

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. The JMMI tracks all components of the WASH Survival Minimum Expenditure Basket (SMEB), since September 2018.

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 also 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) that 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 **17-30 May 2019**

- 10 Participating partners
- 39 Districts assessed
- 214 Vendor KIs surveyed

KEY FINDINGS

In May 2019, the Yemeni Riyal (YER) depreciated against the US Dollar (USD), losing 4.7% on the parallel market from April 2019.

250 USD/YER Official ▶ 0.0%	535 USD/YER Parallel market ▲ 4.7%	511 USD/YER Previous Parallel Market Rate April 2019
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KEY PRICE FIGURES

Treated water and water trucking increased in price, compared to bottled water which decreased. The price of fuel items, which are generally correlated closely with the price of water trucking, either stabilized or decreased.

Petrol Price (1L)	365 YER	▶	0.0%
Diesel Price (1L)	409 YER	▼	-4.9%
Bottled Water Price (.75L)	115 YER	▼	-4.2%
Treated Water Price (10L)	115 YER	▲	+9.5%
Water Trucking Price (3.15m³)	1,900 YER	▲	+1.3%

WASH SMEB FIGURES

The median cost for the WASH SMEB was calculated to be 10,710 YER, marking an increase of 2.8% from the cost observed in April 2019.

May 10,710 YER ▲ 289 YER +2.8%

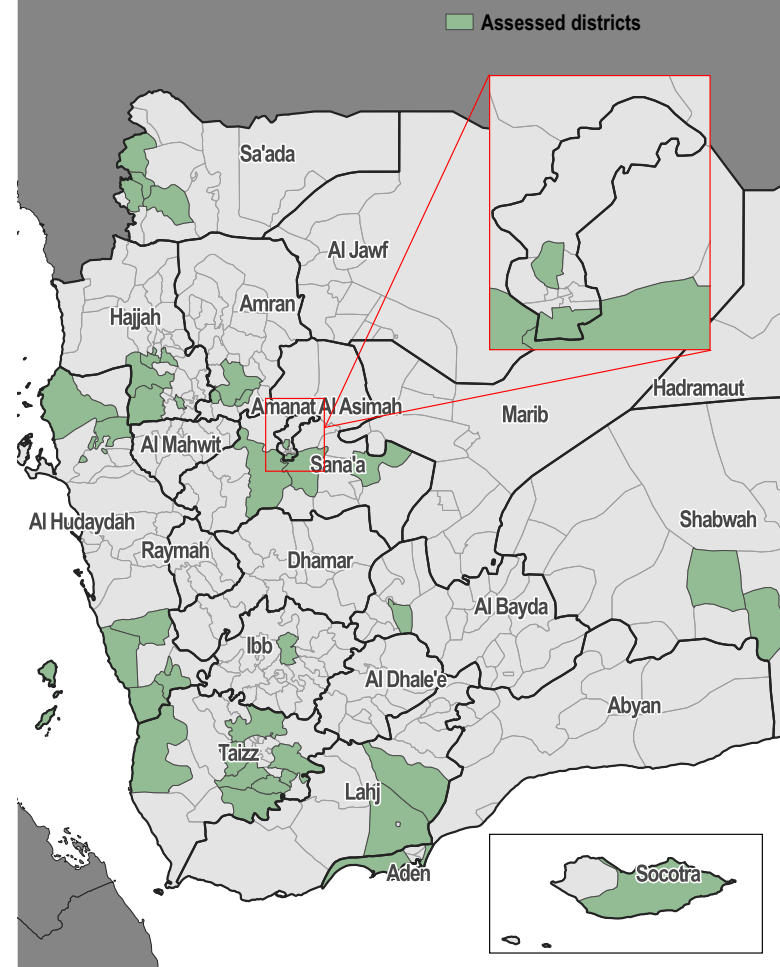
SUPPLY OVERVIEW

The number of restocking days required for fuel and WASH items returned to a normal range after experiencing an increase in April 2019.

The overall prices for fuel and WASH items originating in Aden were shown to be cheaper than those originating in al Hudaydah.

Vendors were shown to be more willing to accept credit as a form of payment, rebounding from a decrease in April 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

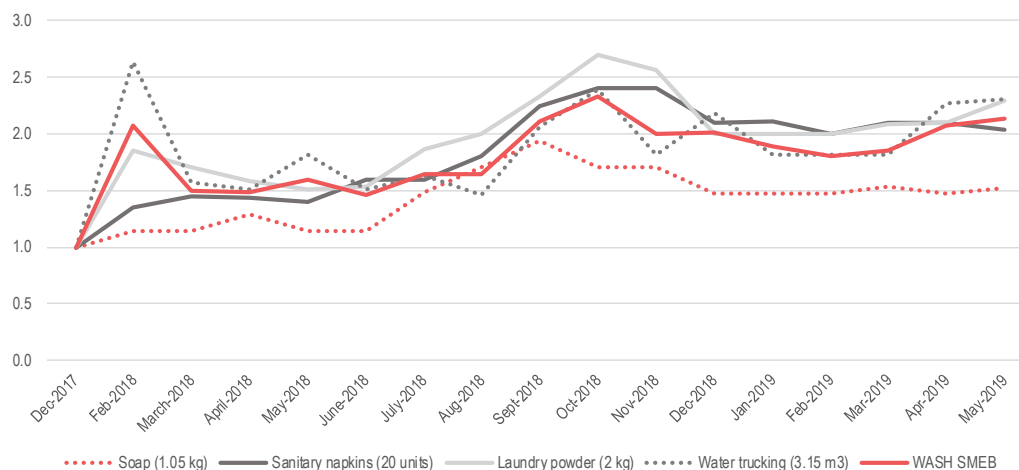
The **WASH SMEB** represents the minimum culturally adjusted group of WASH items required to support a Yemeni family of eight for a month.

The cost of the WASH SMEB can be used as a proxy for the financial burdens, relative to WASH items, a household is facing in different locations. The WASH SMEB components were defined by the CMWG in consultation with relevant sector leads.

**MEDIAN COST OF WASH SMEB
IN MAY**
10,710 YER

WASH SMEB PRICE INDEX

Since September 2017 (normalized, September 2017 = 1.00)



Change since
April 2019 ▲ **193 YER**
+2.1%

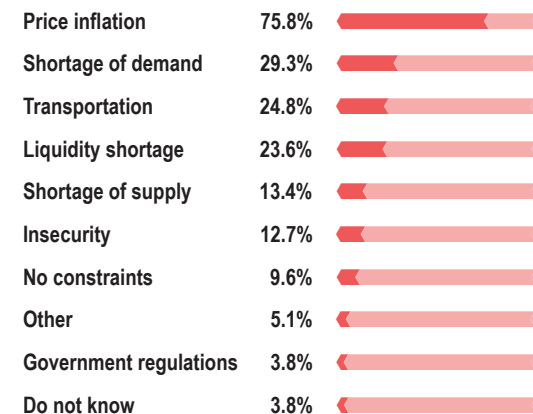
Change since
November 2018 ▲ **650 YER**
+6.5%

MEDIAN WASH SMEB PRICES, BY GOVERNORATE: 1-Month and 6-Months (YER)

Governorate	Soap (10.5 kg)	Laundry powder (2 kg)	Sanitary napkins (20 units)	Water trucking (3.15 m ³)	WASH SMEB May-19	Change since Apr-19	Change since Nov-18
Aden	1,260	1,500	1,000	3,150	6,910	-60%	-56%
al Bayda	1,260	3,000	1,040	11,025	16,325	-18%	33%
al Hudaydah	1,350	2,240	800	4,725	9,114	-9%	-22%
Amanat al Asimah	1,365	2,800	980	4,568	9,713	15%	8%
Amran	1,575	2,000	1,375	3,308	8,258	-3%	-22%
Hajjah	1,575	2,300	1,000	9,923	14,798	-11%	43%
Ibb	1,565	2,180	900	4,051	8,696	-40%	-15%
Lahj	1,313	2,500	1,100	3,150	8,063	1%	-20%
Sa'ada	2,100	3,600	1,530	11,025	18,255	93%	137%
Sana'a	1,050	3,000	1,100	5,985	11,135	20%	15%
Shabwah	1,313	2,290	944	6,119	10,666	-2%	N/A*
Socotra	1,575	2,800	1,300	2,520	8,195	3%	-11%
Taizz	1,575	2,000	950	6,300	10,825	-1%	-0.3%

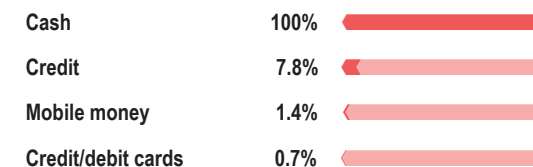
* Enumerators were not able to collect prices for sanitary napkins in Shabwah in November.

MOST REPORTED CONSTRAINTS FOR: WASH VENDORS*



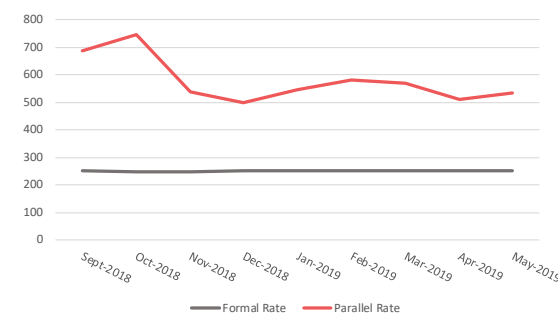
*Values do not add up to 100% as vendor KIs were allowed to select multiple options.

PAYMENT MODALITIES ACCEPTED: WASH VENDORS*



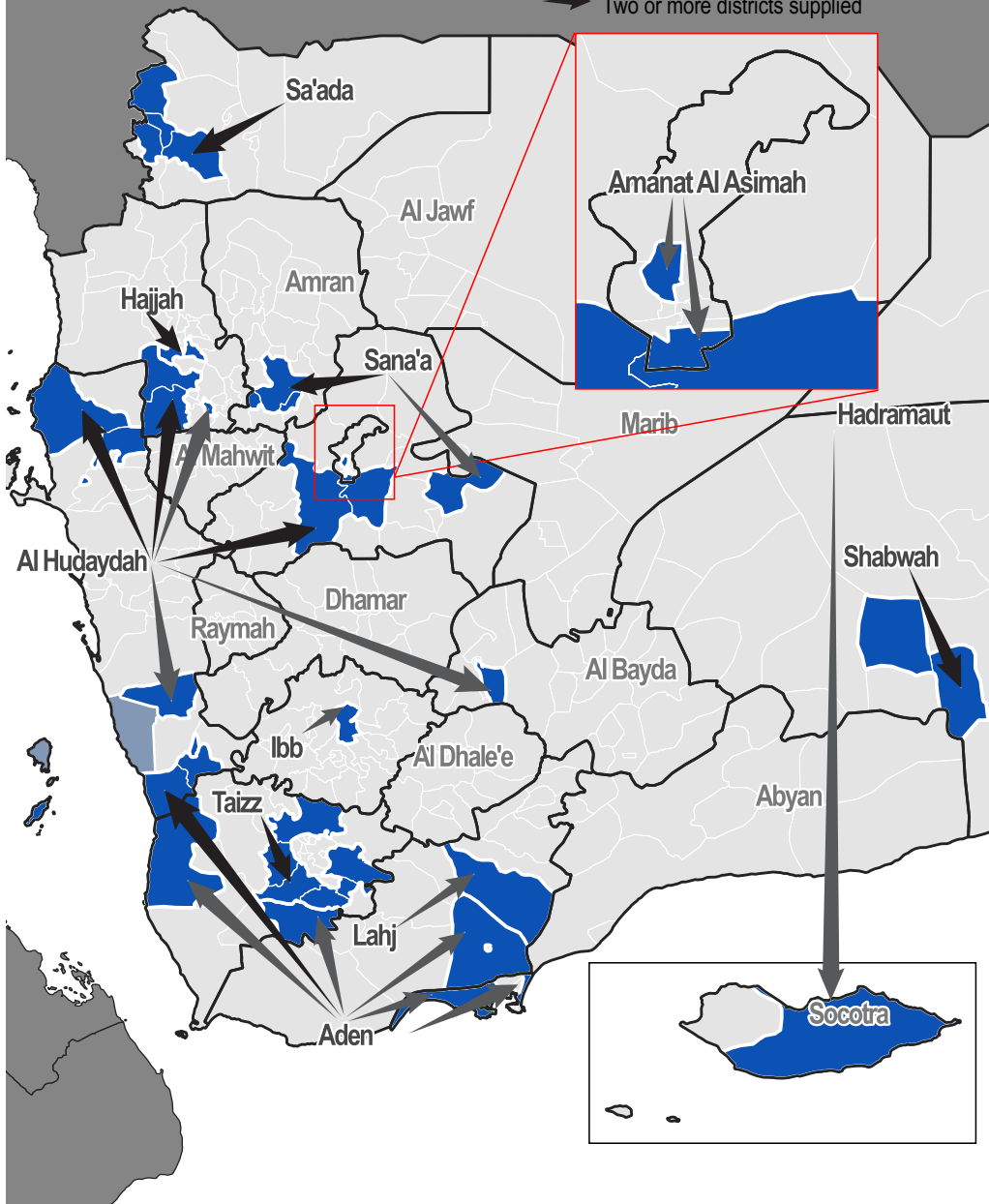
* Payment modalities can add up to more than 100%

EXCHANGE RATE INDEX



WASH SMEB Supply Chain Overview

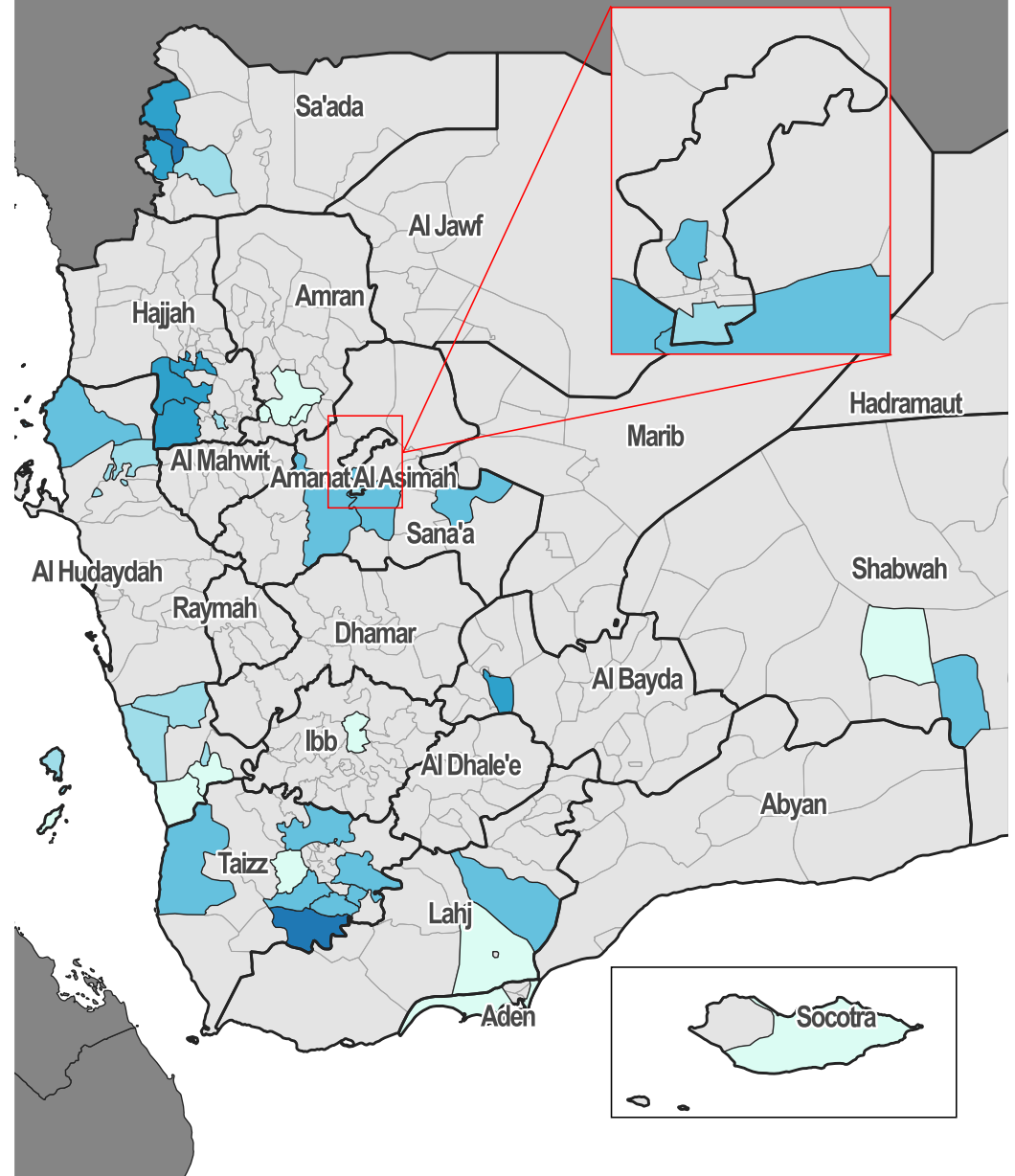
- Supply destination**
- Districts without a main supplier
 - Districts with a main supplier
 - One district supplied
 - Two or more districts supplied



*The map shows WASH SMEB 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 WASH they sold.

Median Cost of WASH SMEB

- Median WASH SMEB Cost (YER)**
- 26,100 - 20,001
 - 20,000 - 13,001
 - 13,000 - 10,001
 - 10,000 - 9,001
 - 9,000 - 5,825
 - 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 (YER)*

Item	September 2017 (baseline) ^A	November 2017 ^A	December 2018	January 2019	February 2019	March 2019	April 2019	May 2019	% Change (Apr-May)
Diesel	235	394	448	410	375	430	430	409	-4.9%
Petrol	275	349	418	410	325	365	365	365	0.0%
Treated water	NA	175 [~]	100	120	100	114	105	115	9.5%
Bottled water	70	100	120	120	110	120	120	115	-4.2%
Soap	88	NA	130	130	130	135	130	134	3.1%
Sanitary napkins	250	NA	518	528	500	525	525	510	-2.9%
Laundry powder	50	NA	100	100	100	105	105	115	9.5%
Water trucking	825	1,700	1,800	1,650	1,500	1,500	1,875	1,900	1.3%

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

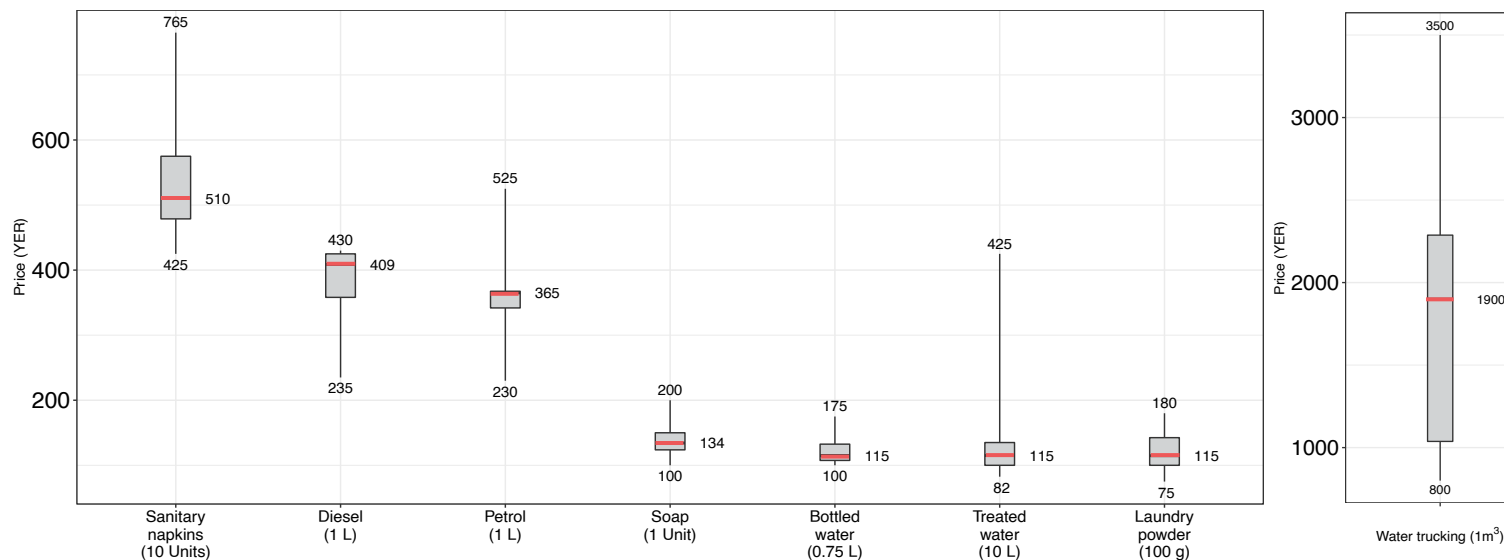
^A Price levels for September 2017 are the price quotations recorded during the Multi-Agency Joint Cash Study, while prices for November 2017 were recorded during the Weekly Price Monitoring Initiative conducted by the WASH Cluster.

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

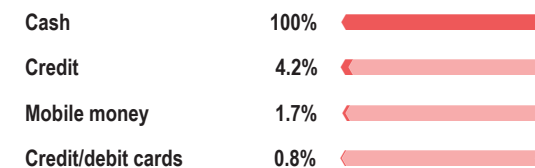
MAY 2019 MEDIAN PRICE PER GOVERNORATE (YER)

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	325	360	140	83	120	75	500	1000
al Bayda	365	425	110	100	120	150	520	3500
al Hudaydah	410	411	118	130	129	112	400	1500
Amanat al Asimah	365	430	110	240	130	140	490	1450
Amran	365	425	115	425	150	100	688	1050
Hajjah	365	430	120	115	150	115	500	3150
Ibb	475	470	120	500	149	109	450	1286
Lahj	333	350	150	115	125	125	550	1000
Sa'ada	525	420	175	150	200	180	765	3500
Sana'a	365	425	100	100	100	150	550	1900
Shabwah	345	353	100	125	125	115	472	1943
Socotra	230	235	115	100	150	140	650	800
Taizz	375	375	130	113	150	100	475	2000

DISTRIBUTION OF PRICES ACROSS YEMEN

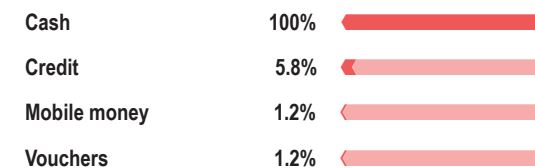


PAYMENT MODALITIES ACCEPTED: FUEL VENDORS*



* Payment modalities can add up to more than 100%

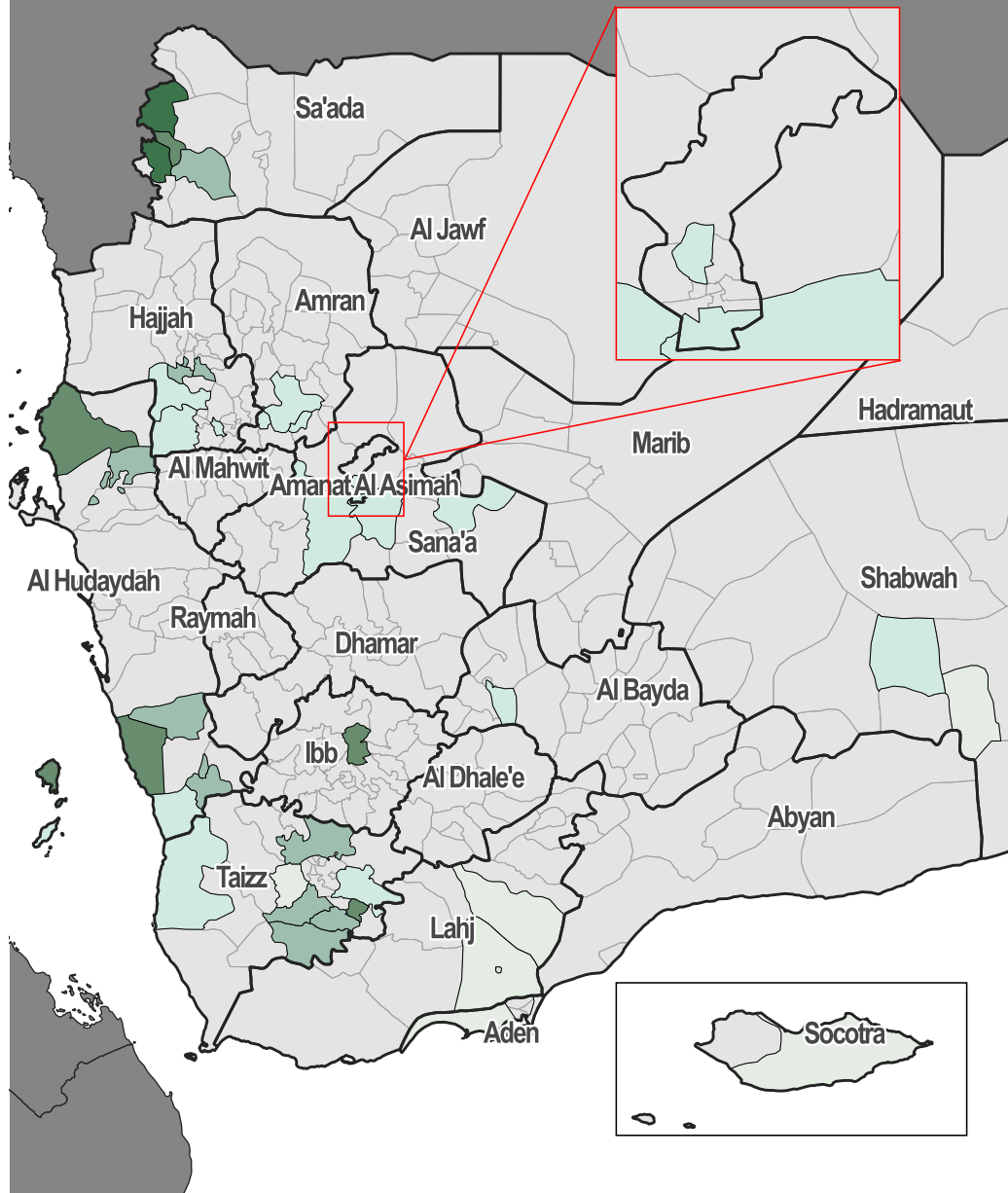
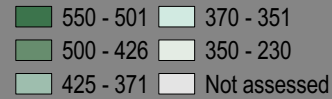
PAYMENT MODALITIES ACCEPTED: WATER TRUCKING*



* Payment modalities can add up to more than 100%

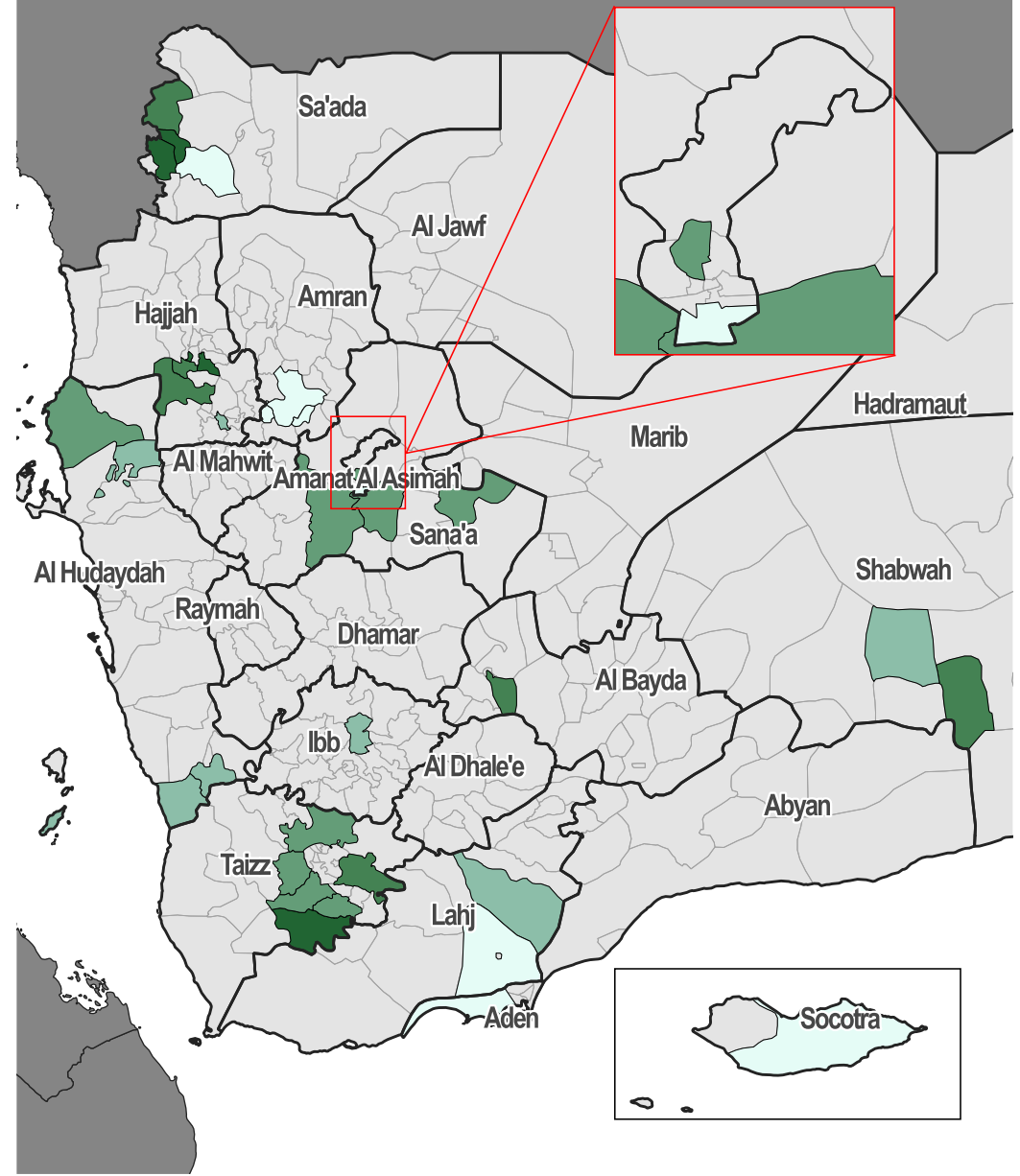
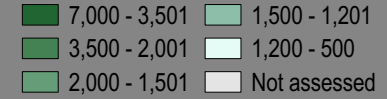
Petrol Prices

Median price of petrol per district per liter (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)

-CHANGE IN DAYS FROM APRIL 2019 IN BRACKETS -

Governorate	Fuel Items	WASH Items
Aden	3 (1)	3 (-1)
al Bayda	1 (-1)	2 (-3)
al Hudaydah	4 (0)	9 (4)
Amanat al Asimah	6 (-16)	1 (-4)
Amran	6 (0)	2 (0)
Hajjah	0 (-8)	0 (-5)
Ibb	3 (-1)	3 (-1)
Lahj	6 (-1)	5 (-1)
Sa'ada	6 (-1)	6 (-1)
Sana'a	6 (-18)	4 (1)
Shabwah	3 (0)	2 (0)
Socotra	4 (1)	3 (1)
Taizz	4 (1)	2 (-1)

MOST REPORTED CONSTRAINTS FOR: FUEL VENDORS*

Price inflation	84.8%	<div style="width: 84.8%;"></div>
Transportation	43.9%	<div style="width: 43.9%;"></div>
Shortage of supply	26.5%	<div style="width: 26.5%;"></div>
Liquidity shortage	23.5%	<div style="width: 23.5%;"></div>
Insecurity	19.7%	<div style="width: 19.7%;"></div>
Shortage of demand	15.2%	<div style="width: 15.2%;"></div>
Government regulations	6.8%	<div style="width: 6.8%;"></div>
Other	6.1%	<div style="width: 6.1%;"></div>
Do not know	1.5%	<div style="width: 1.5%;"></div>
Preferred not to answer	0.8%	<div style="width: 0.8%;"></div>

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

OVERVIEW FOR WATER TRUCKING

67% 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 **5,000 YER** and **8,000 YER** for 10 km.

91% of water trucking vendor KIs stated that they sell non-chlorinated water.

6% of water trucking vendor KIs stated that they sell chlorinated water. An additional **3% reported being unaware if the water they sold was chlorinated.**

93% of water trucking vendor KIs reported sourcing water from a pumping station or a borehole.

5% of water trucking vendor KIs reported sourcing water from a treatment station.

2% of water trucking vendor KIs reported sourcing water from a spring.

CONSTRAINTS AND CHALLENGES

When asked about the top constraints they faced in conducting their business, fuel vendor KIs reported price inflation, transportation, and shortage or supply as their top three issues.

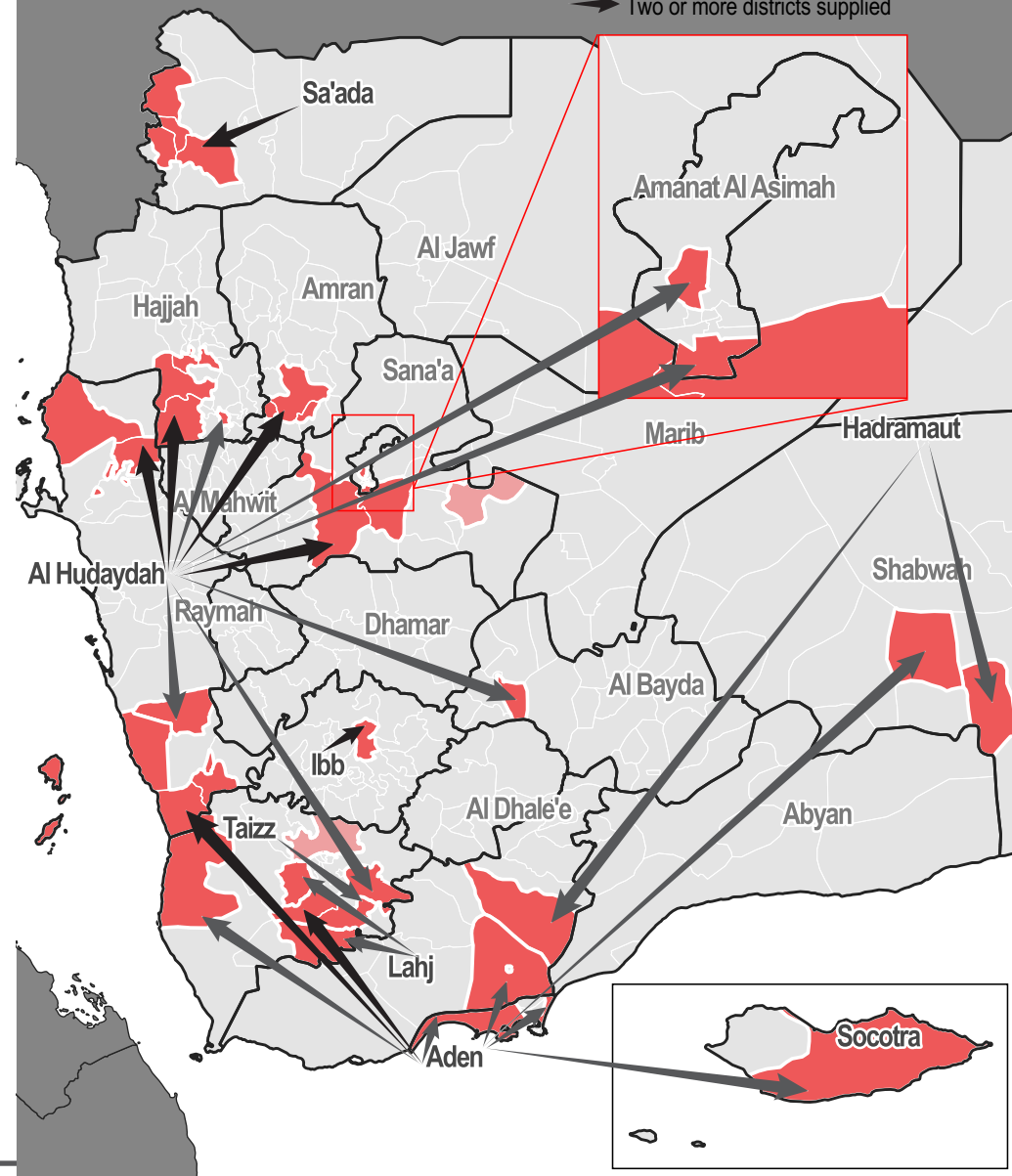
Multiple markets were reported to be experiencing issues sourcing fuel. Prices for transportation have increased as a result of flooding and damaged infrastructure.

Reportedly, local communities have been forced to consume lower quality goods and water due to financial and transportation strains.

Petrol and Diesel Main Supply Chain Overview*

Supply destination

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

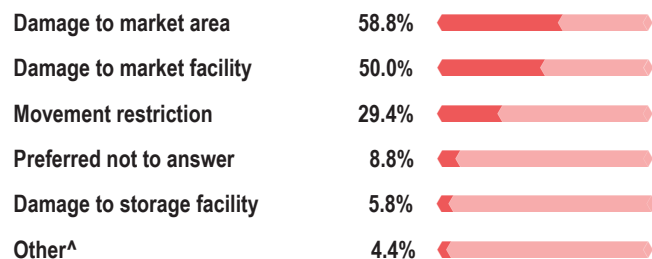


*The map shows fuel supply chain inside the same governorate and towards other governorates. District without a main supplier are those district where vendor KIs could not identify the origin of the fuel they sold.

MARKET-RELATED CONCERNS AFFECTING VENDOR CAPACITY TO CONDUCT BUSINESS

When asked if they faced any market-related concerns that would prevent them from conducting their business, 65% of the assessed KIs responded that they did not face any concerns compared to 35% who responded that they did. Of those vendors who experienced market related concerns, the most reported responses are summarized below.

Most reported market-related concern*



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

^Other options were focused on the exchange rate, lack of credit options, and electrical problems.

MEDIAN PRICE OF GOODS ORIGINATING FROM ADEN AND AL HUDAYDAH

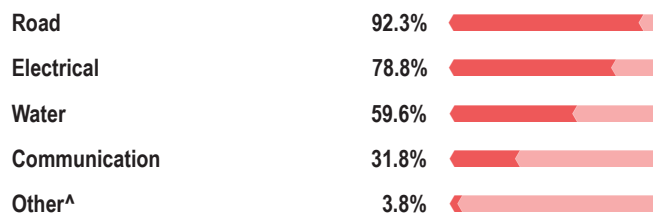
Governorate Source	Petrol (1L)	Diesel (1L)	Soap (1 Unit)	Laundry powder (100g)	Sanitary napkins (10)
Aden	365	370	120	100	500
al Hudaydah	365	430	125	130	475

Vendor KIs were asked about the origin of various products sold in their stores. The two main points of origin for these products were Aden and al Hudaydah, with goods emanating from Aden being cheaper than al Hudaydah, except for sanitary napkins and petrol.

MOST REPORTED DAMAGED INFRASTRUCTURE AFFECTING VENDOR CAPACITY TO CONDUCT BUSINESS*

Vendor KIs who reported "damage to the market area" and "damage to the market facility" as concerns affecting their capacity to run their businesses, were then asked what infrastructure was most damaged.

Most reported infrastructure damage*



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

^Other options were focused on crime.

MEDIAN EXCHANGE RATE AND MAIN ORIGIN OF GOODS BY GOVERNORATE*

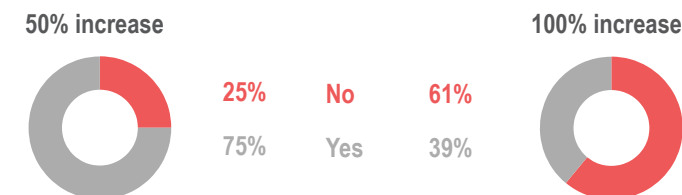
Governorate	Median Exchange Rate	Governorate Origin: Fuel	Governorate Origin: WASH
Aden	540	Aden	Aden
al Bayda	510	al Hudaydah	al Hudaydah
al Hudaydah	530	al Hudaydah	al Hudaydah
Amanat al Asimah	543	al Hudaydah	Amanat al Asimah
Amran	553	al Hudaydah	Sana'a
Hajjah	530	al Hudaydah	Hajjah / al Hudaydah
Ibb	535	Ibb	Ibb
Lahj	535	Aden	Aden
Sa'ada	535	Sa'ada	Sa'ada
Sana'a	540	al Hudaydah	al Hudaydah
Shabwah	530	Aden	Shabwah
Socotra	530	Aden	Hadramaut
Taizz	540	Aden	Taizz

*Most reported answer is indicated in the origin column.

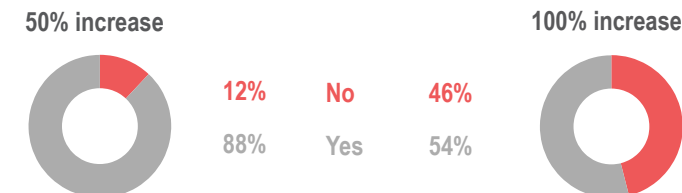
VENDOR CAPACITY TO RESPOND TO A SUDDEN INCREASE IN DEMAND

To understand vendors' capacity to cope with sudden increases in the demand for water trucking, fuel, and WASH items, we asked them if they would be able to increase their stock by 50% and by 100% respectively. KIs are able to better absorb a 50% increase in demand, compared to a 100% increase in demand, regardless of the item in question.

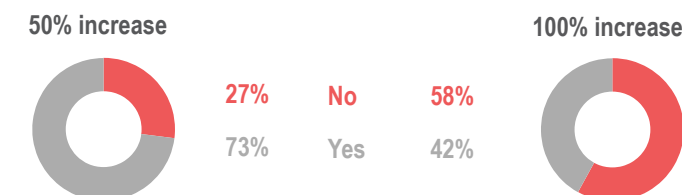
Vendor capacity to respond to a 50% and 100% increase in demand for fuel items



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.

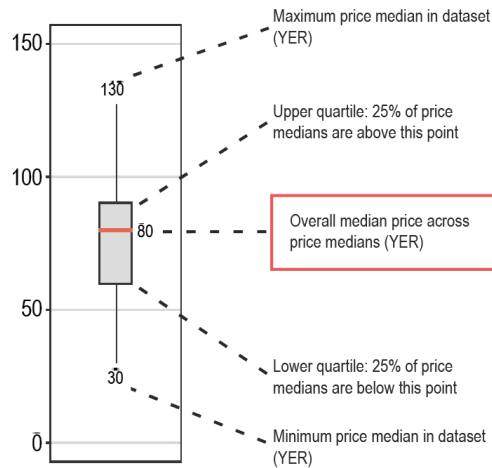
LIMITATIONS

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.

How to read a box plot



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).

Number of Districts Per Governorate

Governorate	Districts Covered
Aden	2
al Bayda	1
al Hodaydah	6
Amanat al Asimah	2
Amran	2
Hajjah	5
Ibb	1
Lahj	2
Sa'ada	4
Sana'a	3
Shabwah	2
Socotra	1
Taizz	8

PARTICIPATING PARTNERS INCLUDE

