

# YEMEN JOINT MONITORING REPORT

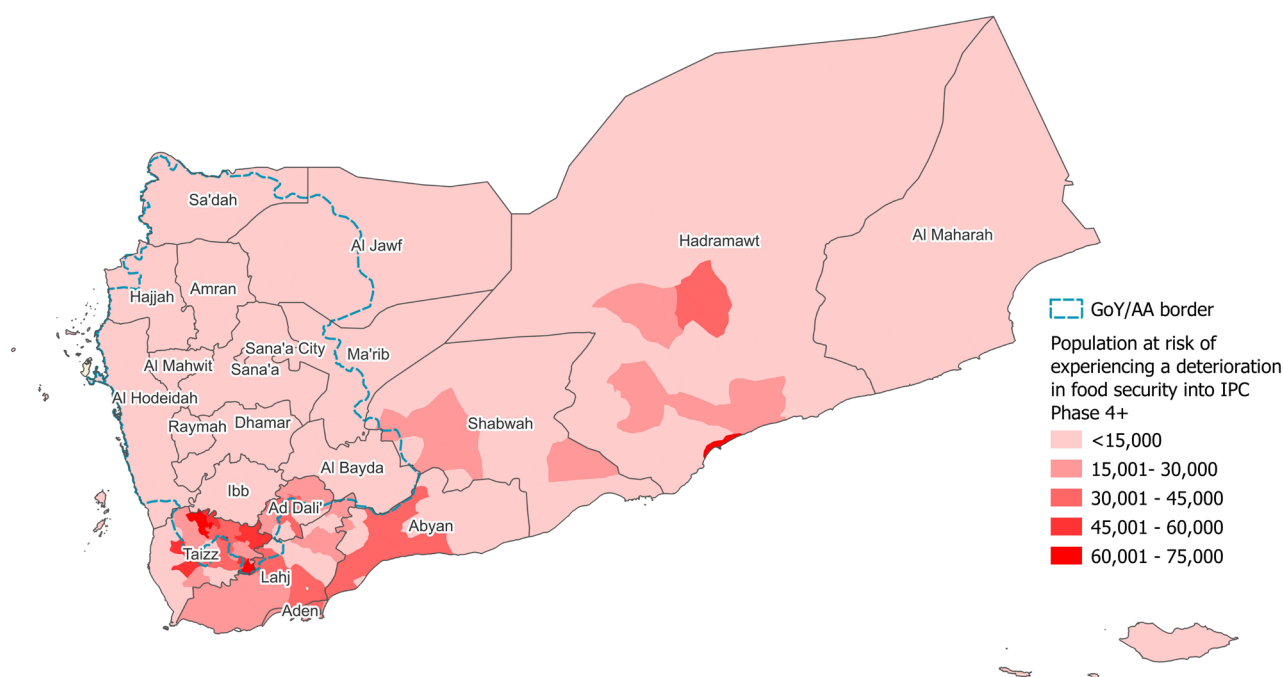
Bimonthly Update on Food and Nutrition Security Crisis Risks

(DECEMBER 2023 – REPORT 1)

## KEY MESSAGES

- Joint Monitoring Report (JMR) modeling shows that as at October 2023, nearly 2.5 million people were at risk of experiencing a deterioration into IPC Phase 4+ in both Government of Yemen (GoY) and Ansar Allah (AA) controlled areas. Widespread food and nutrition insecurity persists, currently estimated to affect approximately 51 percent of households in areas under the control of the GoY and 46 percent in areas under the control of AA.
- Cyclone Tej made landfall in Yemen on 23 October, displacing over 22,000 people in Al Maharah and Hadramawt governorates; damaging shelter, public infrastructure, and agriculture; and raising alerts in 11 districts.
- On 5 December, WFP announced a temporary pause in humanitarian food assistance in areas under AA, due to funding issues. The pause in assistance is expected to contribute to increased food and nutrition insecurity levels for several months, especially in districts where IPC Phase 3 and higher levels are already prevalent.
- Increased tensions in the Red Sea shipping corridor in December pose threats to international shipping routes, potentially escalating costs.
- As at the end of October, the Yemeni rial in GoY-controlled areas reached a value of YER 1,518/USD 1 – its lowest since December 2021 – which raised alerts in all 136 GoY-controlled districts.
- The onset of winter is anticipated to curtail employment opportunities in agriculture and fisheries, potentially pushing more households toward food-based coping strategies.
- The prices of essential food items have remained relatively stable month on month.
- The last IPC update was produced in May 2023 and covered only GoY areas. Between June and December 2023, the number of people in IPC Phase 3+ was projected to increase to 3.9 million from 3.2 million between January and May. The key assumptions driving the projected deterioration included conflict, currency depreciation of the Aden-based Yemeni rial, food basket costs, the cessation of oil exports, and a potential decline in humanitarian aid.
- The partial IPC update from May 2023 included projections through December 2023 estimating that 1.1 million people would be in IPC4+ in GoY areas. Updated Joint Monitoring Report (JMR) modeling shows that as at October 2023, nearly 2.5 million people were at risk of experiencing a deterioration into IPC Phase 4+ in both GoY and AA areas due to increased displacement and the depreciation of the Aden-based Yemeni rial. This remains below the historic average of 4.5 million people in IPC Phase 4+.







Figure 1. JMR district-level map of estimated population at risk of experiencing a deterioration in food security into IPC Phase 4+ (Oct 2023)



## AGGREGATED CRISIS RISK INDICATOR ALERTS AND RISK SEVERITY

This section provides a summary of the heightened and critical alerts recorded per JMR key indicator monitored to flag a deterioration of the food and nutrition security situation. See Annex I and Annex II for more detailed governorate and district indicator alert breakdowns. Increased localized displacement was behind all critical alerts for October, while a deterioration of the Aden-based exchange rate resulted in a high number of heightened alerts. Increased cooking gas prices and conflict escalation also resulted in several heightened risk alerts. See Table 1 for a countrywide summary of heightened and critical food security risk alerts by indicator.

**Table 1. Number of heightened and critical food security risk alerts<sup>1</sup> countrywide by indicator in Oct 2023**

INDICATORS	HEIGHTENED RISK ALERTS	CRITICAL RISK ALERTS	GOVERNORATE
 Displacement	1	10	Al Maharah Hadramawt
 Exchange rate	136	0	All GoY governorates
 Fuel prices	15	0	Lahj
 Conflict	7	0	Dhamar Ibb
 Drought	0	0	None
 Food prices	0	0	None

JMR modeling shows that as at October 2023, nearly 2.5 million people were at risk of experiencing a deterioration in food security into IPC Phase 4+ (see Table 2 for a geographical breakdown). The last period when there was a similar number of people experiencing IPC Phase 4+ was July 2022, following the subsequent increase in international commodity prices due to global market disruptions. See Annex IV for a historical overview of the population at risk of experiencing a deterioration in food security (e.g. transitioning to IPC Phase 4+) between January 2014 and October 2023.

**Table 2. JMR combined risk alerts – estimated population at risk of experiencing a deterioration in food security into IPC Phase 4+ (Oct 2023)<sup>2</sup>**

AREA OF CONTROL	HEIGHTENED RISK ALERTS	CRITICAL RISK ALERTS	ESTIMATED POPULATION AT RISK OF DETERIORATION INTO IPC PHASE 4+
GoY	137	10	2,129,821
AA	22	0	299,076
Total	159	10	2,428,897

<sup>1</sup> Critical alerts identify areas where a deterioration of food security is almost certain based on historical trends. These areas should be considered as high priority for decision makers. Heightened alerts identify areas where there is a high chance of deterioration of food security and give decision makers a good overview of current food security trends countrywide.

<sup>2</sup> The JMR food security indicator uses a statistical model (Generalised Linear Model) to calculate the risk of food insecurity in different districts. It does this by analyzing various risk alerts and how important they are in predicting a deterioration in food security. The model results show the likelihood that certain indicators will lead to worsening conditions. If one of these indicators raises an alert, a precision metric is used to measure the confidence in these predictions. This confidence score is then multiplied by the district's population to estimate the expected population at risk of experiencing a deterioration in food security (e.g. transitioning to IPC Phase 4+). Please note that this is a prediction and that the JMR does not formally classify IPC phases for districts.

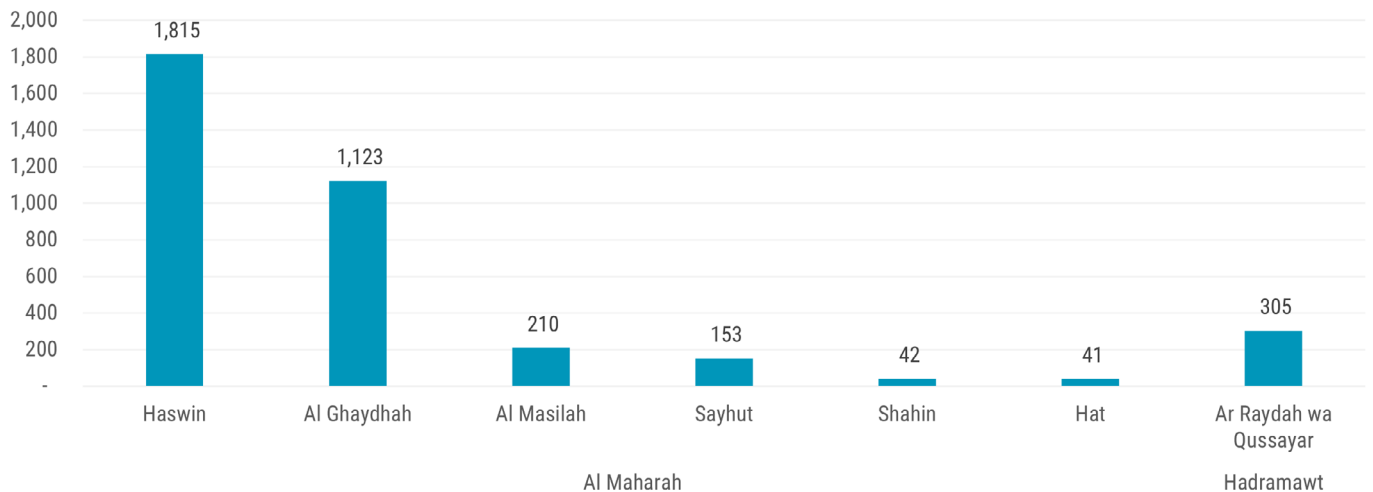
## SELECTED CRISIS RISK INDICATOR ANALYSIS

This section provides contextual information in relation to each crisis risk indicator. It analyses the factors triggering the heightened or critical risk alerts summarized in the previous section.

### Displacement

Increased displacement in October triggered a total of 10 critical risk alerts in Al Maharah and Hadramawt governorates. As at 26 October, around 22,000 people were displaced due to the impact of Tropical Cyclone Tej. As at 20 November, it was reported that around 126,000 people had been affected by the impact of the cyclone. Reports indicate that public infrastructure, including roads, electricity and water networks, schools, health facilities, and mosques, has been severely damaged. The districts of Haswin (49%) and Al Ghaydhah (30%) in Al Maharah governorate as well as Al Raydah Wa Qussayar district (8%) in Hadramawt were the most affected in terms of displacement. As access improved, the humanitarian community increased efforts in the impacted areas, prioritizing the distribution of food, water, crucial supplies, and shelter.

**Figure 2. Number of displaced households by district in Al Maharah and Hadramawt governorates**

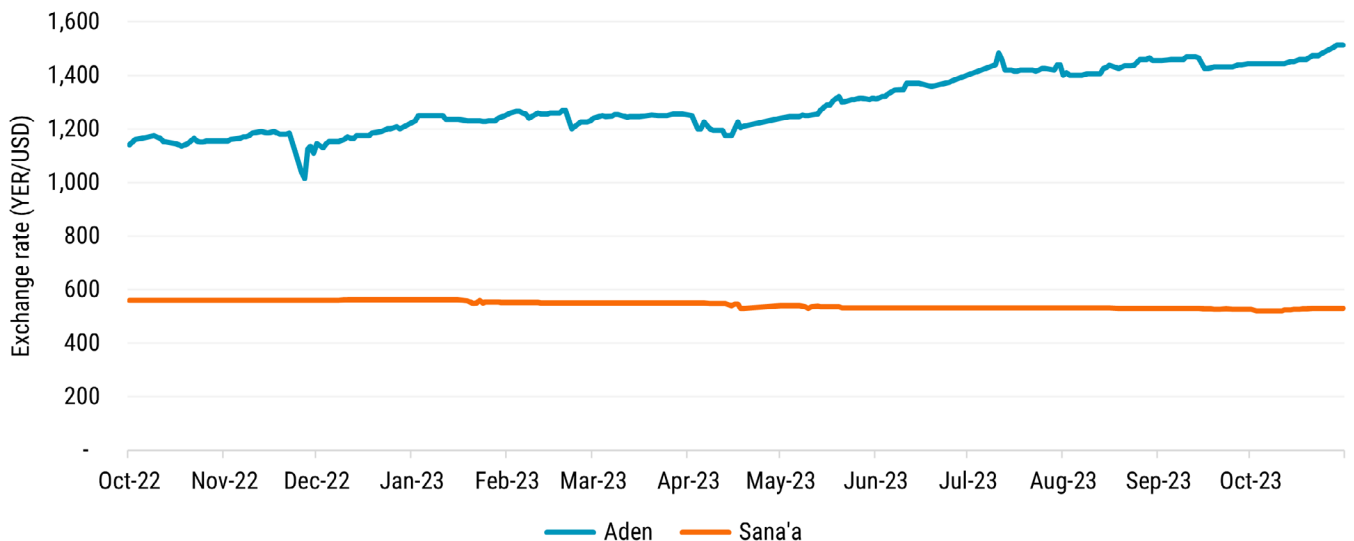


Source: IOM (26/10/2023)

### Exchange rate

The exchange rate in areas under GoY control continued to deteriorate in October. In comparison to the previous year, the Yemeni rial depreciated by 24 percent against the US dollar, reaching YER 1,518/USD 1 by the end of October 2023. This decline is primarily attributed to insufficient foreign currency reserves, reductions in both crude oil exports and domestic gas sales, and a decrease in remittance inflows. Conversely, in AA-controlled areas, the exchange rate experienced a 7 percent appreciation over the same period, reaching YER 525/USD 1 by the end of October.

**Figure 3. YER exchange rate in Aden (GoY) and Sana'a (SBA) between Oct 2022 and Oct 2023**



Source: YETI accessed 21/12/2023

## Conflict

In October, Yemen experienced a low-intensity conflict marked by clashes and remote warfare, including shelling and drone attacks in various regions such as Abyan, Ad Dali', Al Bayda, Al Hodeidah, Lahj, Ma'rib, and Ta'iz. Ma'rib, in particular, witnessed a sustained deployment of additional forces, heavy weaponry, and drone attacks throughout the month. In early October, the conflict escalated significantly in northern Ad Dali' governorate, particularly in Ad Dali', Al Husha, and Qa'atabah districts, featuring clashes between forces supported by the Southern Transitional Council (STC) and the GoY against AA forces. Additionally, there were attempted assassinations of STC military leaders in the region during October. Despite the high casualties, neither side made significant territorial advances.

## Food prices

As at October 2023, no alerts were reported in relation to the food prices risk indicator. In GoY-controlled areas, the [cost of the minimum food basket \(MFB\)](#) decreased by 1 percent compared to the previous month. Nevertheless, over the past 12 months, observed MFB prices in GoY-controlled areas were generally elevated, constituting a significant barrier to accessing sufficient food.

In areas under AA control, the MFB in October 2023 also decreased by 1 percent compared to September 2023, and it was 17 percent lower than in October 2022. This reduction is primarily attributed to the annual decline in the global prices of vegetable oil and wheat flour, which resulted in a decrease of 26 and 20 percent, respectively, for prices in the north of Yemen.

## Fuel prices

In October, all seven districts in Lahj governorate recorded a heightened risk alert in relation to cooking gas prices. The price of gas increased by 12 percent compared to the previous month and by 23 percent compared with August. Gas prices also increased slightly in Aden, Al Maharah, Shabwah, and Ta'iz governorates but without reaching alert thresholds.

Overall, in regions controlled by the GoY, [the prices of petrol and diesel](#) at the pump marginally decreased by less than 1 percent compared to the previous month – yet they remained higher than those recorded in October 2022, with increases of 12 percent for petrol and 10 percent for diesel. This yearly rise is primarily attributed to the continuous depreciation of the currency in southern areas. In AA-controlled areas, petrol prices remained stable, while diesel prices decreased by 3 percent month on month. Both fuels experienced an annual decrease in the north, with petrol dropping by 14 percent and diesel by 26 percent.

## Drought

As at October 2023, no drought alerts were recorded. The monthly Vegetation Cover Index satellite imagery and Normalized Difference Vegetation Index anomalies for October showed generally good conditions across the whole country apart from coastal Yemen, which exhibited slightly below-normal conditions. The generally good vegetation conditions that were observed across the country were further backed by the Agricultural Stress Index (ASI), which is used as an indicator of the likelihood of drought conditions across cropped areas. The ASI showed no indications of drought. Given normal to favorable weather conditions and agricultural inputs, crop production, which is expected to be fully harvested during November–December, is expected to be normal in 2024.

## FOOD SECURITY OUTCOMES

As per [WFP monthly food security update](#), the proportion of households reporting inadequate food consumption exceeded the “very high” threshold of  $\geq 40$  percent in October 2023 in 17 of the 22 governorates. Based on the FAO High Frequency Monitoring snapshot, the governorates of Al Jawf, Hajjah, and Ta’iz were reportedly the most food-insecure in October. Rural areas exhibited higher food insecurity compared to sub-urban and urban areas.

### Food Consumption Score (FCS)

In October 2023, the prevalence of inadequate [food consumption](#) (borderline or poor FCS) was nearly **42 percent**, slightly lower than the estimates for the previous two months (43 percent in August and 44 percent in September). This improvement was mainly because agricultural households had better access to income and food, and the prices of essential food items were less volatile both in GoY- and AA-controlled areas. Despite this improvement, in Abyan, Al Bayda, Al Jawf, Hajjah, Lahj, Shabwah, and Ta’iz governorates, most households (>50 percent) reported having borderline or poor food consumption.

### Reduced Coping Strategies Index (rCSI)

In October 2023, **26 percent of households** often used [food-based coping strategies](#), a 5 percent improvement from the previous two months, attributed to the harvest season and stabilized food prices. Throughout 2023, the rCSI score >19 exceeded 30 percent in most months. In Al Jawf, Hajjah, and Sa’dah, over 30 percent of households often relied on such strategies, especially in Al Jawf and Hajjah, where inadequate food consumption was more prevalent. Food insecurity was higher among non-agricultural households due to limited income sources in the three months prior to October.

## OUTLOOK

This section focuses on additional indicators that are not included in the JMR quantitative modelling. The qualitative information, however, provides additional insights to better understand possible risks to the food and nutrition security situation in Yemen. The following issues are current contextual developments that could have an impact in the future and that the JMR team will continue to monitor.

As [winter intensifies](#), people depending on agrarian livelihoods, deep-sea fishing, and livestock-keeping in Yemen will face increased stress, potentially exacerbating food consumption challenges. The onset of winter in November is expected to reduce employment opportunities in agriculture and fisheries, potentially leading to more households resorting to food-based coping strategies. Additionally, [further temperature drops](#) – particularly in the Southern Uplands, and Central and Northern Highlands – may impact vegetable farmers, triggering cold weather-related diseases. The desert locust situation is anticipated to intensify, particularly along the Red Sea Coast and Tihama Plain region.

Furthermore, increased tensions in the Red Sea shipping corridor, marked by AA attacks on Red Sea shipping, pose a significant threat to international commercial shipping. This escalation may lead to [re-evaluations of insurance coverage](#), potentially resulting in increased costs for commercial shipping due to higher war risk premiums and the adoption of longer, more expensive routes to avoid conflicts. The combination of these factors raises concerns about the future food and nutrition security situation in Yemen, particularly for the most at-risk populations. As at 17 January 2024, the US Department of State [designated Ansar Allah, commonly referred to as the Houthis, as a Specially Designated Global Terrorist Group \(SDGT\)](#). The potential impact of the designation will be addressed in the February JMR.

## ANNEXES

### Annex I. Number of JMR alerts by governorate in October 2023

Table 3 shows the number of JMR district alerts for each indicator by governorate. For October 2023, displacement alerts were raised in districts in Al Maharah and Hadramawt, and exchange rate alerts were raised in GoY-controlled districts. No drought or food price alerts were raised.

**Table 3. Number of JMR district alerts by governorate**

GOVERNORATE	TOTAL		DISPLACEMENT		EXCHANGE RATE		FUEL PRICE		CONFLICT	
	Heightened	Critical	Heightened	Critical	Heightened	Critical	Heightened	Critical	Heightened	Critical
Al Maharah	10	8	1	8	9					
Hadramawt	28	2		2	28					
Lahj	30				15		15			
Ta'iz	23				23					
Shabwah	17				17					
Ma'rib	14				14					
Abyan	11				11					
Ad Dali'	9				9					
Aden	8				8					
Dhamar	4								4	
Ibb	3								3	
Socotra	2				2					

### Annex II. JMR alerts by district in October 2023 – top districts at risk of food security deterioration

Table 4 shows JMR alerts by district. The districts with the highest risk of food security deterioration are highlighted. The table highlights critical alerts, heightened alerts, and typical status per food security risk indicator by district. For October 2023, displacement alerts were raised in Al Maharah and Hadramawt, and exchange rate alerts were raised in GoY-controlled districts.

**Table 4. JMR alerts by district with a higher risk of food security deterioration**

GOVERNORATE	DISTRICT	JMR RISK ALERTS BY INDICATOR					
		Displacement	Exchange rate	Fuel price	Conflict	Drought	Food price
Al Maharah	Al Ghaydhah						
Al Maharah	Al Masilah						
Al Maharah	Haswin						
Al Maharah	Hat						
Al Maharah	Hawf						
Al Maharah	Man'ar						
Al Maharah	Qishn						
Al Maharah	Sayhut						
Hadramawt	Ad Dis						
Hadramawt	Ar Raydah wa Qussayar						
Al Maharah	Shahin						
Lahj	Al Had						
Lahj	Al Hawtah						
Lahj	Al Madaribah Wa Al Aarah						
Lahj	Al Maflahi						
Lahj	Al Malah						
Lahj	Al Maqatirah						
Lahj	Al Musaymir						

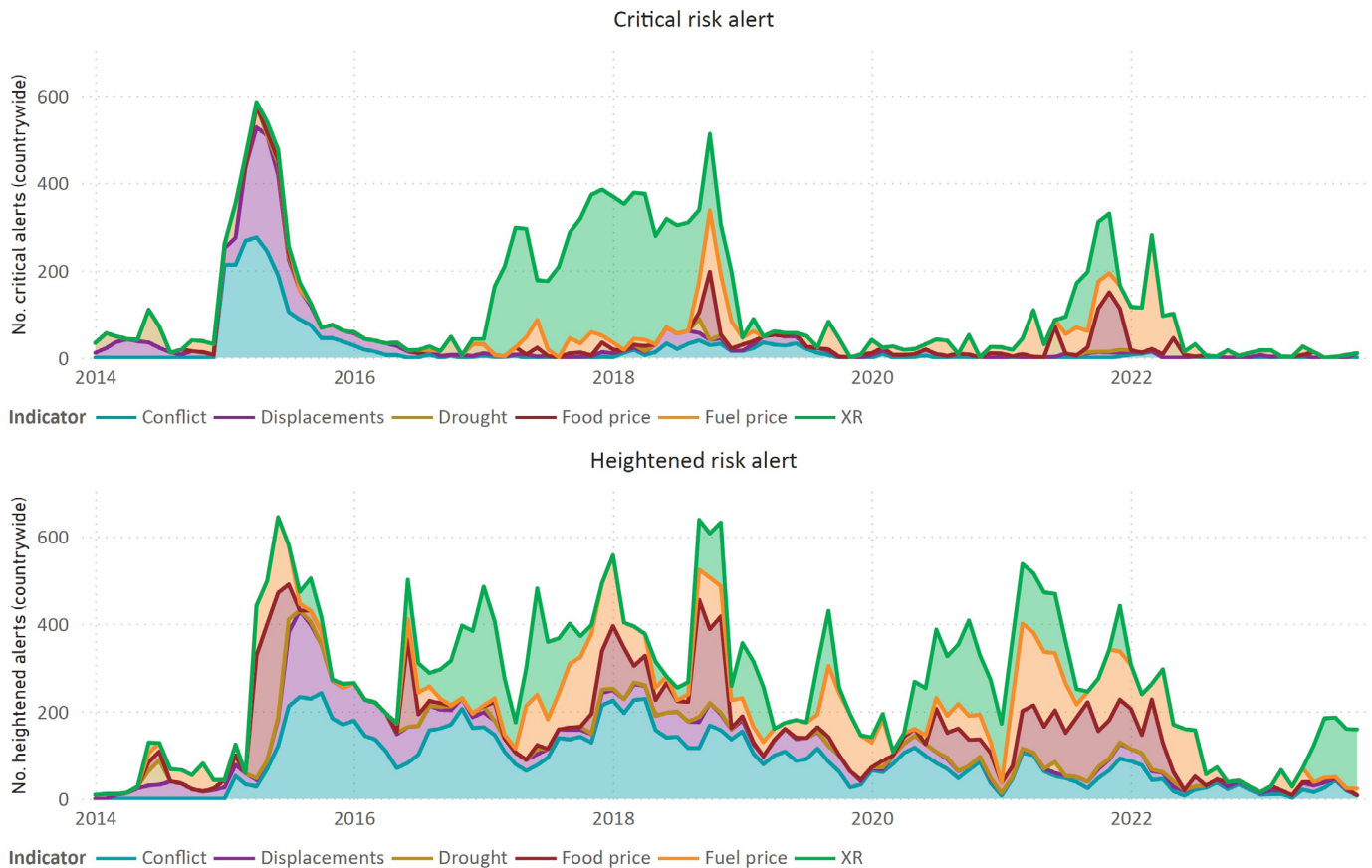
GOVERNORATE	DISTRICT	JMR RISK ALERTS BY INDICATOR					
		Displacement	Exchange rate	Fuel price	Conflict	Drought	Food price
Lahj	Al Qubaytah						
Lahj	Habil Jabr						
Lahj	Halmin						
Lahj	Radfan						
Lahj	Tuban						
Lahj	Tur Al Bahah						
Lahj	Yafi'						
Lahj	Yahr						

Note: red = critical alert, amber = heightened alert, green = typical status

### Annex III. JMR historical heightened and critical risk alerts (January 2014 to October 2023)

Figure 4 shows the historical breakdown of JMR food security risk alerts by indicator for all districts. A maximum score of 1,998 is possible where all 333 districts have alerts for all six food security crisis risk indicators. The higher the score, the worse the deterioration in food security. October 2023 shows a high number of districts with a heightened alert for the exchange rate.

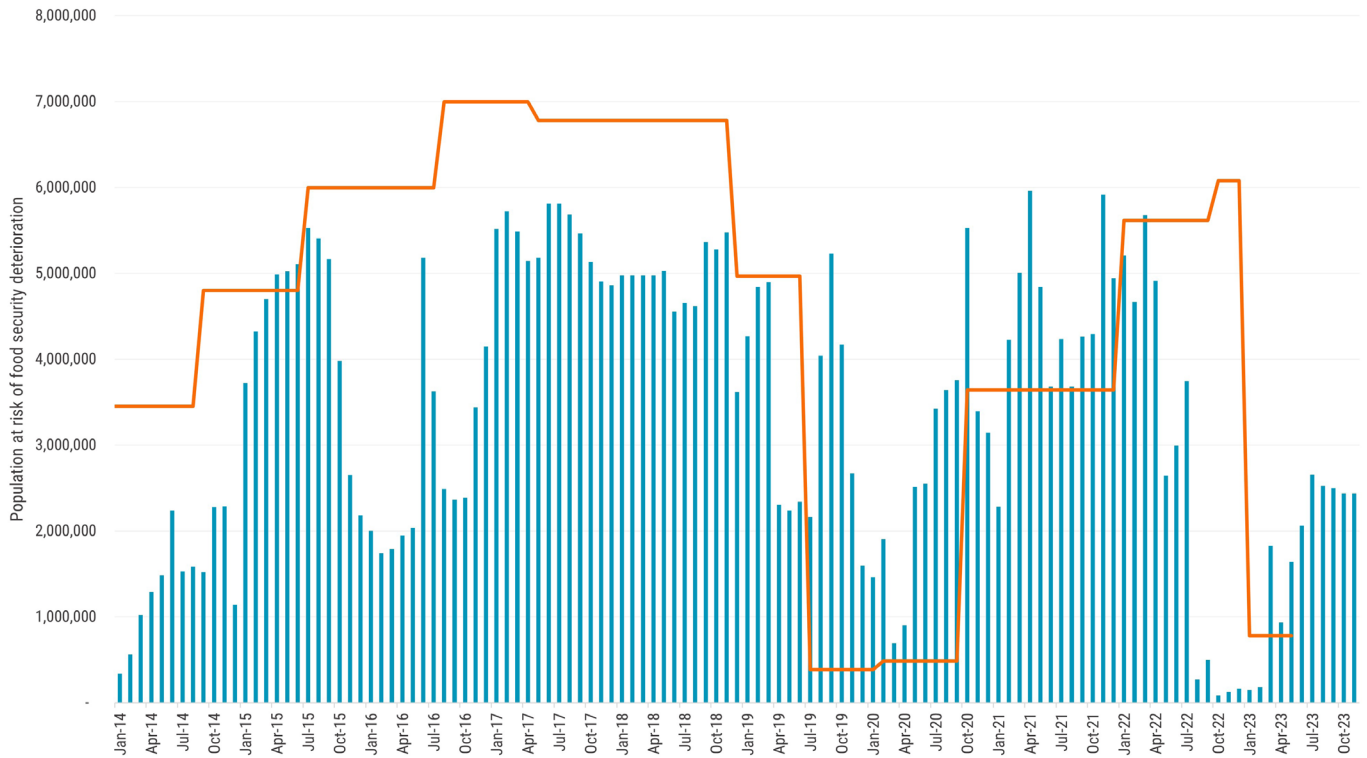
Figure 4. Historical JMR heightened and critical risk alerts



## Annex IV. Historical overview of the population at risk of experiencing a deterioration in food security into IPC Phase 4+ (January 2014 to October 2023)

Figure 5 shows the population at risk of experiencing a deterioration in food security into IPC Phase 4+ between January 2014 and October 2023. IPC data of the population in IPC Phase 4+ has been overlaid with the JMR data to show similarities between estimated population at risk from the JMR and IPC figures.

**Figure 5. Population at risk of experiencing a deterioration in food security into IPC Phase 4+ (Jan 2014 to Oct 2023)**



## ABOUT THIS REPORT

The JMR combines quantitative modeling and qualitative analysis to provide robust bimonthly food security monitoring to identify emerging food and nutrition security crisis risks. The report aims to complement [Integrated Food Security Phase Classification \(IPC\)](#) analyses and facilitate early recognition and coordinated responses to emerging major food security crises among humanitarian and development partners. The JMR is produced by a core development team consisting of members from ACAPS, FAO, UNICEF, WFP, WHO, and the World Bank.

A detailed explanation of how the model is built is available in the JMR implementation note and academic paper. These documents are currently going through a peer review process and will be published in the next month. The addition of further nutrition analysis is planned for future iterations of the JMR.

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