YEMEN JOINT MONITORING REPORT

BIMONTHLY UPDATE ON FOOD AND NUTRITION SECURITY CRISIS RISKS **SEPTEMBER - REPORT #5**

KEY MESSAGES

- The Joint Monitoring Report (JMR) modeling, which uses data up to August 2024, raised 114 critical and 82 heightened risk alerts for exchange rate, conflict, fuel prices, and displacement. JMR modeling also indicates that 4.2 million people resided in areas at risk of deteriorating into Emergency (IPC Phase 4) or worse food insecurity conditions in August, with the vast majority situated in areas under Government of Yemen (GoY) control.[1]
- In August 2024, according to the FAO High-Frequency Monitoring Snapshot, food insecurity in Yemen remained high. In areas under GoY control, 53% of households reported experiencing inadequate food consumption, while 45% of households reported such in areas under Ansar Allah (AA) control. While the use of severe food-based coping strategies remained unchanged in both GoY and AA areas compared to the previous two months, there was an increase in households resorting to emergency livelihood coping strategies. Overall, the use of coping strategies remains more prevalent in AA areas. According to WFP food security monthly monitoring, 65% of households in GoY areas and 64% in AA areas reported inadequate food consumption in August. Based on the same data, poor food consumption reached an all-time high of 36% with similar levels reported in both areas of control.
- The latest IPC malnutrition analysis in GoY areas indicates that, by October 2024, an estimated 609,800 children will be acutely malnourished, with 118,570 projected to suffer from severe acute malnutrition (SAM) and over 222,900 pregnant and lactating women expected to be malnourished. All 117 districts analyzed in GoY areas are projected to face IPC Acute Malnutrition (IPC AMN) classification Phase 3 (serious) or worse between July–October 2024, including four districts in Al Hodeidah and Ta'iz projected to face an extremely critical phase, the highest phase of the IPC AMN scale.
- In August, severe flooding in Yemen from torrential rains caused extensive damage in Al Hodeidah, Hajjah, Ma'rib, Sa'dah, and Ta'iz. Immediate needs include emergency shelter, food, NFIs, and WASH services to address water contamination and prevent disease. The health sector needs to focus on managing acute watery diarrhea (AWD) and cholera while also addressing psychological impacts. The floods affected crops and livestock, aggravating food insecurity and requiring extensive rehabilitation and flood mitigation efforts. No drought alerts were raised in July or August.
- Yemen is experiencing higher rainfall in 2024, with some areas facing significant increases. Despite forecasts predicting a gradual decrease, flood risks remain high, particularly in saturated regions of the Central Highlands and Southern Uplands. Flooding could worsen public health, agriculture, and infrastructure issues, while stagnant water raises the threat of waterborne diseases. Dust storms in the Eastern Plateau from September may cause respiratory issues and damage crops, while rising temperatures will also accelerate pest activity, threatening food security.
- Yemen has been experiencing a severe outbreak of AWD and suspected cholera, with nearly 131,900 cases reported between October 2023 and August 2024. Malnourished children are at heightened risk of contracting these diseases. A national cholera task force, co-chaired by Yemen's Ministry of Public Health and Population (MoPHP), was activated to coordinate the response. UNICEF and the WHO established Oral Rehydration Corners in 141 health centers in affected areas. UNICEF also deployed 3,385 community health workers and reached 1.2 million people with prevention messaging, enhancing treatment and community resilience.
- In August, the exchange rate indicator generated 113 critical risk alerts and 23 heightened risk alerts in GoY governorates. The monthly Yemeni rial average in GoY-controlled areas continued to depreciate, reaching YER 1,896/USD 1, a 25% depreciation compared to the same period in 2023 and a record-high monthly average. Conversely, the exchange rate in AA-controlled governorates remained largely stable at YER 538/USD 1.
- The IOM Displacement Tracking Matrix reported that 2,184 people were displaced in August, the highest count since November 2023. This increase resulted in the JMR raising 23 heightened risk alerts in Al Hodeidah, Ibb, Lahj, Ma'rib, Sana'a City, and Ta'iz. Overall, between 1 January and 31 August, over 13,900 people were displaced in Yemen, mostly into or within Al Hodeidah, Ma'rib, and Ta'iz governorates.

1 Alerts and calculations of people living in areas at risk of deteriorating into IPC 4 or worse are based on statistically robust JMR quantitative indicators. Other factors relevant to food and nutrition insecurity are incorporated into other parts of this report but not included in JMR risk alert calculations because of technical considerations.

- In August, the conflict indicator recorded 29 heightened risk alerts, but no critical alerts. Heightened alerts were driven by clashes between Southern Transitional Council (STC) forces and Al Qaeda in the Arabian Peninsula (AQAP) in Abyan. STC forces also clashed with AA fighters, causing multiple fatalities. August also saw protests in Aden following the killing of an STC officer and Israeli airstrikes on Al Hodeidah port, resulting in at least nine deaths.
- In August, Ta'iz governorate raised 23 alerts for heightened fuel prices, which were 16% higher than in June 2024. Liquefied petroleum gas (LPG) prices surged by 21%, while diesel and petrol rose by 5.6% and 4.8% respectively in August compared to June. In other GoY-controlled areas, fuel prices increased by an average of 3%, while fuel prices saw a slight decrease of 0.4% in AA-controlled areas.
- In August, AA units launched ten attacks on merchant vessels in the southern Red Sea and Gulf of Aden, up from seven in July. Six targeted oil tankers, including the SOUNION, which was boarded and set ablaze on 21 August. The vessel, carrying 150,000MT of oil, was safely towed without spillage in September. Due to rising threats, war risk premiums for Red Sea voyages have surged from 0.7% to as high as 2%, with some insurers halting coverage. Ships linked to the UK, US, or Israeli ports are at higher risk, and attacks pose serious threats of oil spills in the region.
- The average price of the minimum food basket (MFB) in Yemen has continued to rise since January 2024, peaking in August but remaining below alert thresholds. In GoY-controlled areas, the MFB reached YER 136,069 (USD 72) in August, 21% higher year-on-year and 6% above June 2024 levels. In AA-controlled areas, the cost was YER 48,209 (USD 89), a 2% decrease compared to the previous year and only 1% higher than in June 2024.
- In August, Yemen's food imports totaled 421,568MT, a 5% increase from July but 16% lower than in June. Food imports via Red Sea ports were at their lowest since September 2023, 36% below the 12-month average. Imports via southern ports, however, were 33% above average and the highest since March 2024. Fuel imports rose by 35% from July and 23% from June, with southern ports reaching their highest levels since September 2023.

AGGREGATED CRISIS RISK INDICATOR ALERTS AND RISK SEVERITY

This section summarizes the heightened and critical alerts recorded based on JMR key indicators of deteriorating food and nutrition security. For a more detailed breakdown of indicator alerts by governorate and district, please refer to Annexes I and II.

In July, the exchange rate indicator recorded 136 critical risk alerts for all GoY-controlled districts, the highest number of critical risk alerts reported since November 2021, when 136 critical risk alerts were also raised. In August 2024, exchange rate depreciation in GoY-controlled governorates continued to raise an elevated number of critical risk alerts (113), with the remaining districts recording heightened alerts (23).[2] In August, conflict also triggered 29 heightened risk alerts in nine governorates, three of which are under GoY control and six under AA control. Fuel prices raised 23 heightened risk alerts, all of which were recorded in Ta'iz governorate. Displacement raised one critical and seven heightened risk alerts in August, the highest number since January 2024, when 11 heightened risk alerts were recorded (with an average of only one heightened risk alert per month between February–July 2024). Please refer to Table 1 below for an overview of heightened and critical food and nutrition security risk alerts countrywide by indicator.

Table 1. Heightened and critical food security risk alerts countrywide by indicator in August 2024[3]

INDICATORS	CRITICAL RISK ALERTS	HEIGHTENED RISK ALERTS	GOVERNORATE
Exchange rate	113	23	All GoY governorates
Displacement	1	7	Al Hodeidah Ibb Lahj Ma'rib Sana'a City Ta'iz
Conflict	0	29	Abyan Aden Al Hodeidah Al Mahwit Amran Dhamar Hajjah Sana'a Shabwah
Fuel prices	0	23	Ta'iz
Drought	0	0	
Food prices	0	0	
Total	114	82	

For a comprehensive historical overview of the population at risk of a decline in food and nutrition security (such as transitioning to IPC 4 or worse) from August 2014 to August 2024, please refer to Annex IV. [4]

2 Critical alerts identify areas where a deterioration in food security is almost certain based on historical trends. Decision makers should consider these areas high priority. Heightened alerts identify areas where there is a high chance of deterioration in food and nutrition security and provide decision makers a good overview of current food and nutrition security trends countrywide.

3 The table does not compare with the previous JMR due to updated and more accurate source data, leading to improved figures for alerts and at-risk population .

4 The JMR calculates the probability of food and nutrition insecurity across different districts using a statistical model known as the generalized linear model. This involves analysis of various risk alerts and their predictive significance in estimating a potential decline in food and nutrition security. A confidence score determines the likelihood of such

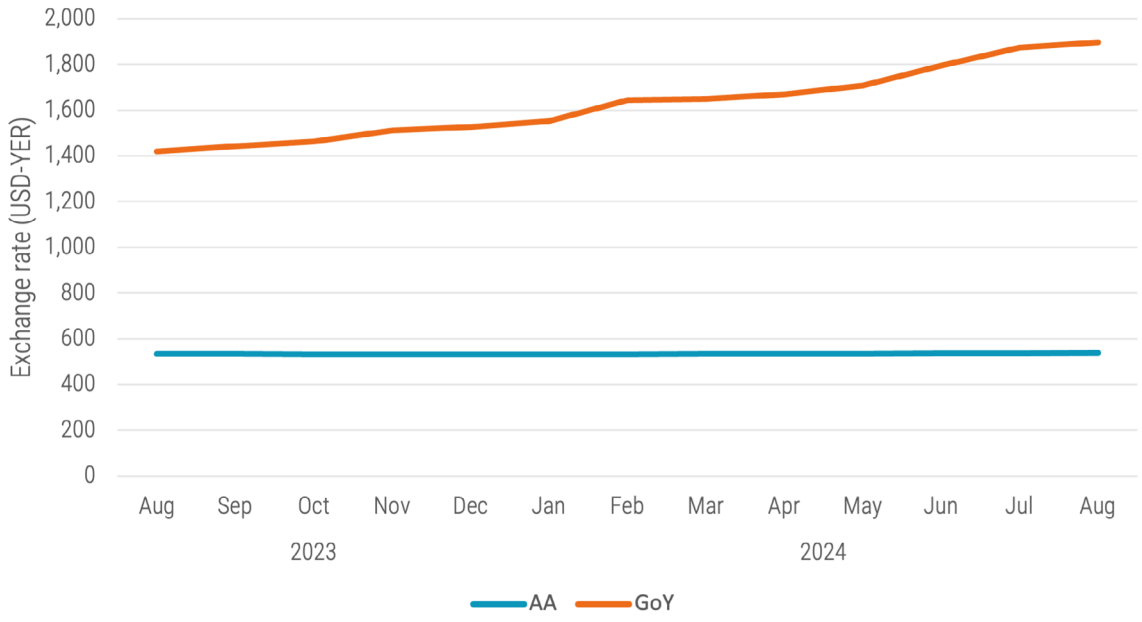
SELECTED CRISIS RISK INDICATOR ANALYSIS

This section offers context-specific details related to each crisis risk indicator, providing a more detailed analysis of the factors triggering risk alerts.

Exchange rate

In GoY-controlled areas, the monthly average exchange rate continues to depreciate, reaching a new record high in August of YER 1,896/USD 1. This represents a 25% depreciation compared to August 2023 and a 5.7% depreciation compared to June 2024 (Figure 1). The exchange rate depreciation led to 113 critical and 23 heightened risk alerts in August, while all 136 districts in GoY areas recorded critical alerts in July, marking the highest number of critical risk alerts since November 2021. Critical risk alerts were recorded in all GoY-controlled governorates with the exception of Ta'iz, which recorded heightened risk alerts. The exchange rate in Ta'iz depreciated by 22% year-on-year and 2% compared to June 2024. In August 2024, the average monthly exchange rate in AA-controlled areas stood at YER 538/USD 1, marking a slight depreciation of 0.6% compared to June 2024 and 0.7% compared to August 2023. The depreciating exchange rate is primarily attributable to the dwindling availability of foreign currency reserves as a result of decreased crude oil exports and reduced remittance inflows, compounded by the decision in AA-controlled areas to prohibit the sale and control of LPG produced in Ma'rib.

Figure 1. YER-USD exchange rate in Aden (GoY) and Sana'a (AA) from August 2023 to August 2024



Source: WB (accessed 08/09/2024)

Conflict

In August 2024, the conflict indicator recorded 29 heightened risk alerts, but no critical alerts. The following information is based on ACLED data from July–August.

Alerts recorded in Abyan and Shabwah governorates were largely related to events in Lawdar and Mudiyah districts in Abyan and As Sa'id district in Shabwah. STC forces and AQAP militants clashed intensely in Mudiyah in August, resulting in significant casualties. At the beginning of August, STC forces repelled AQAP attacks, including in Wadi Awmran and Wadi Ar Rafd, causing heavy AQAP losses. In mid-August, an AQAP suicide car bombing on STC barracks killed at least 16 soldiers and injured

deterioration, multiplied by the population of the district to project the anticipated number of people residing in areas vulnerable to a deterioration in food and nutrition security (e.g., transitioning to IPC 4 or worse). It is essential to understand that this process involves prediction (forecasting), and it is important to clarify that the JMR does not formally classify IPC phases for districts.

dozens more. On 20 August, clashes at checkpoints led to the deaths of two STC officers and two AQAP militants. Additional confrontations in Wadi Al Jaz saw one STC fatality and around ten AQAP fatalities, highlighting the continuing violence and high death toll in the region. On 24 August, STC forces also clashed with AA forces on the Thirah front in Lawdar district. The clash resulted in approximately ten AA fatalities, though exact numbers remain unclear. In As Sa'id district in Shabwah, clashes erupted between Al Abu Bakr Bin Farid and Al Ahmad Bin Farid tribes following a tribal feud. On 7 August, Al Ahmad Bin Farid gunmen ambushed the sheikh of the Abu Bakr Bin Farid tribe, killing one escort and injuring two others, sparking several days of fighting. Mediation efforts failed and, on 16 August, the Giants Brigades and STC Shabwani Defense Forces intervened by abducting members of both tribes to stop the violence. Heightened risk alerts in Mudiyah, Sarar, and Zinjibar districts in Abyan were also driven by an incident in Khur Maksar on 3 August, when an STC Aden security officer was shot and killed by unknown assailants in Jawlat Al Arish, Aden, amid mass demonstrations in Khur Maksar district. The protests, involving tens of thousands from Abyan, Aden, Hadramawt, and Shabwah, demanded the disclosure of the fate of abductees, particularly Colonel Ali Ashal Al Jaadani, missing since his abduction by suspected STC Security Belt forces in June. STC police fired on demonstrators, resulting in unspecified injuries and three fatalities, and arrested several, including organizers and journalists. The protests intensified after key figures involved in the abduction fled Yemen, leaving Jaadani's fate uncertain.

On 7 August, AA fighters shot and killed two Al Qayfa tribesmen at a checkpoint in Hammat Sarar (Wald Rabi' district in Al Bayda) for failing to slow down. In response, Al Qayfa tribal forces clashed with AA fighters later that day. During the clashes, AA reinforcements were ambushed by the tribesmen, resulting in five AA deaths and one Al Qayfa death. This incident raised alerts for three districts in Dhamar and one in Sana'a.

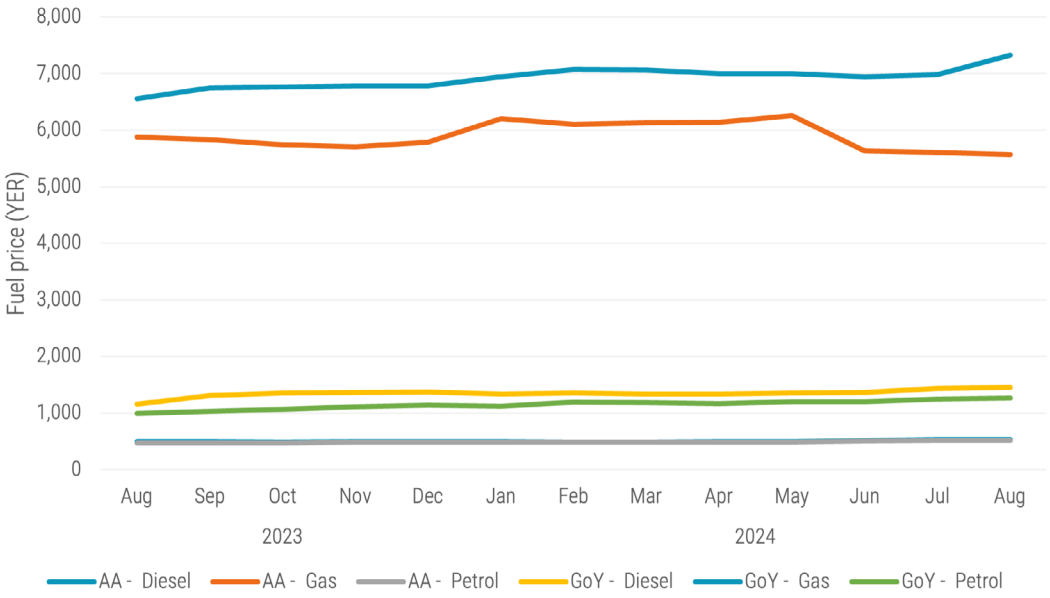
On 20 July 2024, Israeli fighter jets conducted three strikes on Al Hodeidah port, damaging cranes, a marine control tower, 33 fuel tanks, and sparking fires that burned for days. An aid vessel also suffered minor damage. The strikes killed at least nine Yemen Petroleum Company employees and injured over 80 others, many with severe burns. The strikes, part of Israeli Operation Outstretched Arm, were in response to an AA drone attack that killed one person in Tel Aviv on 19 July, marking Israel's first strikes on Yemen. This incident raised alerts for one district in Al Hodeidah and three districts in Al Mahwit in July, but continued over the heightened alert threshold in August as well. Al Hodeidah port has not received any fuel vessels since the attack, with fuel imports conducted exclusively through Ras Issa port in August—September.

As part of the climate of violence, the 13 UN staff arrested by AA forces in June, along with five INGO staff members and representatives of Yemeni civil society, continue to be detained. Their location remains unknown and AA forces have denied physical access to them, despite multiple requests. The UN High Commissioner continues to call for the immediate and unconditional release of UN staff, as well as the release of all detained human rights and humanitarian workers arrested without legal protections. After the latest detainments, the total number of UN staff arbitrarily detained in Yemen increased to 17, as two UN Human Rights workers and two staff from other UN agencies have been held by AA authorities since 2021 and 2023.

Fuel prices

In August, there were 23 heightened risk alerts raised for fuel prices, all in Ta'iz governorate. These alerts consider the price difference compared to six months prior, using price data from the World Bank. The average price of diesel, petrol, and LPG in Ta'iz in August was 16% higher than in June 2024. This increase was mostly driven by a 21% surge in the price of LPG, while diesel and petrol prices only increased by 5.6% and 4.8% respectively in the same period in the same governorate. In other GoY-controlled governorates, fuel prices saw an average increase of 4% between June–August, except for Socotra, which saw a decrease in the average price of fuel by 14%. In AA-controlled areas, on the other hand, the average price of diesel, petrol, and LPG saw a slight decrease of 0.4% between June-August.

Figure 2. Diesel, gas, and petrol prices in GoY and AA areas between August 2023 and August 2024



Source: WB (accessed 08/09/2024)

Displacement

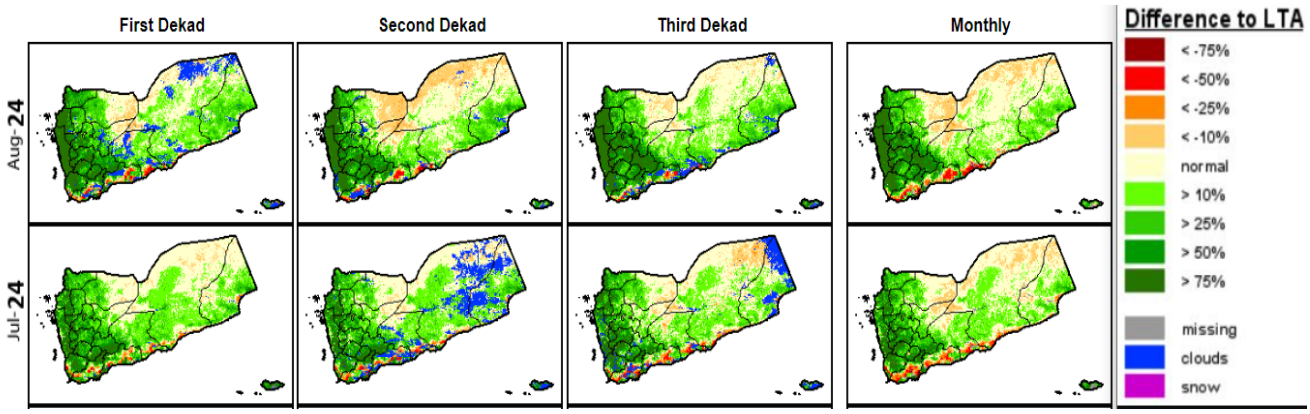
In July and August, based on data from the IOM Displacement Tracking Matrix, 1,842 and 2,184 people were displaced respectively across Yemen, the highest monthly count since November 2023. Between 1 January and 31 August, up to 13,914 people experienced displacement at least once. The JMR raised one critical and seven heightened risk alerts for displacement in August from six different governorates: Al Hodeidah, Ibb, Lahj, Ma'rib, Sana'a City, and Ta'iz.

The one critical alert was recorded in At Tahrir district in Sana'a City in relation to the displacement of six households to Ash Shamayatayn district in Ta'iz, citing economic reasons including unemployment. Out of the total 86 households displaced that contributed to raising alerts, 58 cited conflict as the main reason for displacement, 16 cited causes such as natural hazards (e.g., flooding), and 12 cited economic reasons, including unemployment or increasing market prices.

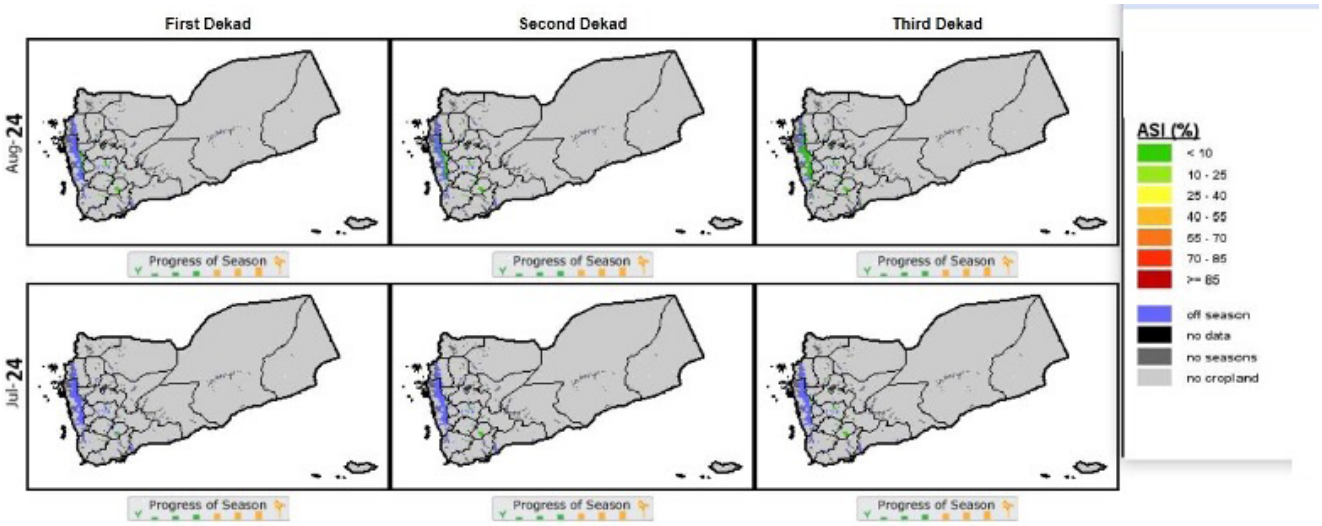
Drought

There were no drought-related alerts in July or August. In fact, the country experienced intense rainfall during the peak of the Kharif rainy season in August, particularly in the central and western highlands areas. This resulted in multiple waves of flooding, affecting communities and disrupting daily life in both low-lying areas and coastal plains. The damage to farmland has not only delayed harvesting activities but also disrupted planting for the upcoming season.

Map 1. Normalized Difference Vegetation Index anomaly estimates for July and August 2024



Map 2. Agricultural Stress Index estimates for July and August 2024

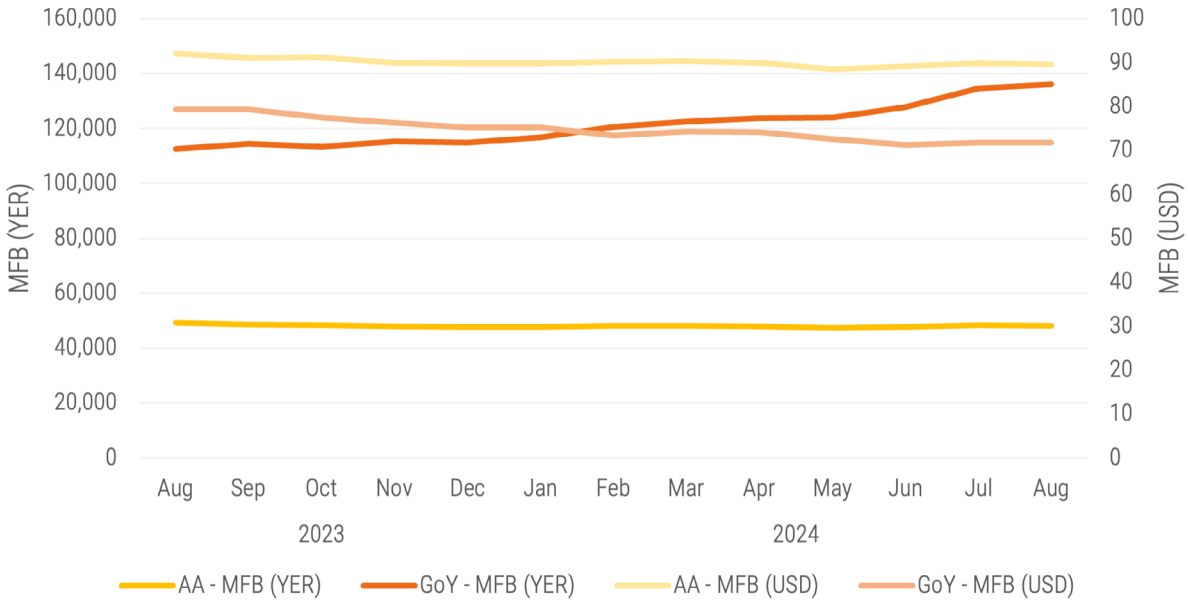


Source: FAO (accessed 13/09/2024)

Food prices

The average MFB price has continued to increase since January 2024, reaching a new peak in August 2024, the highest since August 2022. This increase, however, did not surpass the heighted or critical risk alert threshold. The average MFB cost in GoY-controlled areas in August 2024 was YER 136,069 (USD 72), 21% higher year-on-year and 6% higher compared to June 2024. This increase is connected to currency depreciation in GoY areas. In AA-controlled areas, the MFB cost decreased by 2% in August compared to the same time last year, and was 1% lower than in June, at YER 48,209 (USD 89). This marks a reversal of the previous trend in AA-controlled areas, likely following the de-escalation of the banking crisis in July.

Figure 3. MFB price in GoY and AA areas in YER and USD between August 2023 and August 2024



Source: WB (accessed 08/09/2024)

In August, the FAO Cereal Price Index dropped 0.5% from July, mainly as a result of lower wheat prices amid competitive Black Sea supplies and higher production in the United States and Argentina. Rice prices rose by 0.6% and maize prices firmed slightly owing to adverse weather impacts. The FAO Vegetable Oil Price Index increased by 0.8% from July–August, reaching a 20-month high as a result of rising palm oil prices. The FAO Sugar Price Index fell by 4.7%, reaching its lowest level since October 2022, attributable to improved harvest outlooks in India and Thailand and lower crude oil prices, despite fire-related concerns in Brazil's sugarcane fields.

OTHER INDICATORS

This section covers additional contextual information on pertinent food and nutrition security indicators in Yemen.

Floods

In August, torrential rains and widespread flooding during the peak of the Kharif rainy season caused severe damage across several of Yemen's governorates, affecting homes, shelters, public infrastructure, and livelihoods. The areas most affected include Aden, Al Hodeidah, Al Jawf, Hajjah, Ma'rib, Sa'dah, and Ta'iz. The floods displaced nearly 268,000 individuals, who were left without adequate shelter or access to essential services, and further severe weather is expected to continue into September.

Immediate needs include emergency shelter, food, NFIs, and shelter repairs. WASH needs are also critical, with priorities including disinfecting contaminated water sources, providing emergency water supplies, distributing hygiene kits, and repairing sanitation facilities. There is also a need to prevent vector-borne diseases such as malaria and dengue fever through joint efforts between health and WASH responders.

Flooding devastated approximately 341,300 hectares of land, with significant impacts in Al Hodeidah, Amran, Hajjah, and other regions, as reported by the FAO Rapid Assessment of Floods Impact on Agriculture. Key damages include the inundation of over 98,700 hectares of agricultural land, significant crop losses, and destruction of irrigation infrastructure. Livestock, particularly sheep and goats, faced substantial losses, with around 279,400 ruminants affected. Soil erosion increases the risk of flooding even after rains subside, hindering recovery efforts. This damage is likely to aggravate food insecurity, as crop failures and disrupted agricultural activities reduce food availability and income.

Cholera cases

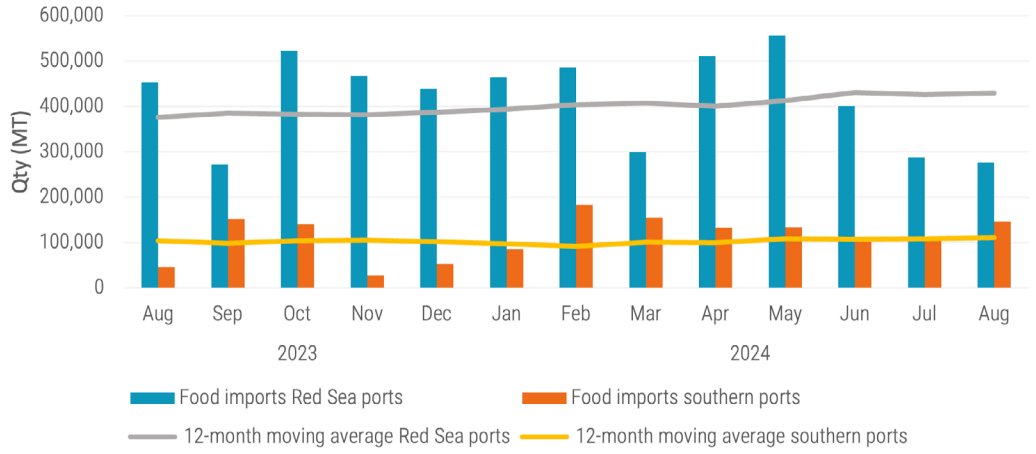
The outbreak of AWD and suspected cholera cases continues, with 131,882 cases reported across all 22 governorates from October 2023 to the end of August, according to MoPHP data. Between epidemiological weeks 27–36, there were 27,213 cases reported, a decrease from the 55,000 recorded between epidemiological weeks 20–26. Even though reported AWD cases showed no clear link to the impacts of flooding, likely as a result of data limitation factors, including the possible impacts of flooding on WASH and health system structures in certain areas, data from therapeutic feeding centers in flood-stricken areas showed a 29% increase in AWD admitted cases compared to non-flood affected areas. The decrease in the number of cases could be linked to various factors currently under investigation, particularly the impact of recent flooding on WASH and health structures and related data collection capabilities. The majority of cases continue to be reported in AA-controlled areas. Populations with specific vulnerabilities, especially children with SAM, are at heightened risk of illness and death, while heavy rains and flooding also contribute to aggravating the outbreak.

As reported by UNICEF, despite a relatively low fatality rate (0.4% in the north and 0.63% in the south), the rise in AWD and cholera cases highlights gaps in outbreak containment and challenges such as poor infant feeding practices and inadequate nutrition. A national cholera task force, co-chaired by Yemen's MoPHP and Ministry of Water and Environment, coordinates responses involving health, WASH, and social behavior change. UNICEF and the WHO supported this effort by providing Oral Rehydration Corners in 141 primary health centers and equipping 3,117 facilities to offer oral rehydration treatment between January–June 2024. UNICEF deployed 3,385 community health workers across Yemen, including 1,010 in southern governorates who received medical supplies. These workers, mainly women, strengthened community resilience through health services and awareness campaigns. The goal of these initiatives is to decentralize cholera treatment and enhance the overall response by supporting primary health facilities and training health workers in effective cholera management. Cholera prevention messaging reached 1.2 million people through door-to-door visits, community meetings, and media broadcasts. UNICEF also prepositioned emergency WASH supplies for rapid response in high-risk areas, including IDP camps, reinforcing community engagement and access to essential resources in order to prevent the spread of cholera.

Food imports

In August, total food imports to Yemen amounted to 421,568MT, a slight increase (5%) from July but 16% lower than in June.[5] Food imports via Red Sea ports in August were the lowest recorded since September 2023, and 36% lower than the 12-month moving average. As this is the third consecutive month of decreasing and lower-than-average food imports via Red Sea ports, the JMR team will closely monitor food import volume trends in the coming months to flag whether a food shortage is expected. On the other hand, however, food import volumes via southern ports were 33% above the 12-month moving average and the highest since March 2024.

Figure 4. Monthly food imports (by port) between August 2023 and August 2024

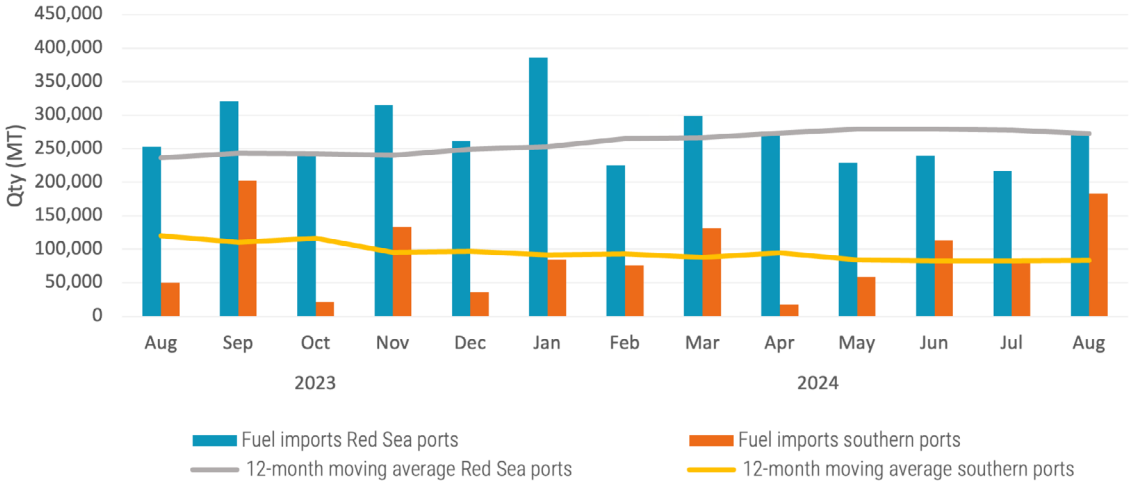


Source: ACAPS YETI (accessed 08/09/2024)

Fuel imports

In August 2024, total fuel imports increased by 35% compared to July, 23% compared to June, and were 22% above the 12-month moving average. Notably, fuel imports via southern ports significantly increased in August, reaching the highest levels since September 2023 and 54% above the 12-month moving average. Fuel imports via Red Sea ports also increased compared to the previous three months, in line with the 12-month moving average. After the attack on Al Hodeidah port, fuel imports were only conducted through Ras Issa port in August—September.

Figure 5. Monthly fuel imports by port from August 2023 to August 2024



Source: ACAPS YETI (accessed 08/09/2024)

5 For the July–August period, food imports included wheat (56%), corn (17%), soy (9%), rice (6%), wheat flour (6%), vegetable oil (4%), and sugar (2%) (ACAPS YETI accessed 08/09/2024).

FOOD AND NUTRITION SECURITY OUTCOMES

Food Consumption Score

In August 2024, according to the FAO High-Frequency Monitoring Snapshot, food insecurity in Yemen remained high, with inadequate food consumption exceeding 50% in GoY areas since March 2024, except for in June. In AA areas, inadequate food consumption was reported by 44.7% of households, a decrease from the previous month and at similar levels to June. In Al Jawf governorate, inadequate food consumption in August increased significantly compared to July and was the highest recorded among all governorates, approaching nearly 70%. Inadequate food consumption also increased in Al Hodeidah, Al Maharah, Al Mahwit, Ibb, and Lahj. Abyan, Al Bayda, Ad Dali', Hajjah, Ma'rib, Shabwah, and Ta'iz governorates, on the other hand, saw a decrease in reported inadequate food consumption in August while remaining above the 12-month average of 44.6%.

Data from WFP monthly monitoring also indicated high levels of food insecurity, with 65% of households in GoY areas and 64% in AA areas reporting inadequate food consumption. In the governorates of Abyan, Ad Dali', Al Baydah, Al Jawf, Hajjah, Lahj, Raymah, and Shabwah, inadequate food consumption reached 70% or more. Poor food consumption reached 36% in August across the country, with similar levels reported both in GoY and AA governorates. The primary drivers of increased food insecurity in GoY areas include a deepening economic crisis, high food prices as a result of currency depreciation, reduced public revenues, depleted foreign reserves, and diminished agricultural and employment opportunities. Reduced humanitarian assistance further aggravated the situation.[6]

Reduced Coping Strategies Index

In August, the use of severe food-based coping strategies, as reported by FAO High-Frequency Monitoring Snapshot, remained stable compared to June and July, but there was an increase in households resorting to emergency livelihood coping strategies. In GoY areas, the use of emergency livelihood coping strategies increased by 3.3% from June–August, and by 2.2% in AA areas. Overall, the use of coping strategies remains more prevalent in AA areas.

Moderate and severe acute malnutrition

From July–October 2024, according to the latest IPC malnutrition analysis, an estimated 609,800 children will be acutely malnourished, with 118,570 projected to suffer from SAM and over 222,900 pregnant and lactating women expected to be malnourished. During the same period, all 117 districts in GoY areas covered by the survey are expected to face IPC AMN 3 or worse, including four districts – Mawza and Al Makha in Ta'iz, and Hays and Al Khukhah in Al Hodeidah – expected to experience Famine (IPC Phase 5) levels of food insecurity. Immediate intervention is needed in these districts to prevent increased illness and potential deaths among children under five. The main drivers of malnutrition in GoY areas include high morbidity, disease outbreaks, food insecurity, and inadequate childcare practices. The flash floods that affected several governorates in August are expected to worsen Yemen's already widespread malnutrition, particularly among children in flood-prone communities.

The nutrition cluster allocated USD 6 million to scale up nutrition interventions in 34 priority districts affected by the suspension of food aid. The response focuses on treating SAM and moderate acute malnutrition (MAM), enhancing prevention through an integrated multisectoral approach. UNICEF and partners continued scaling up the Community Management of Acute Malnutrition program, screening over 1.7 million children under five in the first half of 2024.

6 The difference between the FAO and WFP in the Food Consumption Score can sometimes be attributed to the sampling methodology and timing of data collection. FAO data is representative at the governorate level whereas WFP data is collected at the district level. FAO High-frequency monitoring data collection is based on computer-assisted telephone interviews using Random Digit Dialing (RDD). This method tends to find more respondents in populated areas, introducing urban and wealth biases. To address this, adjustments for rural-urban biases are made, and weights are applied during data analysis to correct regional stratification. The sample size, based on population across 22 governorates, is designed for 10% precision, 50% food insecurity prevalence, and a 95% confidence interval. Adjusting for urban biases, the total sample size is 2,500 households, averaging 112–113 per governorate. WFP Remote monitoring combines RDD and a panel of 1.2 million phone numbers, collecting data from around 9,000 calls monthly. The sample is 30-50% RDD, with the rest from the panel, proportionate to WFP beneficiaries and district populations. Monthly samples are representative at the governorate level and quarterly at the district/cluster level, with 32 surveys per district monthly and 95 quarterly. Overall, 241 districts and 36 clusters are monitored monthly.

OUTLOOK

Rainfall forecasts and anticipated impacts

Precipitation trends indicate that Yemen is experiencing wetter conditions in 2024 compared to the long-term average, with localized areas seeing significant increases in rainfall. According to the FAO Agrometeorological Early Warning Bulletin (11–20 September 2024), rainfall is expected to see a gradual decrease. Despite the anticipated reduction in rainfall, flood risk remains high owing to already saturated soil, particularly in flood-prone areas of the Central Highlands and Southern Uplands. Further flooding is likely to aggravate existing challenges in Yemen, with significant impacts on public health, agriculture, and infrastructure. Stagnant water from previous floods raises the risk of waterborne diseases, affecting both people and livestock. Continued flooding could lead to substantial crop losses, aggravating food insecurity. The Eastern Plateau is also expected to experience dust storms from September, leading to moderate dust concentrations that pose health risks such as respiratory issues and skin irritation. Dust particles could also harm plants by decreasing crop yields.

Damage to farmland has not only delayed harvests but also set back planting for the upcoming season. These issues underscore the need for resilient agricultural practices and infrastructure to reduce the impact of extreme weather events on Yemen's food production and rural livelihoods. Long-term recommendations emphasize restoring and enhancing irrigation infrastructure, improving early warning systems, implementing anticipatory actions, and promoting sustainable farming practices to bolster resilience against future floods and safeguard food security.

The country is also expected to face rising temperatures, with northern Hadramawt reaching up to 44° C and the inland Eastern Plateau, Red Sea coast, Gulf of Aden, and Arabian Sea areas exceeding 35° C. Such conditions accelerate pest reproduction, expand their geographic spread, and increase feeding activity while also promoting the spread of disease. Combined with the stress on crops and livestock, this significantly heightens the risk of pest outbreaks. The southwestern regions are already facing an increased risk of fall armyworm infestations as a result of climate conditions, and the growth of sorghum and maize crops increases the risk for areas such as Dhamar, Ibb, Lahj, and Ta'iz governorates.

Red Sea attacks

In August, as reported by the Joint Maritime Information Center, AA units were responsible for ten attacks on merchant vessels in the southern Red Sea and Gulf of Aden, up from seven in July. Six of the ten incidents targeted tankers. The most concerning situation involved the SOUNION tanker, which AA units attacked and boarded on 21 August, causing explosions that set off fires on the vessel carrying 150,000MT of oil. On 16 September, the Greek-registered oil tanker was towed to a secure location by the EU's naval mission Aspides, without any oil spills.

As a result of the escalating threats, war risk premiums for Red Sea voyages have soared. Premiums, which were previously around 0.7% of a vessel's value, have now increased to as high as 2%. Some insurers have paused providing war coverage altogether, particularly smaller companies, as they see the risks as too high. Larger underwriters, while still offering coverage, are becoming more selective, with ships deemed likely targets struggling to secure insurance. Vessels linked to the United Kingdom, the United States, or those that have called at Israeli ports are particularly at risk, according to AA forces, though other ships have also been attacked. Moreover, AA attacks on oil vessels in the Red Sea poses a significant risk of oil spills, which would cause extensive damage not only to Yemen but also other coastal areas in the region, as well as the Red Sea maritime route.

ANNEXES

Annex I. Number of JMR alerts by governorate in August 2024

Table 2 shows the number of JMR district alerts for each indicator by governorate August 2024

	EXCHANGE RATE		CONFLICT		FUEL PRICES		DISPLACEMENT		DROUGHT	FOOD PRICES
GOVERNORATE	CRITICAL	HEIGHTENED	CRITICAL	HEIGHTENED	CRITICAL	HEIGHTENED	CRITICAL	HEIGHTENED		
Hadramawt	28									
Shabwah	17			4						
Lahj	15							1		
Ma'rib	14							1		
Abyan	11			7						
Ad Dali'	9									
Al Maharah	9									
Aden	8			1						
Socotra	2									
Sa'dah							1			
Ta'iz		23				23		2		
Dhamar				5						
Amran				4						
Hajjah				3						
Al Mahwit				3						
Al Hodeidah				1				2		
Ibb								1		
Sana'a				1						
Al Bayda										
Al Jawf										
Raymah										
Sana'a City										
Total	113	23		29		23	1	7		

Annex II. JMR alerts by district in August 2024, districts at most risk of food and nutrition security deterioration

Table 3 shows JMR alerts by district. The districts with the highest alert level, three in this case, are included. The table highlights critical alerts (red), heightened alerts (yellow), and typical status (white) per food security risk indicator by district.

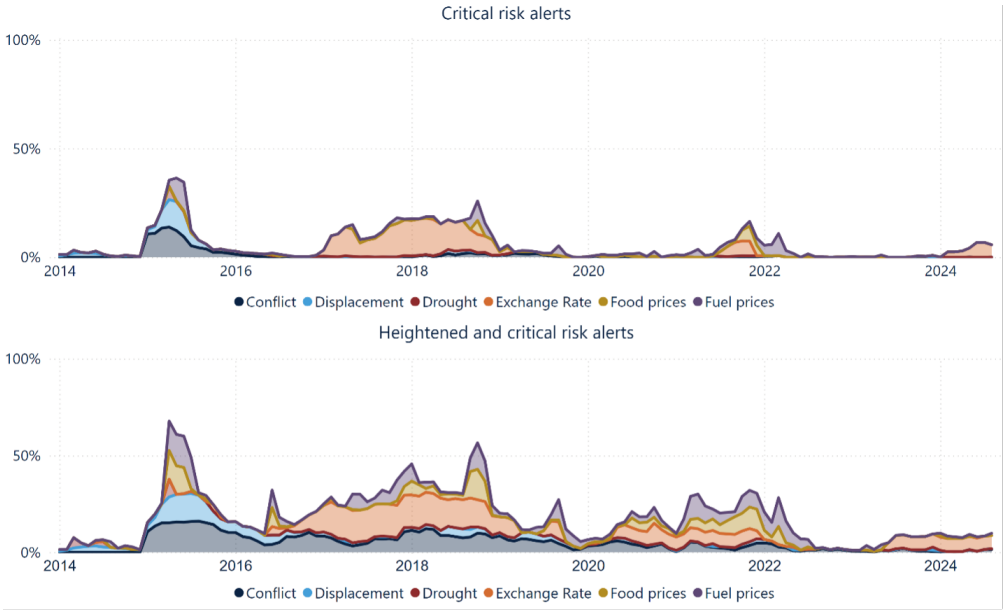
Table 3. JMR alerts by district with higher risk of food and nutrition security deterioration

GOVERNORATE	DISTRICT	EXCHANGE RATE	CONFLICT	DISPLACEMENT	DROUGHT	FOOD PRICE	FUEL PRICE
Abyan	Ahwar						
Abyan	Al Mahfad						
Abyan	Al Wadi'						
Abyan	Mudiyah						
Abyan	Sarar						
Abyan	Sibah						
Abyan	Zinjibar						
Aden	At Tawahi						
Lahj	Tuban						
Ma'rib	Al Abdiyah						
Shabwah	As Sa'id						
Shabwah	Habban						
Shabwah	Hatib						
Shabwah	Radum						
Ta'iz	Al Misrakh						
Ta'iz	Mawza'						

Annex III. JMR historical heightened and critical risk alerts (January 2014 to August 2024)

Figure 6 shows the historical breakdown of JMR food and nutrition security risk alerts by indicator for all districts. The graphs show the percentage of total possible heightened and critical risk alerts for all six food and nutrition security crisis risk indicators. The higher the score, the worse the deterioration in food and nutrition security.

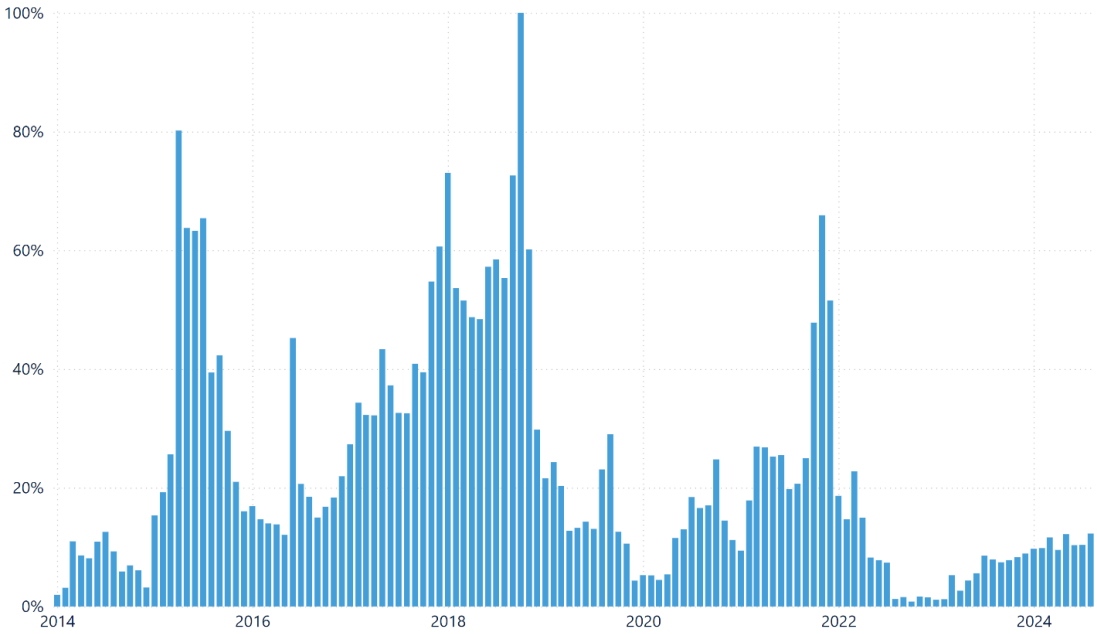
Figure 6. Historical percentage of total JMR heightened and critical risk alerts (January 2014 to August 2024)



Annex IV. Historical overview of the population at risk of experiencing a deterioration in food and nutrition security into IPC 4+ (January 2014 to August 2024)

Figure 7 shows the population living in areas at risk of experiencing a deterioration in food security into IPC 4 or worse between January 2014 and August 2024.

Figure 7. Percentage of population living in areas at risk of experiencing a deterioration in food and nutrition security into IPC 4 or worse (January 2014 to August 2024)



Annex V. Sources and time frames of risk indicators, target variables, and food and nutrition outcome indicators

Table 4. Indicators' sources and time frames

	SOURCE	LINK	DATA FROM	DATA TO
Conflict	ACLED	https://acleddata.com/data/	01/01/2015	08/31/2024
Displacement	IOM Displacement Tracking Matrix	https://dtm.iom.int/yemen	01/01/2014	08/31/2024
Drought	FAO	Shared by FAO	01/01/1981	08/31/2024
Exchange rate	World Bank	https://microdata.worldbank.org/index.php/catalog/6159	01/01/2009	08/31/2024
Food prices	World Bank	https://microdata.worldbank.org/index.php/catalog/4508	01/01/2009	08/31/2024
Fuel prices	World Bank	https://microdata.worldbank.org/index.php/catalog/6133	01/01/2009	08/31/2024
Target variable				
FEWS NET	World Bank	https://datacatalog.worldbank.org/search/dataset/0064614	07/01/2009	02/01/2024
Food and nutrition outcome indicators				
FCS	FAO	Shared by FAO	01/01/2018	08/31/2024
rCSI	FAO	Shared by FAO	01/01/2018	08/31/2024
IPC	IPC	https://data.humdata.org/dataset/b70c2734-2339-4a4d-a69d-fa2bd3225156/resource/5e7ac2dd-84c1-4177-b009-0c47b1f20a9a/download/ipc_yem_area_wide.csv	12/01/2018	03/15/2023
GAM	UNICEF	Shared	01/01/2019	02/01/2024
MAM	UNICEF	Shared	01/01/2019	02/01/2024
SAM	UNICEF	Shared	01/01/2019	02/01/2024

ABOUT THIS REPORT

The JMR combines quantitative modeling and qualitative analysis to provide robust bimonthly food and nutrition security monitoring that identifies emerging food and nutrition security crisis risks. The report aims to complement IPC analyses and facilitate early recognition and coordinated responses to emerging major food and nutrition security crises among humanitarian and development stakeholders. The JMR is the product of a core development team comprising members from ACAPS, FAO, UNICEF, WFP, WHO, and the World Bank.

A detailed explanation of the empirical foundation that the Yemen JMR uses is available in the Policy Research Working Paper by the World Bank. Further nutrition analysis is planned for future iterations of the JMR.

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