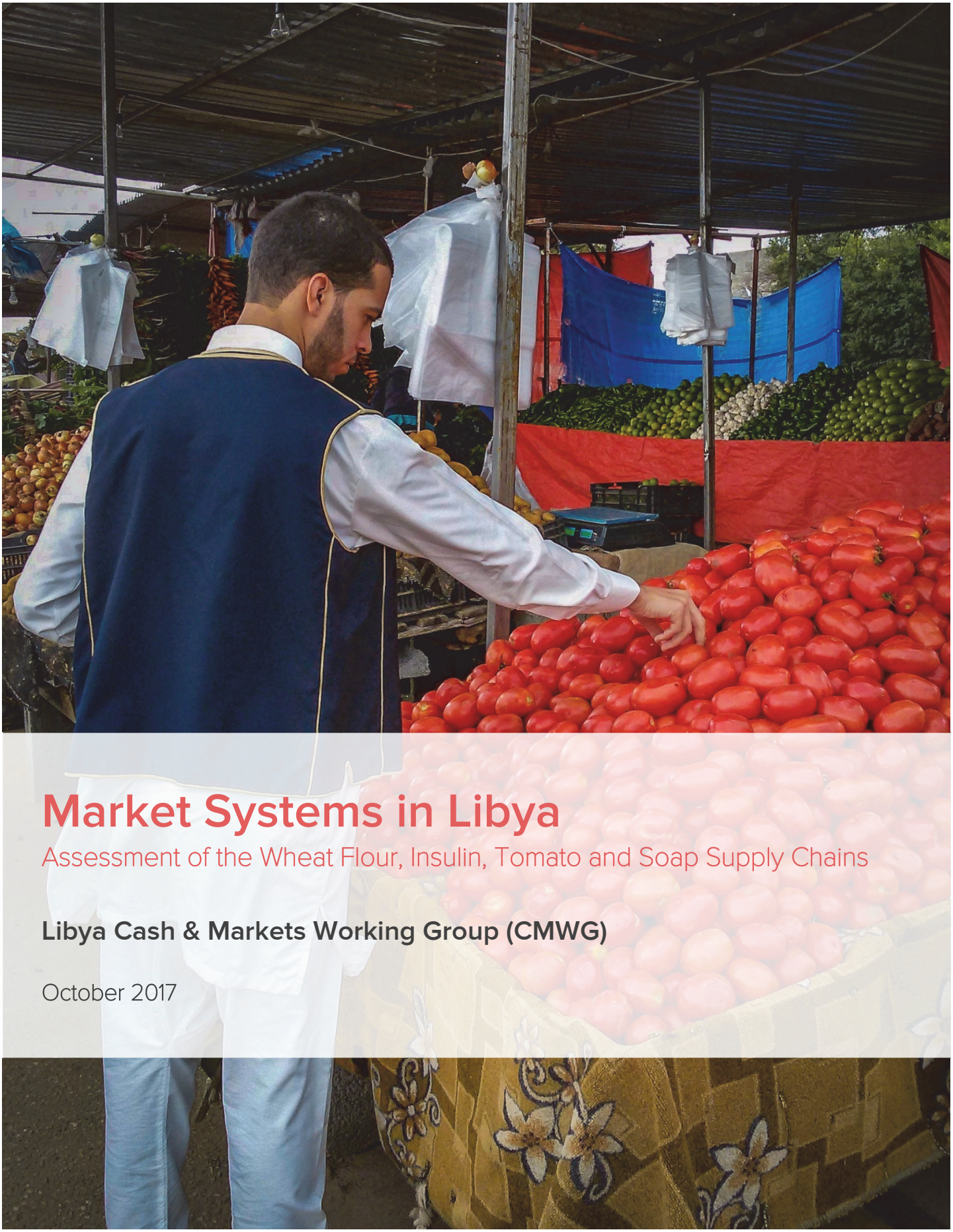

Market Systems in Libya

Assessment of the Wheat Flour, Insulin, Tomato and Soap Supply Chains

Libya Cash & Markets Working Group (CMWG)

October 2017

This report was produced by REACH in partnership with the Libya Cash & Markets Working Group (CMWG). The CMWG was established in August 2016 as a community of humanitarian actors supporting and coordinating humanitarian cash and market interventions in Libya.

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Executive Summary

The Market Systems in Libya assessment aims to provide humanitarian organisations with a better understanding of market dynamics in Libya, information on key supply chains and how they have been impacted by ongoing conflict, and the necessary foundation to examine the potential of scaling up market and cash-based interventions.

The Libya Cash & Markets Working Group (CMWG)[1] identified information gaps in how humanitarian actors understand local markets in Libya and consequently initiated the Joint Market Analysis Initiative, led by REACH in close collaboration with the CMWG, for the purpose of producing this assessment.

Qualitative data was collected during August and September 2017 in Tripoli, Benghazi and Sebha through 234 key informant interviews with producers, importers, wholesalers, retailers, and other stakeholders in the wheat flour, insulin, tomato and soap supply chains, as well as 12 focus group discussions with Libyan and migrant consumers. These supply chains were selected to reflect different market sectors of interest to humanitarian actors.

Overall, the assessment found that in spite of disruptions following the renewal of the Libyan conflict in 2014, the wheat flour, insulin, tomato and soap supply chains are functional. Given the general market functionality and overall market access for vulnerable populations, the CMWG recommends that cash and market-based responses be prioritized where appropriate in Tripoli, Benghazi and Sebha.

Context

Since 2011, Libya has continued to experience violent conflict, political upheaval and deteriorating living conditions. Renewed conflict between armed groups since April 2014 has resulted in large-scale displacement and humanitarian need within Libya, with OCHA reporting an estimated 1.1 million people affected by the crisis, including 370,000 IDPs and returnees.[2] Refugees and migrants, from those seeking aslyum in Europe to those looking for economic opportunity in north Africa, continue to enter the country and face detention, abuse and exploitation.

In addition, the country has tumbled into a severe economic crisis, which is amplified by the devaluation of the Libyan dinar and the dwindling funds of Libya's multiple governments to provide subsidies and services to its population. As a result, access to basic goods and services has become a challenge in some parts of the country as many households struggle with meeting their basic needs due to their decreasing purchasing power and a lack of access to cash.

Though local markets and supply chains have been resilient throughout these crises, they have not remained unaffected, as conflict dynamics have hampered domestic production and subsidy regimes for certain items. Even so, basic food items and NFIs have been reported to be consistently available throughout Libya. While the availability of commodities in shops is indicative of overall market functionality, it is crucial to analyse developments further up the supply chain in order to correctly interpret changes on the markets and to respond in an

[1] The Libya Cash & Markets Working Group (CMWG) was created in 2016 to analyse the impact of the ongoing conflict on markets in Libya and guide the implementation of humanitarian cash and voucher interventions within those markets.
[2] OCHA, Humanitarian Needs Overview 2018 (forthcoming).

appropriate manner. In light of the protracted crisis, supply chains may have been severely affected, potentially limiting the impact and effectiveness of market-based interventions by humanitarian organisations. As there is ample potential for more evidence-based programming, local data on the current state of markets is required.

Key Findings

Access Challenges

On the whole, consumers (including refugees and migrants) in Tripoli, Benghazi and Sebha have physical access to markets, with temporary access issues related to insecurity affecting smaller segments of the population as conflict peaks. **The lack of access to cash is a major access issue that hinders consumers from acquiring basic commodities in quantities required to meet basic needs**.

Since 2014, food subsidies have been cut or suspended in large parts of the country. Due to the conflict and the fiscal crisis, subsidies have been abolished in Tripoli and Sebha, which has further reduced the purchasing power of consumers. The system remains partly functional in Benghazi.

In general, different population groups—non-displaced, internally displaced (IDPs), migrants and refugees—interact with markets in similar ways, frequenting the same shops and deriving commodities through the same channels. However, some access limitations were found, especially for non-Libyans (migrants and refugees) who are not eligible to access food subsidies and free insulin from the local authorities.

The Libyan economy is heavily dependent on imports. Macro-economic developments since 2014, namely the authorities' decreasing revenue and the depreciation of the Libyan dinar, have impacted the wheat flour, tomato, soap and insulin supply chains by hampering increasingly expensive imports of supplies from abroad.

Wheat Flour Supply Chain

The wheat flour supply chain has undergone substantial changes since 2014. As a result of the authorities' inability to provide adequate funds, **wheat flour subsidies for bakeries have been abolished throughout Libya.** As a result, the distribution of subsidized wheat flour through *jam'iyat* (consumer associations) came to a halt in 2014 in both Tripoli and Sebha; in Benghazi, subsidized wheat flour can still be accessed sporadically. **The disruptions have lowered consumption of wheat flour and led to an estimated 50% decrease in demand since 2014**, although it is also important to note that previous high subsidies resulted in overconsumption of wheat in many areas in Libya.

Additionally, due to the authorities' fiscal challenges and their inability to provide foreign currency for imports, mills have been facing substantial difficulties in importing raw wheat for local production at the official exchange rate. This has led to shortages of locally produced wheat flour on markets and a shift towards the import of already ground wheat flour, the price of which has increased as the Libyan dinar has depreciated on the parallel market.

Insulin Supply Chain

The insulin supply chain is characterized by heavy influence on the part of the authorities. With limited funds, the state importer (Medical Supply Organisation) has been struggling to import insulin in sufficient amounts, and has thus not been able to meet the needs of the entire

population. **Private companies have filled this void and gained a larger share of this market since 2014**. The shortages in the insulin supply chain have had serious implications for patients. Instead of obtaining insulin at health centres for free (exclusive to Libyan nationals, as migrants and refugees are not eligible to register), patients have increasingly had to rely on private channels, where its price has dramatically increased (500-600%) since 2014. More recently, insulin has been consistently available at private pharmacies, but concerns about quality and rising prices remain.

Tomato Supply Chain

The tomato supply chain differs from others as it is mainly sustained by local production. **The supply chain has maintained its capacity to satisfy the demand of the population**. However, domestic producers have been facing a number of challenges, ranging from increasing prices of farming inputs to a lack of labour, water and electricity. Such challenges have been particularly prevalent in the south, where production has decreased significantly in the past 3 years. Tomatoes remain continuously available although prices have risen by 50% across Libya since 2014.

Soap Supply Chain

The soap supply chain has only been marginally affected by the conflict since 2014. Since most soap and all raw materials are imported from abroad by private companies, the devaluation of the Libyan dinar has led to substantial cost increases for soap importers as well as producers. Consequently, the price of both imported and domestically produced soap in shops has tripled since 2014. The supply chain remains fully functional, although the full effect of rising prices on households' access is not known.

Conclusion

Overall, the assessment found that in spite of disruptions following the renewal of the Libyan conflict in 2014, the assessed supply chains are functional and have the capacity to meet demand from consumers in Libya. This is particularly the case for wheat flour, tomatoes and soap and to a lesser extent for insulin. While in some of the assessed supply chains the channels through which consumers access goods have changed due in part to decreased government subsidy and support (wheat flour and insulin), others have merely been affected by increasing prices (tomatoes and soap). Rising prices and a lack of access to cash are affecting market access for vulnerable consumer groups, including migrants and refugees.

Given the specificities of the Libyan context, the impact of the liquidity crisis is of particular interest. Actors in the analysed supply chains are heavily dependent on cash to handle their business dealings. However, the vast majority of supply chain actors have ample access to cash, since they themselves receive payments in cash. **The overall functionality of the supply chains has not been affected by the lack of cash. The liquidity crisis is felt on the demand side:** Consumers cannot access cash at the required amounts and therefore struggle to purchase key household goods.

Given that key commodity supply chains are functioning in Libya, and household access to key goods is consistent, the CMWG concludes that market-based responses are appropriate in Tripoli, Benghazi and Sebha. At a minimum, the CMWG recommends that in-kind humanitarian aid should be procured locally when possible in Libya, as many local markets are able to meet current and increased demand for key commodities. New in-kind humanitarian responses within Libya should answer the question "why not procure through

local markets?" when considering the cost-effectiveness and local effects of aid options. Responding organisations should also answer the question "why not cash assistance?" when analyzing response options; broad liquidity issues within Libya have not translated into significant market disruptions for many key goods, and thus cash assistance has the potential to support local economies. Responding organisations should work with financial institutions to address household liquidity issues that limit access to local goods.

Limitations

The findings detailed above only apply to the assessed locations and supply chains. The conclusions can be generalized neither to all of Libya, nor to other supply chains that were not investigated. Furthermore, due to the challenges posed by the remote context as well as the limited availability of baseline information, some aspects of the supply chains in question may not have been captured. This report aims to provide a foundation for humanitarian programming in Libya and the level of market information needed to provide aid, and should therefore be understood as an effort at closing the wide information gaps that exist and identifying areas for further investigation.

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List of Figures, Tables and Maps

List of Acronyms

CBIs	Cash-based interventions
CMWG	Libya Cash and Markets Working Group
DTM	Displacement Tracking Matrix
FGD	Focus group discussion
HH	Household
IDPs	Internally displaced persons
IOM	International Organisation on Migration
JMMI	Joint Market Monitoring Initiative
KI	Key informant
KII	Key informant interview
LYD	Libyan dinar
MSNA	Multi-sector needs assessment
MSO	Medical Supply Organisation
NFIs	Non-food items
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
POS	Point of sale
PSF	Price Stability Fund
USD	US dollar
WASH	Water, sanitation and hygiene
WHO	World Health Organisation

Introduction

Since April 2014, renewed conflict between armed groups has resulted in large-scale displacement within Libya. By July 2017, 217,022 people fleeing from conflict were displaced according to the International Organization for Migration's Displacement Tracking Matrix (IOM DTM).[3]

In addition, Libya has tumbled into a severe economic crisis. Disruptions to oil production—the backbone of the Libyan economy and of the state's finances—have led to a significant reduction in revenues, which has limited the capacity of the authorities to fund the import of certain commodities as well as to fund subsidies.[4] A significant fiscal deficit and subsequent dwindling foreign reserves has increasingly put the Libyan dinar under pressure. The country's currency has substantially depreciated on the parallel market since 2014, which resulted in inflationary pressures.[5] As a result, access to basic goods and services has become a challenge in some parts of the country as many people struggle with decreasing purchasing power and a lack of access to cash which limits their ability to purchase basic necessities.

The current situation is further exacerbated by a broader liquidity crisis, where financial institutions are facing decreased supplies of cash and have placed withdrawal limits on accounts.[6] It is reported that people are confronted with limited access to cash and long queues at banks have become the norm. This creates new vulnerabilities and puts many households (non-displaced, internally displaced (IDPs), refugees and migrants) at risk; even as they struggle with increasing prices and irregular income, their limited access to cash leads to a further loss in purchasing power and ability to access key commodities.

In the present environment, aid organisations are increasingly considering additional ways to help vulnerable populations meet their basic needs, including ramping up cash-based interventions. However, little is known about the full functionality of key supply chains throughout Libya, and the full effect of the conflict on local market systems. In the light of the protracted crisis, supply chains may have been severely affected, potentially limiting the impact of market-based interventions by humanitarian organisations.

According to the Joint Market Monitoring Initiative (JMMI), basic food and non-food items (NFIs) have been consistently available throughout Libya.[7] These findings suggest that supply chains are functioning and able to provide goods to markets continuously—an indicator of overall market functionality. Market actors are generally integrated and flexible enough to respond to temporary blockages and bottlenecks by drawing from stocks and using different supply routes if needed.

While the availability of commodities is indicative of overall market functionality, it is crucial to dig further into individual supply chains. Monitoring the availability of items to consumers gives an insight, albeit a limited one, into the very end of the supply chain. A more in-depth

[3] IOM (2017). DTM Libya Report Round 12—June-July 2017. Available from http://www.globaldtm.info/
[4] World Bank (2017). Libya's Economic Outlook. Available from http://www.worldbank.org/
[5] Mercy Corps (2017). Libya's Shadow Economy. Available from https://www.mercycorps.org/
[6] US-Libya Business Association (2017). Libya's Liquidity Crunch and the Dinar's Demise. Available from http://www.us-lba.org/
[7] The Libya Joint Market Monitoring Initiative (JMMI) is a monthly price data collection exercise. The latest factsheet (from the October 2017 round) is available from: http://www.reachresourcecentre.info/

market analysis looking at the entire supply chain, as well as consumer demand and access, can build on this initial market monitoring to help humanitarian organizations better understand how local markets have been impacted by the Libyan crisis. Given that no market assessment has been conducted since the renewed conflict began in 2014, there is ample potential to increase evidence-based programming and engage the humanitarian community in considering market-based response options in Libya.[8]

The *Market Systems in Libya* assessment aims to provide humanitarian organisations with a better understanding of market dynamics in Libya, information on key supply chains and how they have been impacted by ongoing conflict, and the necessary foundation to examine the potential to scale up market and cash-based interventions. The Libya Cash & Markets Working Group (CMWG) identified information gaps in how humanitarian actors understand local markets in Libya and consequently initiated the Joint Market Assessment Initiative, led by REACH in close collaboration with the CMWG, to produce the assessment. The CMWG provided guidance on the scope of the assessment, including the selection of key supply chains of interest to the humanitarian community, and corresponding conclusions for humanitarian programming in Libya.

It is the intention of this assessment to investigate market functionality and disruption in selected key household commodity supply chains, and to provide analysis on broad economic factors and local markets that can be used in developing humanitarian response. The specific objectives of the market assessment as defined by the CMWG are the following:

- **Access to markets**: Assess whether consumers from different population groups (non-displaced, IDPs, refugees and migrants) can access the selected key items and which barriers (e.g. physical access barriers, liquidity challenges) may exist.
- **Market mapping**: Map critical market systems, understand how the supply chains are affected by the conflict and whether they are able to provide the key items to the population.
- **Response analysis**: Understand the possibility for humanitarian aid to be increasingly delivered through local markets and determine effective market-based solutions that can be integrated into the current environment.
- **Add to evidence base**: Provide a baseline for future assessments and research, inform the humanitarian community and create an understanding of key issues surrounding local markets.

In order to analyse the particularly complex market environment of Libya, the CMWG selected four key supply chains (wheat flour, insulin, tomato and soap) as an indicative sample of the overall market system in Libya. The selected supply chains meet a variety of criteria, such as relevance to households and humanitarian actors from different sectors (i.e. food security, health & WASH).

The CMWG targeted three urban hubs across Libya (Tripoli, Benghazi and Sebha). The locations were chosen to adequately reflect differences among regions in Libya as well as their relevance to humanitarian actors, as they are among the key locations for humanitarian interventions due to the high concentration of IDPs and returnees.

[8] After the revolution in 2011, WFP conducted a market assessment of the wheat flour and tomato market systems in eastern Libya. It is available from http://vam.wfp.org/

Methodology

Scope

The *Market Systems in Libya* assessment was a joint exercise led by REACH in close collaboration with the CMWG and its members, who provided overall guidance on the scope and key research questions of the assessment. The assessment was conducted over a period of several months to ensure stakeholder participation and feedback from the initial scoping stage, and also due to the need to obtain local authorisation for data collection.

CMWG members were engaged for guidance throughout the market assessment cycle through monthly CMWG meetings, as well as through three specific sessions (June 22, 2017, August 17, 2017 and October 31, 2017) to capture feedback on the objectives and scope of the assessment and discuss progress and conclusions. Additional stakeholders in the humanitarian community, including sectoral focal points and donors, were invited to the closing portions of these sessions to discuss expectations, progress and outcomes of the assessment.

Geographic Coverage

The CMWG targeted three urban hubs across Libya. In order to gain insight in the general market environment in Libya, the data colletion locations were chosen to adequately reflect differences between the western, eastern and southern regions of Libya. Consequently, Tripoli (west), Benghazi (east) and Sebha (south) were chosen as the main cities of interest given their importance as major urban hubs in their respective regions (Map 1). With vital infrastructure (such as ports and airports) located in these cities, they present key elements of the market systems in Libya and host relevant supply chain actors, such as importers and wholesalers. In addition, they are of particular relevance to the CMWG members and other humanitarian actors, as they are some of the main locations for humanitarian interventions due to the high concentration of IDPs and returnees.

***Map 1**: Assessed Locations*

Key Supply Chains

In order to analyse the particularly complex market environment of Libya, the CMWG chose four key supply chains as an indicative sample: wheat flour, insulin, tomato and soap. The key supply chains were defined based on a number of criteria developed by the CMWG and validated in a stakeholder response session with the broader humanitarian community supporting Libya. Criteria for key items and respective supply chains included:

- Indicative of large picture response issues, i.e. potential to provide information on how imports, subsidies, liquidity and delivery of humanitarian aid function in Libya
- Relevant to various humanitarian organizations from different sectors
- Basic goods regularly consumed by households
- Supply chain potentially disrupted by conflict
- Supply chain demonstrative of regional differences

Population of Interest

The assessment focused on consumers from all population groups, including non-displaced Libyans, IDPs, refugees and migrants, to provide an overall picture of market function of key commodities in Libya. However, where vulnerable groups (IDPs, refugees, migrants) appeared to experience different constraints and challenges in accessing markets or commodities, these challenges were analysed separately. The assessment was inclusive of gender considerations, both in endeavouring to speak to female consumers, traders and other stakeholders and in analysing women's market access across geographic and target group lines.

Fieldwork

Timeline

Data collection was carried out in Tripoli and Sebha between 1 and 14 August, and in Benghazi between 7 and 27 September. In total, 77 key informant interviews (KIIs) and 4 focus group discussions (FGDs) were conducted in Tripoli. In Sebha, 71 KIIs were conducted and 4 FGDs. In Benghazi, data was collected through 86 KIIs and 4 FGDs.

Sample

Qualitative data was collected through interviews with actors along the key supply chains. Such actors included importers, producers, processors, wholesalers, retailers, banks, transporters, hospitals, health centres, consumer associations *(jam'iyat)* as well as government-linked organizations such as the Price Stability Fund (PSF), the Medical Supply Organization (MSO), the National Flour Mills Company *(matahan)* and the Central Bank of Libya. In addition, enumerators conducted interviews and FGDs with consumers, who are an integral part of the supply chain. A breakdown of interviews conducted by type of respondents and location is presented in Table 1.

Consumer interviews were conducted with representatives (male and female) from the non-displaced community, as well as IDPs, migrants and refugees, in order to explore different market habits and access to markets among different population groups. The proportion of interviews among these three population groups was balanced between their respective relevance to the supply chains and the need to focus on particularly vulnerable population groups (IDPs, migrants and refugees). Furthermore, in each location, three separate FGDs were conducted with non-displaced, IDP and refugee/migrant participants, and one with female participants only.

In order to mitigate gender balance issues, field teams sought to interview women and men to an equal degree as far as possible, to ensure data collection took into account gender and cultural sensitivities. At the level of consumer interviews, it proved to be less of a challenge to reach as many women as men. In order to ensure that issues specific to female consumers were captured, a FGD exclusively composed of women was conducted in each location. Further up the supply chain, it proved more challenging to reach female respondents, as there were fewer female stakeholders at the importer, wholesaler and retailer level. Even though field teams tried to identify female key informants (KIs), interviews were predominantly conducted with men.

Table 1: Key Informant Interviews and Focus Group Discussions

Location:	Tripoli	Benghazi	Sebha
Key Informant Interviews			
Consumer	20	20	23
Retailer	15	16	15
Wholesaler	12	11	9
Transporter	0	3	5
Importer	9	9	0
Producer	3	3	2
Processor	1	3	2
Bank	2	3	2
PSF & *jam'iyat*	3	3	1
Other stakeholders	12	15	12
Total KIIs per location	**77**	**86**	**71**
Total KIIs overall		**234**	
Focus Group Discussions			
Consumer	4	4	4

Training

In July, REACH organized a one-day training for its Libyan field coordinators and enumerators in Tunis, Tunisia, and trained them on the methodology and research tools. Questionnaires were reviewed in detail and mobile data upload procedures were discussed. Furthermore, the training was used to build initial market maps based on the field staff's knowledge of the four key supply chains.

Challenges

During the project development and data collection phases, the assessment team faced several challenges:

- **Limited baseline information**—The limited availability of baseline information on Libyan market systems hampered the development of appropriate research tools as well as identification of relevant KIs.[9] As a mitigation measure, the assessment team

9 In May 2017, the CMWG produced a desk review, which provides a baseline for CMWG members on the state of the literature related to cash and markets in Libya. It is available from: http://www.reachresourcecentre.info/

conducted a number of KIIs with individuals with specific knowledge about the key supply chains, prior to drafting questionnaires and finalizing the overall research framework. In developing the project, the assessment team drew heavily from the local knowledge of the field teams to develop a basic understanding of the supply chains at hand and to identify KIs.

- **Remote context**—The assessment was managed remotely by REACH staff based in Tunis. Managing field work remotely is inherently challenging. To mitigate some of the resulting challenges, particularly communication and coordination issues with the assessment team, a daily debrief call with the field teams was scheduled to discuss the progress and issues faced during the field work.
- **Power cuts**—Frequent power cuts during the data collection period in Tripoli and Sebha complicated communication between the field staff and the REACH office in Tunis. In one incident, field teams could not be reached for more than two days as a result of a power outage in the west and south of Libya. Furthermore, the absence of a functional internet connection during those periods impeded regular upload of data. Enumerators were advised to upload data as soon as possible whenever a functioning internet connection could be established. Communication channels were kept active through daily phone calls with the field coordinators.
- **Authorization**—Access to Benghazi has been particularly challenging for humanitarian actors engaging in data collection. As a result of the security situation restricting the humanitarian space and access to Benghazi, official authorization by the local government was necessary to mitigate any risks for field staff. Due to the access restrictions and lengthy process of obtaining official authorization, the implementation of field work in Benghazi suffered delays.

Limitations

The findings of this market assessment only apply to the assessed locations and supply chains. The conclusions can be generalized neither to all of Libya, nor to other markets that were not investigated. Furthermore, due to the challenges posed by the remote context as well as the limited availability of baseline information, the results of the market assessments may be incomplete. This report aims to provide a foundation for humanitarian programming in Libya and the level of market information needed to provide aid, and should therefore be understood as an effort at closing the wide information gaps that exist and identifying areas for further investigation.

Access Challenges

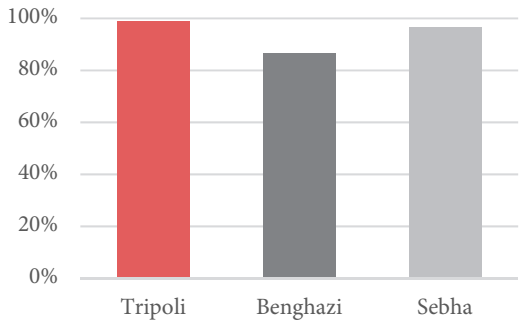
The ability of consumers to physically access markets, along with their ability to afford and purchase key commodities, is of particular concern to humanitarian actors. It is important as well to understand market constraints and disruptions, especially those that may limit market access for vulnerable populations, including IDPs, refugees and migrants. The following section explores key findings related to market access and purchasing power for households. The report then examines findings by key commodity supply chain for wheat flour, insulin, tomatoes and soap.

Access to Markets

A vital aspect of market systems is the population's capacity to participate in trade. Supply chains are only fully able to provide commodities if consumers have physical and safe access to shops. Consumers in Libya frequent supermarkets, grocery shops, vegetable vendors and bakeries on a daily to weekly basis. Continuous access, which cannot always be guaranteed in conflict-plagued areas of Libya, is therefore key to prevent the population from reverting to negative coping strategies, such as reducing food intake or resorting to lower-quality medicines.

Field interviews in Tripoli, Benghazi and Sebha showed that virtually all consumers—male consumers, female consumers, IDPs, refugees and migrants—had physical access to shops. These findings are confirmed by data from the REACH Multi-Sectoral Needs Assessment IV, which shows high levels of market access throughout the assessed locations (Figure 1).[10]

***Figure 1**: Households with Access to Markets (in %)*



Challenges to Access to Markets

Although consumers were generally able to access markets, they faced sporadic access constraints. Most of these constraints were due to a general lack of security, which was indicated by many consumers. Since 2014, there have been clashes in some neighbourhoods in Tripoli, Benghazi and Sebha, which led to a shutdown of market activities in the affected areas.

Security issues are particularly prevalent in Sebha, where 9.3% of Libyan households indicate insecurity while travelling to shops to be a barrier to market access.[11] Clashes have been frequent since 2014 and the overall security situation has been volatile. Many ordinary citizens are armed

[10] REACH (2017). Multi-Sectoral Needs Assessment IV. Note: The MSNA data is representative on the district level for the Libyan population. Given the proximity of shops and lower dependence on means of transport, market access might be even higher in the respective cities of Tripoli, Benghazi and Sebha.
[11] Ibid. 0.1% in Benghazi, 1.6% in Tripoli.

when moving around the city and accessing markets. Small disputes may therefore quickly have serious consequences. Furthermore, shops in affected areas shut down when conflict arises and results in road closures and a lack of transportation options. Occasionally, shops have been destroyed during clashes.[12]

Consumers indicated that security in Sebha has generally improved in the last 6 months. Similarly, consumers in Tripoli reported that access to local markets has improved over the past 6 months—particularly since May, after which clashes in some parts of the city, such as Abusliem, stopped.[13] No significant changes have been reported by consumers in Benghazi. In all three locations, consumers expect market access to further benefit from improving security over the next 6 months.

Consequences for Consumers

Clashes normally do not last more than a day or two, after which normality ensues. During disruptive periods, consumers feel unsafe to move around the city. For periods of restricted access, consumers reported a number of ways they coped in the short-term.

Some consumers reported that they bought from safe neighbourhoods or from the closest store if clashes were not taking place in their immediate surroundings. In the case of direct conflict nearby, many chose not to leave their homes and to restrict their movements to a bare minimum until it was over. Instead, they relied on household stocks or borrowed essential items from neighbours.

Access to Cash

While physical access to markets is generally established in Tripoli, Benghazi and Sebha, consumers have been confronted with limited access to cash—the primary payment modality—which has created new challenges to market access.

Due to uncertainty over Libya's economic and political future, confidence in the banking sector and the country's currency has gradually deteriorated since 2014. This has induced businesses to withdraw their deposits from accounts and to keep large amounts of cash outside the official banking system.[14] In an effort to curtail the flight of cash, banks started to set limits for cash withdrawals (March 2016), which led to a further loss of confidence.[15] Limited access to cash and long queues at banks have since become the norm.[16]

As a result of the prevailing liquidity crisis, consumers in Libya have been facing serious restrictions in their access to cash. While many consumers may possess funds in bank accounts, they are unable to withdraw adequate amounts of cash to meet their needs, which further reduces their purchasing power and ability to meet their basic needs on a consistent basis. In all the assessed areas, consumers reported the lack of access to cash to be a major obstacle to accessing basic goods. As noted in following supply chain sections, traders and other supply

[12] FGDs with consumers in Sebha.
[13] Reuters (27 May 2017). Rival factions clash in Libya's Tripoli. Available from http://www.aljazeera.com/news/2017/05/rival-factions-clash-libya-tripoli-170526154255187.html.
[14] US-Libya Business Association (2017). Libya's Liquidity Crunch and the Dinar's Demise. Available from http://www.us-lba.org/
[15] Mercy Corps (2017). Libya's Shadow Economy. Available from https://www.mercycorps.org/
[16] ACTED (2017). Cash Distribution Monitoring—March 2017. Available from http://www.acted.org/

chain actors were much less likely to face liquidity issues as they receive cash payments, often outside the formal banking system.

Dependence on Cash

Access to cash is of particular importance in the Libyan context, as the economy has traditionally been reliant on cash as a means of payment. Consumers heavily rely on cash: 98% of households in Benghazi, 93% in Tripoli and 89% in Sebha have reported cash to be their primary modality for expenditure.[17]

Non-cash modalities, such as certified cheques, exist as a form of payment in the assessed areas and have become more prevalent since 2014. However, consumers paying by cheque reported they incurred additional costs of 30-50%, as it is challenging for recipients to cash such financial instruments given the restrictions on obtaining cash from banks. Thus, consumers and retailers prefer to handle payments in cash to the extent possible. Purchasing on informal credit is fairly unusual across all locations. Retailers normally only grant credit to close friends and family and tend to assume that most transactions made on credit will not be repaid.

Field interviews have shown that only a few consumers use cheques and debit cards in Tripoli. In Sebha, IDPs and migrants almost exclusively rely on cash payments, while around half of the respondents from the non-displaced population indicated that they used cheques. In Benghazi, both displaced and non-displaced use cash and cheques as payment modality while migrants pay in cash only.

Interviews with retailers have confirmed these findings and revealed that the majority of shops in Tripoli, Benghazi and Sebha do not accept any forms of payment other than cash. Alternative payment modalities, such as mobile money, have reportedly been developed in a number of cities throughout Libya, particularly in Benghazi.[18] However, field research showed that these payment modalities still have little relevance overall.

Challenges to Accessing Cash

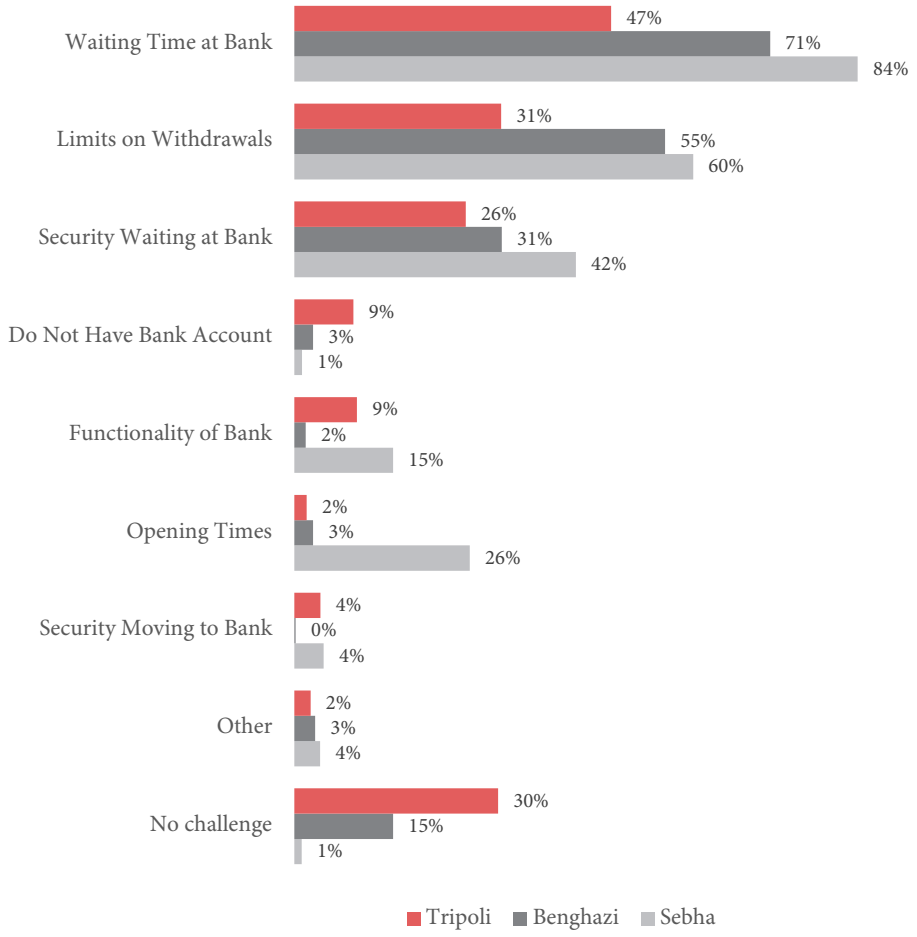
The challenges that households face in accessing cash are easily seen in reports of the long lines and withdrawal limits that consumers face at banks. It is not unusual to wait for several hours before one is given a turn to withdraw money. In Benghazi, the average waiting time at banks is 4.8 hours.[19] Consumers have further noted security to be a concern while waiting in line; armed groups have reportedly threatened customers who were waiting in line or exiting banks. Data from the REACH MSNA IV quantifies these findings (see Figure 2) and shows that such challenges were faced to a larger degree in Sebha.

Since banks do not have the necessary funds to provide enough cash, they have been enforcing withdrawal limits. The vast majority of households (80.2% in Tripoli, 76.5% in Benghazi and 96.7% in Sebha) cannot withdraw amounts above 1,000 LYD per month (see Figure 3) throughout the assessed areas. Limits are slightly higher in Benghazi, while 23.5% of households in Tripoli are not able to withdraw any cash at all.

[17] REACH (2017). Multi-Sectoral Needs Assessment IV. Note: Figures are representative at the district level.
[18] Mercy Corps (2016). We Will Stay Here - IDP Vulnerability Assessment. Available from https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/assessments/unhcr_mercy_corps_idp_assessment_libya_dec_2016.pdf.
[19] ACTED (2017). Cash Post Distribution Monitoring—September 2017.

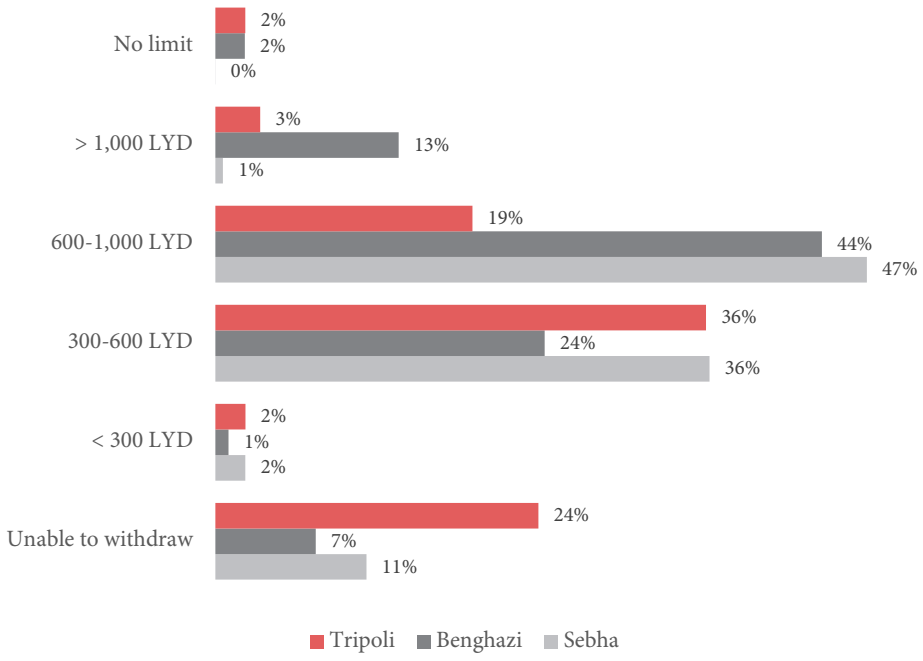
Withdrawal limits imposed by the banks have had a significant impact on household consumption patterns. Without exception, all interviewed respondents indicated that the withdrawal limits are too low to cover expenses. The lack of cash sets a ceiling on household spending and affects their ability to cover basic needs.

***Figure 2**: Challenges Accessing Financial Providers*[20]



[20] REACH (2017). Multi-Sectoral Needs Assessment IV. Note: Figures are representative at the district level.

***Figure 3**: Withdrawal Limits*[21]



Coping Mechanisms

Consumers have developed a number of coping strategies in an effort to deal with reduced access to cash for the purchase of basic needs goods. First and foremost, consumers in all assessed locations reported that they had reduced spending and consumption. Basic food and hygiene items were reportedly prioritized over other goods, in order to satisfy the most immediate household needs first.

Some consumers reported that they had to buy items on credit. According to retailers in Tripoli, Benghazi and Sebha, however, debt payments were seldom accepted unless the customer had a close relationship with the shop owner. Where possible, some consumers were also permitted to pay by cheque in exchange for a mark-up of up to 50%.

Due to the lack of liquidity, some households have been forced to find additional sources of income that might bring in additional hard cash. Among the respondents, there were several individuals who indicated that they had taken up additional jobs. Others indicated that they sold household belongings in exchange for cash, while some rely on friends and family, as well as on religious charity (*zakat*).

Only a few respondents from the migrant population reported that they had reduced food intake and indicated they would stay hungry for extended periods of time. While not heavily reported, such negative coping strategies are concerning and may threaten the food security of some of the most vulnerable parts of the migrant and refugee population.

[21] Ibid.

Access to Subsidized Goods

Traditionally, the Libyan government has subsidised basic food items, such as wheat flour, vegetable oil, rice and tomato paste. Since subsidised items are sold at heavily reduced prices (up to 50% below market prices), the subsidies significantly lower household food expenditures, particularly for vulnerable households with limited incomes.

Since 2014, food subsidies have been disrupted in large parts of the country and are not expected to return to pre-conflict levels or in some cases at all. Due to the conflict, much of the subsidies have been abolished in Tripoli and Sebha, which, besides a lack of cash and increasing prices, has further reduced purchasing power of consumers.

The Role of the Price Stability Fund (PSF) & Consumer Associations (*jam'iyat*)

The entity commissioned by the authorities with the task of providing subsidised goods to the population is the Price Stability Fund (PSF). It directly imports a number of basic food commodities and distributes them through a network of consumer associations (*jam'iyat)*, small government-run shops selling subsidised goods by the authorities.

Each city has its own branch of the PSF, which receives shipments and distributes subsidised goods to local *jam'iyat*. These associations are located throughout Libya and can be found in each neighbourhood in Tripoli, Benghazi and Sebha. There are around 400-500 *jam'iyat* in the city of Tripoli alone, dozens in Sebha and around 90 in Benghazi. The number of *jam'iyat* around the country is estimated at 6,500.[22]

The PSF distributes food to the *jam'iyat* according to the number of households registered with each association. Each household can obtain a certain monthly quota of the subsidized goods, which corresponds to the number of household members as well as the PSF's ability to procure goods. The commodities are sold at a subsidized, fixed price set by the authorities.[23]

Prior to 2014, the PSF not only distributed subsidized wheat flour through the *jam'iyat*, but also used to buy flour from mills and sell it to bakeries at a highly subsidized price. Bread sold at bakeries was thus heavily subsidized. However, due to the authorities' inability to mobilise adequate funds, the PSF faced severe difficulties in paying its accumulated debt. Both private and publicly-owned mills opted out of further dealings with the PSF. Bread, a staple for many Libyan households, is since no longer subsidized; prices have increased by more than 300% since 2014.

Disruption to the PSF's Activities in Sebha and Tripoli; Continued Activity in Benghazi

The PSF has been facing major challenges since 2014. Due to the authorities' dwindling funds, the PSF has been unable to import items, and the *jam'iyat* in Tripoli and Sebha have thus remained non-operational since 2014. Due to the disruption to the PSF's activities in Tripoli and Sebha, consumers have not been able to access subsidized items through *jam'iyat* for the last 3 years. Instead, they are forced to purchase from regular shops, where non-subsidised prices are up to twice as high.

[22] Representatives of the PSF in Tripoli, Benghazi and Sebha.

[23] In the past, there have reportedly been a number of instances of representatives of *jam'eeyet* illegally selling the subsidized goods to traders. Some individuals as well as representatives of *jam'eeyet* would create fake identities and register with *jam'eeyet*, and subsequently sell the goods at a higher price to the market.

The PSF currently plans to re-start its activities in Sebha and Tripoli over the coming months. Items that will reportedly be distributed by the PSF in Tripoli and Sebha are rice, pasta, couscous, vegetable oil, tea and potentially additional food items.[24]

For vulnerable Libyan households in Tripoli and Sebha, renewed access to subsidized goods would lower the amounts of cash needed for food expenditure. It remains to be seen whether the PSF will be able to resume its activities in the near future. Its capacity to do so will largely depend on the funding of the central government and allocation of resources to the PSF. However, given the current economic outlook, stakeholders were cautiously optimistic that activities may restart.

Unlike in Tripoli and Sebha, the PSF has remained partly functional in Benghazi. The *jam'iyat* are still operational. Most interviews with Libyan consumers indicated that they had access to *jam'iyat* and that they were able to obtain subsidized goods of a satisfying quality in the last 6 months. However, supply was sporadic and depended on the provision of the necessary funds by the authorities and Central Bank.

Items currently distributed by the PSF in Benghazi are vegetable oil, sugar, tomato paste, wheat flour and tea. Before 2014, canned milk, rice, pasta and several other items were sold in the *jam'iyat* in addition to the previously listed items.

Informal Subsidies

In addition to the official food subsidy system run by the PSF, there exist informal subsidies via private traders, which first emerged in 2016.

Generally, food importers cannot obtain letters of credit from the Central Bank.[25] Instead, they resort to the parallel market, where the exchange rate is significantly higher, to acquire the foreign currency needed for imports. Prices of imported commodities have therefore increased as the Libyan dinar has depreciated on the parallel market.

Nevertheless, a small number of traders in Tripoli and Benghazi reportedly have access to foreign currency at the official exchange rate, and are therefore able to import basic food commodities at a relatively cheaper price than those resorting to the parallel market. The commodities are then sold to consumers in a number of shops throughout Tripoli and Benghazi, and at one in Sebha, at a rate that is below the market price of average retailers (between 30% and 50% cheaper). Among the items that have been sold in these designated shops are cheese, tuna, tomato paste, yogurt, and also hygiene items such as laundry soap and diapers. However, the shipments come in on an irregular basis and availability at the respective shops is usually temporary.

As their business model relies on privileged access to the official exchange rate, these traders can be considered to be indirectly subsidized by the authorities. However, this system is not based on an official policy; a given trader's access to cheap foreign currency is dependent on personal relationships with bank officials. Traders additionally are not bound within a system to sell goods which they import at a cheaper rate for a specific or expected price.

[24] Representatives of the PSF in Tripoli.
[25] Interviews with food importers in Tripoli and Benghazi.

Further research is needed to determine the relevance of these shops in relation to the overall market and to quantify the effect on household's food expenditure.

Access Challenges Specific to Vulnerable Groups

The following section outlines how markets function for different population groups as well as what specific access challenges arise for IDP, migrant and refugee populations, as well as for women.

Based on research with representatives from the non-displaced, IDPs, migrant and refugee communities, it becomes evident that supply chains do not function distinctly for different population groups. Retailers do not face any restrictions nor hold any preferences regarding which population groups they sell to. In general, non-displaced, IDPs, migrants, refugees, as well as women frequent the same shops and markets and derive commodities through the same channels. However, some access challenges have been established, especially affecting migrants and refugees, as well as women in Sebha.

Women

Although physical access to markets was generally not identified as a major issue by female respondents in Tripoli and Benghazi, the general insecurity in Sebha has changed the way in which women of all population groups access markets.

Prior to 2014, it was common for women to move around the city of Sebha without restrictions. Female household members would traditionally be responsible for grocery shopping. With security having deteriorated considerably, many women are now dependent on a male family member to move around the city and to buy essential items for their households. Some women still go out alone, but remain within their neighbourhoods. In many cases, males have reportedly taken over the task of buying groceries.[26]

No similar access issues for women have been reported in either Tripoli or Benghazi, though women reported that they often faced verbal harassment when accessing markets.

Migrants & Refugees

Migrants and refugees are particularly vulnerable given their irregular status, and varying levels of documentation. As entry to Libya without adequate documentation is illegal, many are at risk of confinement in detention centres.[27] While they do have access to markets in Tripoli, Benghazi and Sebha, refugees and migrants typically face some challenges regarding physical market access and banking services, as well as access to subsidized goods and free insulin.

Physical Access to Markets

In the three assessed locations, migrants and refugees confirmed having physical access to markets. However, they were particularly affected by the lack of security. Migrants and refugees reportedly faced discrimination from the local population on a daily basis.[28] They were reportedly regularly harassed and subjected to ill-treatment by armed groups, who searched

[26] Interviews and FGD with female consumers in Sebha.
[27] IMPACT Initiatives & Altai Consulting (2017). Mixed Migration Trends in Libya: Changing Dynamics and Protection Challenges. Available from http://www.reachresourcecentre.info/.
[28] FGDs with migrants and refugees in Tripoli and Sebha.

them, particularly the men, and confiscated their personal belongings such as money and phones.[29]

As a result of insecurity and discrimination, migrants in Tripoli, Benghazi and Sebha restrict their movements around the assessed cities and only access markets if needed. Some migrants indicated that they preferred grocery shopping in the morning when it is perceived to be safer.

Access to Banking Services

Most of the migrant and refugee respondents reported that they did not have bank accounts. They indicated that either the procedure to obtain one was too complicated, or that they were unable to present the necessary paperwork, as many of them were in Libya irregularly.[30]

As a result, migrants reported that they were paid by their employers in cash, which often led to disputes as these employers either faced liquidity issues themselves, or simply withheld payments. Furthermore, migrants and refugees without bank accounts were unable to use certified cheques as a means of payment.

Access to Subsidized Goods

Subsidies have traditionally played a vital part in Libyan's household finances, given that many basic commodities were sold at a heavily subsidized reduced rate. Access to subsidized goods through *jam'iyat* is only granted to Libyan nationals. Migrants and refugees cannot register with the *jam'iyat* and therefore do not benefit from the significant food subsidies provided by the authorities.

This puts a population group that is already particularly vulnerable at a further disadvantage, as migrants have to buy substantially higher-priced commodities from the free market. A representative of the Price Stability Fund (PSF), which at the time of writing was re-creating the *jam'iyat* in Tripoli and Sebha, indicated that the policy of excluding foreigners from subsidies will not be revised in the future.[31]

Access to Insulin

Migrants and refugees obtain insulin using different channels than Libyan nationals. The authorities distribute insulin to the Libyan population free of charge through a system of health centers. While Libyan nationals (non-displaced, returnees and IDPs) have access to this service, non-nationals (migrants and refugees) are not eligible to register with any of the insulin distribution centers.[32]

They therefore do not benefit from free insulin and purchase it from private pharmacies instead. This exposes migrants and refugees to the highly volatile insulin market and high prices, which have increased fivefold since 2014.[33]

IDPs

IDPs did not report any physical market access issues beyond the ones faced by the non-displaced. IDPs reportedly did not feel discriminated against and did not need to take any

[29] One interviewed migrant in Sebha reported that he had been kidnapped in 2015. For his release, his family was reportedly forced to pay 30 thousand Libyan dinars. Another migrant in Sebha stated that he had been caught up in a fight with an armed group, during which his friend was killed in the crossfire.
[30] Interviews and FGD with migrants and refugees.
[31] Interview with a representative of the PSF in Tripoli.
[32] Interviews with representatives of health centres.
[33] Interviews with representatives of pharmacies.

particular precautionary measures when accessing markets. On the contrary, the interviewed IDPs felt welcomed by the local population and indicated that they were occasionally offered donations.

As Libyan nationals, IDPs enjoy the same access to subsidized goods as the non-displaced.

Wheat Flour Supply Chain

Wheat flour and bread are of particular relevance to Libyan households, as these commodities are considered staple foods. According to the International Grains Council (IGC), 80% of food in Libya is based on wheat.[34] The wheat flour supply chain is thus of significance to Libyan food markets and humanitarian actors, and merits closer analysis.

In this chapter, the wheat flour supply chain is mapped out, followed by a presentation of the key disruptions to the market system since the outbreak of renewed conflict in 2014.

Key Findings:

- **The wheat flour market has been affected by the authorities' inability to directly purchase or subsidise wheat imports**. Wheat has been imported irregularly since 2014, which has affected the availability of domestically milled wheat flour.
- Due to the budget shortfalls faced by the central government, **wheat flour subsidies have been removed**, both through direct support of bakeries as well as distributions through *jam'iyat* (except in Benghazi, where wheat flour is still partly subsidised by the local government).
- **Wheat flour is consistently available**, but from varying sources (imported vs. locally milled).
- In general, **consumers prefer locally milled over imported wheat flour**, as domestic flour is perceived to be of higher quality.
- Wheat flour prices on the market have increased by 50%, while bread prices have risen by 300% since 2014.
- **Consumers have drastically reduced their previously inflated consumption of wheat flour** due to the rising prices of wheat flour and bread, as well as the lack of subsidies and liquidity issues.

Mapping the Wheat Flour Supply Chain

The following section maps the wheat flour supply chain; the key actors and their linkages are described in detail.

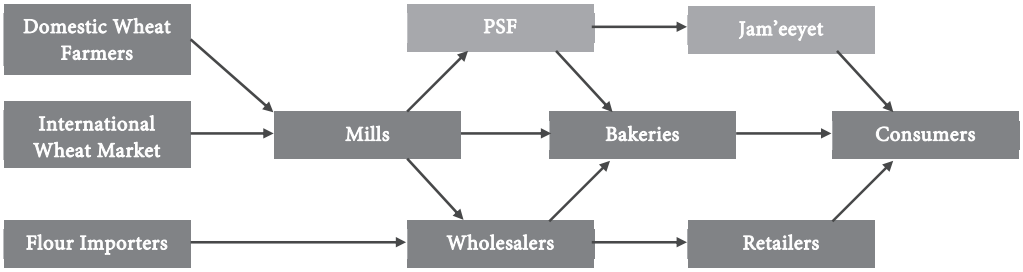
At the heart of the wheat flour supply chain are the mills, which are responsible for importing wheat from abroad, milling it and distributing the wheat flour to the market. Some local production of wheat exists; however, in recent years, imports have increased relative to locally produced wheat for a variety of reasons described below.

Locally milled wheat flour is distributed to the population in three ways: (1) through bakeries in the form of bread; (2) through wholesalers and retailers in the form of wheat flour; and (3) through a network of *jam'iyat*, which provide consumers with subsidized wheat flour.

[34] Elfagehia, A. (2014). An Overview of Grains and Feed Market in Libya (Presentation). 2014 IGC Grains Conference. Accessed on 8 October 2017. Available from http://sacota.co.za/wp-content/uploads/elfagehia.pdf.

In addition to the channels described above, increasing amounts of already ground wheat flour have been imported to Libya through specialized import companies. Such wheat flour is distributed to the population via wholesalers and retailers. This channel has gained in importance in recent years, due to mills' inability to provide sufficient amounts of locally milled wheat flour.

***Figure 4**: Wheat Flour Supply Chain*



Domestic Wheat Farmers

The vast majority of wheat is imported from abroad. The share of local wheat production is low, with only around 10% coming from domestic sources before 2014.[35] Wheat farmers sell their produce to mills.[36]

Currently, all wheat producers are located in the south of Libya, some of which are run by the government. There are six major wheat flour farms in the south, in Wadi Al-Shati, Ubari and Traghan. In addition to these larger scale producers, there may be up to 100 family farms, which produce on a small scale of less than 10 hectares each.[37]

The farm inputs that feed into wheat farming are labour, water, electricity, seeds, fertilizer, agricultural equipment and pesticides. Fertilizer, pesticides and equipment (including spare parts) are imported from abroad, while seeds are derived from local sources. Many of the workers are of sub-Saharan or Egyptian origin.

Wheat seeds are planted in November, while fertilizers and pesticides are mostly applied in December. Harvesting occurs in May. Labour is required from October until the harvesting season 7 to 8 months later (Table 2).

Table 2: Seasonal Calendar of Wheat Production

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Planting		X										
Application of Fertilizer & Pesticides			X									
Harvesting								X				
Demand for Labour	X	X	X	X	X	X	X	X				

[35] Interviews with a wheat farmer and mills in Sebha.
[36] The price of domestically produced wheat varies according to supply and demand. The authorities set a specific price for the sale of wheat in each harvesting season. In 2014, 1 kg was sold at 0.68 LYD, 6 months ago at 0.85 LYD and nowadays at 0.95 LYD.
[37] Ibid.

Mills

Due to their position in the supply chain, mills play a key role on the wheat flour market and have been at the heart of recent disruptions. The mills act as importers and bring in the vast majority of wheat which is milled in Libya from abroad. They contract European companies and buy wheat through tenders. In recent years, wheat has mostly been imported from Bulgaria and Greece and transported to Libya by sea, entering the country through the major ports in Tripoli, Misrata and Tobruk.[38] From there the wheat is trucked to warehouses and mills.

Across the country, there are 57 mills, out of which 20 are currently producing wheat flour. Out of the 20 mills that have remained operational, 7 are large-scale factories, while the rest are small processors. There are only 3 mills located in the south. The production capacity of these mills varies from 70 to 1,000 tons of wheat flour per day.[39]

The National Flour Mills Company, or *matahan*, is the authorities' official importer of grain in Libya and a key player in the wheat flour market. It runs two large mills near Tripoli and Benghazi and one in the south, and produces around 30,000 tons of wheat flour per month.[40] The rest of Libyan mills are privately owned.

Both private and government-owned mills require official letters of credit for the import of wheat. As a result, they are subject to price restrictions imposed by the Audit Bureau when selling wheat flour to the market. [41]

Private Wheat Flour Importers

Besides the import of wheat, there exist significant imports of already processed wheat flour, reportedly accounting for roughly 25% of wheat flour consumption in Libya.[42] The companies responsible for procuring this flour specialise in importing foodstuffs from abroad (generally from Egypt, Tunisia, Turkey and Europe) and operate independently from wheat importers. There are estimated to be 10 such importers in the country, a number that has remained stable in recent months.[43] Some of them import through tenders and change suppliers depending on the asked price. The imported wheat flour is then sold to wholesalers, who in turn deliver it to bakeries and other retailers, such as grocery stores and supermarkets.

Price Stability Fund & Consumer Associations *(Jam'iyat)*

The wheat flour produced by local mills used to be distributed not only to retailers but also to the Price Stability Fund (PSF). The PSF is a government organization, which is tasked with supplying subsidized food items to the population. It distributes the goods through its network of consumer associations (*jam'iyat*), which are located in each neighbourhood in Tripoli,

[38] Due to damage to the port in Benghazi in 2014, wheat imports began to enter eastern Libya through Tobruk. However, at the time of writing, the Benghazi port had recently been rehabilitated and the port at Tobruk subsequently closed. See https://www.libyaherald.com/2017/10/13/tobruk-port-closed-on-hafters-instruction/.
[39] Interview with representative of *matahan*, Tripoli.
[40] Ibid.
[41] Mills are not free in their price setting. In order to obtain letters of credit and to receive approval from the Audit Bureau, they need to agree to a certain price at which they sell the produced wheat flour to the market. This price is not fixed but moves in a certain range that depends on a variety of factors, such as production costs. The Audit Bureau regularly checks prices. If it observes price manipulation, the respective mill is blacklisted and banned from receiving letters of credit in the future. Furthermore, this list is periodically disclosed and shared with the media, where businesses engaging in such illicit practices are publicly named.
[42] Interview with importer and wholesaler in Tripoli.
[43] Interview with importer in Tripoli and Benghazi.

Benghazi and Sebha (see page 12). Consumers buy subsidized goods from *jam'iyat* at a significantly reduced price, which is set by the government.

Prior to 2014, not only did the PSF distribute wheat flour to the consumers through the *jam'iyat*, but it also used to sell it to bakeries across the country at a heavily subsidized price. The price at which the PSF bought wheat flour from mills was set by the government on a bi-monthly basis and was based on the operational costs that mills had incurred in that period. The PSF held the price at which it sold to bakeries steady over time, which effectively removed fluctuations from the wheat flour market and guaranteed a stable price of bread to the consumer. The PSF used to buy 50 kg bags of wheat flour from mills at a price of 65 LYD and sold it to bakeries at a fraction (around 20%) of that.

At the time of writing, the *jam'iyat* in Tripoli and Sebha have not been active since 2014. In Benghazi, wheat flour is still distributed by the PSF, but on an irregular basis. As a result of the PSF's inability to pay its debts, mills across the country have stopped dealing with the PSF and now sell wheat flour directly to bakeries.

Wholesalers

Wholesalers are supplied with wheat flour by both private flour importers as well as local mills. In Tripoli and Benghazi, there are hundreds of wholesalers trading in a variety of food items. They sell to retailers located both within their cities and in different regions across the country.

Wholesalers located in Sebha buy from wholesalers in Tripoli, namely from the Krimea wholesale markets, or directly from mills located in the south or near Tripoli. Some wholesalers ship the goods to Sebha in their own trucks; others contract a specialised transport company or rent a truck for the transport.

Bakeries & Retailers

There are more than 4,000 bakeries throughout Libya. Bakeries need more than 80,000 tons of flour every month to meet Libyans' demand for bread. [44]

In Sebha, bakeries buy from mills directly, but also from wholesalers and occasionally even retailers, depending on availability. When purchasing from mills, they usually obtain the wheat flour from one of the three mills located in the south, but sometimes also buy from the ones near Tripoli.

Bakeries and retailers in Tripoli and Benghazi sell wheat flour to residents of the city. In Sebha, they also sell to customers from nearby villages.

Disruptions since 2014

While the wheat flour supply chain has been able to consistently provide wheat flour to the population, there have been important shifts affecting the prices of the commodity:

1 – **Decreasing wheat imports**: Due to the authorities' limited funds and their limited ability to provide foreign currency to importing mills, both private and publicly-owned mills have been facing difficulties in importing raw wheat for local milling and thus in providing the market with sufficient amounts of flour needed by bakeries and

[44] Interview with representative of *matahan*, Tripoli.

households. This has led to shortages of locally milled wheat flour on markets. In turn, the share of imported wheat flour has increased.

2 – **Decreasing domestic production of wheat**: As a result of increasing input costs, the general insecurity, power cuts and decreased support from the authorities, many wheat farmers in Libya have been halting production since 2014. Domestic production accounts for only a small portion of total wheat supply (currently about 10%). Consequently, the Libyan wheat flour supply chain has become further dependent on imports.

3 – **Removal of wheat flour subsidies**: The PSF, which had previously intervened in the supply chain by subsidizing wheat flour for both consumers and bakeries, has been severely affected by the authorities' dwindling funds, particularly in Tripoli and Sebha. While *jam'iyat* are still operational in Benghazi, the PSF has been completely absent from the wheat flour market in the west and south since 2014.

4 – **Smuggling**: The growing discrepancy between the official and parallel market exchange rate of the Libyan dinar, and the resulting low prices of wheat flour production in Libya, has boosted smuggling of wheat flour to neighbouring countries, particularly in the south.[45]

As wheat imports have decreased, locally milled wheat flour has become temporarily unavailable on several occasions. The gap has been filled by imported, already ground wheat flour from abroad, the price of which has increased manyfold since 2014. Furthermore, with the removal of the subsidies, consumers can no longer obtain cheap wheat flour from *jam'iyat* in Tripoli and Sebha, and can only do so on an irregular basis in Benghazi. Since the PSF does not sell subsidized wheat flour to bakeries anymore, consumers have additionally been facing increasing bread prices.

Due to a combination of higher prices, the removal of subsidies, consumers' lack of liquidity and reduced purchasing power, the demand for wheat flour has halved since 2014 and lower levels of consumption have been observed.

Wheat Imports and the Impact of the Fiscal Crisis

The most critical disruption to the wheat flour supply chain was caused by macroeconomic factors, including the Central Bank's decreasing foreign reserves and the fiscal crisis.

Decreased Wheat Imports

As a result of the dwindling foreign reserves and state funds, mills across the country have been severely restricted in importing the necessary amounts of wheat from abroad. With the beginning of the economic crisis, *matahan* and private mills have not been receiving sufficient letters of credit from the state, which are a requirement for wheat imports.[46] Since 2014, letters of credit are being granted irregularly due to policies adapted by the Central Bank. Additionally, procedural obstacles as well as required approval for letters of credit from the Audit Bureau have delayed shipments of wheat to Libya.

[45] Interview with key informant in Sebha.

[46] Besides constituting a usual business practice in international trade, access to letters of credit in the context of Libya corresponds to access to the official exchange rate of the Libyan dinar against foreign currencies. While on the parallel market, the Libyan dinar is traded at 8.2 LYD/USD, it can be obtained at only 1.4 LYD/USD through official channels.

The difficulties in importing wheat have forced mills to reduce output significantly. Private mills are affected by these developments as well, as they too require letters of credit for wheat imports.

Any delay in the delivery of wheat imports directly translates into shortages in the amounts of wheat flour supplied to the market by the mills. Due to the irregular supply of wheat from abroad, mills have run out of reserves and any wheat deliveries are therefore directly milled into wheat flour.

Increased Wheat Flour Imports

Before 2014, domestic wheat flour production was able to meet most of the demand. Since 2014, the incurred shortages of locally produced wheat flour have been filled by private wheat flour importers, albeit at higher prices.

The amount of wheat flour imported to Libya depends on local mills' production capacity. When a shortage of wheat occurs, wheat flour imports increase accordingly and account for up to 25% of wheat flour sold in Libya. However, if mills are able to operate at full capacity as a result of large supplies of wheat being imported, local production can meet the demand and the proportion of imported wheat flour in the market drops to 10%.[47]

In an effort to stabilise the wheat flour supply to the population, the Central Bank of Libya granted letters of credit to private wheat flour importers, even after 2014, effectively giving them access to foreign currency at the official exchange rate of 1.4 LYD to the US dollar. In some instances, importers receiving letter of credit reportedly brought in empty containers and sold the foreign currency on the parallel market at a significant profit.[48] After these scams were discovered, the Central Bank reduced private importers' access to letters of credit. Consequently, most wheat flour is currently imported at the higher parallel market exchange rate, which has led to price increases, especially in the last two years, and leaves the imported wheat flour fully exposed to currency fluctuations and devaluation.

Declining Subsidies

As government funds decreased after 2014, support to the PSF has been partially removed. The PSF increasingly became unable to pay its dues to *matahan*, leading to high debt levels. As a result, *matahan* and private mills stopped selling wheat flour to the PSF and instead started selling all of their goods to traders and bakeries directly. At present, the PSF does not subsidise bakeries' wheat flour purchases, which has led to significant price increases for bread.

In Tripoli and Sebha, the PSF has been inactive since 2014. This includes the distribution of subsidized wheat flour through the *jam'iyat*. In Benghazi, wheat flour is still distributed at a subsidized price, but on an irregular basis.

As wheat importers have access to foreign currency at the official exchange rate, domestically produced wheat flour is affordable and indirectly subsidized by the Central Bank. The PSF in Tripoli has therefore determined that wheat flour needs not be subsidized in the near future, neither through the provision of bakeries with cheap wheat flour nor through *jam'iyat*.[49]

[47] Interview with a representative of the PSF in Tripoli.
[48] Libya Observer (11 April 2017). "Libyan Customs confiscates fraudulent cargo containers in Misrata". Accessed on 5 October 2017. Available from https://www.libyaobserver.ly/economy/libyan-customs-confiscates-fraudulent-cargo-containers-misrata.
[49] Interview with a representative of the PSF in Tripoli.

Declining Production of Domestic Wheat Farmers

Local production of wheat has fallen since 2014, which has led to an increased dependency on wheat imports. The following challenges were identified as prime obstacles affecting domestic wheat farmers since 2014:

- **Dependency on seeds, pesticides and fertilizers**: Wheat production is dependent on seeds, pesticides and fertilizers, all of which are generally imported from abroad. As the parallel market exchange rate depreciated, the prices of these items have reportedly increased threefold since 2014.[50] Furthermore, pesticides have often been unavailable.
- **Increase in the price of farming equipment:** As with many farm inputs, the cost of spare parts, which must generally be imported, has also increased significantly. The cost of a tyre, for instance, has reportedly risen from 350 to 1,000 LYD.[51]
- **Power cuts:** Frequent extended power outages have left many producers without electricity to run the irrigation system. This has led to damaged crops, as they are exposed to the desert climate without appropriate water supplies.
- **Insecurity and theft:** In the south, electric cables, water supply pipes and other equipment have been subject to theft, particularly in government-run farms. Armed groups reportedly steal these items and sell the aluminium at a profit.[52] Such occurences are said to have decreased in the last six months, as some producers have invested in security personnel and damaged infrastructure has been repaired.
- **Labour costs and migrants:** Prior to 2014, many labourers on wheat farms were foreigners from sub-Saharan African countries and Egypt. As a result of the conflict, many of these workers have left the country, forcing farmers to hire Libyan personnel. As a consequence, production costs have risen due to Libyan workers' relatively higher salary demands.
- **Lack of political/economic support for agricultural projects:** Since 2014, authorities have stopped supporting domestic production and solely focus on wheat imports instead. Political division and the corresponding deterioration of the economy has caused a lack of support for agricultural projects. Prior to 2014, many producers were dependent on large machinery provided by the state for the irrigation and harvesting of their crops. No government support has been given since 2014, neither in the form of equipment nor loans. Banks have been limited in their ability to grant loans as the economic crisis has imposed severe liquidity constraints. Many producers have therefore shifted production to vegetables, which require less complex irrigation systems.

As a result of the aforementioned challenges, domestic production of wheat has fallen, as many producers have halted their business. Around 80% of producers are estimated to have exited the market in the south since 2014. While domestically grown wheat used to account for 10% of wheat processed by mills, it is now down to a few percent. In the south, locally grown wheat is estimated to account for roughly 15% of wheat supply (as opposed to 50% before 2014), while in the north, wheat production has virtually stopped completely.

[50] Interview with wheat farmer in the south.
[51] Ibid.
[52] Ibid.

Whether production will decrease further in the near future mainly depends on the electricity supply, as the lack of irrigation has recently caused damage to crops in the Saharan climate. The lack of electricity is reportedly the main issue preventing producers from scaling up production, follows by the lack of affordable fertilizers, seeds and spare parts.

Other Challenges Faced by the Wheat Flour Supply Chain

- **Power cuts**: Mill operators highlighted problems resulting from Libya's frequent power cuts, which lead to an immediate shutdown of production whenever they happen. These power outages have become more regular in recent months. It is reported that the cuts occur between 4-7 hours per day.[53] These regular halts to production have exacerbated the already irregular supply of locally produced wheat.

  Power outages have also affected bakeries and grocery stores; it was reported that some bakeries have reduced working hours as a consequence. Furthermore, some bakeries, particularly in Sebha, have been dependent on generators to stay operational. The need for fuel to run generators has increased production costs as the price of fuel has risen.
- **Labour costs**: Mills have reportedly been facing increasing costs of labour since 2014. As on wheat farms, many of the mill labourers were of foreign nationality prior to 2014. With the exodus of migrant workers due to the conflict, many mills struggled to find replacements and hired Libyan workers instead, who demand higher salaries.
- **Security Issues**: In Sebha, some wholesalers reportedly faced security problems when transporting wheat flour to customers. Conflict in the region has led to closure of some roads, which delays transportation at times.

Smuggling

Libya has been known to import large quantities of goods from international markets, which are then smuggled across the border to neighbouring countries.[54] In the past, the relatively low costs of imports presented an opportunity for smugglers.

The differential between the official and parallel market exchange rates has a direct impact on smuggling activities, particularly in the last 12 months. Due to the favourable official exchange rate at which wheat is imported to Libya, wheat flour is significantly cheaper in Libya than in neighbouring countries. The resulting opportunity for profit has given rise to increased smuggling activity, particularly in the south, where control mechanisms and authorities are virtually absent.

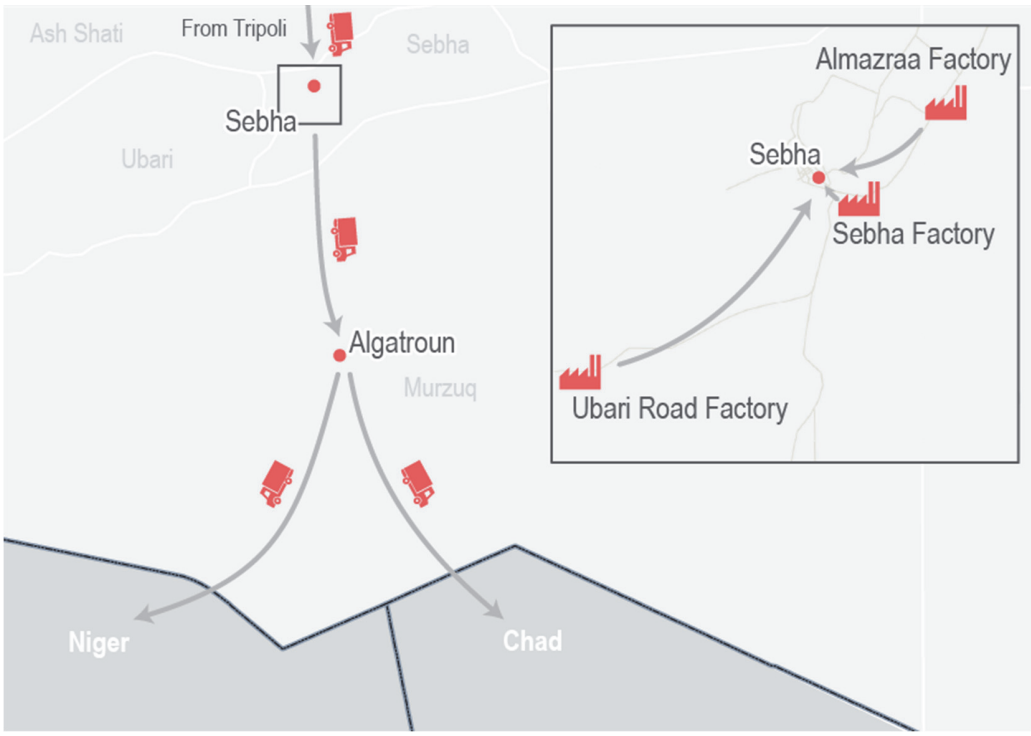
Wheat flour that is produced in domestic mills is smuggled to neighbouring countries by traders that dedicate their business to illicit trade. Some traders do not own a shop or warehouse and directly transport wheat flour bought at mills across the border to Chad and Niger by truck. In recent months, the number of wholesalers trading wheat flour in Sebha has reportedly increased from 10 to 50, the majority of which exclusively trade in wheat flour and reportedly

[53] REACH (2017). Multi-Sectoral Needs Assessment IV.
[54] Ayadi, L., Benjamin, N., Bensassi, S. & Raballand, G. (2013). Estimating Informal Trade across Tunisia's Land Borders. Policy Research Working Paper 6731. World Bank. Available from http://www.worldbank.org/.

engage in illegal cross-border trade.[55] The number of such traders located in Sebha is rising weekly in a clear sign of the increased smuggling activity in the region.[56]

From Sebha, wheat flour is transported further south to Algatroun, from where it is smuggled across the border to Chad and Niger (Map 2). Across the border, traders pay up to 200 LYD per 50-kg bag, which is four times above the market price in Libya.[57] Smugglers do not face any liquidity issues and bring in Chadian and Nigerien currency, as well as US dollars and gold.

***Map 2**: Flow of Smuggled Wheat Flour in the South*



Given the absence of a state authority in the region, smuggling is likely to continue in the near future, as the import of cheap wheat and the parallel market exchange rate present a disconnect between market prices in Libya and neighbouring countries. There are no official figures about the significance of the smuggling business and how it relates to the overall market. However, it is estimated that the smuggled amounts are substantial and increasing.

Since volumes of smuggled goods cannot be quantified, it is unclear to what degree smuggling has contributed to price increases. Many KIs pointed to smuggling as a contributing factor at the very least.

Implications of Disruptions for Consumers

While the supply chain detailed above is able to provide wheat flour to consumers in adequate amounts, consumers have been facing increasing prices and a removal of subsidies.

[55] Interviews with wholesalers in Sebha.
[56] Ibid.
[57] Interview with key informants in Sebha.

Availability of Wheat Flour

In spite of the disruptions in recent years, wheat flour has been consistently available in shops in the cities of Tripoli, Benghazi and Sebha. Whenever a shortage of wheat occurs due to issues related to importation, locally milled wheat flour may become temporarily unavailable. During such periods, however, imported wheat flour is always readily available on the market.

Thus, consumers have not been confronted with a lack of wheat flour. Shortages mainly affected locally produced wheat flour and were predominantly of temporary nature. The market has been able to supply the commodity in one form or another, whether locally produced or imported. In general, consumers prefer locally produced over imported wheat flour, primarily due to the higher perceived quality of domestic products. Some consumers have thus indicated a decrease in the quality of wheat flour as a result of imported brands increasingly being sold in shops.

Price of Wheat Flour

A kilogramme (kg) of wheat flour is sold at 1.3-1.6 LYD in grocery stores as of October 2017.[58] Retail prices depend on the supply of wheat to local mills and their ability to maintain consistent production. Whenever there is a shortage, traders increase prices accordingly, and prices of locally produced wheat flour may temporarily reach the levels of their imported counterparts.

The price of locally milled wheat flour has only marginally increased since 2014, as a result of slightly increased operating costs. However, given that the official exchange rate has remained stable in recent years, wheat flour production has been shielded from the devaluation of the currency in the parallel market.

Price of Bread

Prior to 2014, in return for subsidized wheat flour, bakeries were subject to strict price controls, which were monitored and enforced by the PSF. Any breach would lead the offending bakery to be barred from receiving subsidized wheat flour. With the exit of the PSF from the wheat flour market in 2015, bakeries have become freer in setting prices and are only constrained by supply and demand.[59] Bread prices have increased significantly since 2014. Today, 1 LYD buys 5 medium pieces of bread; before 2014, one could buy 20 pieces or more for the same amount.

Wheat Flour from *Jam'iyat*

Wheat flour is no longer distributed through the *jam'iyat* in Tripoli and Sebha, where Libyan consumers were able to obtain wheat flour subsidized at a rate of 80%. In Benghazi, wheat flour can still be bought in *jam'iyat*; however, shipments come in sporadically and consumers depend on wheat flour from shops to meet their demands.

Libyan consumers thus had to shift their main source of wheat flour from the state-run *jam'iyat* to private shops, where flour is not sold at subsidized prices. Since non-nationals are not eligible to buy from *jam'iyat*, migrants and refugees have not been affected by these developments.

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[58] REACH Initiative (2017). Libya Joint Market Monitoring Initiative—October 2017. Available from http://www.reachresourcecentre.info/.

[59] Prior to the revolution in 2011, there was a state apparatus called the Municipal Guards. Their function was to monitor and regulate prices of items sold to consumers. The controls were rigorous and specified for each product and individual brand. With the collapse of state authorities, however, this body is no longer functional. These developments have led Libyan markets to increasingly become less regulated and to adapt free market characteristics, with traders gaining price setting power and prices being subject to free market dynamics.

Consumption Levels

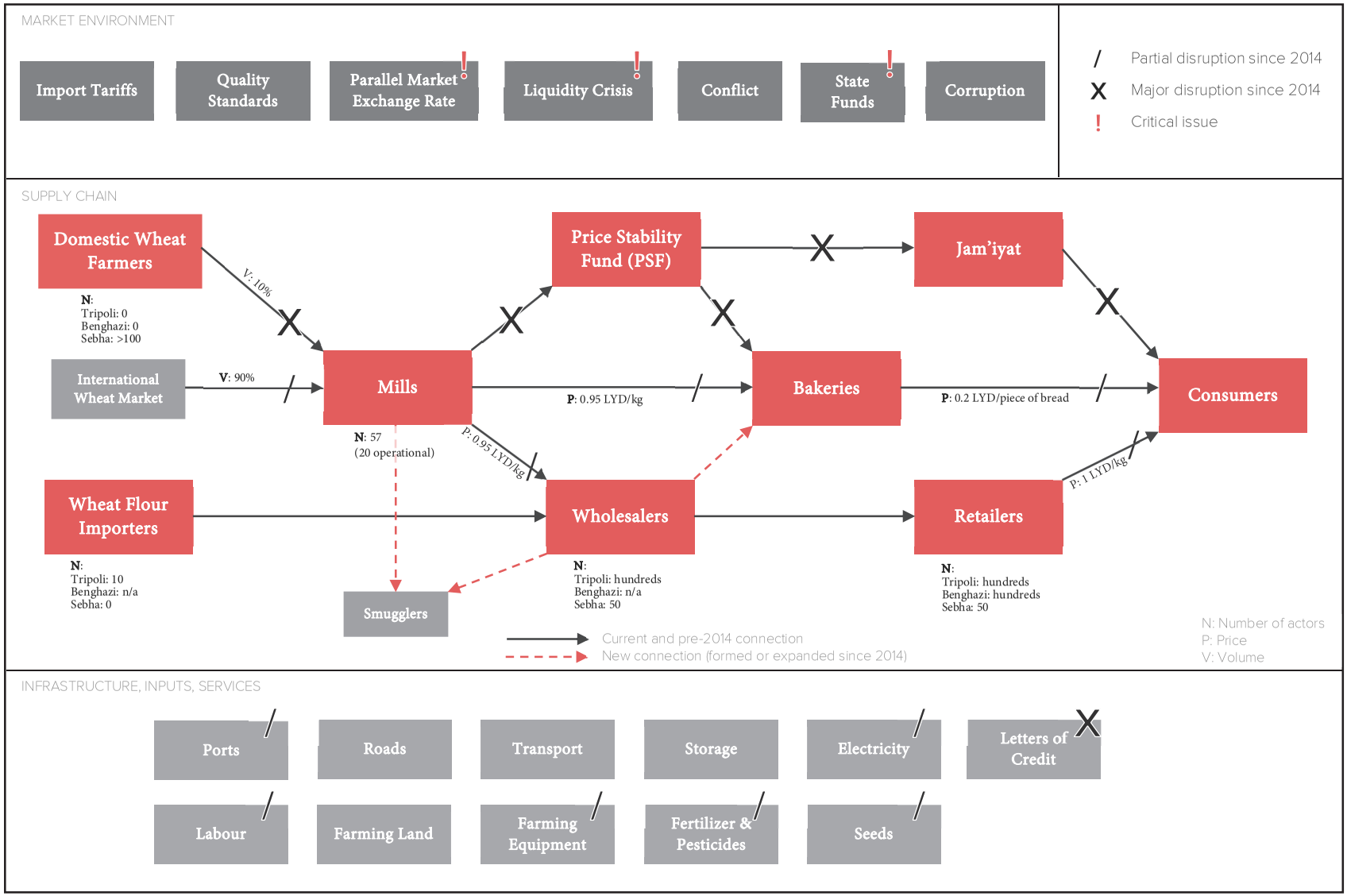
The state's determination to support the wheat flour supply chain through a high level of subsidies has led to significant overconsumption in the past. With a monthly wheat flour intake of 12 kg, Libya used to have one of the highest per capita consumptions in the world.[60] It is reported that much of the wheat flour was wasted in the form of spoiled bread.

The consumption of wheat flour in Libya has declined in recent years because of the rising prices and the lack of subsidized wheat flour, as well as consumers' lack of access to cash to purchase either flour or bread. Most of the reduction in wheat flour production was not replaced by private imports of wheat flour, but by a reduction in consumption. Prior to 2014, Libya used to consume more than 280,000 tons of flour per month.[61] Consumption has fallen to 120,000 tons of flour per month.[62]

Bread was so heavily subsidized that overconsumption was the norm. In fact, wheat flour was so cheap that some animals were reportedly fed fresh bread.[63] With increasing prices, and a lack of subsidies, many consumers have not only lowered their consumption of bread and wheat flour but also decreased food waste.[64]

[60] Libya News 24 (2 August 2015). "ليبيا غلاء الأسعار وخفض إنتاج النفط وأزمة الخبز". Accessed on 8 October 2017. Available (in Arabic) from http://www.akhbarlibya24.net/
[61] Interview with a representative of *matahan* in Tripoli.
[62] Ibid.
[63] Interviews with consumers in Tripoli, Benghazi and Sebha.
[64] Ibid.

***Figure 5**: Wheat Flour Market Map*



Insulin Supply Chain

The World Health Organisation (WHO) estimates that 13.7% of the Libyan population is glucose-intolerant.[65] As diabetes patients require a daily intake of insulin, a lack thereof is highly problematic and potentially life-threatening.

Since 2014, anecdotal evidence has suggested that the insulin supply in Libya has faced challenges, which manifest themselves in the unavailability of the medication in certain parts of the country, as well as in highly fluctuating prices. Given the high importance of the health sector in the humanitarian response in Libya, it is crucial to study health-related supply chains and to shed light on their functionality and ability to meet the needs of different populations. In the Libyan context, the insulin supply chain is of particular relevance as indicated by representatives from the health sector.

Key Findings:

- **All insulin is imported from abroad**. The state importer, the Medical Supply Organisation (MSO), plays a key role by providing 80% of insulin supplies.
- **The insulin supply has been unstable since 2014**, mainly due to the authorities' inability to import adequate amounts. Private actors have filled this gap and now have a higher market share.
- Since 2014, **many Libyan patients purchase insulin from private pharmacies**, where it is not subsidized as in public health centres and hospitals and therefore costs more.
- **The price of insulin has increased by 500-600% since 2014**.
- **Insulin is mostly available in private pharmacies**, while supplies of free insulin at health centres are irregular.
- The authorities are expected to increase insulin imports in the near future, which will improve availability and stabilise the market.

Mapping the Insulin Supply Chain

The following section presents a breakdown of the actors along the insulin supply chain. Insulin is provided to patients throughout Libya via two distinct channels of public and private actors.

Public—The key characteristic of the insulin supply chain in Libya is the authorities' regulation of the market. Via the Medical Supply Organisation (MSO), the authorities import insulin into the country and distributes it free of charge to Libyan patients through a network of public hospitals and health centres.

Private—Besides the authorities' official importer, private companies supply the market by importing and selling to wholesalers, who in turn provide pharmacies and private clinics with

[65] WHO (2016). Libya—Diabetes Country Profile. Available from http://www.who.int/

insulin. Since 2014, the private supply channel has gained relevance following disruptions to the public supply chain.

Public Channel

***Figure 6**: Insulin—Public Channel*

Medical Supply Organization—MSO

There is no local production of insulin in Libya. All insulin is imported from abroad. The Medical Supply Organisation (MSO) is the authorities' designated importer of pharmaceuticals. Its function is to supply the country with various medicines, including insulin. The MSO is the main importer of insulin to Libya. Before the conflict started in 2014, it used to import nearly 100% of the insulin on the Libyan market.

The MSO uses funds from the Libyan government and operates through its three branches in Tripoli, Misrata and Benghazi. The MSO receives letters of credit from the Central Bank after obtaining permission from the Audit Bureau. Following the initial approval for the completion of the financial procedures at the official exchange rate, the MSO contracts international manufacturers to ship insulin to Libya. Through its three branches, the MSO imports insulin directly from manufacturing companies in Europe and then distributes it throughout the country.

Health Centres and Hospitals

The MSO distributes insulin to the population by supplying health centres and hospitals. Health centres provide basic health services, such as the treatment of minor illnesses and check-ups. The centres are run by the Ministry of Health and can be found all over the country. In Tripoli, Sebha and Benghazi, one health centre is located in each neighbourhood. The centres distribute medicine to the population free of charge.[66]

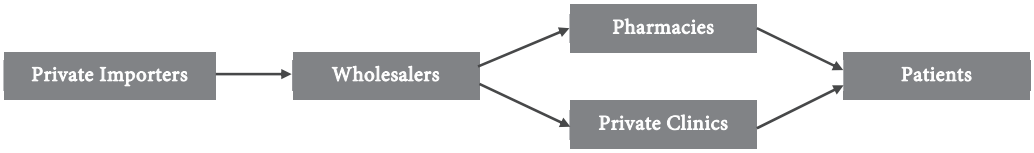
Health centres receive insulin supplies from the MSO according to the number of patients that are registered at each centre. Diabetes patients are required to register with the local health centre in their neighbourhood, where they are checked by a doctor and signed up for the insulin registry.

Registration with health centres is only open for Libyan nationals, leaving migrants and refugees without access to free insulin through the public system.

[66] In Sebha, insulin from the authorities is distributed only at the local hospital and one designated health centre.

Private Channel

***Figure 7**: Insulin—Private Channel*



Private importers

Due to recent shortages in supplies imported by the MSO, as well as insulin distributed through health centres only being available to Libyan nationals, there is a demand for insulin which is not met by MSO's imports. The private sector fills the gap.

Besides the MSO, there are a number of private importers, around 10 of which are located in Tripoli, 3 in Benghazi, and none in Sebha. Many importers in Tripoli contract export companies in Tunisia to provide insulin. Once the quality and other requirements are checked and deemed sufficient, these export companies are paid directly in foreign currency, mostly in cash.

The Libyan import companies transfer the insulin to Tripoli in special vehicles with cold storage capacity, at which point it is sold to wholesale companies. Some private importers also import from manufacturers directly, receiving shipments through the ports in Tripoli, Tobruk and Benghazi (and sometimes Misrata), where shipments are checked regarding their quality. The necessary foreign currency needed to pay suppliers is obtained through the parallel market.

The private importers mainly import from Tunisia and European countries. In recent months, they have reportedly been facing irregular supplies due to shortages of insulin in Tunisia.

Since 2014, shipments to Benghazi entered the country through the port in Tobruk, from where the supplies were transported by truck; occasionally, insulin supplies were delivered from Tripoli and Misrata. However, in October 2017, rehabilitation work on the port at Benghazi was completed, and the port at Tobruk was subsequently closed to international shipping.[67]

Wholesalers

The private importers from Tripoli and Misrata sell to wholesalers in Tripoli, which are mostly located in the wholesale market in Edraiby, a neighbourhood in the southwest of the city. These companies specialise in the trade of pharmaceuticals.

Tripoli alone hosts around 50 wholesalers supplying to all regions in Libya and many of which entered the insulin market after 2014. There are no wholesalers located in Sebha.[68]

Pharmacies

The wholesalers sell to pharmacies, which in turn sell to patients. Most pharmacies in Tripoli and Sebha buy from wholesalers in the Edraiby district in Tripoli. The market is competitive, as retailers change suppliers depending on prices and availability.

[67] Libya Herald (13 October 2017). "Tobruk port closed on Hafter's instruction". Accessed on 11 November 2017. Available from https://www.libyaherald.com/2017/10/13/tobruk-port-closed-on-hafters-instruction.
[68] Field teams could not identify insulin wholesalers in Sebha.

Some pharmacies in Sebha reportedly also buy insulin from the drug store of the general hospital. Unlike the health centres, pharmacies are privately run and supplies are acquired through private import channels. As a result, insulin is not given away for free, but customers are charged the market price. For non-Libyans, buying insulin at pharmacies is the only way of accessing the medication, which drives up health-related household expenditures for the migrant and refugee populations.

Private Clinics

Besides hospitals and health centres, medical services are offered in private clinics, around 250 of which are located in Tripoli, 100 in Benghazi and 30 in Sebha. As clinics are privately run, they do not receive insulin supplies from the authorities, and instead purchase it from private wholesalers.

Other Key Components of the Insulin Supply Chain

Quality Standards

The authorities set quality standards for insulin imports. These are set by the National Centre for Standardization and Metrology. It sets standards for medicines and foodstuffs and obliges importers and manufactures to comply with those standards. Quality standards are set in accordance with international and WHO recommendations.

Quality controls at the import levels are conducted by the government-run Food and Medicine Control Centre, which belongs to the Administrative Control Authority. It has 16 branches located in seaports and airports, as well as at land border crossings. The Centre takes samples of medicine and foodstuff imported into the country and tests the quality.

On top of the aforementioned bodies, the Health Inspection Department, which is part of the Ministry of Health, conducts regular quality controls in public hospitals, private clinics and pharmacies. It monitors the quality of medicines, tools and equipment. If any of these are found not to meet the necessary quality standards, the department is authorized to confiscate them.

The Health Inspection Department is still performing its duties as before 2014 in Tripoli and Benghazi. It is not clear to what degree the department is operational and conducting controls in Sebha, as the state authorities have reportedly been absent from Sebha since 2014.

Storage

Insulin is sensitive to sunlight and low and high temperatures. Adequate storage is thus key. In order to conserve insulin, it must be stored at temperatures between 2°C and 8°C, which poses a challenge to actors along the supply chain in Libya. The MSO, health centres, private importers and wholesalers store insulin in warehouses in special refrigerators. Pharmacies keep such refrigerators directly in their stores.

The MSO has large cold storage capacities in its warehouses. Health centres and hospitals also possess ample capacity. The interviewed representatives from health centres in Tripoli and Benghazi indicated that they were able to store large quantities and to have capacities of up to 10 cubic metres. In Sebha, the designated health centre distributing insulin can store between 500 and 750 injections and thousands of tablets. The general hospital in Sebha can store up to 1000 injections and tens of thousands of tablets. Depending on the availability from the MSO, health centres and hospitals restock insulin supplies on a monthly basis.

Private sector actors have significantly lower storage capacities than state actors. The wholesalers interviewed reported that they had storage capacities of between two and three cubic metres, and some pharmacies have as little as 0.5 cubic metres of storage.

Since the low temperature requirement complicates the storage of insulin, wholesalers and pharmacies generally keep stocks low. As a result of the low storage capacities, retailers and wholesalers restock on a weekly basis, some even twice per week, making them dependent on a continuous supply and susceptible to irregular supplies from their providers. A temporary shortage on the market affects retailers' stocks within days. Because of the low storage capacities, most pharmacies would run out after two weeks if they were not able to restock.

Disruptions since 2014

The insulin market was stable and functioning well prior to 2014. The MSO was able to continuously provide enough insulin for all Libyan patients across the country. Insulin was available through the government system at all times and in the necessary quantities.

Since the outbreak of the conflict in 2014, the insulin supply chain has been affected in three distinct ways:

1 – **Fiscal crisis and the authorities' inability to import sufficient amounts of insulin:** Due to dwindling funds, the authorities—through their designated importer, the MSO—have been struggling to import insulin in sufficient amounts, and have thus not been able to meet the needs of the population. Private companies have partially filled the gap.

2 – **Electricity cuts and storage challenges**: Frequent power cuts have complicated efforts to maintain cold storage, which has contributed to the irregular supply of insulin.

3 – **Interruption of transportation routes**: Transportation of insulin to Sebha has been associated with considerable logistical effort as a result of the shutdown of the local airport. From 2014 until 2017, damage to the port facilities in Benghazi shifted imports in the east to Tobruk; the port at Benghazi reopened in October 2017, and that of Tobruk was subsequently closed to international shipping.

The disruptions to the insulin supply chain have had serious implications for patients. Instead of obtaining insulin at health centres for free, patients have increasingly had to rely on the private channel to provide the medicine. As a consequence, patients have been facing additional costs due to the high prices of insulin in pharmacies. Furthermore, the import challenges, electricity cuts and disruptions to the supply routes have caused shortages on the market. More recently, the availability of insulin has improved as increasing oil revenues have supported state funds and the authorities' ability to import.

Fiscal Crisis and Reduction in Imports by the MSO

Lack of letters of credit led to inadequate import levels

As the country fell into renewed turmoil in 2014, the insulin supply chain underwent some dramatic changes. First and foremost, the MSO's activities were disrupted. As a result of the conflict, the state faced increasing difficulties securing the necessary funds for imports. Consequently, government funding dropped considerably, and the MSO failed to obtain letters of credit for the importation of insulin.

Reduced access to funds and letters of credit forced the MSO to decrease its insulin imports, resulting in a shortage of insulin in the country. As a consequence, hospitals and health centres started to run out of their stocks while supplies came in irregularly and below the quantities needed by the diabetic population. While there are no official statistics, it is estimated that by 2015, the MSO was only able to import half the insulin it was importing prior to 2014.[69] As a consequence, it only managed to cover 50% of the country's insulin needs at the time.

Private actors have emerged and gained market share

The resulting gap was filled by the private sector. Importers that had previously been importing pharmaceuticals started procuring insulin as a response to the growing demand for insulin. Likewise, many wholesalers and pharmacies that had not been selling insulin started including it in their product range. However, even though the private sector made up for many of the gaps left behind by the MSO, insulin was not available everywhere at all times and at the quantities needed.

Letters of credit, which are needed to access foreign currency through the banking system at the official exchange rate, remain inaccessible to private importers. Foreign currency can be obtained on the parallel market in virtually unlimited quantities, though at a relatively high cost. Private insulin importers are thus exposed to volatile exchange rates on the parallel market, which is directly reflected in the market price of insulin.

MSO has increased imports since early 2017

Since early 2017, MSO has been receiving more funds and has thus been able to increase its imports. While the necessary letters of credit are still granted on an irregular basis, the situation has reportedly improved dramatically in comparison with recent years.[70]

There is no official data on volumes. However, the MSO is currently estimates to provide around 80% of insulin as of August 2017.[71] As a result, insulin has become more available again at health centres and hospitals in Tripoli and Sebha, which in turn has led to decreased demand for insulin at private pharmacies.

Furthermore, some private importers have been facing issues supplying insulin to their customers in the last six months. A reported shortage on the Tunisian market, where many private importers procure insulin, left some private wholesalers with limited supplies.

It is expected that this trend will continue and that the MSO will be able to supply more insulin in the next six months, which will put further pressure on demand at pharmacies. The MSO itself is confident that it will be able to supply insulin at pre-2014 levels. Consequently, private importers, wholesalers and pharmacies are likely to see their trade in insulin decrease over the next six months.

Electricity Cuts and Storage Challenges

As discussed above, insulin requires cold storage facilities, which presents some challenges to supply chain actors.

[69] Interview with a representative of the MSO in Tripoli.
[70] Ibid.
[71] Ibid.

Electricity Cuts

Storage of insulin has become even more of a challenge in Sebha in particular as a direct result of the power cuts. Frequent power outages may render cooling systems dysfunctional over the course of multiple days, which may lead to spoilages or quality loss, affecting both retailers and customers.

While most pharmacies own a generator, many customers completely depend on the power grid to guarantee that their personal refrigerators are constantly working. It is not clear to what degree the lack of cooling has been affecting insulin supplies in Sebha, since control authorities, such as the Health Inspection Department, have reportedly been absent since 2014.[72] Anecdotal evidence suggests that there have been spoilages of insulin in some instances. The supply of electricity in Sebha is likely to improve in the near future, as the electric power plant in Ubari is expected to pick up its operations again shortly.

In Tripoli and Benghazi, said spoilages are less likely to occur, given that the Health Inspection Department is still reportedly operational. Further research is required to investigate to what degree the quality of insulin has been compromised by power outages, particularly in Sebha.

Low Storage Capacities of Private Actors Contribute to Shortages

Storage is the main challenge preventing retailers and wholesalers from scaling up their supplies of insulin. Increasing the storage capacities of retailers can potentially smooth out variations in supply, resulting in fewer availability issues. Temporary disruptions to the supply would not immediately translate into a lack of insulin at pharmacies.

Some private supply chain actors indicated that they had ramped up storage capacity since 2014, as a result of increased demand through the private channel. Most interviewed pharmacies and wholesalers, however, reported that they did not have the necessary funds or liquidity to buy additional refrigerators to increase storage capacity. They have therefore remained exposed to temporary shortages in the markets and sometimes fail to provide enough insulin to their customers.

Storage capacities of hospitals and health centres in Tripoli, Benghazi and Sebha have not been affected since 2014 and are reportedly large enough to carry supplies at a pre-2014 level, when the state used to provide the vast majority of insulin through the MSO. However, given the limited supply from the MSO in the last few years, health centres and hospitals in Tripoli, Benghazi and Sebha have not been able to take full advantage of their storage space and thus remain susceptible to temporary shortages.

Interruption of Supply Routes

Prior to 2014, many goods, including insulin were transported to Sebha from Tripoli by airplane. Because of direct conflict in close proximity to the airport in Sebha, security could not be guaranteed. The airport has effectively been shut down for more than two and a half years. As a result, transport of insulin has shifted from air cargo to trucks operating between Tripoli and Sebha.

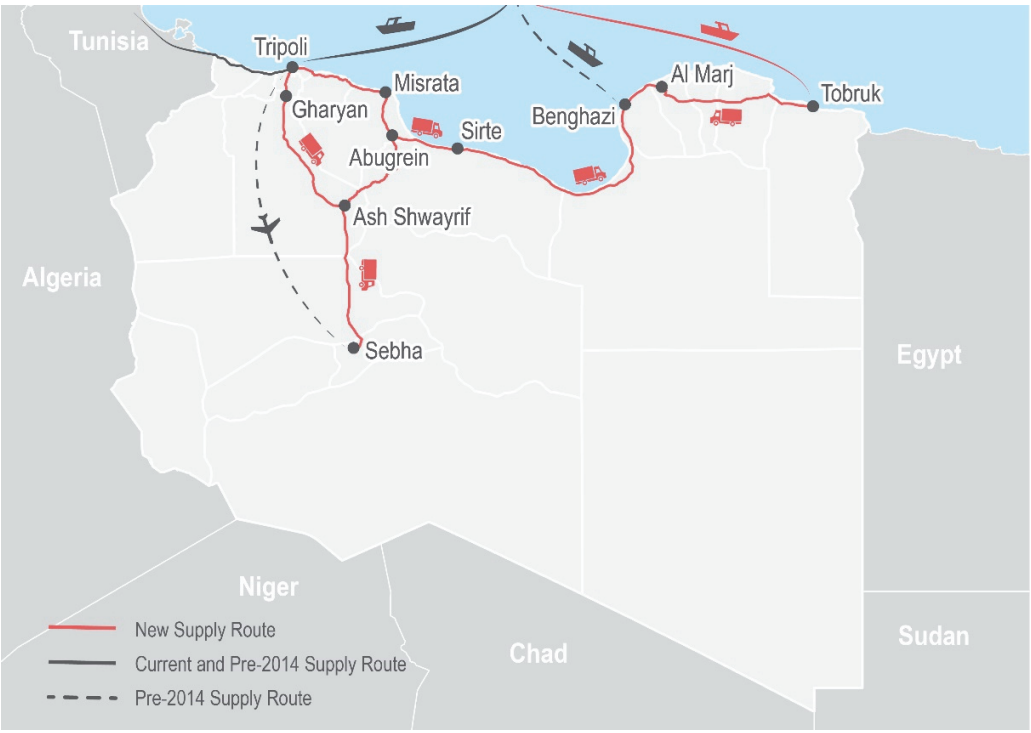
Special trucks with cold storage capacity are needed for the 800-kilometre trip. There are four transport companies operating in the area, which deliver insulin to Sebha.[73] The poor road

[72] Interview with key informants in Sebha.
[73] Interview with transporters in Sebha.

conditions, road blockages and occasional clashes along the way pose significant challenges to these companies.

It has been reported that the Sebha airport may reopen soon.[74] This would likely be conducive to a more stable flow of insulin to the city, as it would shield supplies from the many challenges along the road from Tripoli and Sebha.

***Map 3**: Supply Routes of Insulin (Pre-2014 and Present)*



Prior to October 2017, the closure of Benghazi port also affected the supply of insulin. Commercial operations at the port in Benghazi ended in 2014 due to direct conflict in close proximity. The shutdown affected the insulin supply chain, as the port had previously been the main entry point of imported goods in the east. Insulin had to be delivered through the port of Tobruk and occasionally through Tripoli, and then trucked to Benghazi.

Since 2014, frequent road closures have reportedly complicated the transport of insulin overland from Tunisia to Tripoli. In some instances, closures of the official border crossing to Tunisia in Ras Ajdir were reported. It is expected that such issues will likely become less frequent, as the security situation seems to have stabilised since the beginning of the year.

Implications for Patients

Availability

Though availability has improved in the past 6 months, the supply of insulin from the MSO is still irregular. As a result, it is often not available at health centres in Tripoli, Benghazi and Sebha. Accordingly, many Libyans have shifted their primary source of insulin from health

[74] Libya Herald (30 August 2017). "Sebha airport may restart flights after Eid". Accessed on 16 September 2017. Available from https://www.libyaherald.com/2017/08/30/sebha-airport-may-restart-fights-after-eid

centres to pharmacies. The interviews revealed that most people derive their insulin supplies from health centres for free as often as possible, and buy from pharmacies on the frequent occasions when it becomes unavailable at their local health centre.

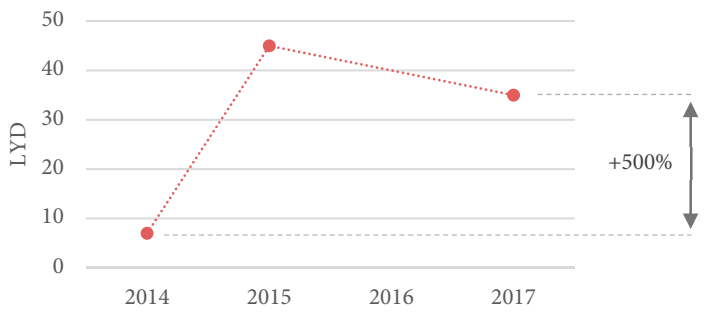
Libyan patients thus face high prices for a medication they previously incurred no expenses for. For vulnerable households, this presents an additional burden to their already strained household finances.

While most pharmacies interviewed face an irregular supply, insulin seems to be fairly continuously available at city level in Tripoli and Benghazi, and to a lesser extent in Sebha. However, patients may have to consult more than one pharmacy in their location to find adequate supplies.

Prices

As the Libyan dinar started to depreciate on the parallel market in 2014, prices of insulin on the private market rose progressively.[75] While in 2014, 10 mL of insulin cost around 7 LYD, it is currently sold in pharmacies in Tripoli at 35 LYD (Figure 8). At the height of the insulin shortage in 2015, prices went up to 45 LYD, while in Sebha retail prices currently range from 35 to 50 LYD.[76]

***Figure 8**: Price of Insulin (10ml) in Tripoli since 2014*



Insulin prices are subject to large variations. They fluctuate on a weekly basis and quickly reflect shortages in the market as well as fluctuations in the parallel market exchange rate.

For consumers, these price increases directly translate to an increase in health-related household expenses. Due to the shortages of free insulin in health centres, the price increase affected both Libyans and non-Libyans. Some respondents from the consumer interviews highlighted that the increasing prices may lead to patients favouring cheaper forms and brands of insulin, possibly with lower standards of quality.

Since migrants and refugees are not eligible to receive insulin free of charge from the authorities, they were particularly affected by these developments, as they must derive all of their insulin from the private channel. Migrants and refugees currently receive no support to directly ease the burden of high insulin expenses.

Key actors were ambiguous about expected price changes in the next six months. Some highlighted that prices of insulin will further rise in the near future if the parallel market

[75] Private actors are free in their price setting—there are no restrictions.
[76] Interviews with Pharmacies in Tripoli.

exchange rate continues to depreciate. On the other hand, pharmacies and wholesalers pointed to the Ministry of Health's increasing ability to import insulin through the MSO. If the authorities manage to increase their supply of free insulin to hospitals and health centres, prices at pharmacies may start to decline as a result of lower demand.

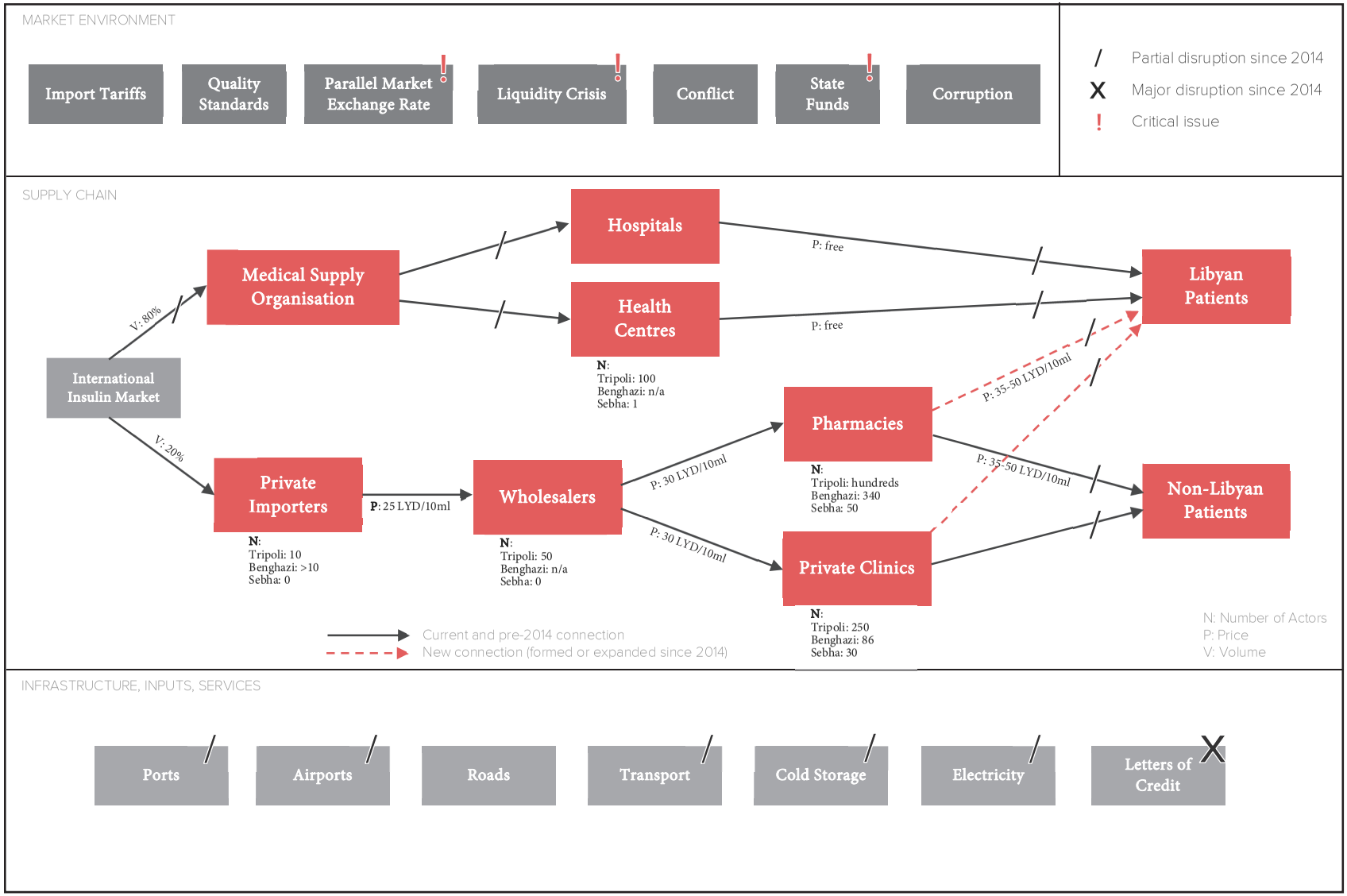
Coping Strategies in the Presence of Shortages

Insulin patients reported that the following coping strategies were used in the absence of insulin:[77]

- The most common coping strategy when insulin becomes unavailable is to buy it from another neighbourhood where pharmacies may have sufficient stocks.
- Others reportedly obtain insulin from different cities (such as Misrata).
- Some respondents from Sebha ask friends and family to bring insulin from Tripoli, where it is generally more available than in the south.
- In case of emergencies, some respondents must buy insulin from outside the country.
- Another reported strategy is to buy insulin in tablet form as opposed to injections. This strategy allows consumers to store larger amounts of medicine and does not require access to cold storage facilities, which lowers their exposure to both market availability issues and the inconsistent electrical supply. However, insulin in tablet form cannot be used by patients with type 1 and 2 diabetes, who need to rely on injections.

[77] Interviews with diabetes patients in Tripoli, Benghazi and Sebha,

***Figure 9**: Insulin Market Map*



Tomato Supply Chain

Tomatoes are among the most sought-after fruits by Libyan households. They represent a staple food, consumed daily, that is key to Libyan food consumption patterns. Studying the tomato supply chain provides valuable insights into the decentralized fresh fruit and vegetable markets in Libya.

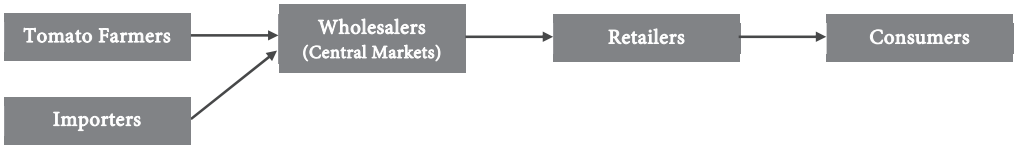
Key Findings:

- Tomatoes are predominantly produced locally.
- **The depreciation of the Libyan dinar has increased production costs for tomato producers**, as many farming inputs are imported from abroad.
- **Production in the south has diminished significantly since 2014** due to the lack of fuel, security and government support, as well as power outages and a loss of foreign labour.
- **Tomatoes are continuously available in Tripoli, Benghazi and Sebha**.
- Prices have increased by approximately 50% since 2014.
- **The tomato market is robust and stable**. There is scope to increase production in the south by aiding local producers.

Mapping the Tomato Supply Chain

The following section maps out the supply chain of the tomato market. The key actors are the producers as well as the wholesalers located in central markets, which are the heart of the tomato trade.

***Figure 10**: Tomato Supply Chain*



Tomato Farmers

Tomatoes are mostly produced locally. Depending on the season, between 90% and 100% of tomatoes on markets in Tripoli are estimated to be from domestic sources, while in Benghazi around a third of tomato demand is covered with imports from Egypt.[78] The majority of tomatoes are produced by large-scale producers near Tripoli in the Jafara plain, though there are also producers in the south, namely around Sebha, Ubari and Samnu, and in the east, mostly near Al Bayda.

[78] Interviews with wholesalers in Tripoli, Benghazi and Sebha.

There are hundreds of producers around the country. Within the vicinity of Tripoli alone there are an estimated 300 farmers producing tomatoes. In the south there are currently 40 to 50 farms operating, while before 2014 there were well over 700.[79]

All tomato producers are private; there are no publicly-owned farms. In addition, producers do not receive support from the government, other than water supplied by the Great Man-Made River, a network of pipes supplying water from the coast to inland Libya.

Inputs

Key inputs for tomato farming are labour, farm land, water, electricity, pesticides, fertilizer, seeds and farming equipment. Most of the inputs are imported from abroad, except for water and electricity. Most farms are run by Egyptian nationals who lease the farm land from a Libyan owner. The vast majority of workers come from Egypt, though this has shifted in recent years. Additionally, workers have been of Pakistani, Palestinian and Sub-Saharan African descent.

Production Cycle

Tomatoes are planted and harvested throughout the year. Production shifts to greenhouses in winter. Fertilizer is applied throughout the production process and injected into the water used for irrigation. Pesticides are applied at the first appearance of the fruit in order to prevent insects from contaminating them. The production cycle of tomatoes takes five months in open farm fields and three months in greenhouses. Labour demand exists throughout the year, but is elevated in May and during summer months, due to the seasonal increase in production and demand levels. Prices fluctuate throughout the year: due to the increased production costs associated with greenhouses as well as lower supply, prices are up to three times higher during winter.

Importers

Most demand for tomatoes is met by local production (90%-100% in Tripoli, approximately 65% in Benghazi). The remaining shares are imported: In the west, imports are from Tunisia, and in the east from Egypt. The importers specialise in trade in fruits and vegetables and import several goods besides tomatoes. They deal with traders from across the border and often buy from Tunisian and Egyptian producers directly. After examining the quality, importers pay their Tunisian suppliers in US dollars and their Egyptian suppliers in Egyptian pounds. The tomatoes are then transported to Libya by trucks.

At the border crossing, the imports are subject to quality controls imposed by the authorities. Those tomatoes that clear customs are directly sold to wholesalers on central markets in Libya in cities close to the borders. Since 2014, importers have been facing interruptions due to temporary closures of border crossings (to both Tunisia and Egypt) as well as frequent road closures as a result of the security situation.

Imports from Tunisia are usually consumed in the coastal cities near the border, such as Zwara and Az-Zawya, and rarely reach the markets in Tripoli. Import volumes of tomatoes are higher in winter, when domestic production falls. In summer, local production volumes are sufficient to meet demand and imported tomatoes are relatively expensive compared to the local ones. Other vegetables and fruits are imported throughout the year.

[79] Interviews with tomato farmers near Tripoli and Sebha.

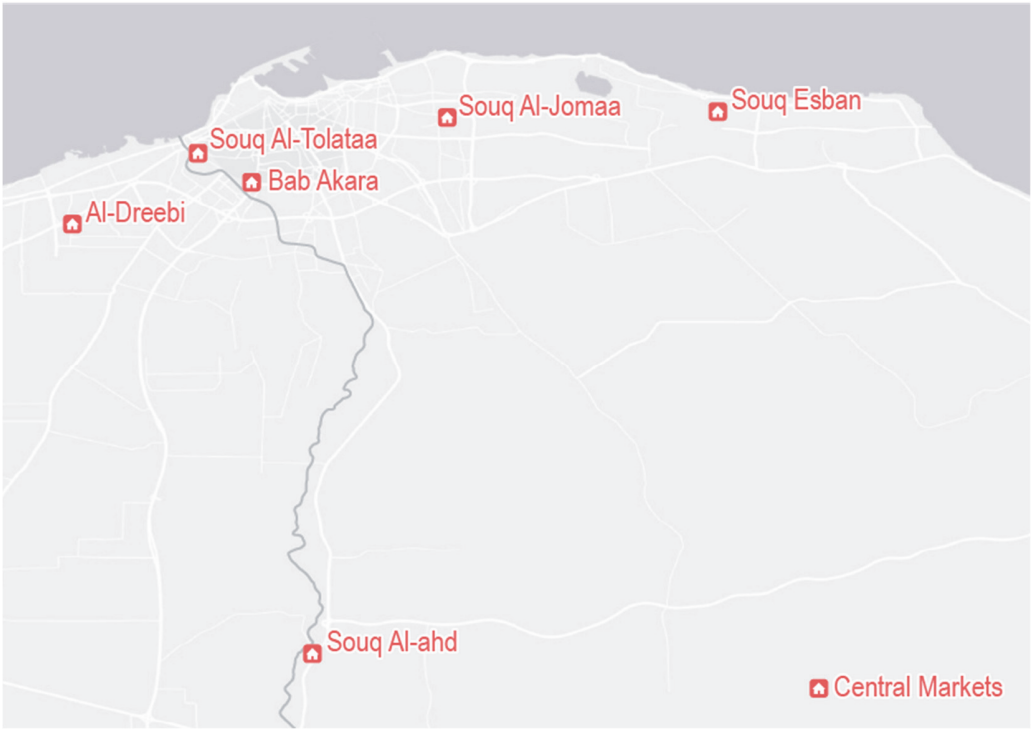
Wholesalers (Central Markets)

Central markets for fresh fruit and vegetables play a key role in the Libyan tomato market. Central markets are large markets where producers sell to wholesalers, who in turn sell to retailers in bulk. Most large cities in the west and east have a central market located in their vicinity, which is mostly serviced by local producers.

Wholesalers usually trade in many different kinds of vegetables. The markets are competitive with prices negotiated on a daily basis. Producers bring in fresh tomatoes in the morning using their own cars and trucks. Wholesalers buy from the producers depending on price and quality offered and thus deal with a variety of suppliers. Wholesalers sell several tons of tomatoes daily and restock on a daily basis. A disruption to tomato supplies would leave them without stocks within three days.

There are six central markets located in Tripoli (see Map 4). The largest one is the Souq Al-Ahd, which is the reference market for fruit and vegetables in Tripoli; though it is open daily, it is known as the Sunday market because most of the trading occurs on Sundays. Some of the other central markets only open on Fridays, when most vegetable trading occurs throughout Libya. Each of the 6 central markets in Tripoli hosts around 25 wholesalers, while Souq Al-Ahd hosts up to 100 traders.

***Map 4**: Central Markets in Tripoli*



There is one large wholesale market for tomatoes in Benghazi in the Abu Hadi neighbourhood at the northeastern end of the city. Before 2014, the hub of the local tomato supply chain and central market, *fundek*, was located in downtown Benghazi. Due to conflict in the surrounding neighbourhoods, it was closed down.

In Sebha, the central market is the regional hub for vegetables, and particularly for tomatoes. Although producers from the south occasionally sell directly to retailers in Brak and Ubari, they mostly sell at the central market in Sebha. While buyers on the central markets in Tripoli and Benghazi are mostly from within the city, buyers on the central market in Sebha are retailers and individuals from all over the Fezzan region.

Due to the decrease in local production in the south, the number of wholesalers hosted by the central market in Sebha has reduced from 50 to 20 since 2014. Wholesalers have furthermore been challenged by the security situation; the central market in Sebha had to be closed down on a number of occasions due to clashes.

Food processors

Around 10 small factories are located in Libya, mostly in the west, producing tomato paste. The share of overall tomato production that feeds into locally produced tomato paste is estimated to be around 1%.[80] Most of the tomato paste sold in Libya is imported from Tunisia and Italy.

Retailers

Normally, grocery stores in Libya do not sell fresh vegetables and focus on dry food instead. Vegetables are sold to the population through dedicated vegetable stores, from large supermarkets or directly at the central markets. Retailers generally buy tomatoes from wholesalers at the central market.

Due to the perishability of tomatoes, supermarkets and vegetable vendors keep low stocks of 100 to 200 kg and restock often, on a daily or weekly basis, which means that the price of tomatoes is closely tied to market challenges.

Disruptions since 2014

Unlike other supply chains analysed in this report, the tomato supply chain has not been fundamentally disrupted since 2014. The market has maintained its capacity to provide the population with tomatoes in the quantities needed.

However, some challenges have affected local production as well as imports:

1 – **Local production has decreased in the south**: Domestic producers have been facing a number of challenges, ranging from increasing prices of farming inputs to a lack of labour, water and electricity. Such challenges have been particularly prevalent in the south, where production has decreased significantly since 2014.

2 – **Increase in the price of imported tomatoes**: Due to the depreciation of the Libyan dinar, imported tomatoes have become more expensive, particularly during the winter season.

Consumers have been affected by these developments only through an increase in prices. No shortages have been reported in shops since 2014.

Challenges to Tomato Farmers

Due to the large proportion of production that is domestic, the tomato market in Libya has been less affected by macroeconomic factors than other markets. However, significant price

[80] Interview with key informant in Tripoli.

increases have been reported for some imported farming inputs, such as seeds, fertilizer and pesticides. These must be imported from abroad and therefore become more expensive as the parallel market exchange rate depreciates.

Tomato producers, particularly in the south, have been facing a number of issues in recent years:

- **Foreign labour leaving the country**—The conflict has led to a mass exodus of foreign labour. Most of the workers on tomato farms had been from Egypt and left Libya as the security situation deteriorated, creating a shortage of experienced labour. Cheap, foreign labour was replaced with inexperienced Libyan workers who had had no training in agricultural production. Furthermore, Libyan workers tend to have higher salary demands, which contributed to an increase in production costs. According to KIs involved in the tomato supply chain, Egyptian labourers have been returning to Libya since early 2017 as security has stabilized.
- **Increasing prices of farming inputs**—Fertilizer, pesticides and seeds are imported from abroad. Prices have been rising alongside the parallel market exchange rate of the Libyan dinar, resulting in higher input costs. The price of 1,000 tomato seeds has increased from 60 to 250 LYD since 2014. The price of 100 kilogrammes of fertilizer has risen from 30-70 to 170 LYD.
- **Interruption of water supply**—Water access has been a challenge. Producers in the south mentioned interruptions in the water supply from the Great Man-Made River since 2011. The lack of a stable water supply renders the irrigation system dysfunctional, which has a direct impact on the quality of the harvest.
- **Rising transport costs**—The cost of transport to deliver tomatoes to the local central market has increased as fuel has become more expensive and sometimes difficult to obtain, particularly in the south. Additionally, transport companies have increased their fees.
- **Lack of security**—Producers in the south furthermore highlighted the general lack of security as an issue affecting their ability to produce tomatoes and bring them to market. Armed robberies occur frequently, and armed groups have reportedly been stealing materials from the irrigation systems as well as the electric power grid.[81]
- **Recurring power cuts**—Regular power outages have been halting production, particularly in the south, as electricity is needed to run the irrigation systems. Power cuts have also affected retailers in Sebha. In order to improve shelf life, tomatoes are stored in refrigerators outside of shop opening hours when possible. Frequent power cuts have led to spoilage in some instances, in response to which Sebha retailers have begun to keep less stock on hand.

As a consequence of the aforementioned challenges, the number of tomato producers in the south has diminished significantly since 2014. Out of 700 producers before 2014, only 40 to 50 remain, many of which now produce on a smaller scale. Tomato producers estimate production in the south to have dropped by 75% since 2014. This has shifted some of the flows of tomatoes around the country. While the south has been increasingly dependent on produce shipped from

[81] Interviews with tomato farmers in Sebha.

other regions to meet demand, producers near Tripoli and in the east have not been affected as much and their number is estimated to have remained stable in recent years.

In the south, the power plant in Ubari is anticipated to start working again in the near future, after which the electricity supply in the region may become more stable.[82] The tomato planting season, which takes place in October, may be positively affected as a result, and producers are therefore likely to be harvesting higher amounts next year.

Around Tripoli, a lack of sufficient farm land creates a ceiling to local tomato production. Furthermore, a shortage of labour and occasional illiquidity prevent producers from scaling up production. Around Tripoli and Benghazi, production is expected to remain stable in the near future and no significant challenges are anticipated.

Effects of the Exchange Rate on Tomato Imports

Importers do not receive any support from the government and do not have access to foreign currency at the official exchange rate. The US dollars needed to pay suppliers are obtained from the parallel market, where importers have access to unlimited amounts of foreign currency, but at rates that are substantially higher than the official exchange rate.

The importers' lack of access to foreign currency at the official exchange rate makes imported tomatoes exposed to the devaluation of the Libyan dinar. This has resulted in a price increase for imported tomatoes in recent years as the dinar depreciated.

Tomato exports to Tunisia and Libya have reportedly become a common practice over the course of the last year as a result of the currency devaluation. Instead of selling tomatoes in Libya in exchange for Libyan dinars, some traders exploit the high exchange rate on the parallel market by selling tomatoes abroad in return for foreign currency, which is then converted into local currency at a high rate. Such activities are reportedly illegal, and the Libyan authorities have increased their presence at the borders and cracked down on exporters, which is said to have diminished illegal trading activities in recent months.

Implications for Consumers

Availability of Tomatoes

Tomatoes have been continuously available since 2014. No shortages on local markets in Tripoli, Benghazi and Sebha have been reported. All customers, retailers and wholesalers in the assessed locations reported that tomatoes were available at all times. Consumers are satisfied with the quality of the tomatoes on the market and indicated that this has not changed since 2014.

Prices of Tomatoes

Prices have risen by 50% with respect to pre-2014 levels as a result of the above mentioned challenges to local production, and because of rising prices of farming inputs in particular. In August 2017, 1 kg of tomatoes cost around 1.8 LYD in Benghazi and Sebha and 1.3 LYD in Tripoli.

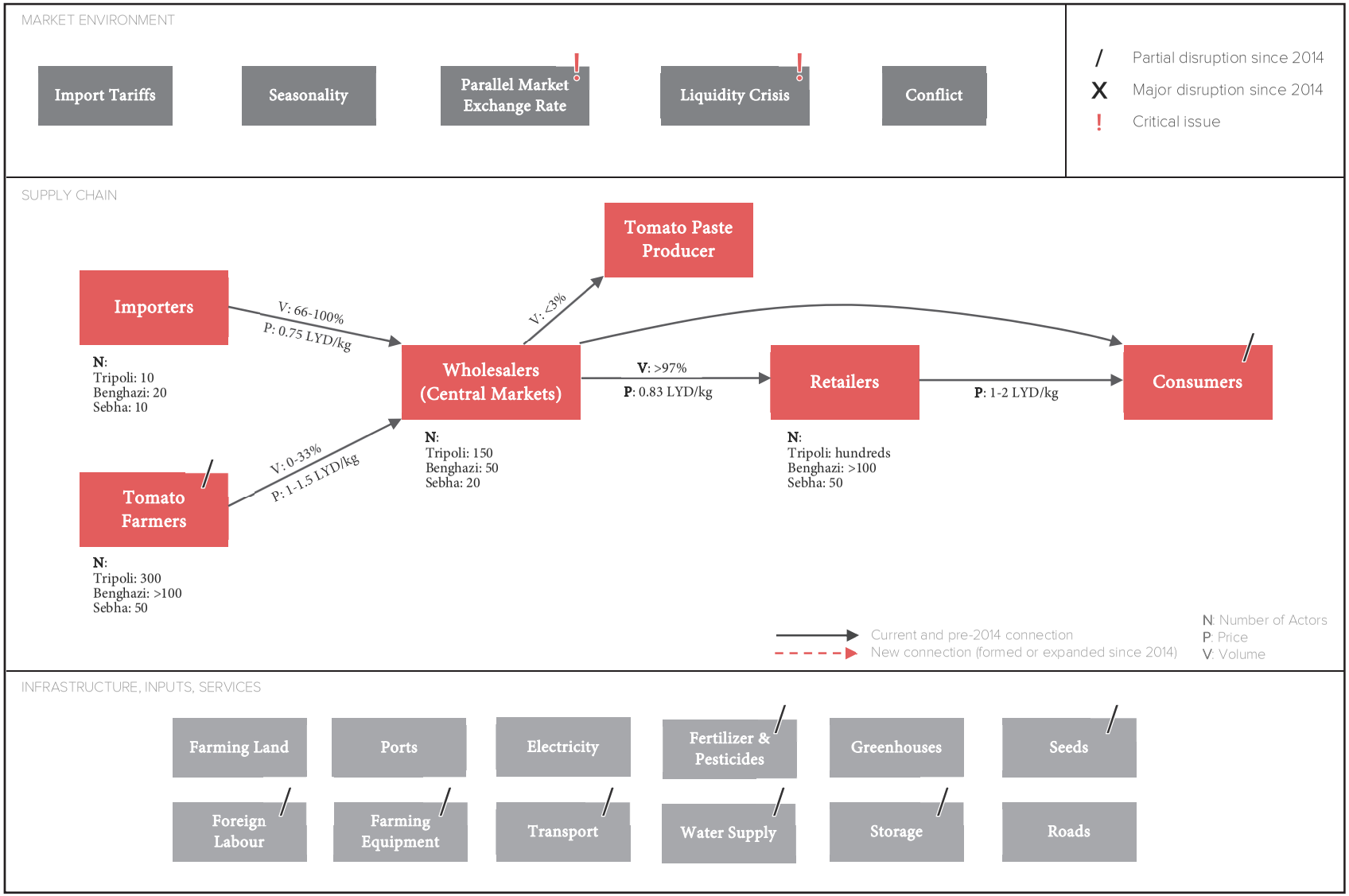
[82] Interviews with key informants in Sebha.

Consumption Levels

Wholesalers and retailers in Tripoli, Benghazi and Sebha indicated that the demand for tomatoes has not changed since 2014. This was confirmed by the majority of interviewed consumers. However, some reported that they had reduced consumption as a result of the increased prices and lack of access to cash. In Benghazi, many wholesalers and retailers suggested that business had decreased since 2014 as a result of the increased prices.

In the last six months, tomato demand in Libya seems to have increased due to seasonal factors and the population's preference for tomatoes during summer.

***Figure 11**: Tomato Market Map*



Soap Supply Chain

As a basic hygiene non-food item (NFI) supplied in humanitarian aid, soap has been part of distribution kits distributed by international organisations and non-governmental organisations throughout Libya. The soap supply chain is therefore of interest, particularly to the WASH sector.

The soap supply chain can be regarded as an indicative sample for a variety of hygiene articles. Most of the key actors involved in the soap supply chain trade in several other hygiene articles, among them shampoo, dishwashing liquid, toothpaste and sanitary pads, which are subject to many of the same market dynamics.

Key Findings:

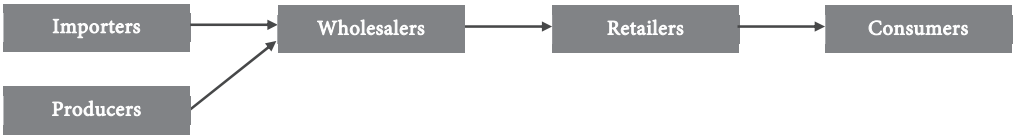
- The majority of soap in Libyan markets (around 75%) is imported from abroad.
- **The soap market has not changed substantially since 2014**. The supply of soap in Tripoli, Benghazi and Sebha has remained stable and constant.
- **Macroeconomic factors led to an increase in prices**: Due to the rising exchange rate and the dependency on imports, prices of soap have tripled in the last 3 years.
- **The market has felt the repercussions of the conflict on the demand side**: Consumers have decreased their demand of soap due to liquidity constraints.
- **The soap supply chain is competitive, robust and fully functional.**

Mapping the Soap Supply Chain

The following section outlines the key actors along the soap supply chain, from importers and producers to wholesalers and retailers.

The soap market in Libya is characterized by a relatively simple supply chain, little influence by the authorities and a large share of imports. Unlike in other markets, there is no state importer of soap, nor are there subsidies in place. Instead, the market is completely run by private companies, which do not receive any support from the authorities.

***Figure 12**: Soap Supply Chain*



Importers

Imports account for the majority (75%) of soap in the Libyan market. Imports are from countries such as Egypt, Tunisia, China, Saudi Arabia, the United Arab Emirates, Turkey and some European countries. Deliveries from Tunisia and Egypt come overland in trucks or ships, while shipments from further away enter the country through the ports of Tripoli, Misrata, Benghazi and Tobruk. The soap is then distributed to wholesalers.

The market in Tripoli is mainly served by importers located in Tripoli itself. There are around 20 soap importers in Tripoli alone.[83] This number has been unchanged since 2014. Prior to the reopening of Benghazi's port in October 2017, soap sold in Benghazi was brought in from Tobruk, but also from Misrata and Tripoli.

Importers are generally specialized in the import of hygiene items and cleaning materials. They do not have access to foreign currency at the official exchange rate and derive foreign currency from the parallel market instead. Soap imports are not subject to as many quality controls as food items or pharmaceuticals. However, there are regulations in place that prohibit certain harmful materials.

Producers

Local production accounts for roughly 25% of soap sold on Libyan markets.[84] Four producers are found in western Libya, including one large factory and 3 smaller ones. The large-scale producer is located in the city of Tripoli and accounts for most of Libya's domestic production.

Key inputs for the production of soap are raw materials, labour and machinery, all of which must be imported from abroad.[85] The majority (75%) of the labour force is from Sub-Saharan African countries.

Wholesalers & Retailers

Wholesalers in Tripoli buy soap from importers based in the city. Many of the wholesalers are positioned in the Al-Dribi and particularly in the Krimea wholesale markets, both of which are located in the southwestern part of the city of Tripoli. There are more than 100 wholesalers in Tripoli and Benghazi and around 30 in Sebha that trade in soap. Tripoli and Benghazi wholesalers mostly specialise in the trade of hygiene items, while in Sebha wholesalers usually market many different items, including foodstuffs.

The wholesalers located in Sebha buy soap from the wholesale markets in Tripoli and transport the goods by truck to the south. Sometimes these wholesalers also buy from Misrata. Generally, however, the wholesale markets in Tripoli are hubs in the Libyan soap supply chain and service customers from all over the country.

Soap, as well as other hygiene articles, are commonly sold in supermarkets and grocery stores. There are around 50 shops in Sebha that sell soap, and hundreds in Tripoli and Benghazi.

[83] Interviews with soap importers in Tripoli.
[84] Interview with local producer.
[85] Unlike other producers, as well as soap importers, the large-scale producer interviewed reportedly does have access to the official exchange rate for about two thirds of its imports of raw material. The other producers obtain foreign currency from the parallel market at a significantly higher rate. Soap producers do not receive any direct support from the government.

Since soap is not perishable and does not require special care, storage of large quantities is simple. Wholesalers and importers are able to store hundreds if not thousands of boxes in their warehouses. Most traders restock on a monthly basis.

Disruptions since 2014

Unlike some of the other supply chains presented in this report, the soap supply chain has only been marginally affected by the conflict since 2014. The main challenge has been the devaluation of the Libyan dinar on the parallel market, which has led to two main disruptions:

1—**Increasing Costs of Imports**

2—**Increasing Production Costs**

Consequently, the price of soap in shops has increased manyfold since 2014. In general, however, the soap market can be described as robust and fully functional.

Increasing Costs of Imports

The most significant change in the Libyan soap market since 2014 has been due to macroeconomic factors. With the Libyan dinar depreciating on the parallel market and no access to the official exchange rate, importers have been facing significant cost increases when buying soap from international markets. However, their capacity to supply soap has not changed as a result of the increased exchange rate. Other than rising prices of foreign currency, importers have not been facing any issues caused by the conflict.

Increasing Production Costs

As a result of the depreciation of the Libyan dinar and with raw materials and equipment imported from abroad, producers have been facing increasing input costs.

Many of the workers in local soap factories have traditionally been migrants. The currency depreciation on the parallel market has led to drastically reduced real wages. As a direct consequence, many of the workers have left their jobs in Libya behind, a decision also affected by the lack of security. Wages have had to be raised to attract new Libyan workers with higher salary demands, which has further increased production costs.

Production has remained stable since 2014 and is expected to remain stable in the next year.[86] The main barriers hindering producers from scaling up production are a lack of labour, a lack of raw materials and factories' limited production capacity.

Consequences for Consumers

Availability

Throughout the last three years, soap has continuously been available to consumers in Tripoli, Benghazi and Sebha. None of the KIs reported any noteworthy shortages; in fact, a variety of different brands have remained available in stores. Some imported products have significantly increased in price, which has led to a shift toward cheaper imported brands of lower quality.

[86] Interview with soap producer in Tripoli.

Prices

Prices of soap depend to a large degree on the type and brand, among which prices vary significantly. As the majority of soap is imported, and local producers rely on raw materials that are brought in from abroad, soap prices have been rising alongside the parallel market exchange rate. As a direct result of the depreciation of the Libyan dinar, prices are said to have tripled since 2014, according to KIs involved in the supply chain. Further price increases are expected in the near future should the exchange rate further devaluate.

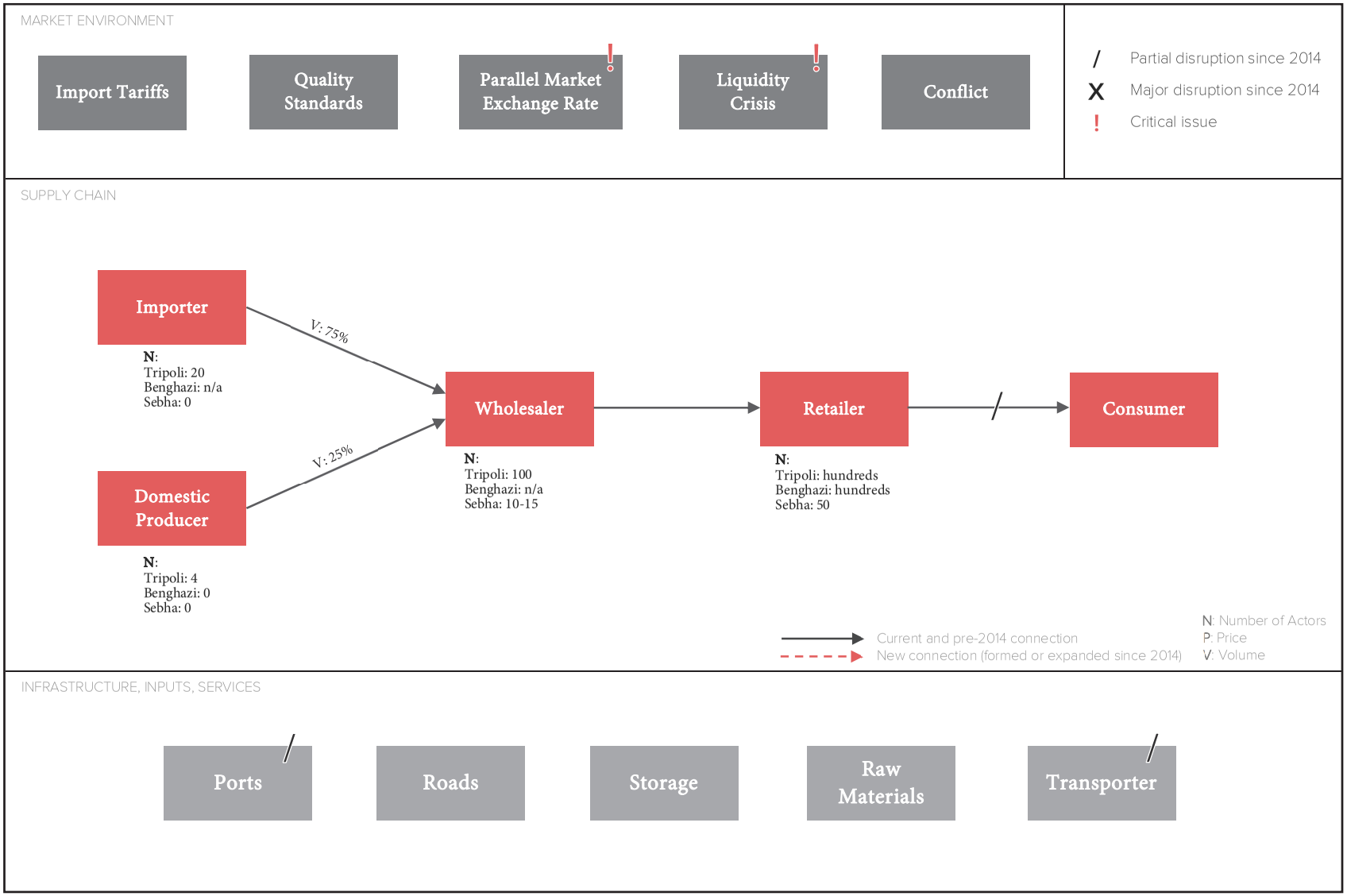
Consumption Levels & Demand

The soap market has felt the repercussions of the economic and liquidity crises on the demand side. A reduction in consumers' purchasing power, caused by decreasing incomes, low access to cash and a high inflation rate, have had a negative impact on overall demand.

According to wholesalers and retailers, demand has shifted towards local brands, as they are generally cheaper than the imported products.

Many consumers reported that they had reduced consumption in the last two years as a result of the increasing prices. Migrants highlighted their increasing preference for cheaper and domestically produced products, while non-displaced populations still preferred the imported brands, highlighting their better quality. IDPs were ambiguous about their preferences. In general, consumers were satisfied with the quality of the soap in the market.

***Figure 13**: Soap Market Map*



Impact of the Liquidity Crisis on Supply Chains

Given the specificities of the Libyan context, the impact of the liquidity crisis on the key supply chains investigated in this assessment is of particular interest.

Actors in all the analysed supply chains are heavily dependent on cash to handle their business dealings. However, the vast majority of commercial supply chain actors have ample access to cash, because they receive cash payments from suppliers or consumers or because of favorable relationships with the government (or they are government actors) and financial institutions. The overall functionality of the supply chains has therefore not been affected. The liquidity crisis is more felt on the demand side, as liquidity issues faced by financial institutions have trickled down to consumers in the form of withdrawal limits. Consumers cannot access cash in the required amounts to purchase the goods they need; they tend to respond by lowering their demand, which has led to a contraction of overall demand for consumer goods in Libya.

Supply Chains Are Heavily Cash-Dependent

Wheat Flour

The wheat flour supply chain is heavily dependent on cash as a payment modality. All interviewed key actors, including importers, millers, wholesalers and retailers, noted that they handled most or all payments in cash. Only a few responded that they used cheques or bank transfers. Retailers in both Sebha and Tripoli, and to a larger degree in Benghazi, offer very few alternative payment methods besides cash, which presents a hurdle for customers.

Most commercial actors along the supply chain report that they usually have access to sufficient amounts of cash. Some wholesalers signalled occasional difficulties in paying suppliers, as did a few wheat flour importers. A number of retailers in Tripoli and about half of retailers interviewed in Sebha reported that they occasionally lacked enough cash to make purchases.

Tomatoes

Payments among actors in the tomato supply chain are almost exclusively handled in cash, as indicated by producers, wholesalers and retailers. Since 2014, certified cheques have occasionally been used. All interviewed actors reported that they had enough cash at hand to conduct their business.

Soap

As in the other supply chains analysed as part of this assessment, payments for soap are predominantly made in cash. While some commercial actors face liquidity issues from time to time, they usually have access to ample amounts of cash to handle their business dealings. Only a few traders indicated that they occasionally faced issues providing enough cash to their suppliers; no other commercial actors along the supply chain highlighted significant liquidity constraints.

Insulin

The insulin supply chain is largely cash-based, with most actors along the supply chain using hard cash as their primary payment modality.

Most pharmacies in Tripoli and Sebha only accept cash payments from their customers. Many do not deal with certified cheques or alternative payment modalities. Pharmacies that do offer

alternative payment modalities, such as e-cards and cheques, do so at higher prices. New payment modalities have been introduced in some cases in order to mitigate lower demand resulting from customers' lack of cash.

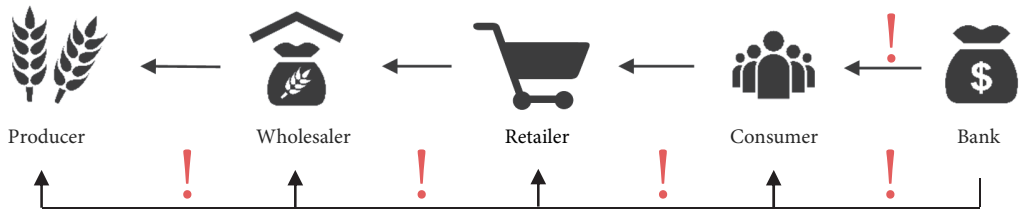
Pharmacies in Tripoli, Benghazi and Sebha reported that they handled the vast majority of business dealings with their suppliers in cash. They rarely faced liquidity issues and nearly always had enough cash at hand for payments to other commercial actors. The wholesalers in Tripoli and Benghazi pay importers in cash, and sometimes use certified cheques for payments. However, if a payment is made by cheque there is an additional cost. For the interviewed importers, in turn, US dollar bills are the only modality used for payments to foreign suppliers.

Lack of Access to Cash for Households

The main impact of the liquidity crisis is felt on the demand side. Customers often fail to obtain the necessary cash due to withdrawal limits and thus face significant challenges when buying goods on the market. As a result of the lack of cash, customers are forced to prioritise spending and lower their demand for certain goods, buying cheaper products where possible.

Commercial actors are impacted by the reduction in demand. However, as long as they sell to their customers at a margin and supply the market with only as much product as customers can collectively afford to purchase with cash, they have sufficient access to cash and do not need to rely on bank deposits. They pay their respective suppliers with the cash they receive through payments from their customers, and are therefore rarely restricted by the limited withdrawal limits imposed by banks. The liquidity crisis has thus dampened overall demand, but effectively left commercial actors shielded from liquidity issues.

***Figure 14**: Cash Flow along the Supply Chain*



Response Analysis

This chapter aims to outline the main factors that should be considered in planning cash-based interventions in the Libyan context, as well as to highlight some potential response options related to the commodities that have been assessed. Recommendations have been discussed by the Libya Cash and Markets Working Group (CMWG) and are being presented to the humanitarian community for consideration and next steps.

The CMWG is additionally examining how different payment mechanisms, such as prepaid banking cards, vouchers and mobile money, may work within different areas of Libya. In September 2017, the START Network (Mercy Corps, ACTED and the International Rescue Committee) released its *Cash Delivery Mechanism Assessment*, which examines the appropriateness of different cash transfer mechanisms to support vulnerable populations in Libya.[87] Additional information from potential broader feasibility studies will help inform modalities for a variety of responses, and will assist organizations in making connections and setting up partnerships.

This response analysis chapter begins with an analysis of potential modalities in relation to the Libya context. It then examines a non-exhaustive selection of potential market-based response options, based on the discussions of the CMWG, and compares them based on advantages, disadvantages and potential targeting. It closes with recommendations endorsed by the CMWG for humanitarian actors in Libya.

Modalities

Direct and In-Kind Assistance

- Much of the humanitarian assistance being provided in Libya is directly provided through services and goods procured regionally and internationally and brought into the country. Additional interventions provide vital protection and health support directly.
- Advantages of this approach include the ability to utilise established procurement and supply chains, to confirm that the intended goods will reach target beneficiaries and to ensure that commodities distributed meet international standards. Disadvantages include the likelihood that circumventing local producers may have adverse longer-term effects, including market distortion and harm to local livelihoods; the lack of choice or opportunity for beneficiaries to assess their own needs; and the possibility that distributed commodities may be resold, sometimes at exploitative prices, to cover other household needs.
- Additional considerations in Libya include transport and security issues, whereby roads, ports or particular means of transport may be inaccessible due to conflict dynamics, cutting links in the supply chain and preventing the delivery of goods.
- As local markets are found to be functional and consistently accessible to vulnerable groups, apart from occasional periods of localised instability and violence, expanding the use of local procurement for in-kind distributions would help circumvent transport

[87] START Network (2017). Cash Delivery Mechanism Assessment—For Refugees, Migrants and Asylum Seekers in Libya. Available from: https://startnetwork.org/.

restrictions and other issues while at the same time benefiting local traders and injecting cash into the local economy.

- Procurement programmes that target goods produced locally, as opposed to those that must be imported, would have a greater impact on local markets. Supply chain disruptions in Libya most severely affect consumers and small-scale local producers; by contrast, there has been relatively less disruption to the operations of Libyan importers, wholesalers and suppliers, which continue to function effectively without assistance from the international community.
- Any local procurement programme focusing on local, small-scale producers would at first need to be restricted in scope and to target a diverse array of producers, in part due to these producers' limited capacity to fulfil bulk purchases.

Cash Assistance

- Unconditional, unrestricted multi-purpose cash grants are currently the main modality used for cash assistance in Libya, though their use is still limited. This type of cash assistance allows for greater beneficiary choice, can cover a variety of household needs and, if implemented at larger scale, might create multiplier effects in the local economy by stimulating demand.
- Due to widespread insecurity and the ongoing liquidity shortage that affects banks in all areas of Libya, which makes it difficult to obtain Libyan dinars and risky to transport them to distribution sites, implementing cash-in-hand interventions is a complex effort. That said, 90% of household transactions in Libya are conducted in cash,[88] and logistical support for other modalities is currently limited, as detailed below. Cash-in-hand programming, coupled with adequate risk mitigation measures, will therefore remain part of the Libyan humanitarian landscape out of necessity until adequate infrastructure for alternative modalities is in place.
- Any attempt to implement cash-in-hand programming in Libya must systematically address and mitigate potential risks to recipients as part of an effort to "do no harm." Transporting and distributing hard cash increases a programme's level of exposure to threats, which in turn can potentially put beneficiaries and programme staff at risk. In parts of Libya where rule of law is tenuous, mitigation measures may prove extremely challenging; under some circumstances, the most viable mitigation strategy may be to consider a different modality altogether.
- The September 2017 START report on cash mechanisms flagged specific potential safety concerns surrounding cash-in-hand interventions, recommending increased investment in the use of pre-paid cards and e-cards, collaboration with public and private banks to clear logistical barriers to their use, and working to increase banking access for vulnerable people with documentation.[89] It also noted increasing attention from various Libyan authorities to informal cash transfers.
- As markets have been found to be generally functional in the areas of Libya assessed, current price monitoring efforts, in particular the CMWG's Joint Market Monitoring Initiative (JMMI), are an appropriate tool to monitor any adverse effects of cash

[88] REACH (2017). Multi-Sector Needs Assessment IV. Available from: http://www.reachresourcecentre.info.
[89] START Network (2017). Cash Delivery Mechanism Assessment—For Refugees, Migrants and Asylum Seekers in Libya. Available from: https://startnetwork.org/.

assistance on key commodity prices. At the time of publication, the level of assistance being provided was not anticipated to have an adverse effect on local prices due to its relatively limited contribution to local economic activity.

- With regards to specific supply chains, findings from the wheat flour and tomato markets indicate that these key food items have remained stable in both supply and price, despite changes in subsidies and imports. This may also hold true for other key commodities in Libya, based on trends in price and availability data collected by the JMMI; if so, cash assistance may allow these households to achieve greater food security in general.

Vouchers and E-Cards

- In areas of Libya where liquidity issues may prevent household access to cash, vouchers and pre-paid cards/e-cards may provide a way to increase households' access to key commodities by making it possible for them to purchase key products without cash. Vouchers can additionally ensure that cash assistance is used to purchase certain types of goods identified as main household needs.
- Traders in assessed areas of Libya are generally in a position to join or expand their participation in voucher programmes. Few traders reported that they faced significant liquidity issues, as they are generally able to consolidate small amounts of cash from consumers into larger lump sums, which they then use to pay their suppliers. They can also modify the amount of each good they purchase based on the amount of cash they have received from consumers. In addition, few traders reported that they faced major issues with restocking or increasing their supplies of key commodities, which suggests that they would be able to adapt to the increased demand following participation in a voucher programme.
- Voucher programming, however, is challenging to scale beyond a certain point. In a system that requires individual monitoring of and service to each vendor, capacity constraints make it difficult to enroll more than a small proportion of the vendors in a large urban market, which would in turn divert all voucher-related transactions to a limited number of traders. With this in mind, the number of beneficiaries would in turn need to be restricted to avoid overburdening participating vendors.
- Functional point-of-sale (POS) infrastructure, necessary for a vendor to begin accepting credit, debit or pre-paid cards, is currently rare in Libya. As of August 2017, START reported that there were approximately 3,400 POS terminals across Libya, mostly confined to urban areas, and only a small number of which were fully functional.[90] They are particularly uncommon among informal traders and other small-scale vendors. Investment in POS infrastructure is therefore necessary before any medium- or large-scale programme of e-cards can be rolled out.
- Though the current lack of POS infrastructure is a barrier to cash-based interventions that rely on e-cards, it also presents an opportunity for humanitarian actors to consider programmes that focus on expanding this infrastructure or increasing the digital payment capacity of small vendors. Such interventions can potentially have multiplier

[90] START Network (2017). Cash Delivery Mechanism Assessment—For Refugees, Migrants and Asylum Seekers in Libya. Available from: https://startnetwork.org/.

effects in the local economy by making it possible for Libyans to reduce their dependency on hard cash.

- Though both vouchers and e-cards have the potential to mitigate liquidity issues on a household level, they do so by effectively pushing the problem of liquidity further up the supply chain. If small-scale traders receive electronic payments via pre-paid cards or are reimbursed for vouchers via payments into their bank accounts, they may find themselves unable to access these payments; as these small-scale traders must generally pay their suppliers in cash, this has the potential to disrupt links in the supply chain that were not previously affected. Any relevant programme must be designed to take these potential effects into account.
- It is worth considering that assistance provided via vouchers and e-cards can inherently only be redeemed in certain shops: either those participating in a voucher programme or those equipped with POS from contracted financial service providers. The unrestricted nature of the assistance is lost. Again, this poses specific issues regarding payments that must be transacted in cash, including rent payments and purchases from informal vendors, as well as decreasing beneficiaries' flexibility to shop where they see fit.

Mobile Money

- Mobile money is underutilized throughout Libya, with an estimated 8,000 active users out of a population of 6 million. START found that its focus group participants had little to no knowledge of the mobile money platforms that were available.[91]
- To obtain a SIM card, necessary to access mobile money platforms, one must present a form of official identification, typically a Libyan passport or national ID card; further investigation is needed to determine whether refugees can use their UNHCR registration. A sponsoring organisation can also officially request a SIM card on a documented person's behalf. It is reportedly possible for those who lack official documentation, including migrants, to access SIM cards through Libyan proxies, but those without local connections have a more difficult time doing so.
- At the time of publication, the extremely limited use of mobile money platforms made it difficult to recommend designing cash-based interventions that rely on them. Significant outreach among both vendors and beneficiaries, whether by humanitarian actors or by mobile networks themselves, would need to occur before any such intervention would be feasible. Sporadic mobile connections may also prevent more extensive use of mobile money options.
- However, there may be potential to pilot experimental programmes on a small scale by providing SIM cards and mobile wallets to limited numbers of traders and documented beneficiaries, coupled with outreach to local financial institutions.

[91] START Network (2017). Cash Delivery Mechanism Assessment—For Refugees, Migrants and Asylum Seekers in Libya. Available from: https://startnetwork.org/.

Support to Local Markets

- Although most humanitarian aid in Libya since 2014 has aimed to provide immediate assistance to vulnerable populations, longer-term programming has the potential to support local markets and partly reverse market disruptions, including the loss of state subsidies and an over-reliance on imports.
- The principal issues observed in the Libyan supply chains covered in this assessment affect consumers and small-scale producers. Importers and wholesalers of these goods do not appear to need additional assistance at this time.
- Despite instability and the continuing civil war, early recovery efforts might include interventions to increase the local production of key agricultural commodities such as wheat, tomatoes and other staple crops, with the aim of decreasing reliance on more expensive imported goods. Spurring local production, even at a community or household level, may help vulnerable households access local goods and can also guard against economic shocks if supply chains are further disrupted in the future.

Response Options

Table 3: Response Options

Response option	Advantages	Disadvantages	Geography/Targeting
Multi-Sector Interventions			
Multi-sector cash assistance	Increased beneficiary choice; covers many HH needs, including food, health, debt, etc.; reflects current programming and learning; enables HHs to make crucial cash-only payments	HH lack of access to cash (withdrawal limits) may necessitate cash in envelope or cash vouchers via an intermediary actor; e-cards (pre-paid or debit) may be possible, but in urban areas only	All geographies that can be accessed; all vulnerable populations identified by type (refugee, migrant) and vulnerability
Cash for work	Small-scale projects can help with early recovery and provide short-term employment	Potentially high security risk; requires a level of stability not yet achieved in some areas; places vulnerable groups in highly visible roles; potentially material-intensive; projects and roles must be acceptable to both host and target populations	Potential for most geographies; most suitable for returnees, IDPs and documented refugees/migrants
Wheat Flour			
Wheat flour vouchers for vulnerable populations	Key HH good, supports HHs and traders	Need is questionable given heavy subsidies and stable HH access; does not address larger market disruption of local production	All geographies that can be accessed; targeting to most vulnerable groups based on income

Response option	Advantages	Disadvantages	Geography/Targeting
Input support (seed, fertilizers) to local producers	Spurring local production can help break a high reliance on imports	End product already subsidised and with stable HH access; supply chain heavily regulated; further assessment of local producers and cost-benefit analysis needed	Limited geographies with local producers (south, potentially east); limited to small-scale producers who lack liquidity
Tomatoes			
Fresh vegetable vouchers for vulnerable populations	Ensuring dietary needs and consumption of fresh goods, building local demand	Access to fresh vegetables not an identified need; limited market disruption for consumers	All geographies that can be accessed; limited targeting to most vulnerable with negative coping mechanisms
Support to local producers—production, inputs, transport	Challenges with prices of imported inputs and transport a market issue; may drive down local prices	Access in local markets currently not an issue; potential preference for imported tomatoes; cost-benefit analysis needed	Limited to geographies where production is possible and land is available; limited to small-scale producers who lack liquidity
Support for household and community production	Ensuring dietary needs and consumption of fresh goods, HH savings and potential for local sale	Level of HH motivation unclear; unclear whether HHs own land in sufficient quantities; cost-benefit analysis needed	Geographies where tomatoes are a viable crop; limited to vulnerable HHs with land; cannot support mobile populations
Insulin			
Import support for local importers, wholesalers	Potential to increase quality and labelling of inspected medicine and ensure it meets humanitarian standards	Existing mechanisms for import despite signs of local shortages	Targeting via medical providers
Cold chain maintenance: transport and storage support for traders	Potential to assist transporters in building a cold chain; mini-storage at pharmacies could expand access	Further assessment needed to locate broken links in local cold chains	Targeting of producers serving vulnerable populations or underserved areas
Commodity vouchers for vulnerable people with medical needs	Ensures and expands access to medicine; prevents negative coping through skipped dosages	Does not address potential quality or storage issues	Targeting via medical providers and pre-screened pharmacies, focusing on refugees, migrants, IDPs who cannot access free insulin[92]

[92] Detailed recommendations provided in the CMWG's Aide Memoire: Cash assistance to support health objectives, available from https://www.humanitarianresponse.info/.

Response option	Advantages	Disadvantages	Geography/Targeting
Soap			
Continued direct provision in hygiene kits—purchased regionally/ internationally	Utilizes current procurement mechanisms; better matches beneficiary preferences	Circumvents functioning local markets; additional customs and transport costs	Targeting via existing hygiene kit distributions to refugees, asylum seekers and migrants
Continued direct provision in hygiene kits—purchased via local markets	Supports local markets and traders; has additional benefits to local economy; relies on functioning market for import & transport	Requires new partnerships with traders in different locations; traders must be able to handle bulk procurement	Targeting via existing hygiene kit distributions to refugees, asylum seekers and migrants
Support to local producers—production, inputs	Supports local livelihoods and diversifies small-scale production; low barriers to entry for small-scale producers and informal vendors	Large-scale domestic producers still operational; general preference for imported goods; cost-benefit analysis needed	All geographies that can be accessed; limited to small-scale producers who lack liquidity

Targeting Considerations

The response options presented above briefly address targeting criteria. Additional considerations specific to vulnerable groups are analysed below.

- IDPs, returnees and vulnerable non-displaced households are all potential recipients of cash assistance contingent on an assessment of their need and vulnerability. Humanitarian actors have targeted these groups via unconditional multi-sector cash transfers with some success, though the logistical challenges of delivering any sort of cash aid in Libya currently limit the scalability of such programmes. Additional needs assessment is required to determine the applicability of cash transfers to other vulnerable groups.
- Refugees and asylum seekers may lack access to the Libyan financial system, even if they hold legal documentation for stay in Libya. Further investigation is needed to determine what specific barriers they face and which financial service providers, if any, are willing to accept UNHCR registration documents as a form of identification for refugees outside the banking system. Without this in place, their lack of Libyan bank accounts may limit feasible modalities to cash in hand or pre-paid cards.
- Migrants seeking to transit Libya to other locations (including Europe) are less likely to hold the legal documentation required to stay in Libya. Those seeking to do so may seek asylum or more often remain undocumented. START recommends that any cash-based interventions targeting migrants, refugees or asylum seekers should focus on those who hold the documentation required for stay or transit through Libya, as those without it may be more exposed to safety threats connected with the visibility of receiving cash aid.[93] As always, programmes targeting these populations must take into account the sensitivities both of donor agencies and of the local authorities.

[93] START Network (2017). Cash Delivery Mechanism Assessment—For Refugees, Migrants and Asylum Seekers in Libya. Available from: https://startnetwork.org/

- Humanitarian aid in Libya has not generally targeted Libyan producers or traders as part of a market-based approach. Producer-focused interventions that could be undertaken with relatively few special considerations include supporting vulnerable households in tomato or soap production, as well as working to rehabilitate existing cold chains and cold storage facilities. More valuable still would be interventions that work with traders to expand access to functional POS infrastructure, which would lay significant groundwork for the distribution of e-cards and would shift the burden of the liquidity crisis away from vulnerable households. Programmes such as these would require both outreach among vendors and collaboration with financial service providers; further scoping would be needed to identify appropriate partners.

Geographic Considerations

This assessment examined the functionality of supply chains for key commodities in Tripoli, Sebha and Benghazi. In addition to the analysis of geography in the response options table (Table 3), geographic considerations for cash and market approaches include:

- The diversity of traders, wholesalers, pharmacies and financial institutions in Tripoli, Benghazi and Sebha makes most of the response options examined in Table 3 possible in each location. As with any cash intervention, additional examination of targeting and local needs will be required to narrow down potential openings—for example, working with health actors to identify whether there is a large need for insulin among refugees and asylum seekers, or making links with local soap traders or small-scale producers in areas where distribution of hygiene kits is occurring.
- Tripoli and Benghazi are the most feasible areas in which to pilot cash programmes that use e-cards or similar mechanisms. In addition to being principal hosting areas for displaced populations, they also have the greatest numbers of formal vendors, the highest uptake of existing electronic POS (though many are currently non-functional), and the most potential for expansion of existing networks.
- Market-based programming in all areas of Libya, but particularly in the south, needs to take into account local challenges with security, fuel and electricity. Any support to local farmers to spur production of fresh food, for instance, needs to take into account Libya's limited access to water; any efforts to rehabilitate cold storage facilities for insulin need to be robust enough to withstand Sebha's frequent electricity cuts (an issue that exists throughout the country to varying degrees).
- This assessment found that women in Sebha have experienced the most disruption in their market access due to localised insecurity and perceptions of safety. Any cash or market-based intervention in Sebha must explicitly address this gender dimension, examining how women in this area will access or benefit from any planned market-oriented assistance.

Recommendations from the CMWG

Though they are shaped by different actors and dynamics, the four supply chains examined in this assessment—wheat flour, insulin, tomatoes and soap—are linked by the ongoing liquidity crisis that affects all sectors of the Libyan economy. As a result, **in all assessed supply chains, the main impact of the liquidity crisis falls on the demand side.** Importers, wholesalers and other large supply-side actors often receive preferential access to foreign currency at the official

exchange rate, can more easily collect lump sums in Libyan dinars, and have greater flexibility to modify their expenditures to avoid facing shortages of hard cash. Consumers and small-scale producers, who have less flexible expenditure patterns and more difficulty accessing cash, are affected much more harshly. Ideally, therefore, **any market interventions by CMWG members should prioritise assistance to these demand-side actors.**

As most key supply chains continue to function adequately in Libya, humanitarian actors have the opportunity to inject liquidity at the end of the supply chain by purchasing in-kind aid directly from local small-scale producers. As such, **CMWG members should consider procuring humanitarian aid on local markets where suitable partners can be found,** taking into consideration the need to limit the scope of any such procurements at first. Further assessment will be needed to ensure that targeted local markets will be able to handle an influx of international actors, and that targeted goods sold on those markets are produced within Libya rather than being imported. As importers and wholesalers already hold a privileged position in most supply chains, any intervention that primarily benefits these actors must be regarded as a missed opportunity.

Given that markets in Libya are functional and key goods remain widely available, **cash transfer programming remains a relevant and necessary part of the humanitarian landscape in Libya.** Implementing such programmes has proven complex, due to the risk and liquidity issues surrounding cash-in-hand interventions and the current lack of functioning infrastructure to support alternative modalities. But this does not diminish their importance in a context where most consumers lack access to liquidity yet must conduct nearly all transactions in cash.

To better inform future cash-based interventions in Libya, **the CMWG recommends the creation of a Minimum Expenditure Basket (MEB)** to better define the typical needs of vulnerable households in Libya and clarify how cash assistance can best meet these multi-sector needs. In particular, by establishing a harmonised value for cash grants which matches assessed household expenditure gaps, an MEB will aid humanitarian actors in defining the scope of their interventions and ensuring that the assistance they provide meets identified needs.

Concluding Remarks

Since the renewal of the Libyan conflict in 2014, the supply chains for wheat flour, insulin, tomatoes and soap have remained functional in spite of disruptions. In Tripoli, Benghazi and Sebha alike, markets have demonstrated that they retain the capacity to provide key commodities to the population. Given that key supply chains are functioning, and households' access to key goods is consistent, the CMWG concludes that market-based responses are appropriate in Tripoli, Benghazi and Sebha and has laid out several options, detailed in the previous chapter, that could be integrated into current market structures.

The CMWG has launched another market assessment besides this one: the Libya Joint Market Monitoring Initiative (JMMI), a price monitoring exercise tracking prices and availability of basic commodities across Libya on a monthly basis.[94] The JMMI complements the findings of this assessment in that it follows market trends over time. It will keep track of the assessed key commodities of this market assessment and thus be a powerful tool to spot future disruptions and changes in the macroeconomic context, such as a potential devaluation of the official exchange rate of the Libya dinar.[95]

It is important to point out that the findings of this market assessment only apply to the assessed locations and supply chains. The conclusion can neither be generalized to all of Libya, nor to other supply chains that were not analysed. While this market assessement provides a solid baseline understanding of key supply chains, further research is needed.

Given the very slim body of literature on the Libyan market system, many avenues for future research present themselves:

- Further market assessments need to be conducted, taking into account different supply chains and locations. In particular, future studies should analyse markets in rural settings and hard-to-reach areas, as such contexts may show vastly different findings.
- Due to the economic downturn, employment opportunities have been scarce. A thorough analysis of current labour market dynamics and opportunities would help humanitarian organisations to eventually move towards longer-term livelihoods programming.
- Further research needs to be carried out on payment modalities and the potential to spread alternative methods throughout the country. Some evidence is gathered from urban hubs, but virtually no research has been done in rural areas.
- Lastly, the impact of humanitarian interventions on local markets needs to be closely monitored and could be the subject of future research.

[94] In addition to the market assessment at hand, together with REACH, the CMWG has initiated another market initiative: The Libya Joint Market Monitoring Initiative (JMMI) is a monthly price data collection exercise. Member organizations of the CMWG gather price and availability data of basic food and non-food items in shops in urban locations across Libya. The initiative was launched in June 2017 and complements the market assessment in contributing to the understanding of Libyan markets by following price trends across Libya and potential shortages over time. The JMMI tracks the prices of 24 food and 8 hygiene items. The latest factsheet (from the October 2017 round) is available from: http://www.reachresourcecentre.info/system/files/resource-documents/reach_lby_situation_overview_joint_market_monitoring_initiative_jmmi_october_2017.pdf.

[95] As of the October 2017 round, insulin was not among the tracked commodities. However, wheat flour, tomatoes and soap are on the list of monitored items.

Libya Cash & Markets Working Group (CMWG)