

KENYA JOINT MARKET MONITORING INITIATIVE (JMMI) REFUGEE CAMPS

Q1 2023 (January - March)

Dadaab and Kakuma Refugee Camps

KEY MESSAGES

- The Minimum Expenditure Basket (MEB)¹ cost for Dadaab refugee camp was 20,229 KES, while Kakuma's MEB cost was 18,185 KES.
- A quarter of vendors (**25%**) reported difficulties in keeping their stores operational and well-stocked at the time of data collection. The main reported challenge cited by vendors experiencing difficulties was the **price charged by suppliers**.
- A considerably high proportion (**77%**) of vendors **reportedly experienced challenges** when transporting commodities to the marketplace in the 3 months prior to data collection. **The top reported difficulty was the high cost of transportation (49%)**.
- Affordability remained a key issue, with **40%** of vendors reporting the main financial barrier for customers was that they could not afford the cost of items.

ABOUT THE REFUGEE MEB

Refugee MEB¹ is composed of essential commodities and services which is used as an operational tool to identify and quantify the average minimum cost of the culturally adjusted basic items required to support a five-person household for one month.

The cost of the MEB¹ can be used as a proxy for the financial burdens facing a five-person household for one month. The KCWG, through the MEB workstream, developed the components of the refugee MEB¹, which differ from those of the rural MEB¹. It is modified to consider the needs of refugees, including shelter items.

The refugee MEB¹ cost was calculated using the relevant monitored food and non-food items (NFIs) prices that are incurred monthly. For health, transportation, and lighting energy costs, the listed fixed amounts were used in the calculation. *For more information on the refugee MEB components, please refer to page [2](#).*

REFUGEE MEB COMPOSITION BY CATEGORY



CONTEXT & RATIONALE

The Kenya Cash Working Group (KCWG) initiated the JMMI in March 2022 to inform cash and voucher assistance (CVA) in the Arid and Semi-Arid Lands (ASAL) counties, as well as to enable regular updates of the MEB. In addition to the recurring assessment of the ASAL counties, the KCWG in January 2023, launched the JMMI for refugee camps in Kenya to understand the degree to which the refugee camps markets are functional, integrated, and responsive to the needs of vulnerable refugees.

According to United Nations High Commissioner for Refugees (UNHCR) statistics, the refugee and asylum-seeker population in Kenya was 588,724 persons as of 31st March 2023, of which 240,984 (41%) are hosted in the Dadaab refugee camp and 254,962 (43%) in the Kakuma refugee camp.²

The Dadaab camp is located in Garissa County while Kakuma camp is in Turkana County. Based on the March 2023 National Drought Management Authority (NDMA) drought classification, the two counties - Garissa and Turkana - were in alert and emergency drought phase classification respectively.³

METHODOLOGY:

The JMMI in Kenya is conducted on a quarterly basis (Q1-March, Q2-June, Q3-September, and Q4-December). Data for Q1 was collected between the 28th and 31st of March 2023, by partners through key informant interviews with market vendors within the camps. For each assessed market, enumerators recorded at least 3 prices for each assessed food and non-food items as well as other market indicators. Findings are presented at the camp level and should be considered indicative of the assessed location and the time frame in which the data was collected. *For more information on the methodology, please refer to page [9](#).*

ONLINE DASHBOARD

An interactive dashboard is available online to facilitate the interaction and ease navigation with the data. For instance, compare the cost of the Minimum Expenditure Basket (MEB) in different ASAL Counties of Kenya. To use the online dashboard, click [here](#).

Q1 2023 REFUGEE CAMPS COVERAGE

263	Vendors interviewed
67	Food and Non-Food Items assessed
14	Markets covered
3	Participating agencies
2	Assessed camps

Cost of the MEB in KES¹

Camp	Food MEB	NFIs MEB	Total MEB
Dadaab	14,576	5,653	20,229
Kakuma	13,924	4,261	18,185

- The variation in the cost of some commodities between the two camps was relatively high with some food items being far more expensive in Dadaab. Cattle milk (1 litre) was 300 KES in the Dadaab camp while it was 180 KES in Kakuma. Additionally, the cost of 1kg of cowpea leaves in Dadaab (165 KES) was higher compared to Kakuma (90 KES).
- The Kakuma camp cited lower prices for all NFIs compared to Dadaab. The price of firewood was higher in the Dadaab camp where it sold at 130 KES compared to Kakuma where it retailed at 50 KES.
- Cost of school materials (353 KES) in Kakuma was less than half of the cost in the Dadaab camp (830 KES).

MEB² REFUGEE COMPONENTS

Sector	Item	Quantity
Food items	Maize grain, white	21 Kg
	Rice	21 Kg
	Wheat flour	21 Kg
	Dried beans	7.5 Kg
	Vegetable oil	5.25 l
	Cow milk, whole, not fortified	15 l
	Leafy vegetables, dark green	15 Kg
	Salt, Iodized	0.75 Kg
	Sugar	0.75 Kg
WASH*	Water	3,000 l
	Multi-purpose soap	2.75 Kg
	Toothpaste	0.140 l
	Toilet paper	8 pcs
	Sanitary pads (8 pack)	4 packs
	Toothbrush	10 pcs
	Inner wear	10 pcs
	Water storage containers (20 L)	5 pcs
	10 L bucket	3 pcs
	Sleeping mats	5 pcs
	Blankets	5 pcs
	Mosquito nets	5 pcs
	Water purification supply	150 tablets
Energy	Firewood /Charcoal	1.5 bundles
	Jiko - medium size	1 pc
	Matchbox	2 Boxes
	Lighting cost	800 KES
Health	National health insurance fund	500 KES
Transport	Public transportation	1,000 KES

*The Refugee MEB computation excludes non-recurring expenditures, such as kitchenware and shelter components. It also excludes specific WASH items (i.e., sleeping mats, inner wear, blankets, mosquito nets, water, and water storage containers) and Education items (i.e., textbooks, geometrical sets, uniform, school bag, and school shoes).

Water is provided in kind within the camps; therefore, it is not factored into the computation of the Refugee MEB.

Sector	Item	Quality
Shelter*	Construction costs	7,000 KES
	Irons sheets - Corrugated and Uncorrugated (2.5m long, gauge 30) sheets	20 pcs
	Pine Timber/ Cyprus rafters	700 ft
	Eucalyptus poles	10 pcs
	Pine Timber/ Cyprus rafters	700 ft
	Eucalyptus poles	10 pcs
	Wood preservatives	20 l
	Tower and pad bolts	4 pcs
	Plastic sheets (5m by 4m)	6 pcs
	Ridge cap for roofing (2.5m long, gauge 30) sheets	4 pcs
	Eucalyptus/ Blue Gum poles 3m	10 pcs
	Hoop iron	2 Kg
	Butt hinges	3 pairs
	Nails	10 Kg
Education*	School material (pen, pencil, book, rubber, ruler, and sharpener)	1 kit
	Text books	30 pcs
	Geometrical set	3 sets
	School shoes	3 pairs
	School Uniform	5 pcs
	School bag	3 pcs
Kitchen ware*	Cooking pots	2 pcs
	Frying pan	1 pc
	Cutlery	13 pcs
	Cups	5 pcs
	Plates	5 pcs
	Wooden spoon	1 pc
	Jug	1 pc
	Washing pad	1 pc

Median price of items per Camp in KES¹

	Item	Unit	Overall	Daadab	Kakuma		Item	Unit	Overall	Daadab	Kakuma
FOOD	White maize	1 kg	75	70	80	EDUCATION	School shoes - boy/girl (<5yrs)	1 pair	325	250	400
	Maize flour	1 kg	100	100	100		School shoes – boy/girl (5-12yrs)	1 pair	487.5	350	625
	Rice (local)	1 kg	115	100	130		Uniform for Girls	1 set	1,350	2,000	700
	Spaghetti	1 kg	155	150	160		Uniform for Boys	1 set	1,250	1,800	700
	Beans	1 kg	165	150	180		Pencils	1 pc	10	10	10
	Cowpeas	1 kg	152.5	140	165		Pens	1 pc	15	20	10
	Cowpea leaves	1 kg	127.5	165	90		Exercise books	1 pc	32.5	50	15
	Yellow split peas	1 kg	125	130	120		Rubbers	1 pc	13.75	20	7.5
	Sugar	1 kg	157.5	145	170		Socks	1 pair	50	50	50
	Vegetable oil	1 kg	275	270	280		School Bag	1 pc	487.5	500	475
	Salt	1 kg	67.5	60	75		Ruler (30cm)	1 pc	25	20	30
	Cattle milk	1 l	240	300	180		Geometric Set	1 pc	175	250	100
	Camel milk	1 l	262.5	300	225		Sharpener	1 pc	15	20	10
	Goat meat	1 kg	600	600	600	KITCHENWARE	Cooking pans	1 pc	650	1,000	300
	Camel meat	1 kg	500	600	400		Knife	1 pc	80	100	60
	Onions	1 kg	100	100	100		Spoon	1 pc	35	50	20
	Tomatoes	1 kg	110	100	120		Cup	1 pc	75	100	50
	Kale	1 kg	100	100	100		Plate	1 pc	115	150	80
	Wheat flour	1 kg	110	110	110	SHELTER	Hoop Iron	1 kg	250	250	250
WASH	Bar soap	200 g	50	50	50		Tower Bolt 4”	1 pc	200	250	150
	Jerrycans (20 l)	1 pc	175	150	200		Tower Bolt 6”	1 pc	225	250	200
	Buckets (10 l)	1 pc	192.5	225	160		Pad Bolts	1 pc	325	500	150
	Sanitary pads (8 pack)	1 pc	100	100	100		Butt hinge 2”	1 pc	37.5	30	45
	Tooth Brush	1 pc	40	50	30		Butt hinge 4”	1 pc	65	30	100
	Underwear for girls	1 pc	140	200	80		Nails 2”	1 kg	225	250	200
	Underwear for Female Adults	1 pc	150	200	100		Nails 3”	1 kg	225	250	200
	Sleeping mat	1 pc	775	1,100	450		Nails 4”	1 kg	225	250	200
	Mosquito net	1 pc	400	450	350		Roofing nails	1 kg	250	250	250
	Tooth Paste	50 g	110	150	70		Sealing nails	1 kg	250	250	250
	Tissue Paper	1 pc	65	100	30		Eucalyptus poles	1 pc	225	250	200
	Water	20 l	20	20	NA		Wood preservative	1 l	437.5	300	575
	Blanket	1 pc	425	350	500		Pine Timber	1 ft	70	100	40
ENERGY	Firewood	1 bundle	90	130	50		Cement	50 kg	925	850	1,000
	Charcoal	2 kg	125	200	50		Corrugated Iron Sheets	*	*	*	*
	Matchbox	1 pc	7.5	10	5		Uncorrugated Iron Sheets	*	*	*	*

*: no price data available.

Kenya Joint Market Monitoring Initiative (JMMI), Q1							January-March, 2023						
Available Stock, Time Needed to Restock, and Current Availability of Items in the Market													
	Item	Remaining stock (days)	Days needed to restock	Wide availability (% KIs)	Limited availability (% KIs)	Complete unavailability (% KIs)		Item	Remaining stock (days)	Days needed to restock	Wide availability (% KIs)	Limited availability (% KIs)	Complete unavailability (% KIs)
FOOD	White maize	15	3	49%	39%	10%	EDUCATION	School shoes - boy/girl (<5yrs)	25	2	74%	26%	0%
	Maize flour	13	2	77%	23%	0%		School shoes – boy/girl (5-12yrs)	25	2	71%	29%	0%
	Rice (local)	14	2	74%	22%	1%		Uniform for Girls	28	3	62%	38%	0%
	Spaghetti	13	2	77%	23%	0%		Uniform for Boys	28	3	59%	41%	0%
	Beans	14	3	56%	30%	13%		Pencils	27	2	75%	25%	0%
	Cowpeas	26	3	83%	17%	0%		Pens	32	2	78%	21%	0%
	Cowpea leaves	3	1	65%	35%	0%		Exercise books	24	2	74%	23%	2%
	Yellow split peas	17	6	53%	31%	16%		Rubbers	29	2	64%	34%	0%
	Sugar	16	2	75%	24%	1%		Socks	24	2	69%	31%	0%
	Vegetable oil	13	2	76%	24%	0%		School Bag	25	3	55%	45%	0%
	Salt	19	2	78%	22%	0%		Ruler	34	2	59%	39%	0%
	Cattle milk	2	1	38%	38%	25%		Geometric Set	38	2	73%	23%	5%
	Camel milk	1	2	50%	43%	0%	Sharpener	32	2	71%	27%	2%	
	Goat meat	1	1	54%	37%	9%	KITCHENWARE	Cooking pans	39	5	55%	45%	0%
	Camel meat	1	1	80%	20%	0%		Knife	33	2	69%	31%	0%
	Onions	11	2	53%	46%	0%		Spoon	32	3	55%	45%	0%
	Tomatoes	4	2	52%	48%	0%		Cup	34	3	68%	32%	0%
	Kale	39	1	61%	31%	3%		Plate	29	10	65%	35%	0%
Wheat flour	NA	NA	NA	NA	NA	SHELTER	Hoop Iron	25	4	53%	47%	0%	
Bar soap	15	2	73%	25%	1%		Tower Bolt 4"	36	14	64%	36%	0%	
Jerrycans (20 l)	17	2	64%	32%	5%		Tower Bolt 6"	25	4	60%	40%	0%	
Buckets (10 l)	28	4	64%	36%	0%		Pad Bolts	34	2	57%	43%	0%	
Sanitary pads (8 pack)	21	2	76%	24%	0%		Butt hinge 2"	43	3	65%	35%	0%	
Tooth Brush	22	1	73%	25%	0%		Butt hinge 4"	48	4	64%	29%	0%	
Underwear for girls	22	2	72%	28%	0%		Nails 2"	30	3	74%	26%	0%	
Underwear for female adults	22	2	67%	33%	0%		Nails 3"	29	3	74%	26%	0%	
Sleeping mat	28	3	70%	30%	0%		Nails 4"	34	3	72%	28%	0%	
Mosquito net	31	3	70%	23%	7%		Roofing nails	27	4	70%	30%	0%	
Tooth Paste	23	2	70%	30%	0%		Sealing nails	29	4	61%	39%	0%	
Tissue Paper	22	2	70%	30%	0%		Eucalyptus poles	27	4	71%	29%	0%	
Water	11	1	67%	17%	17%		Wood preservative	18	2	46%	38%	15%	
Blanket	35	3	62%	29%	10%		Pine timber	25	5	55%	45%	0%	
ENERGY	Firewood	5	2	71%	29%		0%	Cement	24	4	70%	30%	0%
	Charcoal	9	3	66%	34%		0%	Corrugated Iron Sheets	NA	NA	NA	NA	NA
	Matchbox	22	3	74%	26%		0%	Uncorrugated Iron Sheets	NA	NA	NA	NA	NA

The average reported number of days needed to restock food items (2 days) was less than the average number of days needed to restock non-food items (3 days) and the average number of days required for restocking (3 days) was less than the average reported remaining stock days (23 days), suggesting a low likelihood of commodity shortages.

NA: no data available.

RESTOCKING CHALLENGES FACED BY VENDORS

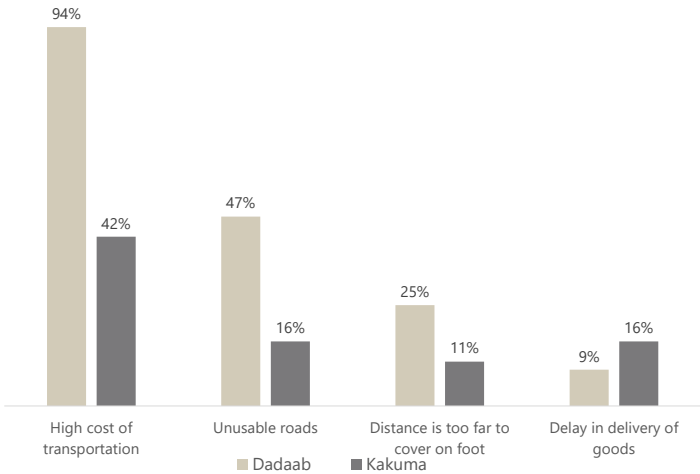
A considerable proportion of vendors (67%)¹ reported that suppliers delivered commodities directly to their shops when they needed to restock. However, 60%¹ of vendors reported that they had to travel to get some commodities from the suppliers.

The most common means of transport for both vendors and suppliers were vehicles (48%) followed by motorcycles (40%). Only 22% of vendors reported that they or their suppliers did not face challenges when transporting commodities to the market.

It is worth noting that 84% of vendors reported that they or their suppliers in the Dadaab camp used vehicles as the main mode of transport, whereas motorcycles (45%) were the main mode of transport in Kakuma camp.

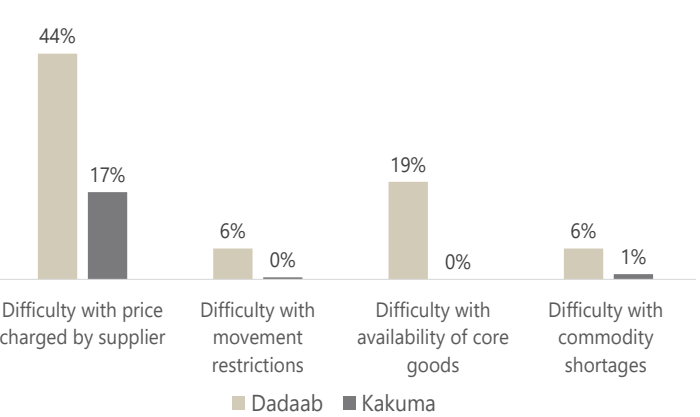
The high cost of transport was the most cited challenge in both camps, therefore transportation costs were likely among the factors driving up prices for some commodities.

Figure 2: Most reported transportation challenges by vendors in the 3 months prior to data collection, per camp:¹



More than half (53%) of vendors in Dadaab reported that they faced difficulties in keeping their businesses operational and well-stocked, while 21% of interviewed vendors in Kakuma reported the same. Vendors in Dadaab (44%)¹ and Kakuma (17%)¹ reported difficulty with prices charged by the supplier as the main challenge faced.

Figure 3: Most reported restocking challenges by vendors at the time of data collection, per camp:¹



CHANGE IN NUMBER OF CUSTOMERS AND VENDORS

Most interviewed vendors (63%) reported that the number of customers buying from their shops had changed in the 3 months prior to data collection, and among them (56%) reported that this number had increased.

Additionally, half of the vendors reported an increase in the number of vendors operating in the marketplace. In the Dadaab camp, all vendors noted an increase, with proportions ranging from very few (1%- 10%) to a few vendors (11% -25%).

Proportion of vendors reporting on changes in the number of vendors operating in their marketplace in the 3 months prior to data collection:

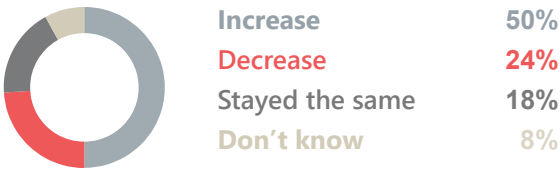


Figure 4: Estimated proportion of vendors that had started operating their businesses in the 3 months prior to data collection according to interviewed vendors, per camp:

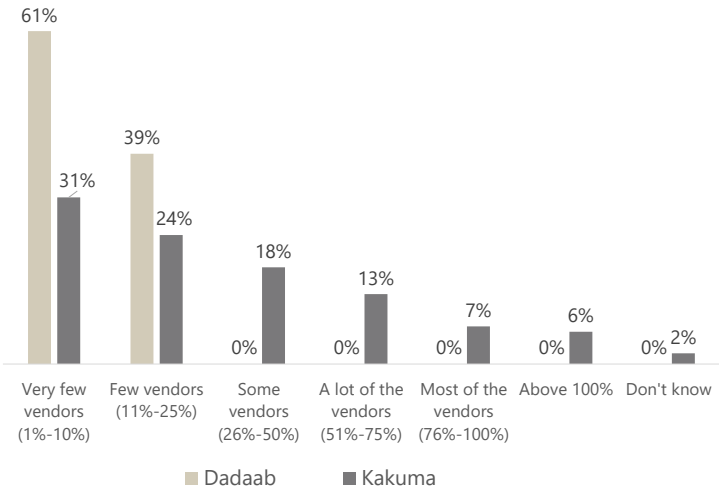
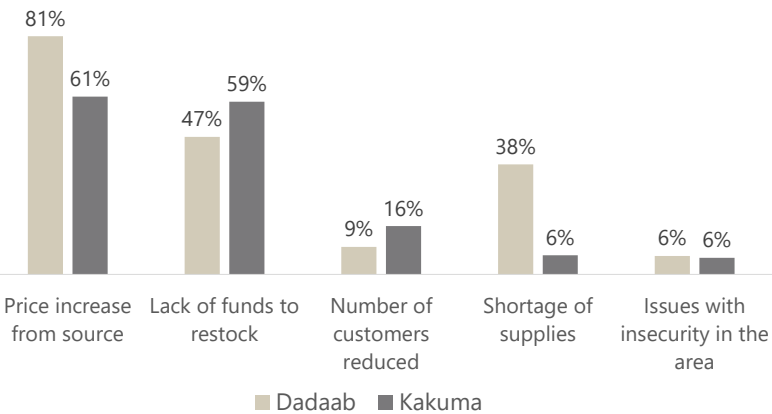


Figure 5: Most reported challenges by vendors in the 3 months prior to data collection, per camp:¹



Vendors commonly reported experiencing challenges in the 3 months prior to data collection (92%); price increases were the main challenge faced by vendors across the assessed camps.

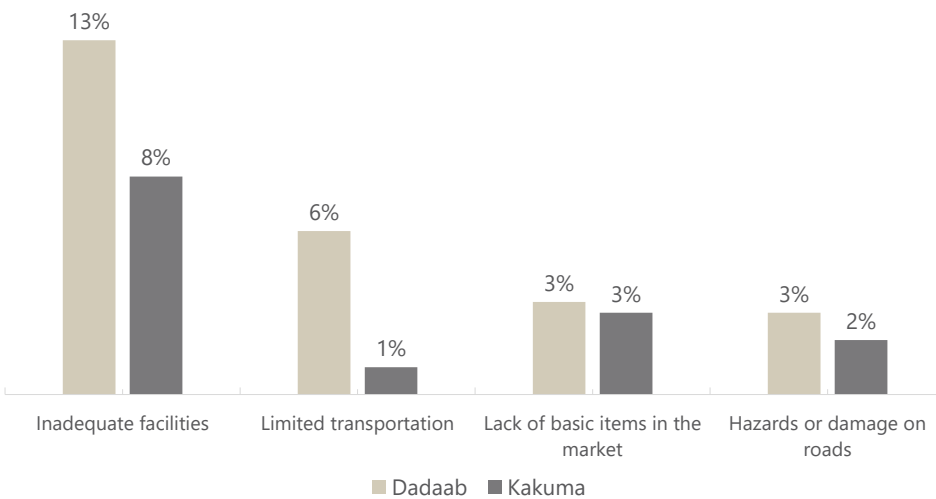
ACCESS TO MARKETPLACES

Physical access to marketplaces

A majority of vendors (Dadaab 81% and Kakuma 78%) reported that neither customers nor vendors faced physical challenges when accessing the marketplace in the 3 months prior to data collection.

Only vendors in Dadaab camp (3%)¹ reported curfew and movement restrictions as challenges that prevented any customers or vendors from physically travelling to, working at, or shopping at the marketplace.

Figure 6: Most reported physical barriers to accessing the marketplace by vendors in the 3 months prior to data collection, per camp:¹

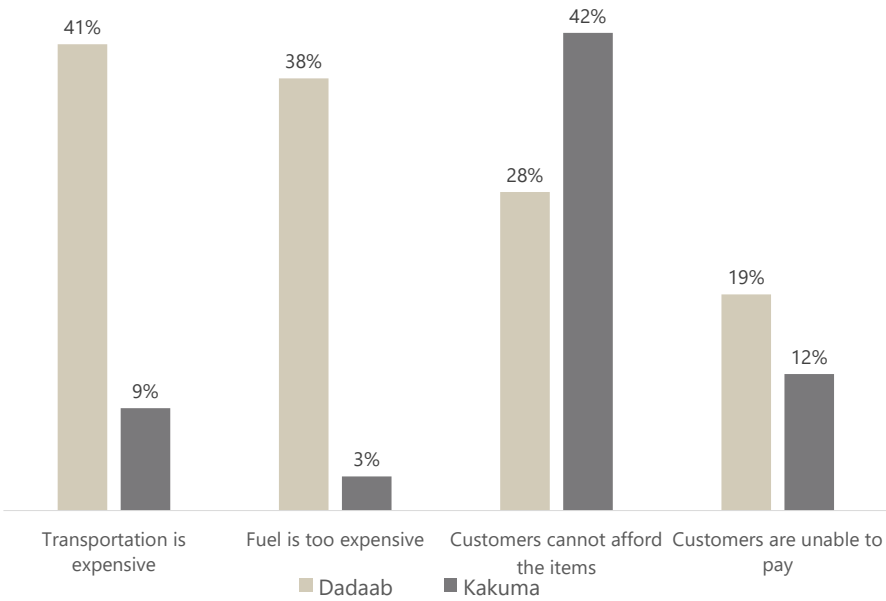


Financial barriers to accessing marketplaces

A majority of vendors (52%) reported that the most common financial challenges customers faced were travelling to the markets and paying for goods.

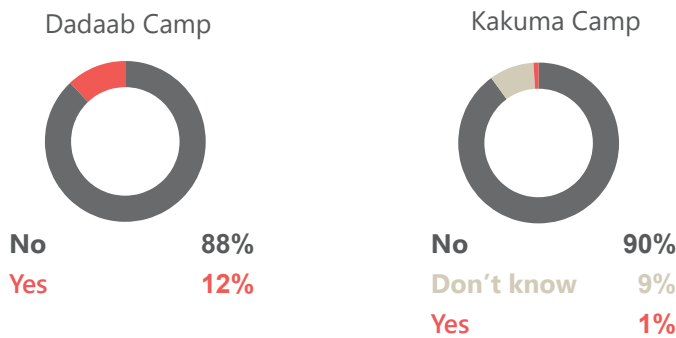
Customers not affording the items was the most reported financial barrier in Kakuma (42%)¹ while transportation being expensive was the most reported in Dadaab (41%)¹.

Figure 7: Most reported financial barriers to accessing the marketplace by vendors in the 3 months prior to data collection, per camp:¹



Social barriers to accessing the marketplace

% of vendors reporting groups of people who sometimes avoided going to the marketplace due to discrimination, exclusion, or feeling unwelcome in the 3 months prior to data collection, per camp:



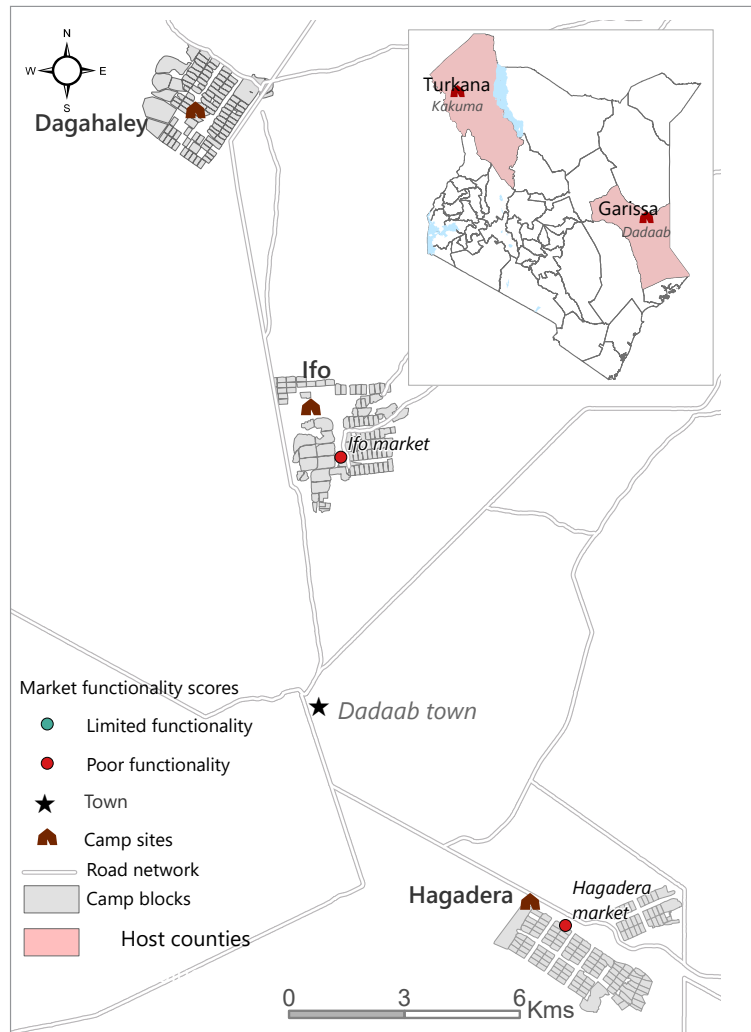
TYPES OF PAYMENT MODALITIES

Proportion of vendors reporting accepting different types of payment in the 3 months prior to data collection:²

- 1 98% Cash
- 2 62% Mobile money
- 3 14% Credit/ Debit cards
- 4 13% Vouchers
- 5 11% Money transfer

MARKET FUNCTIONALITY

Figure 8: Map of market functionality of Dadaab camp



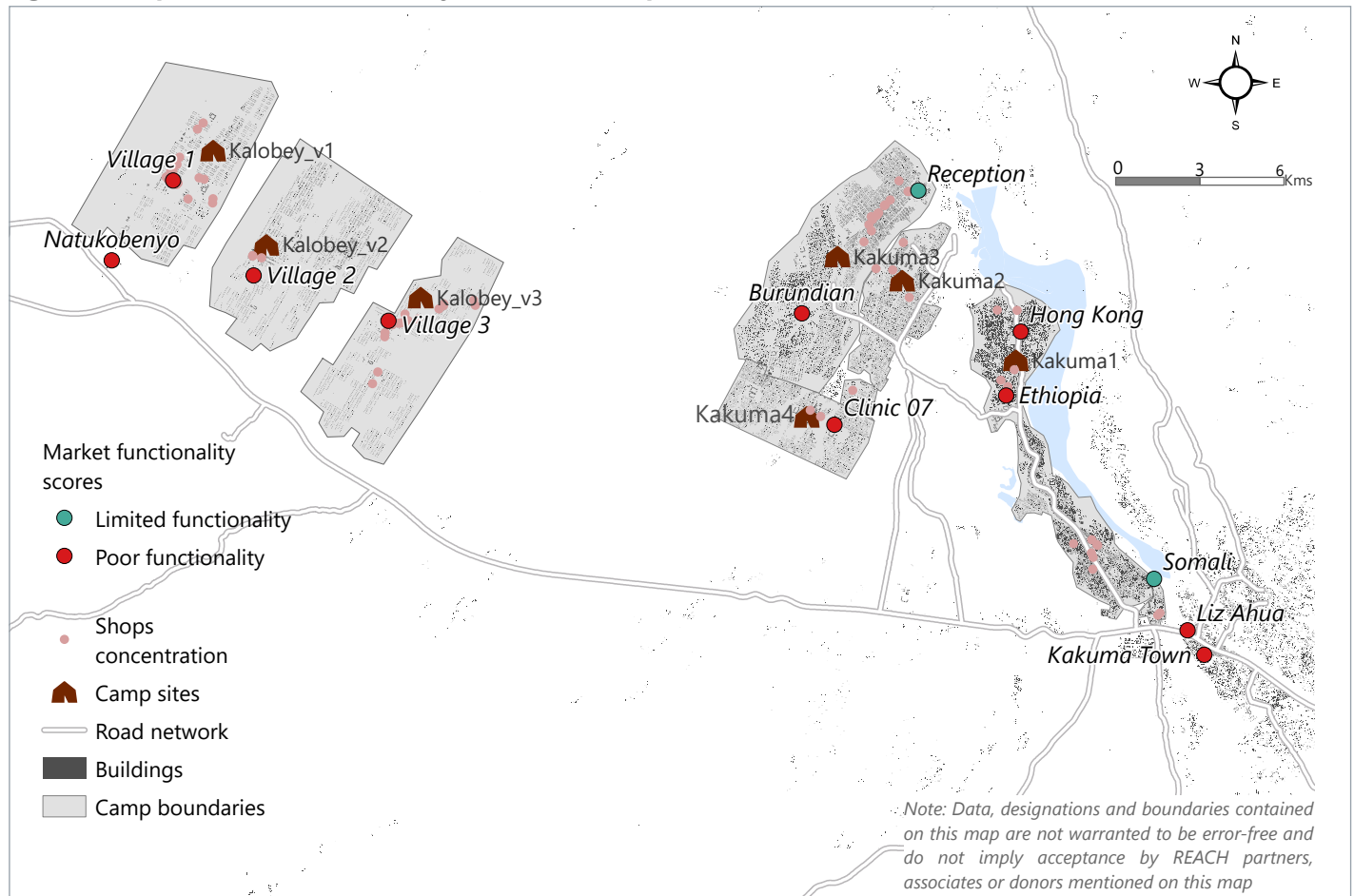
There is a growing need for humanitarian organisations and decision-makers to understand market dynamics to support future CVA programming. Aid actors need to be informed on which markets operate efficiently to use cash as a delivery modality during humanitarian response.

Most (12/14) of the markets in both Dadaab and Kakuma camps were found to have **poor functionality**, while only (2/14) were found to have **limited functionality**.

Market Functionality Score (MFS)¹ is an extension of the JMMI that spans five key dimensions: **accessibility, availability, affordability, resilience, and infrastructure**. The attribute found to have the weakest performance was affordability. This can be inferred from the 60% of vendors reporting financial barriers faced by customers in accessing the marketplace. Additionally, 35% of vendors reportedly were unable to predict price changes over the next month from the time of data collection.

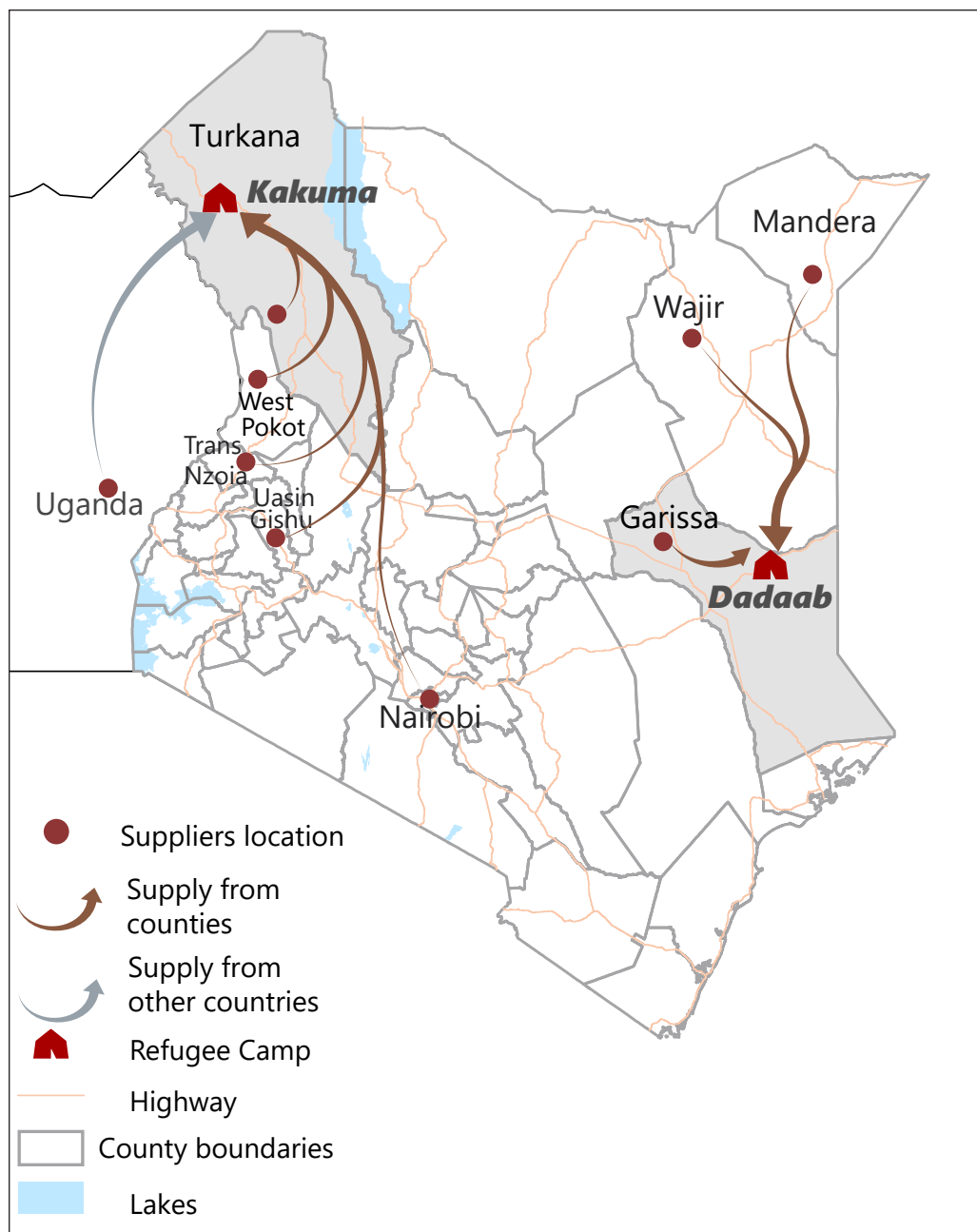
Figure 8 and 9 illustrates the market functionality of Dadaab camp and Kakuma camps respectively. Only 2 markets of the 14 assessed both located within Kakuma camp, were found to have, **limited functionality**. The other 12 markets were reported to have poor functionality. Within the Dadaab camp, there are 2 markets present, both of which have poor functionality.

Figure 9: Map of market functionality of Kakuma camp



SUPPLY

Figure 10: Map of main supply route of assessed camps



The map in Figure 10 shows the supply route of commodities from the main supplier as reported by the interviewed vendors. Almost all vendors (99%) noted that their main supplier was located within the country. Very few vendors reportedly sourced their commodities from Uganda.

Additionally, according to 80% of vendors from Dadaab and Kakuma camps, their main suppliers were primarily located within their respective counties.

At the time of data collection, 22% of vendors in the Dadaab camp and 15% of vendors in the Kakuma camp reportedly relied on a single supplier of food items. This could compromise the vendors' ability to maintain adequate stock.

Only 22% of vendors in the Dadaab camp and 10% of vendors in the Kakuma camp reportedly relied on a single supplier for NFIs. Vendors who rely on a single supplier are likely to experience supply interruptions.

METHODOLOGY OVERVIEW

The JMMI is conducted jointly with KCWG partners. The geographic coverage was determined by the access and capacity of participating partners. The participating agencies collectively developed and reviewed the data collection tools, and trained their enumerators on the JMMI methodology and data collection tools. Primary data was collected through interviews with vendors (vendors who sell directly to customers) in the targeted marketplaces. Enumerators were asked to record three prices per item in each targeted marketplace. Data was collected through the Open Data Kit (ODK) mobile application and was uploaded to a secure Kobo server for cleaning and analysis.

For each item, the median prices per marketplace were calculated, after which the median of all those locations was calculated to derive the aggregated median prices presented in this factsheet. This methodology is derived to minimise the effects of outliers and differing amounts of data among assessed locations. Outliers are reported only where relevant. Non-numeric indicators of categorical values are calculated as proportions.

Using the purposive sampling method, 263 vendors were interviewed as key informants (231 from Kakuma and 32 from Dadaab). At least 3 prices per item in each of the camps were collected for a total of 67 basic food and NFIs. The interviews were conducted both face-to-face and remotely with vendors selling food and non-food items. Data was collected between the 28th and 31st of March 2023 across 14 markets in the camps.

REACH performed daily data quality checks with the partners during and after data collection. This process includes checking for duplicate interviews and numerical outliers (particularly item prices). Data was analysed at the camp level using R statistical software. All findings are indicative and only apply to the period within which data was collected. Moreover, item specifications may vary slightly between locations according to the different brands available, and comparability between the locations assessed is limited.

LIMITATIONS

For some questions, vendors were asked to recall events over a 3-month period. This is a long period of time, which might impact the accuracy of answers.

The JMMI data collection tool requests the cheapest available type of each item to be recorded, as availability varies across regions. Therefore price comparisons across the camps may be based on slightly varying products.

About the Kenya Cash Working Group

The KCWG is a multi-agency, inter-cluster technical working group set up to ensure that CVA in Kenya is coordinated, harmonised, and context-specific, and is undertaken in a manner that does not inflict harm or exacerbate vulnerabilities of the affected population. The working group was established to provide an enabling environment for collective learning, operational and technical collaboration. The KCWG through the MEB workstream in January 2023, launched the JMMI for refugee camps in Kenya. The KCWG is currently co-chaired by the National Drought Management Authority (NDMA) and Kenya Red Cross Society (KRCS), and the MEB work stream is co-chaired by the World Food Programme (WFP) and REACH Initiative.

ENDNOTES

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¹ The Minimum Expenditure Basked (MEB) is defined as what a household requires to meet basic needs on a regular or seasonal basis - and its average cost.

² [Refugee and asylum-seekers in Kenya by UNHCR](#), March 2023

³ [National Drought Early Warning Bulletin by NDMA](#), March 2023.

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¹ [USD-131.6 KES in April 2023.](#)

² The Minimum Expenditure Basked (MEB) is defined as what a household requires to meet basic needs on a regular or seasonal basis - and its average cost.

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¹ [USD-131.6 KES in April 2023.](#)

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¹ For multiple answer questions, respondents could select multiple options hence the findings may exceed 100%.

Page 6

¹ For multiple answer questions, respondents could select multiple options hence the findings may exceed 100%.

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¹ Market functionality score consists of a collection of indicators, drawn from a single vendor-focused assessment for ease of analysis, that capture data on the five different dimensions of market functionality. The markets are categorized into "full functionality", "reduced functionality", "limited functionality", or "poor functionality" based on the MFS score.

PARTICIPATING PARTNERS, January-March 2023

In Q1 2023, different organisations participated in the JMMI refugee camps data collection. Participating organizations trained their enumerators on the JMMI methodology and data collection tools to collect the data. REACH was responsible for data processing and developing the outputs.



Kenya
Red Cross



**World Food
Programme**

REACH Informing
more effective
humanitarian action



UNHCR
The UN Refugee Agency

World Vision
Kenya