

INTRODUCTION

The Yemen Joint Market Monitoring Initiative (JMMI) was launched by REACH in collaboration with the Water, Sanitation, and Hygiene (WASH) Cluster and the Cash and Market Working Group (CMWG) to support humanitarian actors with the harmonization of price monitoring among all cash actors in Yemen. The JMMI incorporates information on market systems including price levels and supply chains. The basket of goods to be assessed comprises eight non-food items (NFIs), including fuel, water and hygiene products, reflecting the programmatic areas of the WASH Cluster. Since September 2018, the JMMI tracks all components of the WASH Survival Minimum Expenditure Basket (SMEB).

METHODOLOGY

Data was collected through interviews with vendor Key Informants (KIs), selected by partner organisations from markets of various sizes in both urban and rural areas.

The data collected has been analysed in comparison with the price quotations recorded during the Multi-Agency Joint Cash Study conducted in September 2017, and the Weekly Price Monitoring Initiative (WPMI) which was conducted during the economic blockade of Yemen in November 2017.

More details are available in the Methodology section of the appendix. Findings are indicative for the assessed locations and time frame in which the data was collected.

JMMI MONTHLY FIGURES

Data collection **17-26 March 2019**

- 14 Participating partners
- 64 Districts assessed
- 326 Vendor KIs surveyed

KEY FINDINGS

In March 2019, the trend of depreciation of the Yemeni Riyal (YER) against the US Dollar (USD) reversed, with the USD losing 1.6% on the parallel market.

250 USD/YER Official ▶ 0.0%	571 USD/YER Parallel market ▼ 1.6%	580 USD/YER Parallel market February 2019
--	---	---

KEY PRICE FIGURES

The appreciation was not accompanied by a decrease in the median price of the assessed items. Instead, the price of the assessed items increased, reversing the trend registered in February.

Petrol Price	365 YER	▲	12.3%
Diesel Price	430 YER	▲	14.7%
Bottled Water Price	120 YER	▲	20%
Treated Water Price	114 YER	▲	3.9%

WASH SMEB FIGURES

The median cost for the WASH SMEB was 9,283 YER, marking an increase of 2.1% from the cost observed in February 2019.

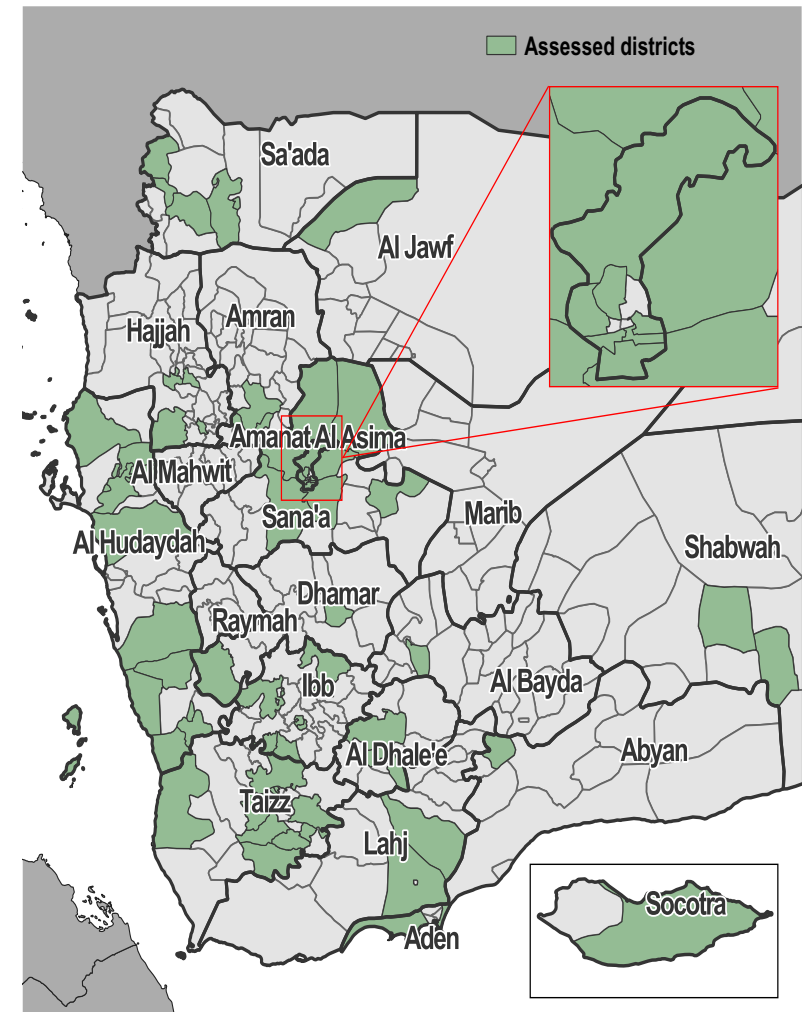
March	9,283 YER	▲	193 YER	+2.1%
--------------	------------------	---	----------------	--------------

SUPPLY OVERVIEW

Despite the overall reduction in prices, the assessed districts supplied by the governorate of al Hudaydah showed higher prices compared to those supplied by the governorate of Aden.

The median restocking time reported by fuel vendor KIs was 5 days compared to 4 days reported in February 2019, and WASH items median restocking time was 5 days compared to 4 days as reported in February 2019.

ASSESSED DISTRICTS



WASH SMEB

Soap	1.05 kg
Laundry powder	2 kg
Sanitary napkins	20 units
Water trucking	3.15 m ³

OTHER ASSESSED ITEMS

Petrol	1 liter
Diesel	1 liter
Treated water	10 liter
Bottled water	0.75 liter

WASH SMEB COST OVERVIEW

The **WASH Survival Minimum Expenditure Basked (SMEB)** represents the minimum culturally adjusted group of WASH items required to support a Yemeni family of eight for one month. The cost of the WASH SMEB can be used as a proxy for the financial burdens, relative to WASH items that a household is facing in different locations.

MEDIAN COST OF WASH SMEB

9,283 YER

Change since
February 2019

▲ 193 YER
+2.1%

Change since
September 2017

▲ 4,260 YER
+85.0%

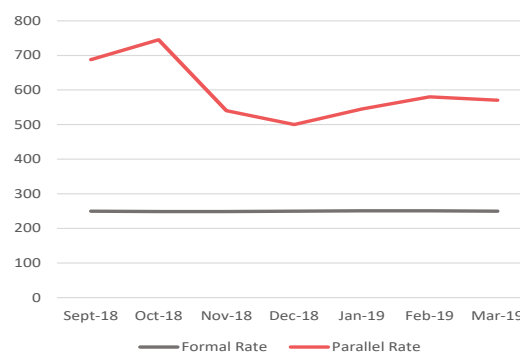
MEDIAN WASH SMEB PRICES, BY GOVERNORATE (IN YER)

Governorate	Soap (10.5 kg)	Laundry powder (2 kg)	Sanitary napkins (20 units)	Water trucking (3.15 m ³)	WASH SMEB Mar-19	Change since Feb-19
Aden	1,313	1,709	950	7,875	11,847	-8%
al Dhale'e	1,260	2,000	1,050	3,683	7,983	-29%
al Hudaydah	1,575	2,200	1,050	3,150	7,985	-14%
al Jawf	1,050	2,000	1,700	2,835	7,585	NA*
Amanat al Asima	1,355	2,090	1,200	9,450	14,095	57%
Amran	1,344	2,000	768	6,300	10,412	46%
Dhamar	1,313	2,200	1,020	8,190	12,723	9%
Hajjah	1,418	2,480	1,150	8,289	13,337	63%
Ibb	1,575	2,800	1,360	3,150	8,885	-38%
Lahj	1,575	2,000	1,000	4,213	8,788	24%
Sa'ada	1,418	2,860	1,025	9,450	14,753	78%
Sana'a	1,575	2,090	1,100	4,725	9,490	2%
Shabwah	1,575	2,090	1,458	2,993	8,116	-32%
Socotra	2,210	1,550	1,050	7,088	11,898	71%
Taizz	1,680	2,800	1,400	2,835	8,715	-34%

PAYMENT MODALITIES ACCEPTED*

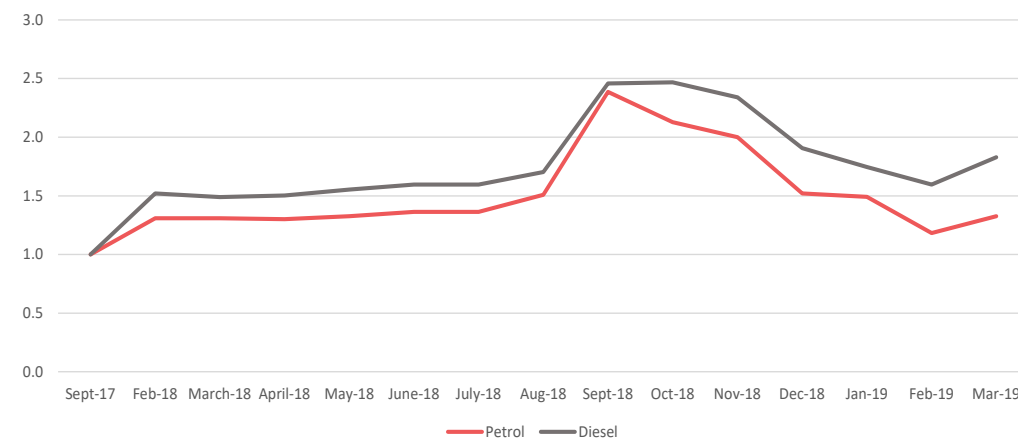
Cash	99%	
Credit	8.5%	
Credit/Debit cards	2.6%	
Mobile money	1.8%	
Prepaid cards	0.7%	
Vouchers	0.3%	

EXCHANGE RATE INDEX



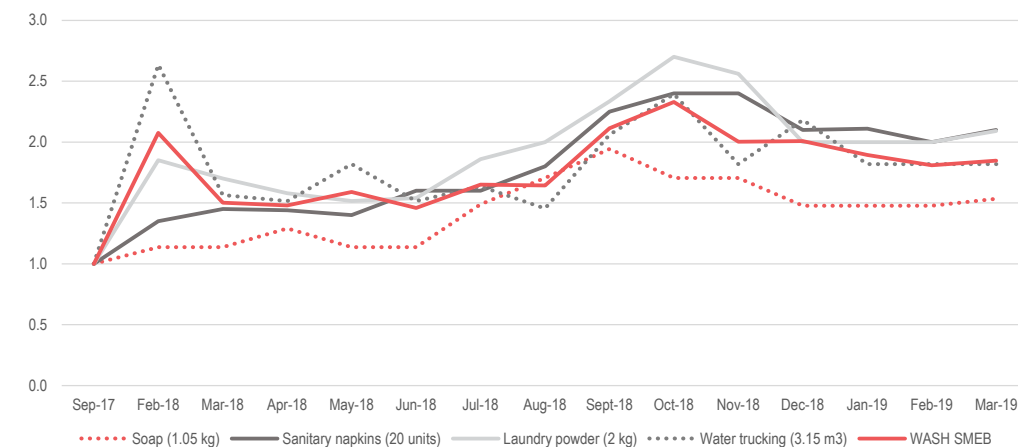
FUEL PRICE INDEX

Normalized, September 2017 = 1.00



WASH SMEB PRICE INDEX

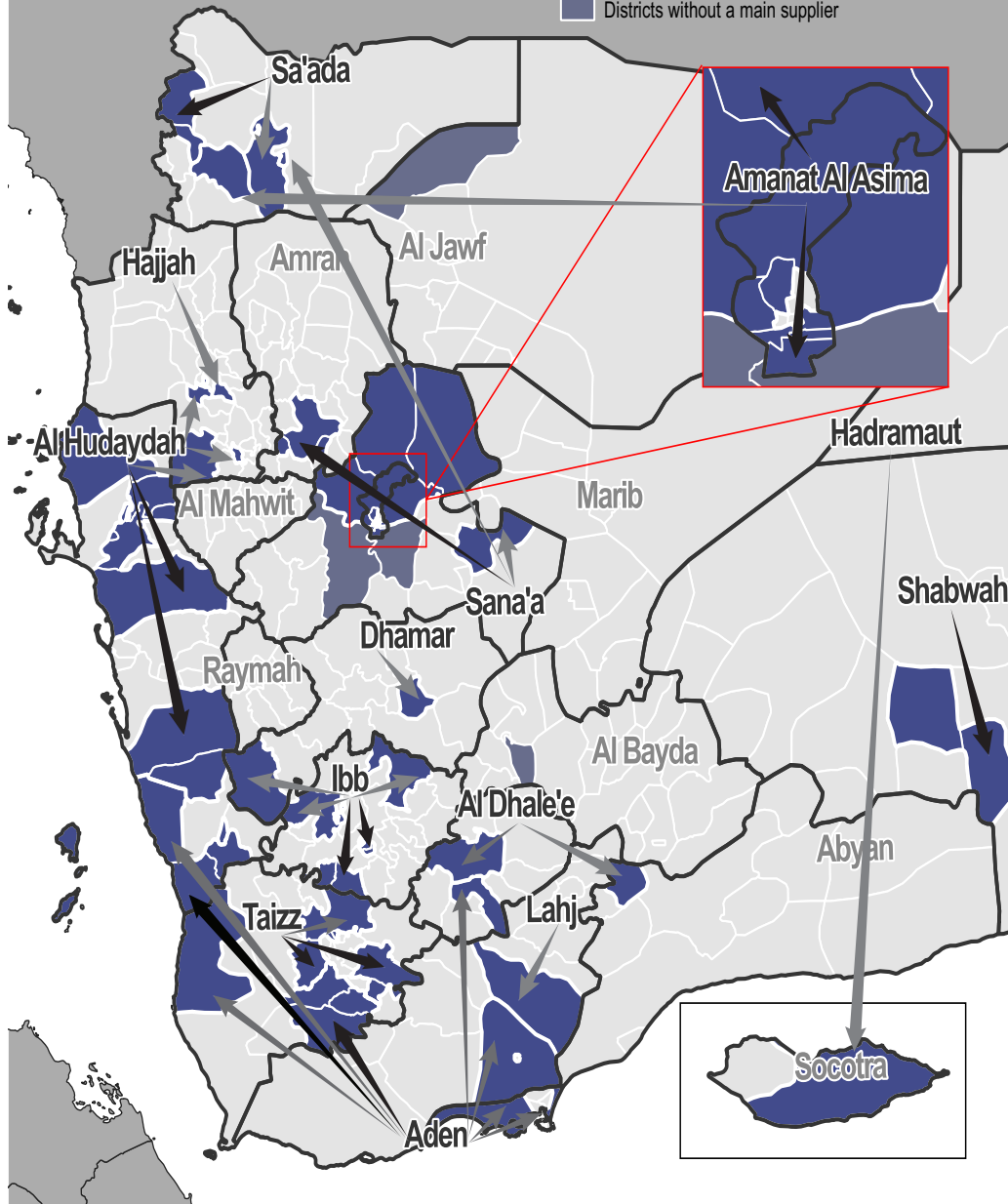
Since September 2017 (normalized, September 2017 = 1.00)



* Payment modalities can add up to more than 100%

WASH SMEB Supply Chain Overview*

- Supply destination**
- One district supplied
 - ➔ Two or more districts supplied
 - Districts with a main supplier
 - Districts without a main supplier

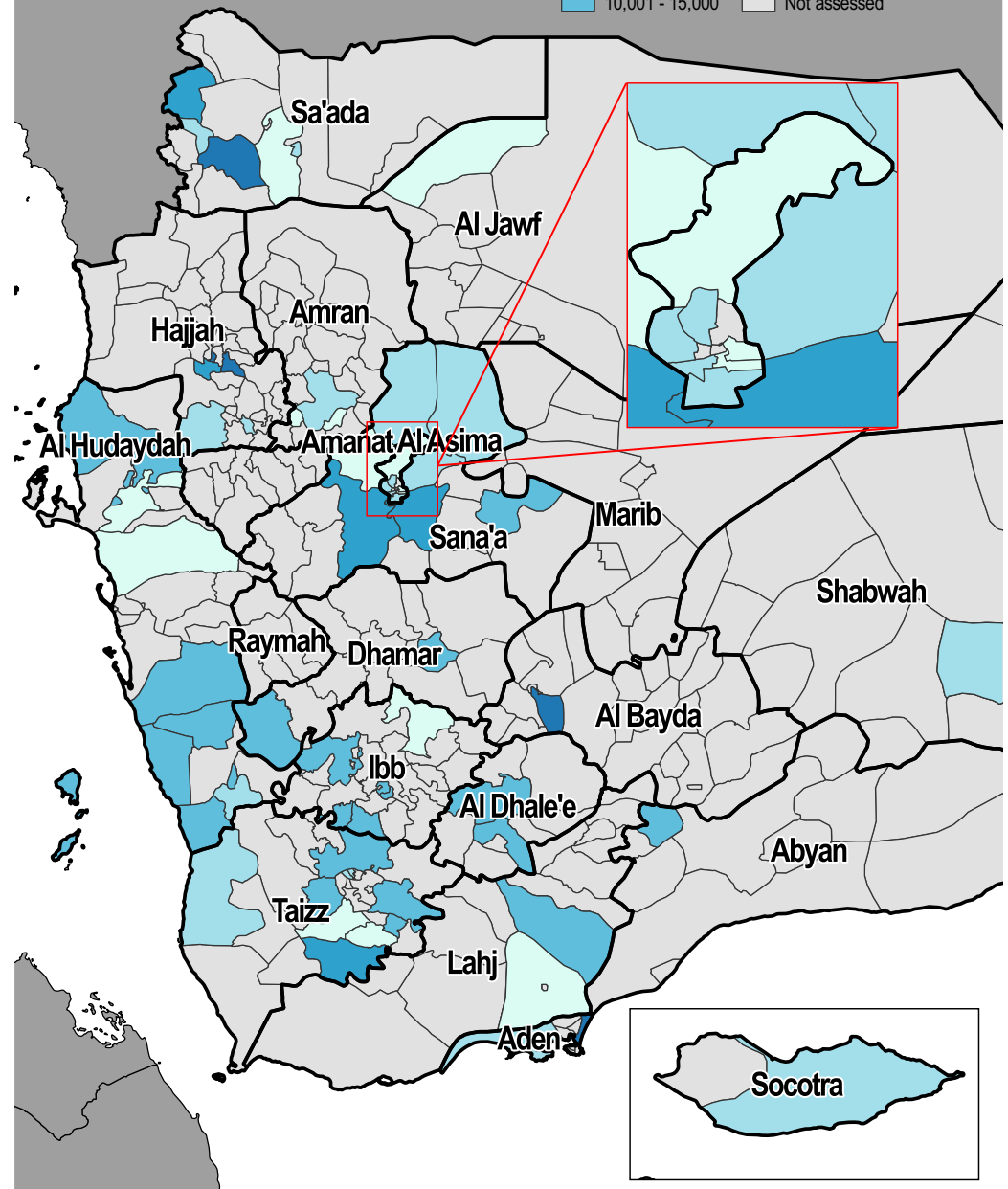


*The map shows fuel supply chain inside the same governorate and towards other governorates. District without a main supplier are those district where vendor KIs could not identify the origin of the fuel they sold.

Median Cost of WASH SMEB

Median WASH SMEB Cost (YER)

- 23,001 - 25,555
- 15,001 - 23,000
- 10,001 - 15,000
- 8,001 - 10,000
- 4,435 - 8,000
- Not assessed



Note: only districts with data for the complete SMEB were taken into account for this map.

PRICE MONITORING OVERVIEW FOR YEMEN

MEDIAN PRICE LEVELS, PER ITEM, PER MONTH (IN YER)*

Item	September 2017 (baseline) [^]	November 2017 [^]	December 2018	January 2019	February 2019	March 2019	% Change (Feb-Mar)
Diesel	235	394	448	410	375	430	14.7%
Petrol	275	349	418	410	325	365	12.3%
Treated water	NA	175 ↯	100	120	110	114	3.9%
Bottled water	70	100	120	120	100	120	20%
Soap	88	NA	130	130	130	135	3.9%
Sanitary napkins	250	NA	518	528	500	525	5.0%
Laundry powder	50	NA	100	100	100	105	4.1%
Water trucking	825	1,700	1,800	1,650	1,500	1,500	0.0%

* Price variations and the percentage change are calculated using data from markets that were assessed in both consecutive months.

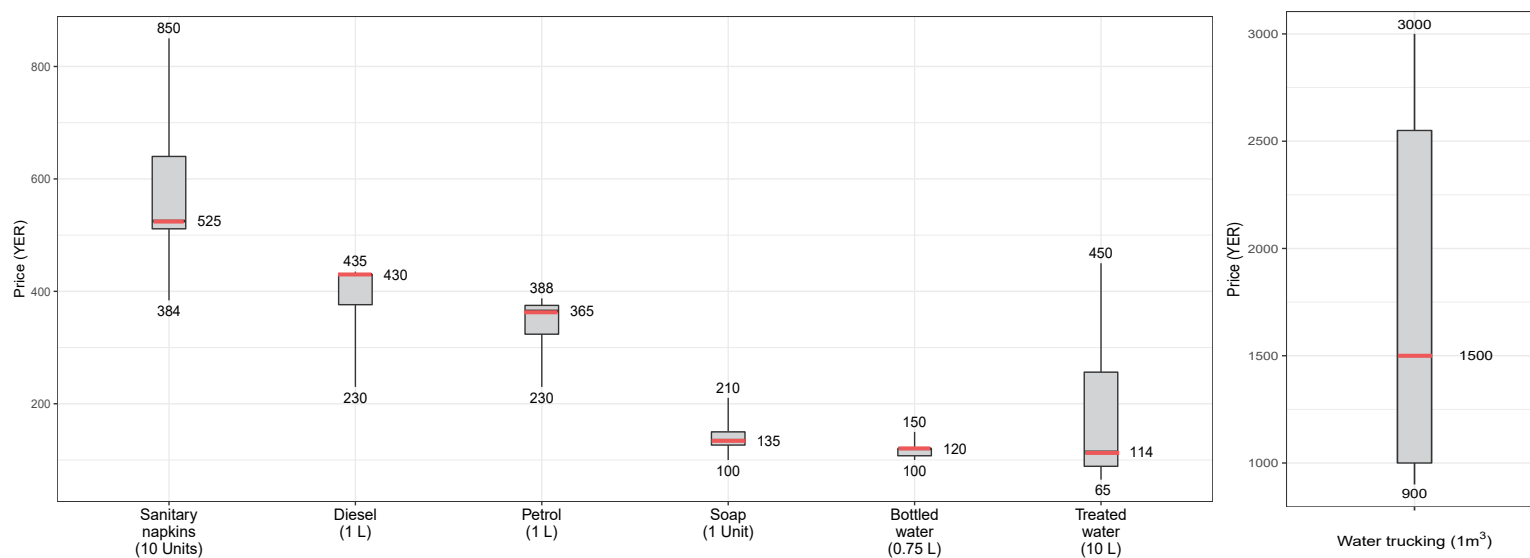
[^] Price levels for September 2017 are the price quotations recorded during the Multi-Agency Joint Cash Study, while prices for November 2017 were recorded during the Weekly Price Monitoring Initiative conducted by the WASH Cluster.

↯ Treated water prices for September and November 2017 were for 20L, while the JMMI collects prices for 10L.

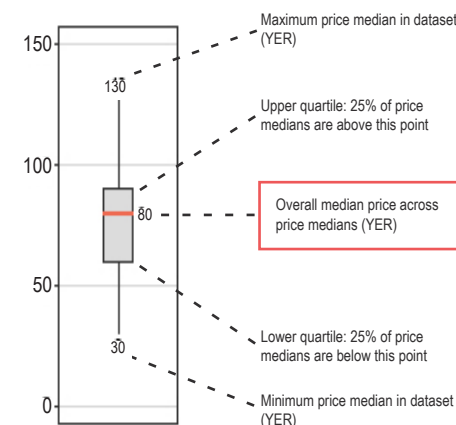
MEDIAN PRICE PER GOVERNORATE (IN YER)

Governorate	Petrol (1L)	Diesel (1L)	Bottled water (0.75L)	Treated water (10L)	Soap (1 Unit)	Laundry powder (100g)	Sanitary napkins (10)	Water trucking (1m ³)
Aden	290	355	138	85	135	143	513	2,500
al Dhale'e	328	378	110	100	211	78	525	1,166
al Hudaydah	375	405	120	79	128	100	384	1,000
al Jawf	375	435	110	310	100	100	850	900
Amanat al Asima	365	430	100	75	120	100	525	3,000
Amran	365	430	120	275	150	105	729	2,000
Dhamar	370	430	105	360	125	110	510	2,600
Hajjah	375	430	120	129	129	105	600	2,632
Ibb	365	430	120	450	125	85	475	1,000
Lahj	313	375	150	100	150	105	550	1,338
Sa'ada	375	430	120	200	150	140	680	3,000
Sana'a	365	435	100	65	150	100	500	1,500
Shabwah	320	364	100	150	135	124	575	950
Socotra	230	230	120	NA	160	140	700	2,250
Taizz	388	425	125	100	150	110	525	900

DISTRIBUTION OF PRICES ACROSS YEMEN

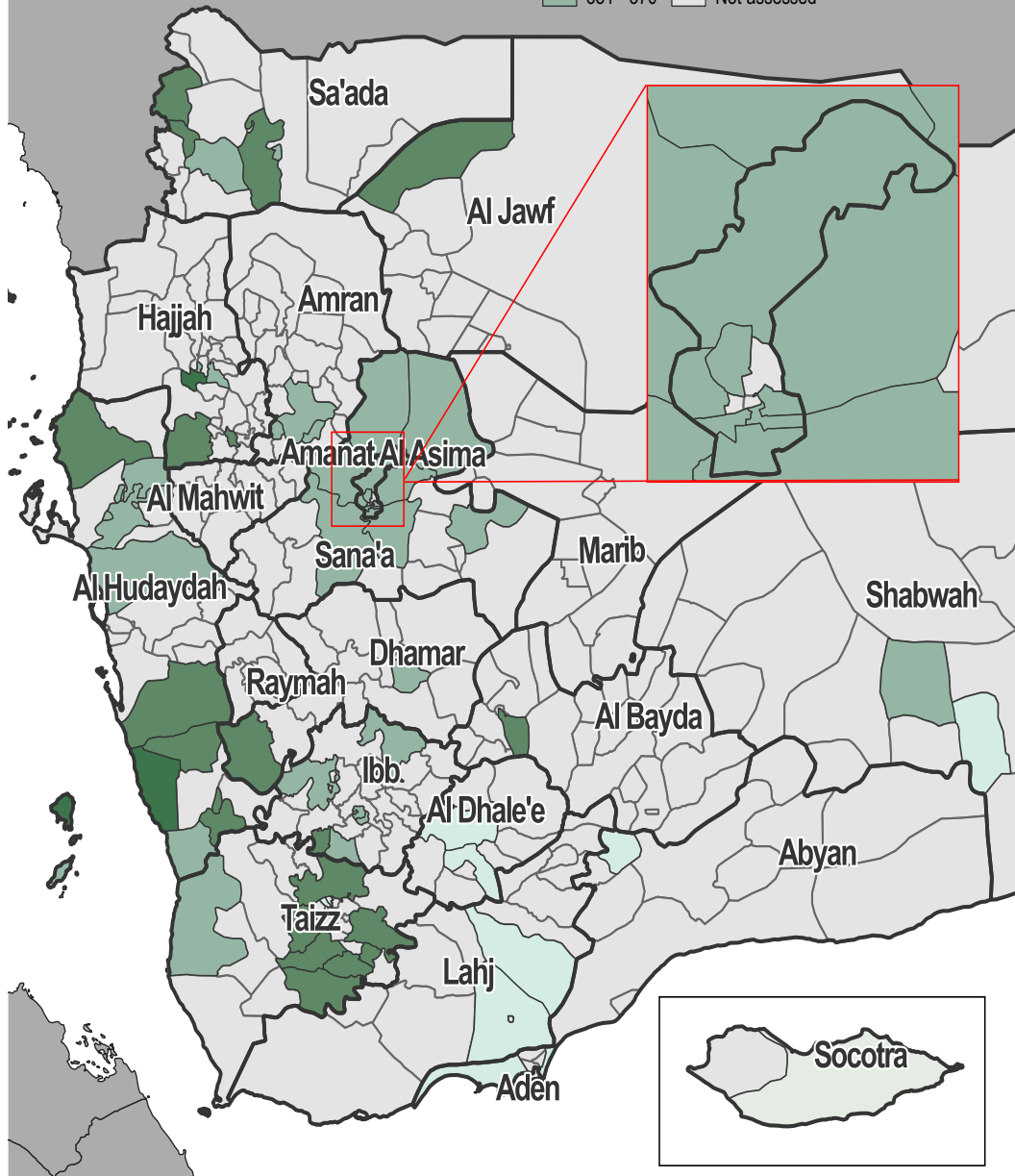
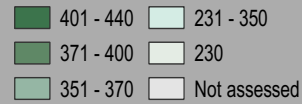


How to read a box plot



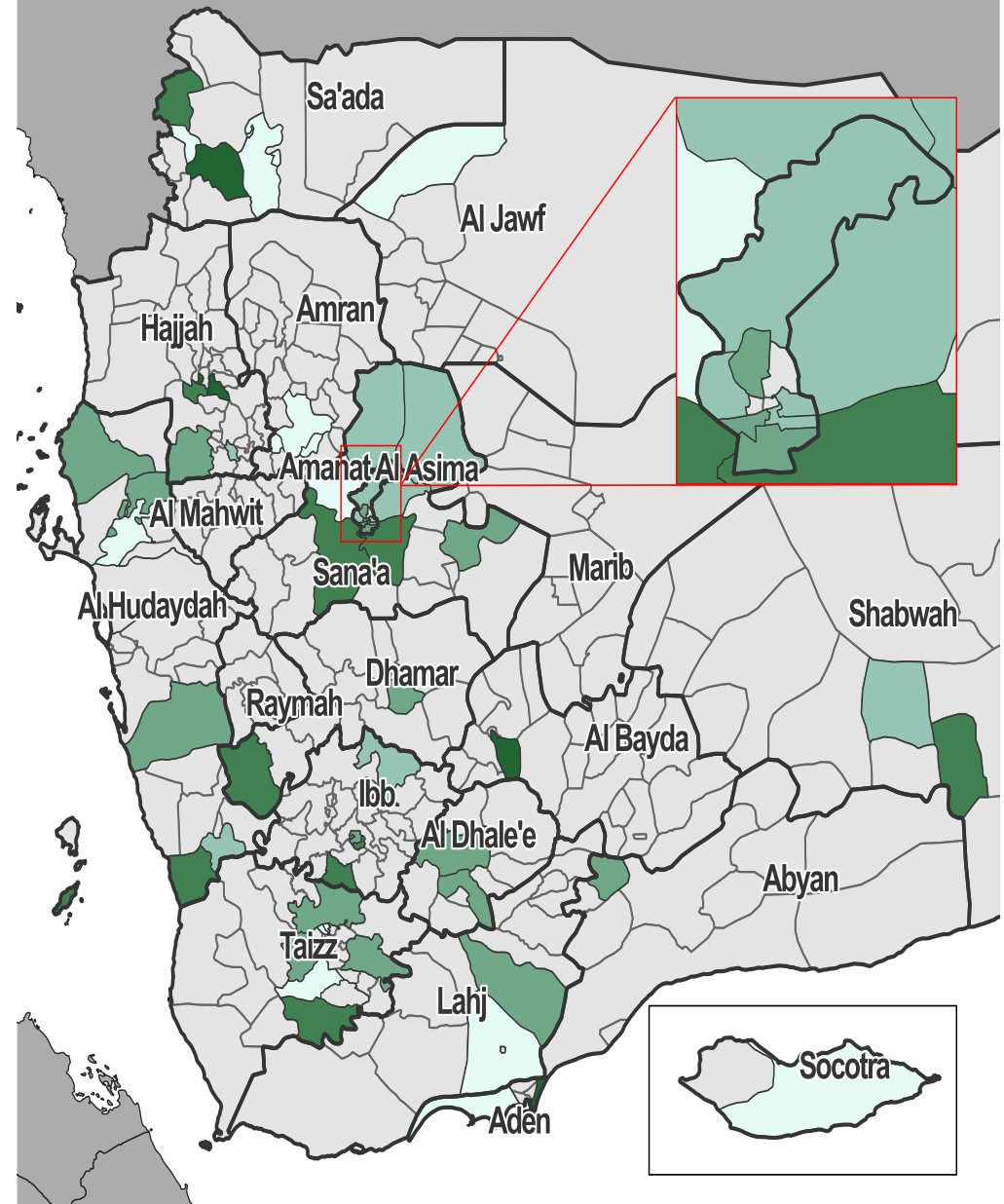
Petrol Prices

Median price of petrol per district per liter (in YER)



Water Trucking Prices

Water trucking prices per district per cubic meter (YER)



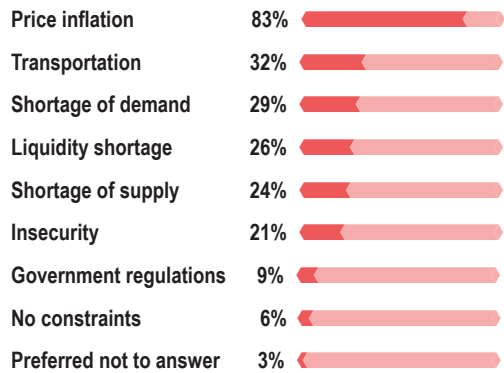
Note: the differences in the number of districts shown between the two maps for fuel and water prices are due to the methodology-stipulated requirement for a minimum of three price quotations per market per district.

SUPPLY CHAIN OVERVIEW FOR YEMEN

AVERAGE RESTOCKING TIME (DAYS)

Governorate	Fuel Items	WASH Items
Aden	5	2
al Dhale'e	19	13
al Hudaydah	4	6
al Jawf	30	3
Amanat al Asimah	5	5
Amran	5	2
Dhamar	8	5
Hajjah	7	10
Ibb	5	14
Lahj	6	4
Sa'ada	12	7
Sana'a	13	2
Shabwah	2	1
Socotra	4	2
Taizz	5	5

MOST REPORTED CONSTRAINTS*



*Values do not add up to 100% as vendor KIs were allowed to select multiple options.

OVERVIEW FOR WATER TRUCKING

70% of water trucking vendor KIs stated that they charged delivery costs based on the distance between the water source and the delivery point. The additional price for 5km is **7,000 YER** and **8,500 YER** for 10 km.

74% of water trucking vendor KIs stated that they sell non-chlorinated water.

23% of water trucking vendor KIs stated that they sell chlorinated water. An additional **3% reported being unaware if the water they sold was chlorinated.**

92% of water vendor KIs reported sourcing water from a pumping station or a borehole.

3% of water vendor KIs reported sourcing water from a treatment station.

5% of water vendor KIs reported sourcing water from a spring.

CONSTRAINTS AND CHALLENGES

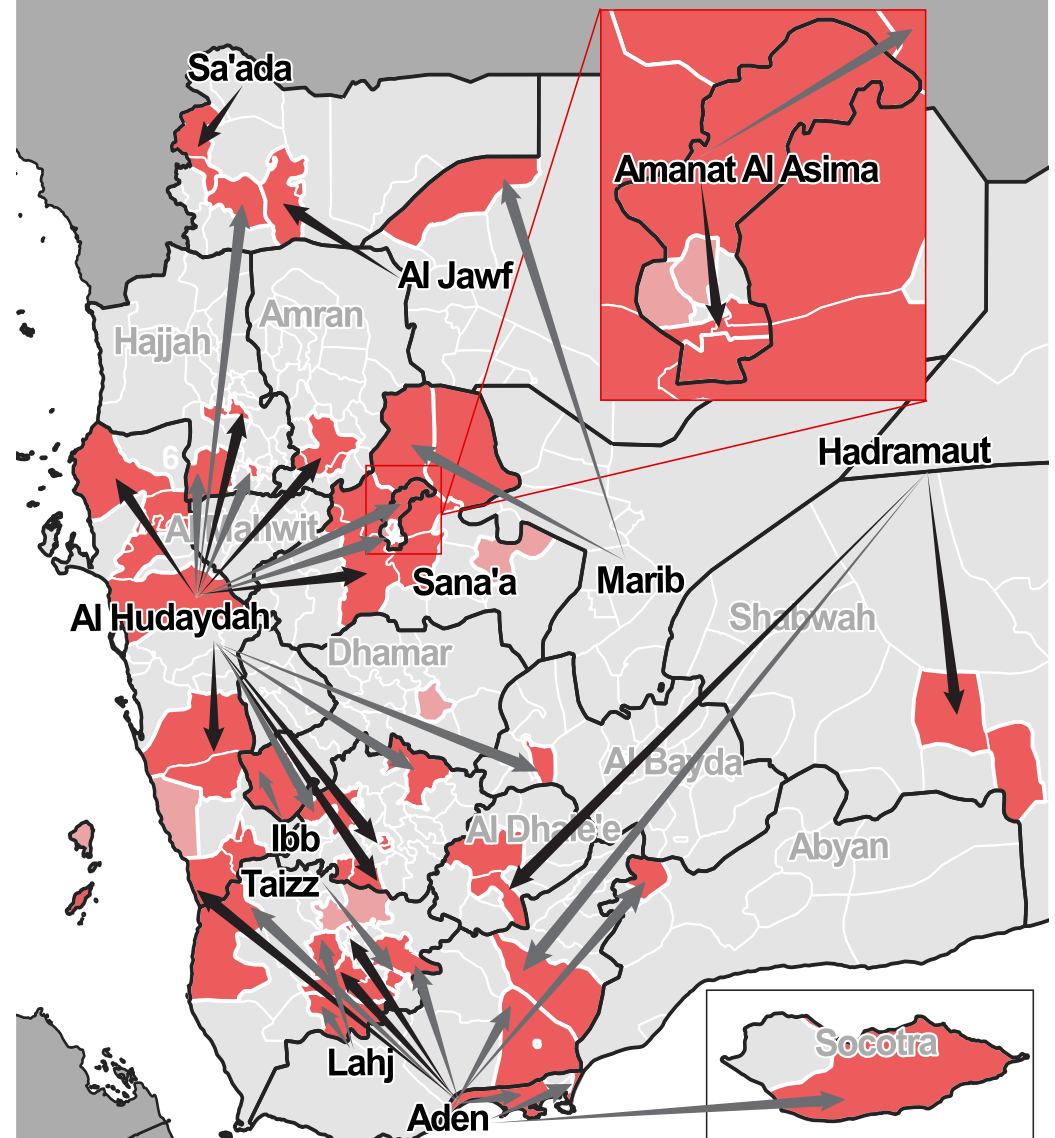
When asked about the top constraints vendors faced in conducting their business, KIs reported price inflation, transportation, liquidity, and shortage of demand as their top four issues. Water truck owners reported long queues at the pumping station due to wells drying out, increasing the overall cost of water trucking in some areas.

Multiple shop owners reported having issues sourcing diesel from fuel stations, having to resort to purchasing it from the black market.

Petrol and Diesel main supply chain overview*

Supply destination

- One district supplied
- Two or more districts supplied
- Districts with a main supplier
- Districts without a main supplier



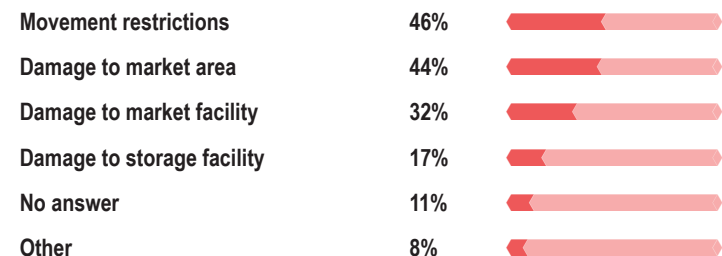
*The map shows fuel supply chain inside the same governorate and towards other governorates. District without a main supplier are those district where vendor KIs could not identify the origin of the fuel they sold.

MARKET AND SUPPLY CHAIN-RELATED INFORMATION

MARKET-RELATED CONCERN AFFECTING VENDORS CAPACITY TO CONDUCT BUSINESS

When asked if they faced any market-related concern that would prevent them to conduct their business, 34% of assessed KIs reported facing market-related barriers to conducting business.

Most reported market-related concern*

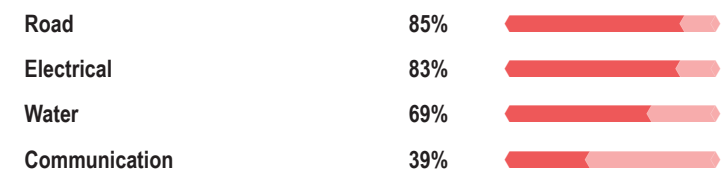


*Values do not add up to 100% as vendor KIs were allowed to select multiple options.

REPORTED TYPE OF INFRASTRUCTURE DAMAGE AFFECTING VENDORS CAPACITY TO CONDUCT BUSINESS*

Vendor KIs who reported "damage to the market area" and "damage to the market facility" to be the main factors affecting their capacity to run their business were also asked which damaged infrastructure had the greatest effect.

Most reported damaged infrastructure*

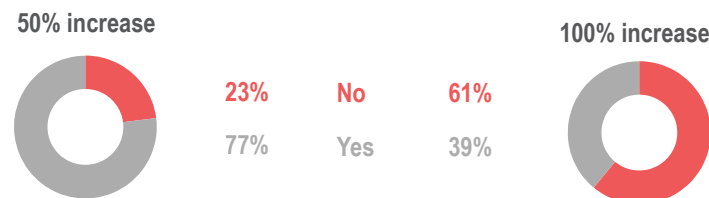


*Values do not add up to 100% as vendor KIs were allowed to select multiple options.

VENDOR CAPACITY TO RESPOND TO A SUDDEN INCREASE IN DEMAND

To understand vendor's capacity to cope with sudden increases in the demand, the study asked if they would be able to increase their stock by 50% and by 100%.

Vendor capacity to respond to a 50% and 100% increase in demand for fuel items



Vendor capacity to respond to a 50% and 100% increase in demand for WASH items



Vendor capacity to respond to a 50% and 100% increase in demand for water trucking



APPENDIX

WHAT IS THE INTERSECTORAL OR CASH AND MARKET WORKING GROUP?

With the emergence of the conflict in 2014, humanitarian actors in Yemen began using cash and vouchers as a response tool to meet the immediate needs of the Yemeni population. The CMWG was established to provide a platform for discussion and setting standards/recommendations on cash and market-based responses (inclusive of cash and vouchers) for the cash actors in Yemen. The JMMI was developed by the CMWG, the WASH Cluster, and REACH in order to harmonize price monitoring amongst WASH actors in Yemen.

ADDITIONAL INFORMATION ON METHODOLOGY

To be assessed by the JMMI, markets must be either a single permanent market, or a local community where multiple commercial areas are located in close proximity to one another. When possible, markets/shops are selected within a single geographical location, where there is at least one wholesaler operating in the market, or multiple areas of commerce within the same geographical location when it is too small, to provide a minimum of three price quotations per assessed item.

Participating organisations train their enumerators on the JMMI methodology and data collection tools using standard training materials developed by REACH. Each month, enumerators conduct KI interviews with market vendors to collect three price quotations for each item from the same market in each district. In addition to price levels, vendors are asked about the location of their supplier, the number of days it takes to restock the items, and the constraints they are

facing in purchasing and selling the items in question. Additional questions are included for water trucking, to gauge the impact of delivery distance upon price level.

Following data collection, REACH compiles and cleans all partner data, normalising prices and cross-checking outliers. The cleaned data is then analysed by commodity and by governorate. To illustrate local variations in prices and availability, REACH uses the collected data to map the price of each type of item in each district. REACH also calculates the WASH SMEB (Survival Minimum Expenditure Basket), which is composed of four items: soap (1.05 kg), laundry powder (2 kg), sanitary napkins (20 units) and water trucking (3.15 m3). The cleaned data sets are available on the [REACH Resource Centre](#) and are distributed to all participating partners, as well as to relevant clusters and the broader humanitarian community.

LIMITATIONS

Due to issues of access and security across Yemen, the districts included in the JMMI vary on a monthly basis, and as such there are sometimes a limited number of districts for which trends can be assessed over time. Governorate level data is aggregated from the respective districts assessed in a given month, and so the findings are not representative of individual markets. Finally, the market monitoring process has been coordinated remotely by REACH, which inherently presents some challenges in terms of coordination and follow-up with partners. Participating organisations are therefore requested to adopt harmonised data collection methodologies and tools to ensure that the data uploaded is as accurate as possible.

CALCULATION OF DISTRICT AND GOVERNORATE MEDIAN PRICE

The calculation of the aggregated median price for districts and governorates is done following a stepped approach. Firstly, the median of all the price quotations related to the same market is taken. Secondly, the median quotation from each market is aggregated to calculate the district median. Finally, the median quotation from each district is aggregated to calculate the governorate median. Additionally, district and governorate median prices and percentage change from one month to another are calculated only on data from markets that were assessed in both consecutive months. Therefore, part of the percentage variation should be attributed to changes in monthly coverage when registered.

PARTICIPATING PARTNERS INCLUDE



ABOUT REACH

REACH is a joint initiative that facilitates the development of information tools and products that enhance the capacity of aid actors to make evidence-based decisions in emergency, recovery and development contexts. By doing so, REACH contributes to ensuring that communities affected by emergencies receive the support they need. All REACH activities are conducted in support to and within the framework of inter-agency aid coordination mechanisms. For more information, please visit our website at www.reach-initiative.org, contact us directly at yemen@reach-initiative.org or follow us on Twitter at [@REACH_info](https://twitter.com/REACH_info).