75 percent in August and September. Meanwhile, the mean and median reduced Coping Strategies Index has remained generally stable in recent months.

[1] Please note that cell phone-based surveys are likely biased towards better-off and urban populations who have access to cell phones. These biases should be kept in mind when comparing these survey results with in-person representative household surveys conducted prior to the conflict.

Current food security outcomes

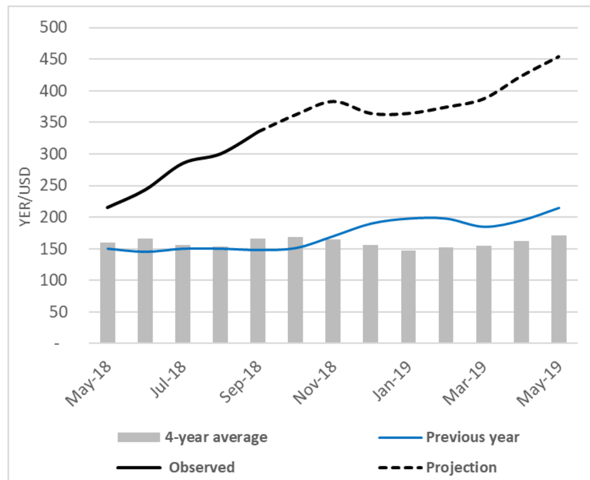
Based on available information on food security outcomes and contributing factor information on food availability and household food access, FEWS NET estimates that poor households in most areas of Al Hudaydah are likely facing elevated levels of food insecurity, including food consumption gaps, in line with Crisis (IPC Phase 3!) food insecurity. In the absence of assistance, food security in Al Hudaydah governorate would likely deteriorate to Emergency (IPC Phase 4). Given variations in conflict-levels and humanitarian access, it is likely that geographic variations in food security outcomes exist throughout the governorate. More specifically, IDPs throughout the governorate and households in conflict zones in southern and western districts are facing the most severe food security outcomes.

Assumptions

The most likely scenario for the December 2018 to May 2019 period is based on the following zone-level assumptions:

- **Conflict**: For the purposes of this scenario, FEWS NET assumes that conflict will continue at recent levels and will continue to constrain road access to markets in the southern and western coastal areas, including Al Hudaydah City, as well as the main route between Al Hudaydah and Sana'a governorate.
- **IDP populations:** IDP populations are likely to increase due to conflict and insecurity in southern and western coastal areas and in Al Hudaydah City.
- **Agricultural production/labor**: Land preparation and planting activities of sorghum and millet will take place between April and May in YE-11 and YE-14. Vegetable harvests will take place between now and March 2019. Agricultural labor income will increase in these livelihood zones during this period but will likely be below normal levels.
- **Livestock and livestock products**: Among rural populations, sales of livestock are likely to continue throughout the outlook period, although terms of trade will be below normal, staple food prices remain much higher than normal. Milk production will be near normal and increase between March and May in most areas in YE-11 and YE-14.
- **Fishing:** Fishing activities in coastal areas of Al Hudaydah will remain limited due to ongoing insecurity.
- **Staple food prices**: Staple food prices will likely continue to be much higher than normal in Al Hudaydah and more volatile than in other key markets of supply, due to insecurity and high transportation costs. Due largely to the direct impacts of currency depreciation on imports and indirect impacts on staple food prices via increasing fuel prices, wheat flour prices are expected to continue increasing in Al Hudaydah through May 2018. For the purposes of this scenario, FEWS NET assumes retail wheat flour prices will increase to approximately 450 YER/kg by May 2019 (Figure 8).

Figure 8. Projected retail wheat flour prices (YER/kg), Al Hudaydah market, October 2018 to May 2019



Source: *WFP*

Most Likely Food Security Outcomes

No significant improvements to food security conditions are expected in Al Hudaydah as conflict continues. IDP populations and those residing in southern and western conflict-affected areas are likely to continue to face more severe outcomes. Even in the absence of additional disruptions, some affected populations are expected to face greater difficulty meeting their basic food needs as they begin to exhaust their coping capacity. The number of households facing Crisis (IPC Phase 3) or worse outcomes is likely to increase, particularly among those IDPs who are unable to access their typical sources of food and income and who do not receive assistance. Between Decembrer 2018 and January 2019, Al Hudaydah will be in Crisis (IPC Phase 3!) in the presence of ongoing humanitarian food assistance, even as some populations in the governorate face Emergency (IPC Phase 4) or worse outcomes. Given that assistance is expected to continue through early 2019, FEWS NET expects Al Hudaydah to remain in Crisis (IPC Phase 3!) between February and May 2019.

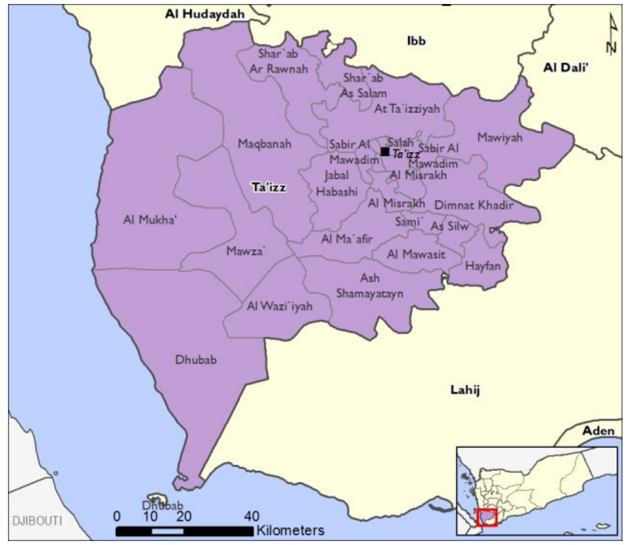
Ta'izz Governorate (Figure 9)

Current Situation

Conflict and displacement

In early December, fighting continued in Ta'izz governorate in including in western and eastern Ta'izz City, Maqbanah, and Hayfan districts. In late November, OCHA reported that conflict remained active in Ta'izz governorate, with clashes reported on the eastern and western outskirts of Ta'izz City, in northwestern Maqbanah District, and in the south along the border with Lahij. Moreover, reporting from the Civilian Impact Monitoring Project (December 6-12, 2018) indicated that the situation in Ta'izz was unchanged compared to recent weeks.

Figure 9. Reference Map for Ta'izz Governorate



Source: *FEWS NET*

Trade, markets, and prices

Reports suggest Ta'izz is still among the governorates for which transport access is worst in Yemen. According to the December 17, 2018 Yemen Logistics Cluster map, road access constraints remain a major challenge in Ta'izz governorate. Road access is rated as "difficult" along most major routes leading out of Ta'izz City into other parts of the governorate, and several bridges are closed along these routes. In western Ta'izz leading into Al Hudaydah governorate, at least two major routes are closed completely.

Basic food commodities have remained available in Ta'izz governorate in October 2018 and recent months. According to the WFP Yemen Market Watch for October 2018, wheat flour was "available" (the highest of five rankings), consistent with reporting over the prior four months. The same trend has been observed for vegetable oil, red beans, and sugar. On the other hand, cooking gas, diesel, and petrol remained only "sparsely available," as they have been in recent months.

In November 2018, wheat flour prices declined slightly, following sharp increases in October, and prices remain well above pre-crisis levels. According to the WFP, retail wheat flour prices in Al Ma'effer market in Ta'izz declined from 348 YER/kg in October 2018 to 318 YER/kg in November 2018, which is still more than 100 percent higher than pre-conflict levels and more than 25 percent higher than those observed during the first half of 2018.

Fuel prices declined in November 2018, following increase in October, but remain well above pre-crisis levels. According to the WFP gasoline prices increased by approximately 15 percent between September and October 2018 to 613 YER/liter, before declining to approximately 513 YER/liter in November 2018. Diesel prices increased by 13 percent to 639 YER/liter in October 2018, and decline to 526 YER/iter in November 2018. Prices for both commodities are nearly triple the pre-crisis levels.

Household livelihoods and incomes

Field reports suggest incomes from crop production are below average due to the persistently high cost of agricultural inputs (including fuel for irrigation pumps). Cereals, qat, and vegetables remain the major cash crops in Ta'izz, as was the case prior to the current conflict in the two rural livelihood zones (YE-11 and YE-14). Agriculture is both rainfed and wadi-irrigated dependent. Seasonal rainfall typically occurs between March and September with peaks in May and August. Between July and September 2018, seasonal rainfall was above average, especially in August. Households would typically be dependent on agricultural activities and livestock for income, and maize will be harvested in February. However, field reports suggest that conflict continues to severely constrain agricultural activities in the governorate.

Casual labor remains an important source of income, although many households report significant difficulty accessing levels of income sufficient to meet their basic needs. WFP reports that despite continued conflict, wage rates in Ta'izz have not changed significantly over the past two years. For example, the daily labor wage rate for unskilled labor was approximately 3,000 YER, which is similar to levels observed in 2016. Furthermore, approximately half of the households interviewed as part of the Yemen Early Recovery Assessment in February 2018, which targeted host communities, IDPs, and returnees, indicated that they got a monthly income of under 50,000 YER, compared to the approximately 66,000 YER/month one household member could reasonably expect to earn from one month of unskilled casual labor, and compared to the cost of monthly minimum food basket of 48,000 YER. Approximately 70 percent of respondents indicated that the income has "very much reduced" over the past year, mostly among IDPs, who reported adopting highly negative coping strategies, most often selling assets in order to meet their survival needs. Meanwhile, UNICEF reports that the third round of cash transfers were distributed in October to approximately 130,000 former SWF households (approximately 1,140,000 people) in Ta'izz governorate. These transfers average approximately 15,000 YER per household, which is equivalent to approximately 31 percent of the cost of the minimum food basket (48,000 YER), as estimated by FSAC partners. These additional cash resources could help to improve household purchasing power and food access among some of the poorest households.

Humanitarian assistance

On average, WFP reached approximately 916,000 beneficiaries per month between January and September 2018, reaching approximately 30 percent of the total population of the governorate. In September 2018, WFP provided emergency food assistance (in the form of general food distributions and voucher assistance) to approximately 1,115,000 people in Ta'izz governorate, compared to a target population of 1,144,00 people. These distributions reached a higher number of beneficiaries in September compared to the January to September average (916,000 beneficiaries per month) and were conducted in all districts targeted. Insecurity along major transit routes to and from Ta'izz continues to pose a threat to humanitarian operations in the governorate. OCHA and partners report high access constraints in two districts (Mawza and Maqbanah), indicating that access constraints are mainly related to obtaining administrative approval for humanitarian activities and movement. Additional obstacles reportedly included conflict, violence against humanitarian personnel, assets and facilities, and interference in the implementation of humanitarian activities.

Disease outbreaks

Cases of cholera, diphtheria, and measles continue to be reported in Ta'izz governorate. The weekly number of suspected cholera cases reported started declining between mid-March and early September 2018, before increasing and peaking in mid-October with approximately 800 cases in a single week. In total, approximately 78,477 suspected cases of cholera have been reported in Ta'izz governorate between late April 2017 and late December 2018. During the same time, more than 110 suspected cases of diphtheria have been reported, and approximately 500 suspected measles cases have been reported in Ta'izz in 2018. Finally, approximately 7,400 cases of dengue fever have been reported in Ta'izz governorate between January 1 and late December 2018.

Food security indicator data

Data collected by partners on food consumption and coping strategies in Yemen suggest outcomes in Ta'izz remain a concern. According to Food Consumption Score, a large proportion of households have "borderline" food consumption, while slightly more than 15 percent have "poor" food consumption. Nearly 3 in 10 households engaged in severe levels of consumption-based coping strategies during the 30 days prior to data collection. According to the Household Hunger Scale, a small percent of households faced "severe" hunger, and nearly 20 percent of households engage in "emergency" levels of livelihoods coping.

As with several governorates in Yemen, WFP mVAM[2] data indicate that the proportion of households with "poor" food consumption increased between July and September 2018, while the proportion of households with "acceptable" food consumption has decreased. Between October 2017 and May 2018, the proportion of households surveyed in Ta'izz with "poor" food consumption, according to Food Consumption Score, ranged between 7 and 36 percent. The mVAM data then suggest that the proportion of the population with "poor" food consumption declined in June to less than 2 percent. Subsequently, the proportion of households with "poor" food consumption then climbed by 8 to 10 percentage points between July and September 2018. In addition, the proportion of households with "acceptable" food consumption ranged between 32 and 71 percent between October 2017 and May 2018, before increasing to nearly 81 percent in June. The proportion of households

[2] Please note that cell phone-based surveys are likely biased towards better-off and urban populations who have access to cell phones. These biases should be kept in mind when comparing these survey results with in-person representative household surveys conducted prior to the conflict.

with "acceptable" food consumption then decreased again to about 62 to 68 percent between July and September. Meanwhile, the mean and median reduced Coping Strategies Index has remained generally stable in recent months.

Current food security outcomes

Based on available information on food security outcomes and contributing factor information, FEWS NET estimates that poor households in most areas of Ta'izz are likely facing elevated levels of food insecurity, including food consumption gaps, in line with Crisis (IPC Phase 3!) food insecurity. Given the magnitude of humanitarian food assistance present in the zone, FEWS NET expects that food security outcomes would likely be at least one phase worse in the absence of ongoing humanitarian food assistance. Given variations in conflict-levels and humanitarian access, it is likely that geographic variations in food security outcomes exist throughout the governorate. More specifically, IDPs throughout the governorate, poor households in inaccessible parts of Ta'izz governorate, and poor households in lowland areas are worst-affected, where malnutrition levels have historically been high and increased in 2017 compared to pre-conflict levels. Areas of particular concern include Maqbanah, Mawaz, and Al Taizyah districts.

Assumptions

The most likely scenario for the December 2018 to May 2019 period is based on the following zone-level assumptions:

- **Conflict**: Conflict is likely to continue at current levels and will continue to limit access to livelihood activities including agro-pastoral work, formal employment, and fishing.
- **IDP populations:** Further displacement at current rates is likely as conflict and insecurity continue.
- **Agricultural production/labor:** Crop production is expected to be below average due to the lack of availability and/or access to inputs and limited access to fields in conflict zones. Harvests of qat will continue year-round, but there will be a relative increase in agricultural labor income in February due to maize harvests.
- **Livestock and livestock products:** Among rural populations, sales of livestock are likely to continue throughout the outlook period, although terms of trade will be below normal. Livestock prices are most likely to increase due to the depreciation of local currency. Milk production will be highest between March to May in YE-14 and November and May in YE-10 livelihood zones.
- **Fishing:** Fishing activities in coastal areas of Ta'izz will remain limited due to the ongoing security situation.
- **Staple food prices:** Staple food prices will continue to be much higher than normal and more volatile than in key markets of supply, due to insecurity and high transportation costs as well as depreciation of local currency.

Most Likely Food Security Outcomes

Between December and January 2019, Ta'izz governorate is likely to remain in Crisis (IPC Phase 3!) as the presence of ongoing humanitarian food assistance prevents a deterioration in food security outcomes. Similarly, as humanitarian food assistance is expected to continue through early 2019, Ta'izz is expected to remain in Crisis (IPC Phase 3!) between February and May 2019. IDP populations and populations in lowland areas will continue to face some of the more severe outcomes.

Hajjah Governorate (Figure 10)

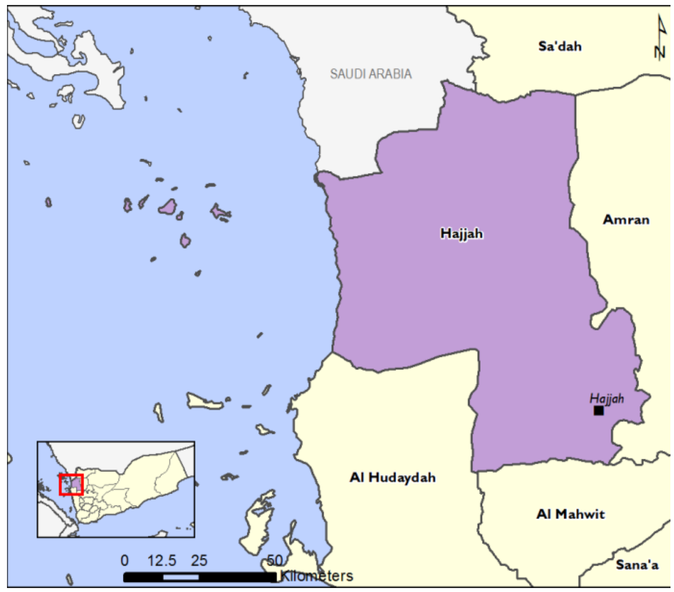
Current Situation

Conflict and displacement

Conflict in Hajjah over the past three months has been most intense on the outskirts of Hayran district and around Haradh town. According to OHCHR, Hajjah is among the governorates that were most affected by conflict during the first nine months of 2018. The Civilian Impact Monitoring project reports that there were 34 civilian impact incidents in Hajjah, resulting in 64 civilian casualties between August and October 2018. Of those, Abs district has seen 14 incidents resulting in 36 civilian casualties.

Approximately 377,562 IDPs were located in Hajjah governorate as of June 2018, according to the latest report of the Task Force on Population Movement in June 2018. Nearly one quarter of IDPs, and nearly all returnees, were located in Abs district. The numbers of IDPs and returnees did not change compared to those reported in September 2017. However, according to IOM, approximately 12,414 additional individuals were displaced from Al Hudaydah into Hajjah between June 1 and November 6, 2018.

Figure 10. Reference Map for Hajjah Governorate



Source: *FEWS NET*

Trade Flows

Hajjah is one of the governorates with the highest access constraints in Yemen. The Yemen Logistics Cluster Access Constraints Map from December 17, 2018 indicates that all routes between Hayran, Midi, Haradh, Mustaba, and Kusher districts are closed. Meanwhile, the roads linking Hajjah to Al Hudaydah and Sana'a remain open. The border crossing linking Hajjah to Saudi Arabia in Haradh Al Tuwal has been closed since July 2015 due to military activities.

Staple food and fuel prices

WFP reports that basic food commodities remained "available" in Hajjah governorate in October 2018. According to the most recent WFP Market Watch Report for October 2018, wheat flour was "available" (the highest of five rankings), consistent with reporting over the prior four months. The same trend has been observed for vegetable oil, red beans, and sugar. On the other hand, cooking gas, diesel, and petrol remained only "sparsely available," as they have been in recent months.

Wheat flour prices increased in October and remained generally stable in November at well above pre-crisis levels. According to WFP, retail wheat flour prices in Hajjah were 300 YER/kg in October 2018, which is about 119 percent higher than pre-conflict levels and 34 percent higher than those observed during the six months prior. In November, wheat flour prices decreased only slightly to approximately 295 YER/kg.

Diesel, gasoline, and cooking fuel were "sparsely available" in Hajjah with prices at well above pre-crisis levels as of November 2018. According to the October 2018 WFP Yemen Market Watch Report, diesel, gasoline, and cooking fuel were all "sparsely available" in Hajjah, which is consistent with reporting for most governorates in the country over the prior four months. According to WFP price data, compared to September 2018, gasoline prices increased by approximately 27 percent in October 2018 to 744 YER/liter, before declining sharply to approximately 556 YER/liter in November 2018. Diesel prices increased by 12 percent to 575 YER/liter in October 2018, and declined slightly to approximately 564 YER/liter in November 2018. Prices for both commodities are three to four times higher than pre-crisis levels.

Household livelihoods and incomes

The main sources of income in rural Hajjah have traditionally been crop production (grains, qat, and vegetables) and livestock keeping, though it is likely that prolonged conflict has affected households' access to livelihoods activities, particularly given some restrictions on access to land and household coping with food insecurity. According to the Ministry of Agriculture, the land dedicated to cereal cultivation in 2017 was less than half the amount during pre-conflict times and total agricultural production from cereals and other crops has been steadily decreasing year after year. In late October 2018, local authorities in Hajjah governorate reported the spread of fall armyworm to 13 districts, which could affect this year's maize and grain crops.

UNICEF is continuing to provide significant cash transfers to poor households through World Bank-funded Social Welfare Fund-like payments. In October 2018, UNICEF conducted a third round of cash transfers to approximately 141,000 households, or approximately 800,000 people, in Hajjah governorate. At these levels, approximately 30 to 37 percent of the population of Hajjah governorate would be receiving cash transfers. These transfers average approximately 15,000 YER per household, which is equivalent to approximately 31 percent of the cost of the minimum food basket (48,000 YER), as estimated by FSAC partners, and are likely significantly improving purchasing power among a large portion of the governorate's population.

Humanitarian assistance

Approximately 36 percent of the total population in Hajjah governorate receive humanitarian food assistance. Between June and September 2018, WFP reached on average 868,000 beneficiaries per month with an average of approximately 11,700 MT of food being distributed on a monthly basis across all the districts of the governorate.

Food security and nutrition indicator data

Data collected by partners on food consumption and coping strategies in Yemen suggest outcomes in Hajjah are very concerning. According to Food Consumption Score, more than one in five households have "poor" food consumption, while approximately two-thirds of households engaged in severe levels of consumption-based coping strategies during the 30 days prior to data collection. According to the Household Hunger Scale, more than 20 percent of households faced "severe" hunger, and more than 20 percent of households engage in "emergency" levels of livelihoods coping.

Between August and October 2018, WFP's mVAM[3] surveys indicated that, on average, 10 percent of respondents in Hajjah had "poor" food consumption, with an additional 27 percent reporting "borderline" food consumption. During the same period, the median reduced coping strategies index of the respondents was on average 25. mVAM data suggest that food security outcomes have slightly deteriorated compared to previous months, but that they may have improved compared to a year ago, which may be due to increased assistance.

The typical level of global acute malnutrition (GAM) in Hajjah is Critical (15-30 percent) in the Lowlands and Alert in the Highlands (5-9.9 percent). The latest available information on GAM levels is from the SMART survey conducted in March 2018. Based on its findings, GAM prevalence in Hajjah based on weight-for-height was 14.9 percent (CI: 11.8 – 18.8) in the Lowlands and 8.9 percent (CI: 6.5-12.1) in the Highlands. This prevalence is not significantly different from that of the SMART survey conducted in September 2015 (although that survey was conducted in a different season) or from historical pre-conflict levels based on surveys conducted in the same season. High wasting levels are attributable to a high prevalence of morbidity, poor infant and young child feeding practices, and poor food consumption, and linked to the households' inability to purchase both adequate amounts of food as well as diverse enough foods to meet basic nutritional needs, which has been exacerbated by conflict.

It is difficult to identify evolving trends in SAM and MAM admissions into CMAM due to limited data, delayed updates to data, and the fact that many treatment facilities are not functional or only partially functional and subject to frequent pipeline breaks. Admissions significantly increased in November 2017, recording the highest levels since the same time the previous year. This is likely the result of referrals following the MUAC screening campaign, which was conducted by the MoPHP with support from UNICEF in October 2017. This indicates that the levels of acute malnutrition are still high even

[3] Please note that cell phone-based surveys are likely biased towards better-off and urban populations who have access to cell phones. These biases should be kept in mind when comparing these survey results with in-person representative household surveys conducted prior to the conflict.

though admissions into CMAM have been lower for most of 2017 and 2018, compared to 2016.

Hajjah has the fifth highest level of suspected cholera cases compared to other governorates, with 135,749 cases reported between late April 2017 and late December 2018. Hajjah governorate also has one of the highest case fatality rates at 0.3 percent. The number of suspected cholera cases has been increasing in Hajjah since mid-August 2018 after having been extremely low since the beginning of the year. Cases of measles and diphtheria are also reported in Hajjah. The number of probable cases of diphtheria as of late December 2018 was 405, the third highest in the country, after Ibb and Sana'a governorates. In early December 2018, the WASH cluster reported a significant sanitation gap for IDPs in Hajjah, which is increasing with continued and new displacement from Hairan, Haradh, and Midi, and is likely to increase disease outbreaks among this group.

Current food security outcomes

Based on available information on food security outcomes and contributing factor information on household food availability and access, FEWS NET estimates that at least one in five households in most areas of Hajjah are likely facing elevated levels of food insecurity, including food consumption gaps, in line with Emergency (IPC Phase 4) food insecurity. This is even in the presence of humanitarian food assistance, which is helping protect food consumption among some populations who may otherwise be in Emergency (IPC Phase 4) or worse. Given variations in conflict-levels and humanitarian access, it is likely that geographic variations in food security outcomes exist throughout the governorate. More specifically, IDPs throughout the governorate, and poor households in lowland areas, where malnutrition rates have historically been high, are likely facing more severe outcomes than households in highland areas.

Assumptions

The most likely scenario for the December 2018 to May 2019 period is based on the following zone-level assumptions:

- **IDP populations** in Hajjah are likely to continue to increase as military operations continue.
- **Market supply levels**: Food will likely remain available in Hajjah governorate, although fuel will likely continue to be sparsely available.
- **Staple food prices** are likely to remain much higher than normal, due to continued increases in prices at key import markets, as well as expected increases in transportation costs due to increases in fuel prices.

Most Likely Food Security Outcomes

Between December 2018 and January 2019, Hajjah governorate is likely to be in Emergency (IPC Phase 4). Humanitarian food assistance is expected to continue to be delivered in Hajjah governorate through early 2019, but at least one in five households are expected to remain in Emergency (IPC Phase 4) between February and May 2019. As a result, Hajjah governorate will remain in Emergency (IPC Phase 4) through May 2019. However, should assistance fail to materialize nationwide between February and May 2019, FEWS NET expects that staple food prices would likely increase further. This, coupled with the absence of food assistance to protecting food consumption at the household level, would likely drive increases in the number of households in Emergency (IPC Phase 4). Moreover, it is likely that the size of the population in Catastrophe (IPC Phase 5) would increase and Hajjah would face a risk of Famine (IPC Phase 5). IDP populations would continue to face some of the more severe outcomes.

EVENTS THAT MIGHT CHANGE THE OUTLOOK

Table 1. Possible events over the next eight months that could change the most-likely scenario.

Area	Event	Impact on food security outcomes
National	Major parties to conflict achieve a lasting ceasefire that improves security and facilitates the normalization of livelihood and economic activities.	Food access for many households would likely begin to improve as prices of staple food commodities begin to decline and household access to food and income begins to return to normal. In addition, IDPs would likely begin to return to their areas of origin. However, additional time would likely be required before the macroeconomy fully stabilizes and major government functions resume in full.
National	The Yemen Central Bank receives external assistance to replenish its depleted reserves or it gains access to its foreign reserves currently frozen in overseas accounts.	The Yemeni Rial to US dollar exchange rate would become more stable and the Central Bank would start supporting wheat flour importers again through lines of credit. Import levels, local food availability, and food prices would begin to stabilize. In addition, government salaries, pensions and social welfare would be paid, increasing household purchasing power and improving food security outcomes.
National	Food imports stop due to closure of main ports, destruction of key port infrastructure, or major macroeconomic changes that prevent traders from funding imports.	Food availability on local markets would quickly decline and food security outcomes would likely worsen with areas likely to deteriorate to Famine (IPC Phase 5) in a worst-case scenario.
National	Increased humanitarian assistance	Additional humanitarian assistance could further protect food consumption and reduce malnutrition.

ABOUT SCENARIO DEVELOPMENT

To project food security outcomes, FEWS NET develops a set of assumptions about likely events, their effects, and the probable responses of various actors. FEWS NET analyzes these assumptions in the context of current conditions and local livelihoods to arrive at a most likely scenario for the coming eight months. Learn more here.