

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 **11-18 December 2018**

- 15 Participating partners
- 65 Districts assessed
- 359 Vendor KIs surveyed

KEY FINDINGS

The value of the Yemeni Riyal (YER) continued to strengthen against the US Dollar (USD), experiencing a 7% appreciation from 540 USD/YER in November to 500 USD/YER in December.



KEY PRICE FIGURES

The appreciation was accompanied by a general decrease in the median price of assessed items. Petrol and laundry powder experienced the greatest decrease of 24.1% and 21.9%, respectively.

Petrol Price	418 YER	▼ 24.1%
Diesel Price	448 YER	▼ 18.6%
Bottled Water Price	120 YER	▼ 20.0%
Treated Water Price	100 YER	▼ 16.7%

WASH SMEB FIGURES

The median cost for the WASH SMEB was 10,085 YER, marking an increase of 0.3% from the cost observed in November.

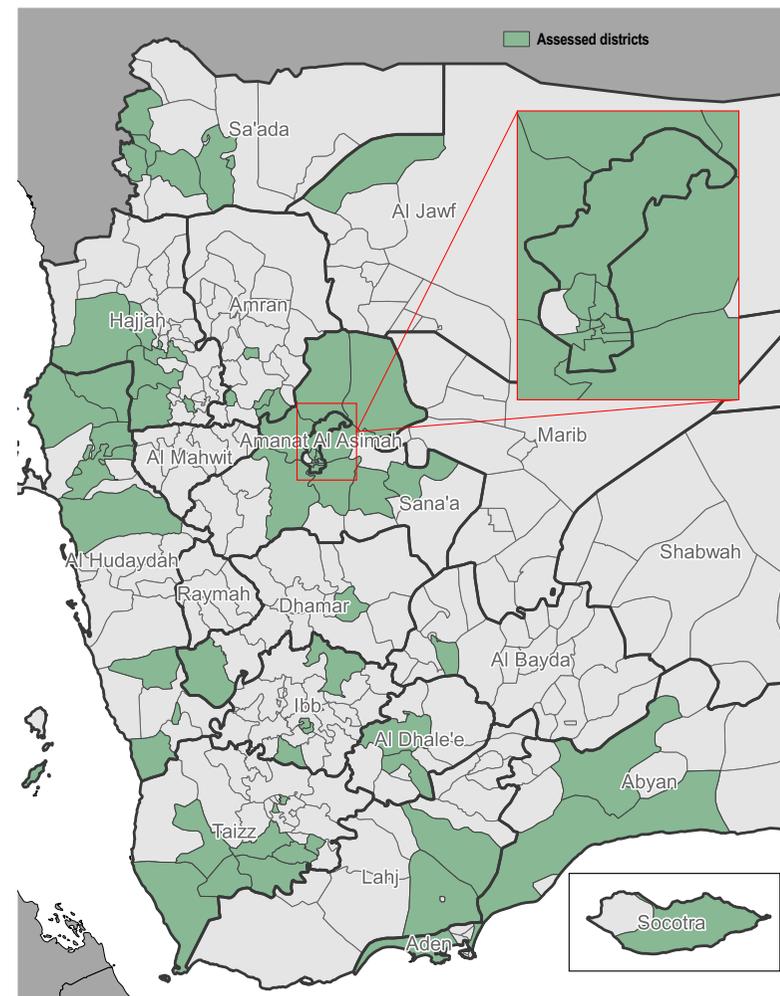
December	10,085 YER	▲ 25 YER	+ 0.3%
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SUPPLY OVERVIEW

Despite the overall reduction in prices, the 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 6 days compared to 5 days reported in November, and WASH items median restocking time was 4 days compared to 3 days as reported in November.

ASSESSED DISTRICTS



WASH SMEB

Soap
Laundry powder
Sanitary napkins
Water trucking

1.05 kg
2 kg
20 units
3.15 m³

OTHER ASSESSED ITEMS

Petrol
Diesel
Treated water
Bottled water

1 liter
1 liter
10 liter
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 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.

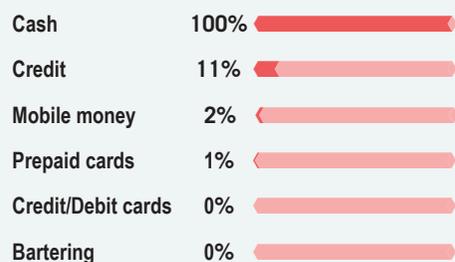
MEDIAN COST OF WASH SMEB

10,085 YER

Change since November 2018 **▲ 25 YER +0.3%**
Change since September 2017 **▲ 5,062 YER +100.7%**

▲ 25 YER +0.3%
▲ 5,062 YER +100.7%

PAYMENT MODALITIES ACCEPTED*



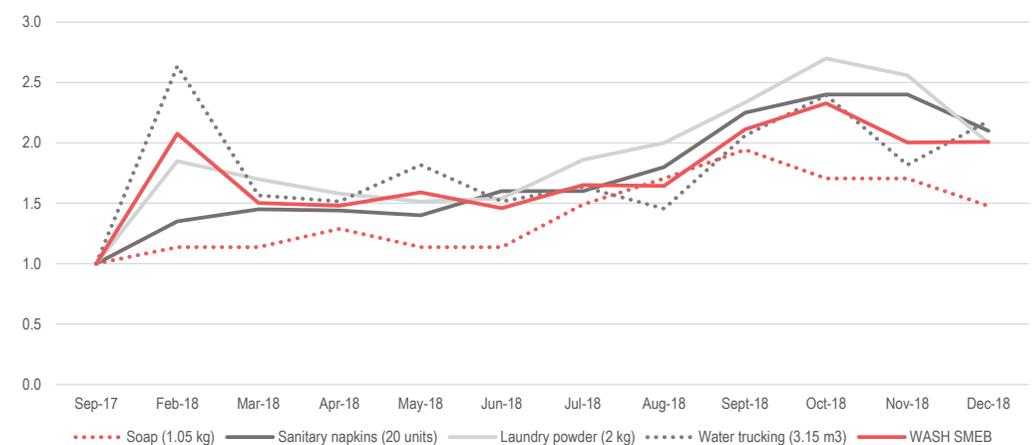
* Payment modalities can add up to more than 100%

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 m³)	WASH SMEB Dec-18	Change since Nov-18
Abyan	1,811	2,300	1,225	9,450	14,786	+35%
Aden	1,470	2,727	1,100	9,450	14,747	-7%
al Bayda	1,523	3,000	1,090	6,300	11,913	-3%
al Dhale'e	1,601	1,864	1,100	7,088	11,552	-4%
al Hudaydah	1,365	2,400	813	6,300	10,878	-7%
al Jawf	1,103	2,100	1,600	5,040	9,843	+4%
Amanat al Asimah	1,365	2,000	1,000	3,917	8,282	-8%
Amran	1,260	1,818	1,100	3,465	7,643	-28%
Dhamar	1,208	2,300	1,140	9,450	14,098	+36%
Hajjah	1,365	2,000	1,275	4,725	9,365	-8%
Ibb	1,575	1,427	720	7,875	11,597	-8%
Lahj	1,313	1,659	1,150	2,678	6,799	-32%
Sa'ada	1,523	2,800	1,250	6,300	11,597	+55%
Sana'a	1,523	2,250	1,060	4,056	8,888	-8%
Socotra	1,523	2,300	1,200	3,780	8,803	-5%
Taizz	1,470	1,900	1,100	7,875	12,345	+14%

WASH SMEB PRICE INDEX

Since September 2017 (normalized, September 2017 = 1.00)



MAIN DISTRICTS MONTH-TO-MONTH CHANGES IN MEDIAN WASH SMEB COST

Aden

November **15,793 YER** ▼ 7% December **14,747 YER**

al Hudaydah

November **11,700 YER** ▼ 7% December **10,878 YER**

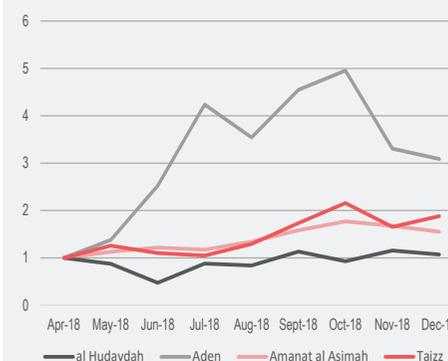
Taizz

November **10,860 YER** ▲ 14% December **12,345 YER**

Amanat al Asimah

November **8,957 YER** ▼ 8% December **8,282 YER**

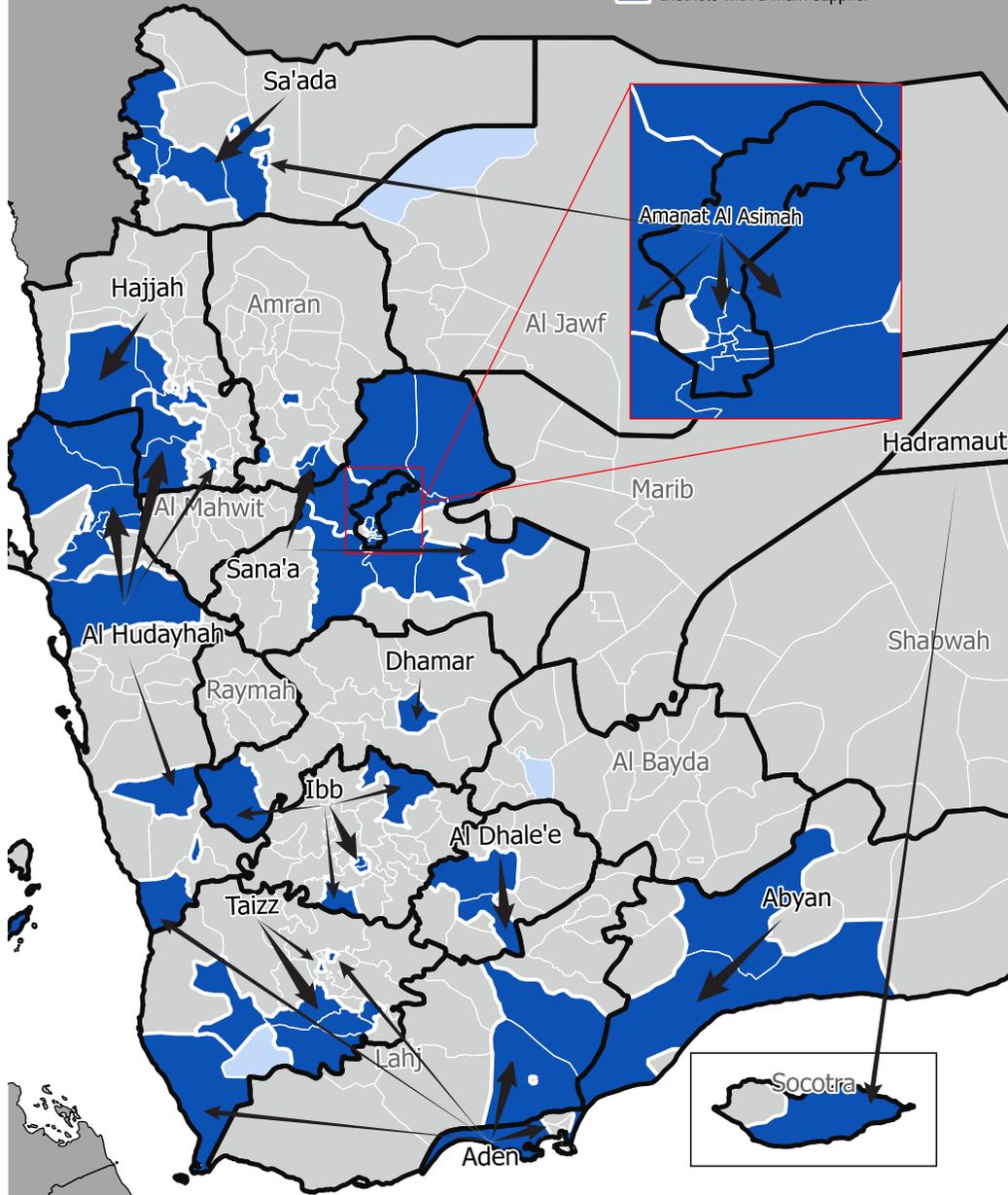
WASH SMEB PRICE TREND (normalized, April 2018 = 1)



WASH SMEB Supply Chain Overview

Supply Destination

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

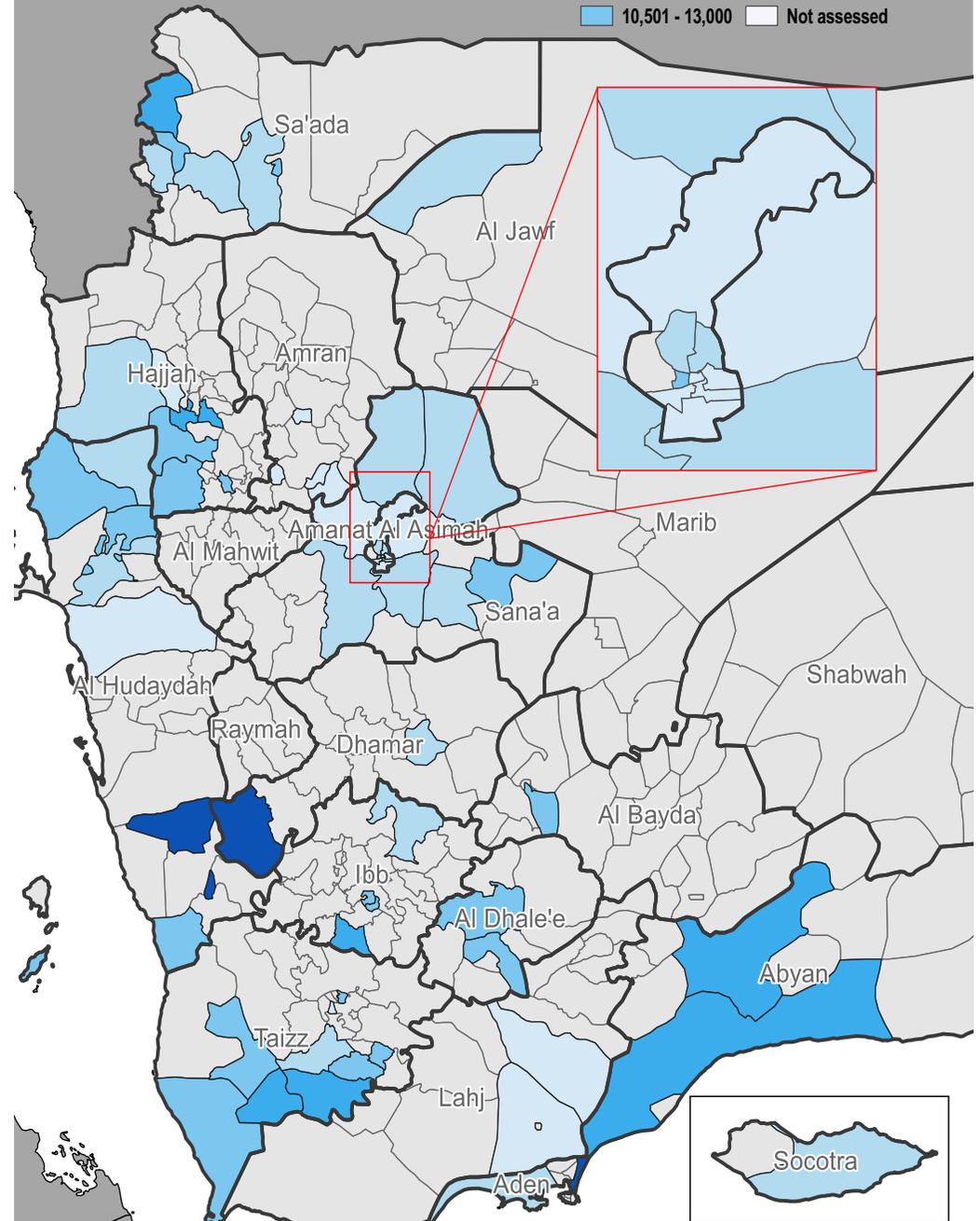


*The map shows fuel supply chain inside the same governorate and towards other governorates. District without a main supplier are those district where vendor KIs could not identify the origin of the fuel they sold.

Median cost of WASH SMEB

Median WASH SMEB Cost (YER)

- 17,501 - 23,042
- 13,000 - 17,500
- 10,501 - 13,000
- 8,501 - 10,500
- 5,340 - 8,500
- Not assessed



Note: only complete SMEB are taken into account.

PRICE MONITORING OVERVIEW FOR YEMEN

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

Item	September 2017 (baseline) [^]	November 2017 [^]	September 2018	October 2018	November 2018	December 2018	% Change (Nov-Dec)
Diesel	235	394	578	580	550	448	-18.6%
Petrol	275	349	656	585	550	418	-24.1%
Treated water	NA	175 ↯	140	155	120	100	-16.7%
Bottled water	70	100	140	150	150	120	-20.0%
Soap	88	NA	171	150	150	130	-13.3%
Sanitary napkins	250	NA	563	600	600	518	-13.8%
Laundry powder	50	NA	117	135	128	100	-21.9%
Water trucking	825	1,700	1,700	1,975	1,500	1,800	+20.0%

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

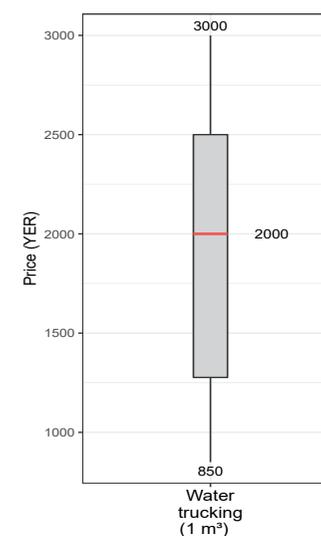
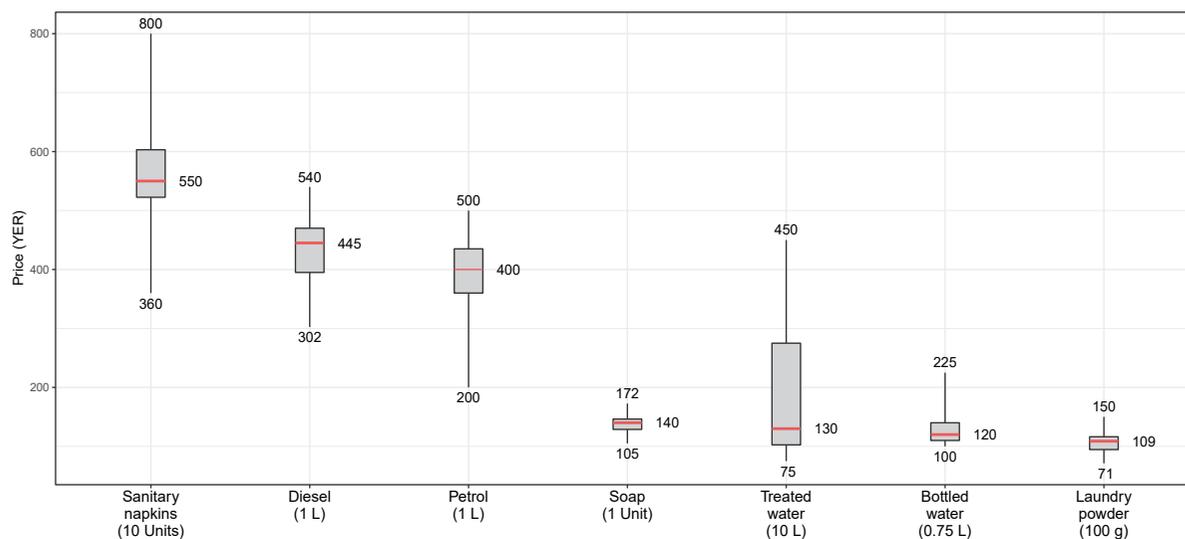
[^] Price levels for September 2017 are the price quotations recorded during the Multi-Agency Joint Cash Study, while prices for November 2017 were recorded during the Weekly Price Monitoring Initiative conducted by the WASH Cluster.

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

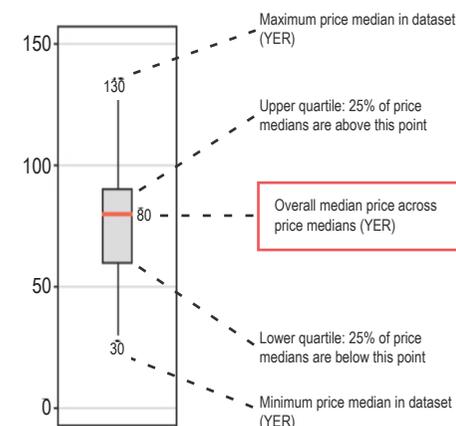
MEDIAN PRICE PER GOVERNORATE (IN YER)

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)
Abyan	300	375	115	350	173	115	613	3,000
Aden	284	NA	140	111	140	136	550	3,000
al Bayda	400	410	225	300	145	150	545	2,000
al Dhale'e	400	400	NA	130	153	93	500	2,250
al Hudaydah	430	430	150	100	130	120	406	2,000
al Jawf	435	475	100	300	105	105	800	1,600
Amanat al Asimah	395	445	105	100	130	100	500	1,244
Amran	435	475	110	250	120	91	550	1,100
Dhamar	417	465	110	450	115	115	570	3,000
Hajjah	435	475	120	105	130	100	638	1,500
Ibb	435	449	110	170	150	71	360	2,500
Lahj	285	303	135	150	125	83	575	850
Sa'ada	500	540	140	75	150	140	625	2,000
Sana'a	395	450	100	80	145	113	530	1,288
Socotra	200	310	140	NA	145	115	600	1,200
Taizz	380	390	120	115	140	95	550	2,500

DISTRIBUTION OF PRICES ACROSS YEMEN

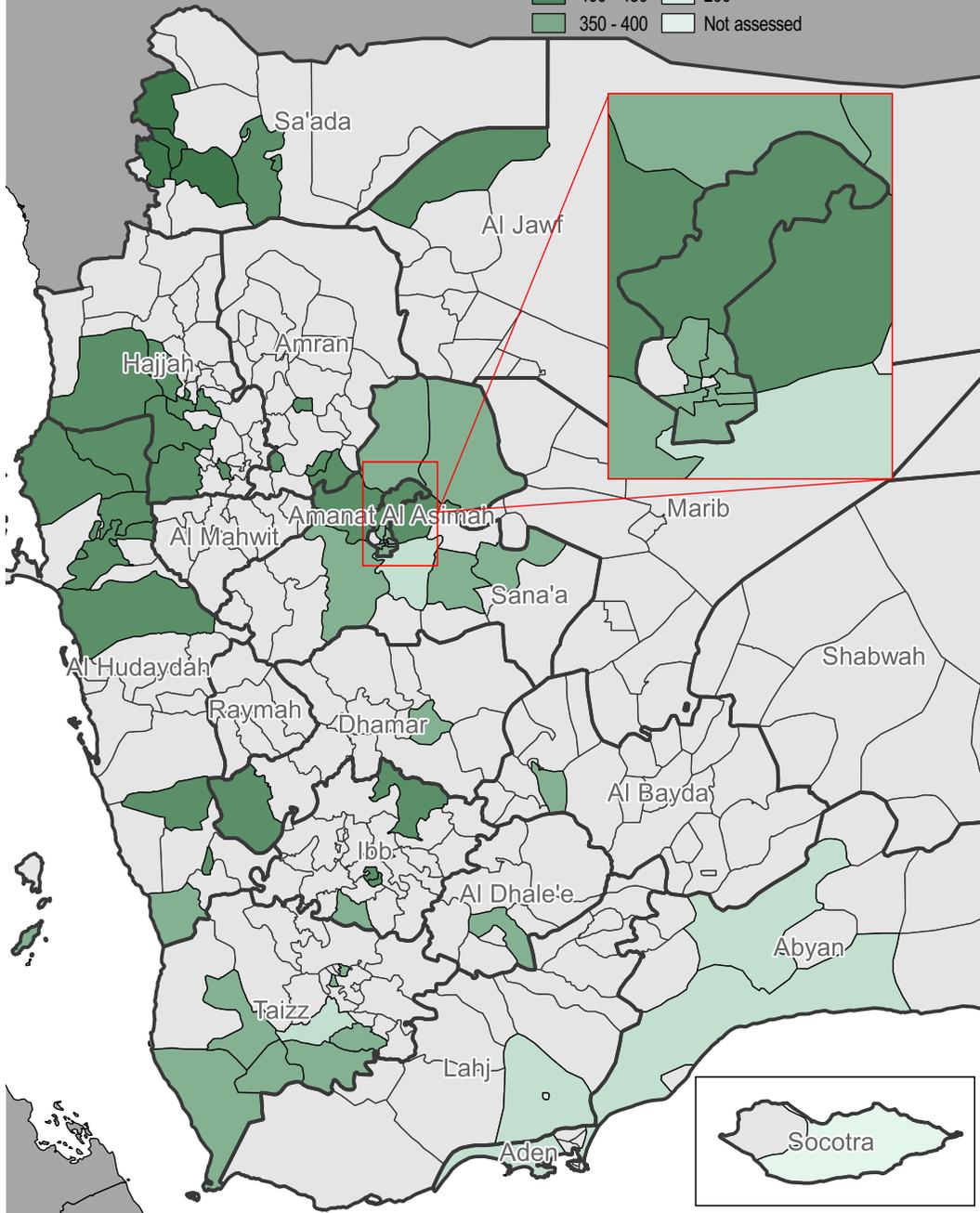


How to read a box plot



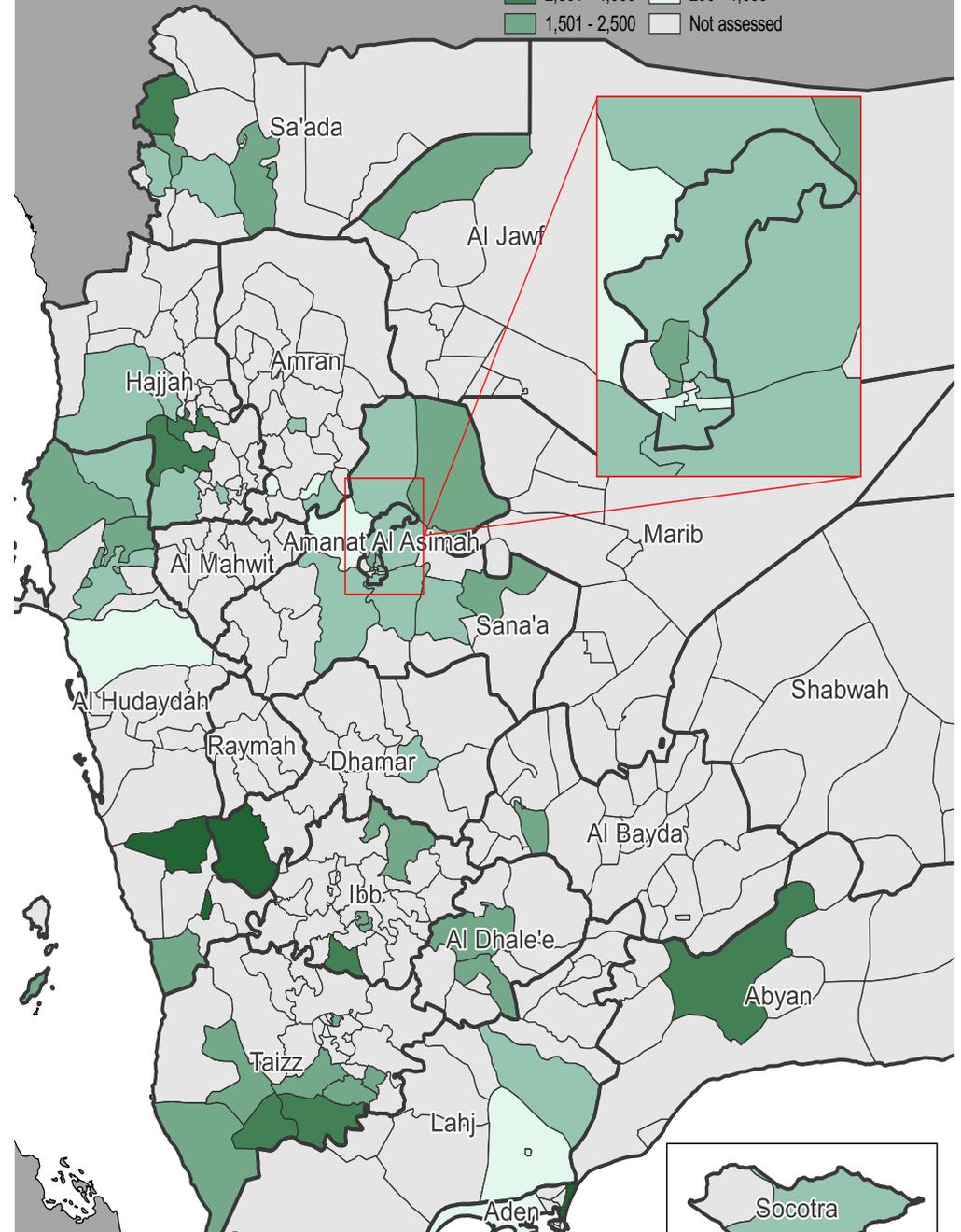
Petrol Prices

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



Water Trucking Prices

Water trucking prices per district per cubic meter (YER)



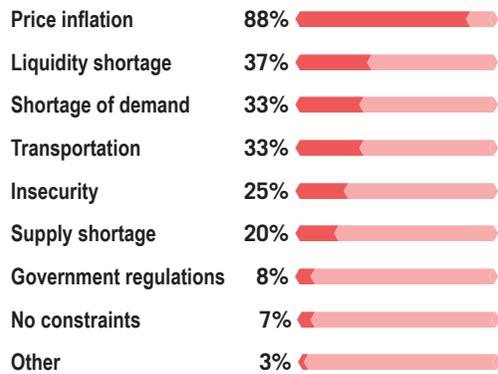
Note: the differences in the number of districts shown between the two maps for fuel and water prices is because the methodology-stipulated requirement for a minimum of three price quotations per market per district was not met.

SUPPLY CHAIN OVERVIEW FOR YEMEN

AVERAGE RESTOCKING TIME (DAYS)

Governorate	Fuel Items	WASH Items
Abyan	17	13
Aden	2	2
al Bayda	7	5
al Dhale'e	15	10
al Hudaydah	8	5
al Jawf	20	5
Amanat al Asimah	4	1
Amran	5	2
Dhamar	2	2
Hajjah	5	5
Ibb	8	11
Lahj	6	4
Sa'ada	7	6
Sana'a	4	2
Socotra	4	2
Taizz	3	2

MOST REPORTED CONSTRAINTS*



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

OVERVIEW FOR WATER TRUCKING

77% of water trucking vendor KIs stated that they charged delivery costs based upon the distance between the water source and the delivery point. The additional price for 5km is **7,500 YER** and **10,000 YER** for 10 km.

71% of water trucking vendor KIs stated that they sell non-chlorinated water.

20% of water trucking vendor KIs stated that they sell chlorinated water. An additional **9% reported being unaware if the water they sold was chlorinated.**

86% of water vendor KIs reported sourcing water from a pumping station or a borehole.

2% of water vendor KIs reported sourcing water from treatment station.

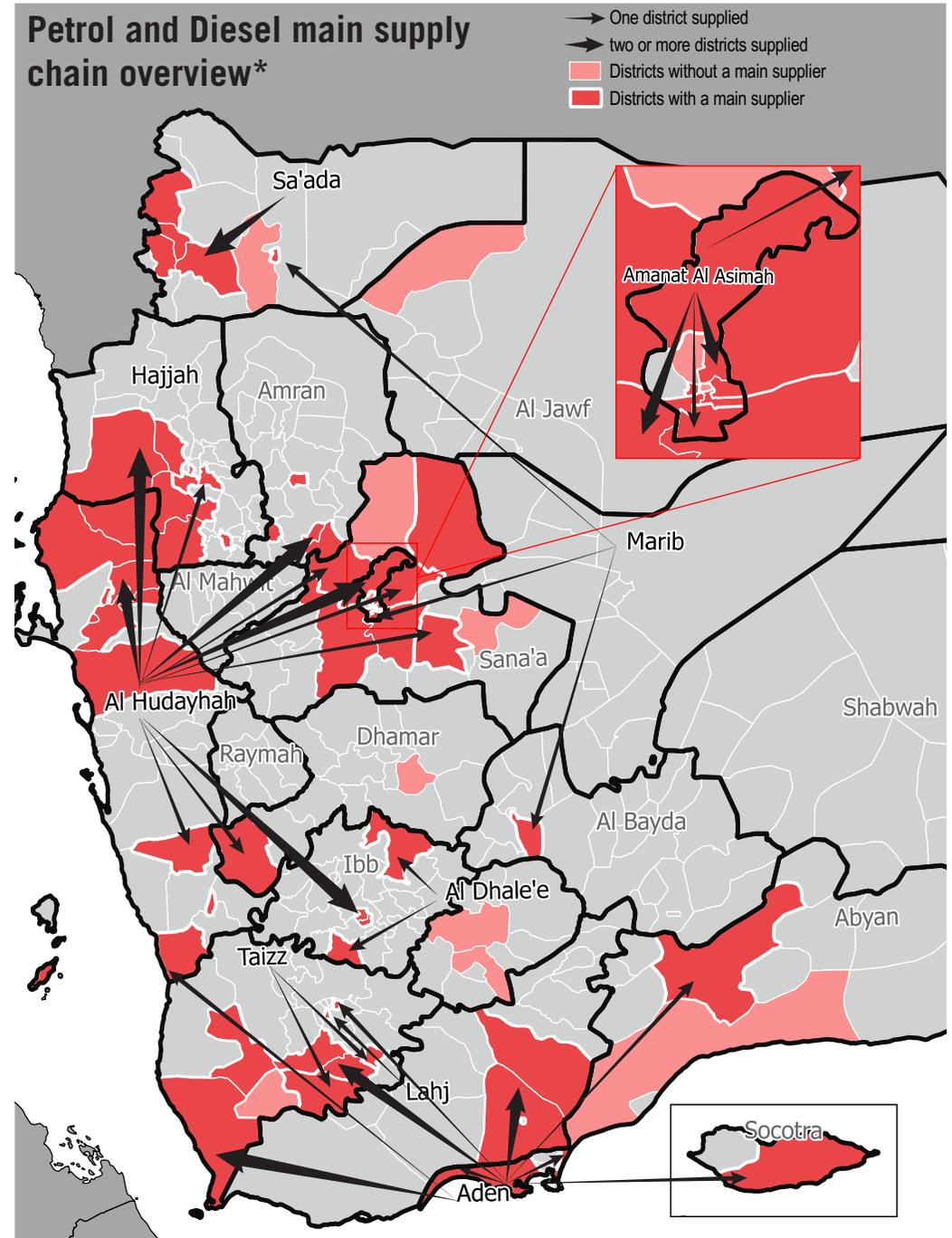
10% of water vendor KIs reported sourcing water from a spring.

CONSTRAINTS AND CHALLENGES

When asked about the top constraints vendors faced in conducting their business, KIs reported price inflation, liquidity shortage, demand shortages (a reduction in customers), and transportation issues as their three main concerns.

Moreover, vendor KIs reported insecurity and instability, and supply shortages as barriers. The 5% of vendor KIs who selected "others", mentioned fuel availability and fuel cost as their main challenges.

Petrol and Diesel main supply chain overview*



*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.

APPENDIX

WHAT IS THE INTERSECTOR 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.

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).