Agriculture and Rural Livelihoods Needs Assessment – Libya
EXECUTIVE SUMMARY

In the aftermath of the 2011 fall of Muammar Gaddafi’s rule in Libya, a power struggle for control of the country developed into an ongoing civil war, resulting in population displacements and disrupting household livelihoods. In addition to the conflict, Libya’s location and internal political instability caused the country to become a key transitory point for African and Middle Eastern migrants traveling to Europe. Previous studies indicate that foreign migrants have historically played a key role in agricultural labor work within the country.

In order to develop and implement future interventions to support Libya’s agricultural sector, information is needed relating to the impacts of the ongoing political crisis on the sector (for local, displaced, and migrant populations), current needs, and entry points for agriculture support programs. To fill this information gap, FAO conducted a rapid agricultural needs assessment in August 2017.

Key findings

The findings of this study show that agriculture still represents an important source of income in rural areas, with notable regional variations. In the east and south, the population heavily depends on salaries and pensions provided by the government or private sector, while agricultural activities are generally considered secondary income sources. In the west, meanwhile, there is a higher dependency on agriculture as an income source as these areas have some larger scale farms. Eastern, southern and western districts alike hold a strong potential to enhance their agricultural production. However, since 2011, multiple episodes of conflict and political instability have exacerbated already existing challenges, such as water scarcity, animal and plant diseases, desertification, and the low availability of workers.

Although each of the assessed districts faces its own unique challenges and opportunities, the assessed team identified multiple challenges common across the areas. One of the largest challenges faced by the crop, livestock and fishing sectors is a lack of income and liquidity. While the Libyan population continues to rely heavily on public services and salaries, government institutions have been affected by the political and economic instability and struggle to maintain the needed spending levels required for these services. Among the many consequences, the shortage of cash in banks has led to strict limits on withdrawals including of public sector salaries and pensions. Additionally, the competition between the two rival governments over the control of financial institutions has further weakened the Libyan financial system, leaving space for black market and smuggling activities. In this conflict setting, the agricultural sector has primarily suffered from the scarcity of investments and initiatives from the government, as well as a lack of water, electricity, and means of transportation.

Crop productivity has been particularly affected by the high cost of agricultural equipment, such as machines, water pumps, seeds, and pesticides. This issue has compounded a number of challenges for local farmers, such as reduced quality of available seeds and pesticides, the spread of crop pests and diseases and low access to irrigation water. After 2011, black market businessmen took the stage due to a lack of regulation and started supplying the local population with lower quality seeds. This shift can be seen in local crop production patterns: seeds sold on the black market are higher priced, forcing farmers to change the type and amount of purchased seeds towards cheaper (and often less productive) options. Secondly, the purchase of lower quality seeds has resulted in lower quantity and quality of harvests. Mirroring the dynamics observed in the seed sector, the availability of fertilizers and pesticides is also currently determined by black market vendors, setting higher prices compared to previous years.

The conflict has also had important implications for the agricultural labor market. More specifically, the number of migrant laborers has fallen in recent years due to concerns about the country’s fighting and insecurity. A lack of labor, combined with the low value of the Libyan dinar, has pushed up wages compared to previous years, challenging local farmers with only limited financial resources.
Livestock farmers reported that the conflict has indirectly contributed to higher costs for animal feed. The general health of animals has also suffered from a lack of medicines and vaccines for disease control; a lack of transportation means to the Office of Animal Health and to the limited number of veterinary clinics; and the absence of bonuses for technicians and veterinarians who struggle with low salaries and a lack of motivation. Insecurity and smuggling trends were also frequently mentioned as factors hindering livestock trade, particularly in Benghazi and Aljabal Alakhdar.

Negative trends in marine fish production was reported across most of the surveyed areas since the start of the crisis in 2011. According to local fishermen, especially in the eastern districts, this decline has been driven by the deterioration in the security situation, preventing fishermen from reaching fish-rich areas. Local informants involved in fishing also reported that their activities are hindered by high prices for boats, equipment (fishing tools, bags and refrigerants) and labor, low availability of specialized expatriate labor, and the suspension of government support for fishermen since 2011. Similar to the issues faced by the crop and livestock sectors, political and civil instability and the currency depreciation are the main drivers of these challenges.

Finally, desertification was found to be a source of concern in some of the assessed areas. Man-made causes of this phenomenon include 1) the presence of farmers and their livestock who overgraze and destroy the groundcover; 2) the conversion of agricultural lands into residential areas; 3) deliberate forest fires; and 4) unregulated timber-cutting.

**Priorities and Recommended Actions**

The study’s findings suggest that agencies engaged in supporting households should promote conflict-resilient agricultural production and help maintain farmers’ access to higher-quality inputs and support required for agricultural production, such as agricultural extension, vaccines, capacity building and financial support.

Given the scale of each sector and its potential impacts, focus should be paid on cropping and livestock activities, though fishing is an important livelihood in select communities.

The vast majority of farming activities are being managed by resident communities who in turn are employing paid migrant labors. IDPs involvement in the sector, meanwhile, is very limited. Therefore, actions to support local agricultural production should target resident communities engaged in agriculture/agribusiness while also providing migrants with employment opportunities. With that said, given protection issues flagged recently by the media and human rights organizations relating to migrant populations, agricultural support programs need to take care to ensure programs build social cohesion and have adequately taken into consideration community-level protection concerns.

Given the findings of the assessment, this study recommends a number of interventions to enhance farmers’ living conditions and productivity, which can be broken into two parts. A first category of initiatives focuses on improving food security, developing household resilience, strengthening productivity and promoting local entrepreneurship. A second category, meanwhile, focuses on infrastructure support and environmental protection. More details regarding recommended actions can be found in the table below.
### Agricultural Resilience

#### Boost agricultural productivity
- Facilitate access to agricultural inputs, through either direct distribution or financial support. Inputs for crop and livestock farms might include certified seeds and high-quality pesticides, fertilizers, equipment, machinery, animal feed, veterinary medicines, vaccines, and supplements. Inputs for fisheries could include fishing gear, inputs and equipment.
- Encourage regulatory oversight of agricultural input markets to improve the quality of locally available products.

#### Capacity development of agricultural households
- Training for community-based organizations and farmers on project management, funding opportunities and resource investments.
- Conduct awareness campaigns covering the risks associated with the smuggling of agricultural products.
- Organize workshops focused on the implications of climate change on agriculture and about the promotion of sustainable, environmentally-friendly practices.

### Increase local entrepreneurship
- Establishment of business incubators providing seed funding for medium or small farms which apply gender-sensitive, environmentally friendly and social inclusive considerations.
- Creation of an intermediary body for farmers that could facilitate access to credit from local and international institutions.

### Improve food quality
- Conduct awareness campaigns on food sanitation, quality and nutritional standards, and sensitization on pesticide-related food poisoning.
- Train local farmers on how to comply with international food sanitary inspections standards.

### Marketing support
- Implementation of outreach and networking workshops with local farmers with a special focus on market access.
- Support and mentorship to socio-professional organizations engaged in crop, livestock and fish production.

### Infrastructure Support

#### Access to irrigation water
- Rehabilitation of groundwater wells, irrigation systems, and water networks, particularly in Marqab, Misrata, Aljabal Alakhdar and Al-Marj districts.
- Train local stakeholders on best practices relating to water network maintenance.

#### Access to electricity
- Rehabilitation of local generators, and/or improve connectivity with the general electrical network.
- Eventual distribution of new energy sources (solar panels or generators).
- Train local stakeholders on best practices relating to new energy source maintenance.

#### Environmental protection
- Conduct water and soil conservation initiatives across erosion-prone regions.
- Define transhumance corridors.

#### Connecting livestock farmers to veterinary services
- Rehabilitation roads in disrepair that connect key livestock areas, particularly in Benghazi, Aljabal Alakhdar, Al-Marj, Sabha and Obari districts.
- Build new rural roads connecting remote areas to urban areas, opting for passages that are the least exposed to security risks.

#### Fishing infrastructure
- Rehabilitation of fishing landing sites in disrepair.
- Train local stakeholders on best practices relating to landing site maintenance.
Libya - Challenges to cropping, livestock and fishing activities

- High costs (equipment, pesticides, seeds, fertilizers, animal feed)
- Low access to water
- High costs of labor
- Lack of electricity
- Lack of veterinary support
- Remoteness of grazing land
- Lack of security

District assessed

District not assessed
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1. INTRODUCTION

In the aftermath of the 2011 fall of Muammar Gaddafi’s rule in Libya, a power struggle for control of the country developed into an ongoing civil war. According to IOM’s Displacement Tracking Matrix, this violence and conflict resulted in the internal displacement of 294,436 people, as of January-February 2017, with the largest proportions residing in Benghazi, Abusliem, Bani Waleed, Ejdabia, and Misrata. Amongst this displaced population, approximately 10-15% reported that farming was their main livelihood, with an additional 0-5% reporting pastoralism as their primary activity. Additionally, IOM has noted an increase in returnee populations since late 2016, particularly in Benghazi, with 15% of returnees also reporting farming as their main livelihood activity.

In addition to the conflict, Libya’s location and internal political instability has caused the country to become a key transitory point for African and Middle Eastern migrants traveling to Europe. For example, according to IOM, 80 – 85% of the approximately 150,000 migrants who arrived by sea in Italy during the 2015 year passed through Libya. Most of these migrants were from Eritrea, Nigeria, and Somalia, followed by Sudan, Gambia, Syria, Senegal, Mali, and Bangladesh at lower levels. An Emergency Food Security Assessment of eastern Libya in 2011 indicated that foreign migrants have historically played a key role in agricultural labor and shepherding work within Libya. However, as of 2011, the EFSA found that political violence had negatively impacted the supply of agricultural laborers as many migrants fled the country. Since then, very little additional information has been collected examining the role of foreign migrants on Libya’s agricultural sector, which needs to be further explored with additional research.

At a national level, agriculture is not a major economic sector within Libya, comprising of only 2% of Libya’s GVA and providing employment for only 6% of the workforce. However, these national statistics hide the fact that agriculture, fishing, and pastoralism are still key livelihood activities for many households, particularly in rural areas. For example, roughly 20% of the workforce is employed in agricultural or hunting activities in Al Kufra and Sabha districts.

To develop and implement future interventions to support these populations, information is needed relating to the impacts of the ongoing political crisis on the agriculture sector (for local, displaced, and migrant populations), current needs, and entry points for agriculture support programs. With this in mind, FAO conducted a rapid agricultural needs assessment in August 2017.

The main objective of this assessment was to determine needs and identify avenues to support local, vulnerable households, including resident communities, IDPs, and migrant laborers within Libya. More specifically, the assessment aimed to:

- Identify and/or confirm the impacts of the ongoing civil war on the agricultural sector and its sub-sectors (crop production, livestock, and fishery/aquaculture).
- Examine other key issues facing the Libyan agricultural sector that may not be directly related to the ongoing conflict, such as livestock diseases, plant pests, and migration.
- Identify needs and opportunities within the agricultural sector and its sub-sectors (crop production, livestock, and fishery/aquaculture) and explore how these opportunities can be supported.

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2 Ibid.
2. METHODOLOGY AND SAMPLING

As shown in the dashboard at the end of this chapter, the assessment surveyed a sample of local stakeholders in Libya, representative of a variety of social backgrounds and economic statuses. These stakeholders were involved in different aspects of the agriculture, livestock, and fishing sectors, located in both rural and urban areas. For the sake of this assessment, the research team targeted three different areas:

**West**
- Marqab district
- Misrata district

**East**
- Benghazi district
- Aljabal Alakhdar district
- Al-Marj districts

**South**
- Gat
- Marzaq
- Sabha
- Obari districts

The selection of the target locations was based on current access levels and the goal of collecting sufficient information about different geographical areas in the country. Given that the geographical scope of the study is limited to 10 districts, its findings are not intended to be representative of the overall situation in the country.

The data collection activities took place in August 2017. In total, the research team interviewed 360 household members, 36 community leaders and 17 large commercial farmers. The methodological approach focused on the collection of information through two different types of interview, key informant interviews and focus group discussions. Such approach was adopted with the aim of achieving a general understanding of the main trends and dynamics affecting the agriculture sector in Libya.

- **Key informants interviews:** These interviews focused on collecting information in all visited districts about demographics, livelihoods, the economic situation, and the impacts of conflict on local household income sources. In addition, key informants interviews provided an overall understanding, at the district level, on the extent of agriculture, livestock and fishing activities, paying special attention to the migrant and IDP subpopulations. In each district, a minimum of three community leaders and two major farmers or agricultural specialists were interviewed. The interviews with large farmers/agricultural specialists occurred in the villages of Sidi Faraj and Bo Atni (Benghazi district); al-Baida and Masa (Aljabal Alakhdar district); Batta and Farzogha (Al-Marj district); Wadneh and al-Amoud (Marqab district); Tamina (Misrata); Gat (Gat district); Marzaq (Marzaq district); Tamanhant (Sabha district); Bent Bayah Center and Qe’erat (Obari district).

- **Focus group discussions:** The assessment also gathered qualitative data from community members involved in cropping, livestock, and fishing activities, as well as IDP and migrant populations, through focus group discussions. Each focus group discussion had between 7 to 8 participants. Focus group discussions focused on interviewing worst-off populations within each community. Key informants supported the process of identifying worst-off populations that worked in agriculture, livestock, fishing, or who are migrants and IDPs. These interviews focused on assessing livelihood changes compared to before the start of the crisis in 2011, current economic activities of the poor, and specific challenges that they currently face. The interviews were also used to draw an in-depth understanding of the current access of population to services and assistance. Separate male and female focus group discussions were conducted. The interviews were distributed in the
different geographic regions as per the following table:

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of cropping FGDs</th>
<th>Number of livestock FGDs</th>
<th>Number of fishing FGDs</th>
<th>Number of migrants FGDs</th>
<th>Number of IDP FGDs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>East</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>West</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>South</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

In terms of gender breakdown, 34 of the interviewed community leaders were male and 2 were female. Meanwhile, the entire sample of large commercial farmers were males. Regarding the focus group discussions, 17 were held with female respondents and 33 with males.

The remainder of this report can be divided into six sections. First, local demographics and a general livelihoods profile of resident, migrant, and IDP populations will be presented, outlining key income sources, as well as opportunities and challenges for each group. In this section, the needs and support options presented will be relatively general, relating to household livelihoods as a whole and not strictly limited to the agricultural sector. Then, once these general household profiles have been presented, the following three sections will move into the agricultural sector, provide an in-depth look at each of Libya’s three agricultural subsectors (cropping, livestock, and fishing). In each of these sections, the current status of the sector and changes since the start of the crisis in 2011 will be outlined. Similarly, challenges, opportunities, and suggested support needs will be discussed. Finally, the report will conclude with a discussion of recommendations for response and an annex outlining district-level information.

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6 In the table, M refers to Males FGDs, and F refers to Female FGDs.
Libya - Assessment Sampling Framework

- District assessed
- District not assessed

Interview partner
- Male
- Female

Key Informant Interview
- With community
- With large farmer

Focus Group Discussion
- Cropping activity
- Livestock activity
- Fishing activity
- Migrant’s condition
- IDP’s condition
3. LOCAL DEMOGRAPHICS INFORMATION

Libya - Demographics

<table>
<thead>
<tr>
<th>District</th>
<th>Population</th>
<th>Number of Female Headed Households</th>
<th>Number of Households</th>
<th>Migrant Population</th>
<th>IDP Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marqab</td>
<td>37,000</td>
<td>6</td>
<td>5</td>
<td>6,000</td>
<td>N/A</td>
</tr>
<tr>
<td>Misrata</td>
<td>115,000</td>
<td>5</td>
<td>23,000</td>
<td>50,000</td>
<td>70,000</td>
</tr>
<tr>
<td>Benghazi</td>
<td>137,000</td>
<td>6</td>
<td>27,400</td>
<td>50,000</td>
<td>151,000</td>
</tr>
<tr>
<td>Al-Marj</td>
<td>17,000</td>
<td>6</td>
<td>850</td>
<td>6,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Aljabal Alakhdar</td>
<td>42,016</td>
<td>6</td>
<td>4,300</td>
<td>10,000</td>
<td>1,500</td>
</tr>
<tr>
<td>Zwara</td>
<td>5,800</td>
<td>6</td>
<td>600</td>
<td>2,500</td>
<td>810</td>
</tr>
<tr>
<td>Aljufra</td>
<td>3,000</td>
<td>7</td>
<td>50</td>
<td>200</td>
<td>N/A</td>
</tr>
<tr>
<td>Sabha</td>
<td>540</td>
<td>5</td>
<td>50</td>
<td>300</td>
<td>0</td>
</tr>
<tr>
<td>Sabha</td>
<td>115,000</td>
<td>5</td>
<td>500</td>
<td>500</td>
<td>5,000</td>
</tr>
<tr>
<td>Alkufra</td>
<td>42,016</td>
<td>6</td>
<td>4,300</td>
<td>10,000</td>
<td>1,500</td>
</tr>
<tr>
<td>Aljabal Alakhdar</td>
<td>42,016</td>
<td>6</td>
<td>4,300</td>
<td>10,000</td>
<td>1,500</td>
</tr>
</tbody>
</table>

Population categories:
- <50,000
- 50,001 - 100,000
- 100,001 - 250,000
- 250,001 - 500,000
- >500,000

District not assessed.
<table>
<thead>
<tr>
<th>District</th>
<th>Population</th>
<th># of HHs</th>
<th>HH size</th>
<th># of female headed HHs</th>
<th>IDPs population</th>
<th>Migrants population</th>
<th>People in high need (% of tot population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benghazi</td>
<td>931,394</td>
<td>137,000</td>
<td>6</td>
<td>27,400</td>
<td>151,000</td>
<td>50,000</td>
<td>558,836 (60%)</td>
</tr>
<tr>
<td>Aljabal Alakhdar</td>
<td>261,000</td>
<td>42,016</td>
<td>6</td>
<td>~4,200</td>
<td>1,500</td>
<td>10,000</td>
<td>39,150 (15%)</td>
</tr>
<tr>
<td>Al-Marj</td>
<td>108,000</td>
<td>17,000</td>
<td>6</td>
<td>850</td>
<td>1,000</td>
<td>6,000</td>
<td>54,000 (50%)</td>
</tr>
<tr>
<td>Gat</td>
<td>29,000</td>
<td>5,800</td>
<td>6</td>
<td>600</td>
<td>810</td>
<td>2,500</td>
<td>2,900 (10%)</td>
</tr>
<tr>
<td>Marzaq</td>
<td>90,000</td>
<td>15,000</td>
<td>5</td>
<td>2,000</td>
<td>5,000</td>
<td>5,000</td>
<td>54,000 (60%)</td>
</tr>
<tr>
<td>Obari</td>
<td>21,000</td>
<td>3,000</td>
<td>7</td>
<td>50</td>
<td>N/A</td>
<td>200</td>
<td>8,400 (40%)</td>
</tr>
<tr>
<td>Sabha</td>
<td>3,000</td>
<td>540</td>
<td>5</td>
<td>50</td>
<td>0</td>
<td>300</td>
<td>300 (10%)</td>
</tr>
<tr>
<td>Marqab</td>
<td>169,000</td>
<td>37,000</td>
<td>6</td>
<td>6,000</td>
<td>2,000</td>
<td>N/A</td>
<td>5,070 (3%)</td>
</tr>
<tr>
<td>Misrata</td>
<td>550,000</td>
<td>115,000</td>
<td>5</td>
<td>23,000</td>
<td>70,000</td>
<td>50,000</td>
<td>165,000 (30%)</td>
</tr>
</tbody>
</table>

The geographic scope covered by the assessment involved seven districts in Libya, whose demographics information is summarized in the dashboard and the chart displayed above.

The districts covered by the assessment were quite different in terms of population size, with higher populated districts hosting almost 1 million people (Benghazi), whereas the population of other districts reached only 3,000 people (Sabha). The number of female-headed households was also very diverse across the districts. In Misrata and Benghazi districts, for instance, the recorded number of female-headed households was above 23,000, while in southern districts, such as Sabha and Obari, this number barely reached 50.

A stronger presence of IDPs and migrants was recorded in Benghazi, which hosts around 151,000 displaced persons and 50,000 migrants and in Misrata, with 70,000 IDPs and 50,000 migrants. Aljabal Alakhdar and Al-Marj districts, meanwhile, hosted far more migrants than IDPs – 10,000 and 6,000 respectively.

Based on local perceptions, the districts with the largest numbers of people in need were Benghazi (~559,000), Misrata (165,000), Marzaq and Al-Marj (54,000 each).
4. SOCIOECONOMIC FABRIC AND LIVELIHOODS

This chapter provides an overview of the main socioeconomic characteristics of local, migrant, and IDP households. This information is intended to reinforce the background knowledge of the local context, supporting a discussion of the cropping, livestock, and fishing analyses provided in later sections of this report (see chapters 5, 6, 7).

I. Profile of the Households

a) Means of Subsistence

In general, local households living in difficult socioeconomic conditions. As a whole, they usually depend on aid, monthly subsidies and pensions provided by the State to sustain their livelihoods. However, some geographic differences exist. More specifically, in the east and south, populations heavily depend on salaries and pensions provided by the government or by the private sector (ex. through skilled labor). Agricultural activities (cropping, small-scale livestock, and fishing) are generally considered to be secondary income sources. In the west, meanwhile, there is a higher dependency on agriculture as a source of income. Additionally, in Misrata, trading activities are considered to be a key source of income, and households that depend on trade are generally considered better off compared to the other population groups. The presence of large-scale farmers was particularly noted in western areas.

This trend of heavy dependency on state-provided aid, subsidies, and pension reportedly worsened in recent times due to macroeconomic factors, such as the depreciation of the currency, a lack of liquidity in banks, and the (partial) cessation of social grants (in Gat district). In addition, generalized political instability has further deteriorated the living conditions of economically disadvantaged households.

Shifts in income sources during the past seven years have been noticed on a limited scale in the east and the south. According to key informants, the movement towards new income-generating activities in the east will likely continue to grow as households cope with the government’s inability to provide jobs and the lack of liquidity in banks and governmental organizations. Meanwhile, in the eastern region, particularly in the Benghazi area, a number of secondary sources report that Libyans have started engaging in informal manual labor (previously deemed suitable for migrants only) to replace income from the public sector. An increase in informal market activities, such as smuggling and foreign currency exchange, was also recorded.

Across all surveyed districts, the assessment team found evidence of assistance, in the form of financial support, non-food items and food, provided by governmental agencies (social affairs, Zakat Fund) and civil society organizations to support households in need.

Economically disadvantaged households rely on market purchases as their main source of food, both now and before the start of the crisis in 2011. On average, 75% of local households’ food comes from market purchases, 20% from own production, and about 5% from humanitarian assistance.

b) Livelihood Challenges and Opportunities

In general, the main factors hindering local households’ rural livelihoods are: 1) a lack of income and liquidity, and 2) a scarcity of investments and initiatives from the government, especially in rural areas.

As mentioned by various secondary sources, the livelihoods of Libyans have been heavily affected by the disruption of law and order since 2011. For example, while the Libyan population continues to rely heavily on public

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services and salaries, government institutions have been affected by the political and economic instability and struggle to maintain the needed spending levels required for these services. Among the many consequences, the shortage of cash in banks has led to strict limits on withdrawals including of public sector salaries and pensions. Additionally, the competition between the two rival governments over the control of financial institutions has further weakened the Libyan financial system.\(^9\)

According to community leaders, the rural livelihoods of female populations in Benghazi, Aljabal Alakhdar and Obari districts have been particularly affected by the lack of liquidity. Additionally, in Benghazi, local informants reported that traders are not using banks to store their cash because of security concerns and a lack of trust in the local banks.

Issues such as a lack of water, electricity (due to frequent power cuts) and means of transportation have further hampered the development of an enabling environment for rural livelihoods. For example, secondary data sources report issues relating to water shortages, provoked by the deliberate disruption of water networks by armed groups. Generally, water pipelines run in parallel to oil and gas pipelines and due to the ongoing fight for resources, such facilities are at high risk of infrastructural damage.\(^10\) In such context, coastal cities are particularly at risk, as they rely fully on water pumped in from the south.

When asked about general agricultural-related support needed to improve living conditions and income-generating opportunities of local households, community leaders outlined a number of potential opportunities. At a district level, certain initiatives were given strongest priority, as indicated in the table below:

<table>
<thead>
<tr>
<th>Suggested agricultural support initiatives</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwelling construction (financial support)</td>
<td>Marqab</td>
<td>Misrata</td>
<td>Benghazi</td>
</tr>
<tr>
<td>Capacity building (agriculture + industry)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply of water or ameliorated access to water sources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protection and safety promotion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply of seeds and pesticides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provision of agricultural machinery</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


II. Migrants Profile

According to local informants, migrants are coming to Libya for a variety of purposes: to earn a living, to flee war and insecurity, to transit on their way to Europe, or to obtain Libyan nationality through marriage.

In terms of seasonal migration, focus group discussion participants in Benghazi report increased transit migration during the summer months when the sea is calmer. Seasonal migration also occurs during specific seasons, such as during the harvest periods for wheat and barley (April and May), during the summer season (July – August) to pick fruits such as grapes, and during autumn (October – November) to collect olives. Certain migrants also seasonally migrate to Benghazi during the sheep shearing season (July and August).

**Main country of origin of migrants in Marqab, Misrata, Benghazi and Obari**

<table>
<thead>
<tr>
<th>Marqab</th>
<th>Misrata</th>
<th>Benghazi</th>
<th>Obari</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palestine, Iraq, Morocco, Syria, Egyptians and Sub-Saharan African nationalities</td>
<td>Palestine, Egypt, and recently from Iraq, Syria, Niger, Nigeria, Chad, Sudan</td>
<td>Egypt, Sudan, Chad, Somalia, Eritrea and Bangladesh</td>
<td>Sudan, Egypt, Mali, Niger, Palestine, Syria and Lebanon</td>
</tr>
</tbody>
</table>

### a) Means of Subsistence

Concerning the main livelihood activities of males within the migrant community, the assessment team collected evidence about their involvement in multiple professional domains, including agriculture, livestock, metal foundry, construction work, painting, hairdressing, casual work, and handicrafts. Some of them also work in the service sector, or as businessmen, private doctors and accountants. Regarding migrant women, they reportedly lack education and are employed as cleaning staff in schools or private houses. Migrants reportedly also received assistance – on a regular basis - from the local department of Social Affairs, from local charities and from the Libyan Red Crescent Society across all districts. Main items distributed included food items, clothes and medicines.

The main sources of food for migrants are humanitarian assistance and local markets. In certain cases, when migrants are involved in cropping or gardening, they may obtain up to 50% of their food from agriculture but these cases remain limited and are not representative. Concerning the food security of migrants, focus group discussion participants generally reported that, in their view, the food consumption of migrants was decent in terms of both dietary quantity and quality. However, participants to the discussion in Marqab affirmed that food quantity and quality of migrants did vary. Here, migrants indicated that the difficult economic conditions experienced by migrants have resulted in reduced consumption and lower nutritional quality.

### b) Challenges and Opportunities

Unlike for local resident populations where support needs and challenges questions related only to agriculture activities, the questions posed to migrants were broader and inclusive of all types of livelihood issues, given that the level of involvement of these displaced populations in the agricultural sector was unknown at the time of the assessment. Among the challenges experienced by the migrant population, the most recurrent issue reported by community leaders was not related to agriculture but was instead the rising cost of living and the depreciation of the local currency, which reduce household purchasing power. A limited availability of housing was also reported as a...
Agriculture and Rural Livelihoods Needs Assessment – Libya

challenge for migrants in Misrata, Aljabal Alakhdar and Al-Marj districts. These challenges, however, are not limited to the migrant population exclusively.

Because of their status, the livelihoods of migrants are particularly affected by limited access to business opportunities, work licenses, rental contracts, loans and credit. Such dynamics are especially debilitating for migrant women who struggle to obtain basic licenses to run their businesses, such as beauty centers and shops. Focus group discussion participants also flagged that the lengthy bureaucratic process of finalizing official paperwork is a core challenge.

In terms of potential initiatives to support migrants’ livelihoods, respondents flagged the relevance of financial support and seed funding to support small-scale projects focusing on agricultural work, fishing and metal work. In the case of females, in particular, it was suggested that seed funding could be used to support knitting initiatives, dessert factories and beauty centers.

Main challenges faced by the migrant community

<table>
<thead>
<tr>
<th>Challenge/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Misrata</td>
<td>Benghazi</td>
<td>Aljabal Alakhdar</td>
</tr>
<tr>
<td>Housing opportunities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural difference and social frictions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Limited access to working license, credits and loans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High living costs, low purchase power</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extortion, theft and fraud</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Movement restrictions (lack of legal IDs document)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Livelihoods support initiatives for migrants

<table>
<thead>
<tr>
<th>Support/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Misrata</td>
<td>Benghazi</td>
<td>Aljabal Alakhdar</td>
</tr>
<tr>
<td>Provision of raw materials to SMEs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seed funding for small projects (metalwork, farming)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment policy-making and advocacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generic job creation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creation of shelter and health care centers</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### III. IDP profile

#### Main regions of origin of IDPs in Marqab, Misrata, Benghazi and Sabha

<table>
<thead>
<tr>
<th>Marqab</th>
<th>Misrata</th>
<th>Benghazi</th>
<th>Sabha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripoli, Benghazi, Darghona, Taourgha, Sirte</td>
<td>Benghazí, Sirte, Abu Karin, Alushka, Sabha and Tripoli</td>
<td>Al-Sabri area, Albla, Alhoot market, Quareshi, Leithi, Bouatni, Taourgha, Sirte, Qanfouda</td>
<td>Taourgha, Sirte, Wershafana, Bani Walid, eastern region of Benghazi, Rshvanh and Obari</td>
</tr>
</tbody>
</table>

#### a) Means of subsistence

According to respondents, the majority of IDPs were displaced sometime since 2011. Evidence of IDPs arriving before that date was only noted in Benghazi, Aljabal Alakhdar, Marqab and Al-Marj districts and in very small numbers (1-2% of the total IDP population in the area). The pre-2011 arrival of IDPs resulted from high rates of violence and killing between families and clans, especially around contested properties.

The majority of IDPs depend on governmental salaries and subsidies as their main source of income, covering around 80% of their income on average. In addition, the research team collected evidence of their involvement in a range of business activities, including trade and crafts. In Sabha and Marzaq districts, IDPs reportedly lack autonomous livelihoods and rely exclusively on external support – provided either by the government or charities.

Although it might seem counter-intuitive that displaced people continue to receive public salaries, secondary data sources confirm the findings of this assessment and report that approximately 92% of employed IDPs are able to remain in their previous jobs despite being displaced. Additionally, given that the vast majority of Libyans are employed by the public sector, many continue to receive salaries despite not being able to show up for work.

During focus group discussions, the assessment team found that some IDPs rear livestock, mostly sheep and poultry, in small quantities. All participants affirmed that IDPs face multiple challenges in conducting – or up scaling their livestock activities - including low financial capacity to purchase livestock, high animal feed prices, a lack of veterinary services, and a lack of available grazing land. None of the focus groups indicated that IDPs are involved in fishing activities.

Mirroring the dependency on salaries, subsidies and assistance, focus group discussions participants reported that the main food source of IDPs is market purchases. In general, all IDPs complained about a post-conflict deterioration of their food intake (in quality and quantity) due to the high price of food items, a lack of cash, and high housing costs. Consequently, some IDP families in Benghazi reported that they were reducing their number of meals, even down to one meal per day. Some also reported that they do not drink milk nor consume meat, even though these food groups used to be essential to their diets pre-crisis.

IDPs across the surveyed districts reported receiving assistance, through the provision of food, non-food items and medicines, by local charities and international organizations. For example, participants to a focus group discussion in Benghazi affirmed that in-kind, material and medical assistance are being provided by international organizations (WFP, IOM, and Save the Children), the Red Cross, the Libyan Red Crescent and other charities.

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12 Consistent information was collected from informants in these regions only.
Marqab, participants mentioned that the Zakat\textsuperscript{14} fund is providing people in need with both financial and in-kind assistance. Meanwhile, in Misrata district, the Committee of the Inventory of the Displaced also provides IDPs in need with financial support for housing.

However, the volume and quality of distributed assistance reportedly decreased during the past year. A recent reduction in humanitarian assistance has also been mentioned by secondary data sources, which added that most humanitarian agencies have relocated from Libya to Tunisia since 2014 and are consequently working solely through implementing partners. A scarcity of funding is also a potential cause of the reduced assistance levels. This is shown by the 2017 Libya Humanitarian Response Plan, which amounts to 151 million USD and has, to date, been only 51% met.\textsuperscript{15}

**Suggested agricultural support initiatives**

<table>
<thead>
<tr>
<th>Source/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marqab</td>
<td>Misrata</td>
<td>Benghazi</td>
</tr>
<tr>
<td>Governmental subsidies and salaries</td>
<td></td>
<td></td>
<td>Aljabal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Alakhdir</td>
</tr>
<tr>
<td>Aid and charity</td>
<td></td>
<td></td>
<td>Al-Marj</td>
</tr>
<tr>
<td>Trade and crafts</td>
<td></td>
<td></td>
<td>Gat</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
<td>Marqaq</td>
</tr>
<tr>
<td>Farming</td>
<td></td>
<td></td>
<td>Sabha</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Obari</td>
</tr>
</tbody>
</table>

\textbf{b) Challenges and Opportunities}

Similar to migrants, the survey team posed questions to IDP focus groups about their challenges and support needs that were broader than for resident populations and inclusive of all types of livelihood issues. This was done because the level of involvement of this population in the agricultural sector was unknown at the time of the assessment.

The IDP population in the surveyed districts faces a variety of livelihood-related challenges. By and large, the most commonly noted problem was economic, related to the lack of cash liquidity, insufficient/irregular salaries and a lack of employment. In certain districts, this has complicated the purchase of food, shelter and fuel. Certain IDPs, however, lack basic services more than economic means, such as in Sabha districts, where IDPs face a lack of health services and education. IDPs settled in other districts flagged housing as a priority, especially in Marqab, Misrata and Marzaq districts.

\textsuperscript{14} Hefner R.W., Islamic economics and global capitalism, Society, 2006. P. 16–22

A religious obligation for all Muslims who meet the necessary criteria of wealth. In the Libyan context, Zakat is not a charitable contribution, and is considered to be a tax, or obligatory alms.

\textsuperscript{15} https://fts.unocha.org/appeals/533/summary
### Suggested agricultural support initiatives

<table>
<thead>
<tr>
<th>Source/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marqab</td>
<td>Misrata</td>
<td>Benghazi</td>
</tr>
<tr>
<td>Health care availability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing opportunities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of employment and liquidity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food scarcity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hindering business development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of education services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of fuel</td>
<td></td>
<td></td>
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</tbody>
</table>

When asked about their ideas for livelihood support initiatives to enhance the living conditions of IDPs, the majority of IDP focus group discussion participants stated their interest into trade and business initiatives. Participants to the focus group discussion in Benghazi also had some additional recommendations:

- Advocacy towards the responsible authorities to consider IDP needs
- Attention to the living and humanitarian aspects of displaced families
- Attention to psychological issues and related support
- The allocation of rehabilitation courses for children, playgrounds, and parks
- Teaching and training courses for all ages and sexes to improve children’s psychological wellbeing

Additionally, participants to a discussion in Sabha flagged the need to specifically target IDPs originating from Tourgha, as they felt that they were the most vulnerable families. According to secondary data sources, groups perceived as having supported the Gaddafi’s government, particularly the Tourgha community, are traditionally marginalized and face discrimination in accessing services.
5. CROPPING ANALYSIS

This chapter presents the main features of the cropping sector in the assessed districts. It includes an overview of the main crops produced in each district and an analysis of production levels during the past seven years. Additionally, this chapter outlines findings relating to the availability and sources of seeds, pesticides and fertilizers, as well as the availability and modality of irrigation. It also describes the main characteristics of agricultural labor markets within Libya.

This section will primarily examine the role and current functioning of privately owned farms, though the role of state-held farms will also briefly be presented. However, it should be noted that the majority of state-held facilities are currently in disrepair.

I. Major crops grown

According to respondents, cereals represent the main crops cultivated in the surveyed areas – wheat and barley in particular. On a minor scale, local communities also cultivate fruits, beans, corn, fodder and vegetables. As shown by the graph below, production in Sabha and Obari districts differs somewhat from cropping activities in other areas. More specifically, both districts have a desert climate, extremely low rainfall, no perennial rivers and the presence of scattered oasis. Consequently, Sabha district is a key producer of potatoes while Obari district produces fodder, legumes and corn.

Main crops grown (2010-2017), broken down per district

Marqab district

Benghazi district

Aljabal Alakhdar district

Al-Marj district
1. Fodder
2. Potatoes
3. Barley
4. Wheat
5. Corn

1. Tomatoes
2. Lentils
3. Corn
4. Watermelons
5. Others

Though cereals are the main crops grown overall, the crops grown by economically disadvantaged households (including local, migrants, and IDP households) in the surveyed districts tend to be slightly different, with a strong focus on vegetables that can be grown year-round, greens and fruits. Details on the crops cultivated by these households, broken down per district, can be found in the table below:

<table>
<thead>
<tr>
<th>Crop/district</th>
<th>West</th>
<th>East</th>
<th>SOUTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marq</td>
<td>Misr</td>
<td>Bengh</td>
</tr>
<tr>
<td>Vegetables(^{16})</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barley and wheat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greens(^{17})</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legumes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Farms in all communities affirmed that cropping activities are mechanized. The majority of economically disadvantaged households reportedly rented agricultural machinery from private owners in cities to plow their land. Evidence of farmers using a combination of machinery, manual work and animal traction was found only in Gat, Marzaq and Obari districts.

\(^{16}\) Including tomatoes, peppers, beets, onions, cucumbers and other year-round vegetables.

\(^{17}\) Including parsley, coriander, mint, alfalfa.
Looking at the crop production levels of each district during the past eight years, the east (Benghazi, Aljabal Alakhdar, and Al-Marj) and the south (Ghat, Sabha) reportedly witnessed negative trends, with their production levels dropping from a medium-high levels to a very low levels starting from 2014. The crop production of Misrata and Marqab districts – which was reportedly strong back in 2010 - was also negatively impacted in 2011 and 2014. However, these negative trends have reversed since 2016, when production levels started increasing again. Finally, Obari and Marzaq districts reported relatively stable, high crop production levels since 2010. It should be noted that no district reported very high production levels during the past four years.
II. Government-run farms

Before 2011, there were thousands of hectares of state-owned farms, developed in the 1980s along with Gaddafi’s Great Man-made River Project.\textsuperscript{18} Such farms used fresh underground water and American center-pivot irrigation technology to grow cereals and support livestock as part of a government policy to ensure Libya’s food self-sufficiency.

However, the majority of government-run agricultural projects in Libya are currently in complete disrepair, according to secondary data sources. International Crisis Group\textsuperscript{19} interviewed the former head of one of the largest state-owned farms in the Obari area, the Maqnusa agricultural project, who explained:

\textit{In 2010 Maqnusa used to generate LYD30 million [\$25 million according the official exchange rate in 2010] a year. At the time, we had 250 employees; 120 crop circles; 6,000ha of cultivated land; 15,000 heads of sheep; 500 cows and 300 camels. Now – in 2017 – we only have 300ha of cultivated land and 1,000 sheep.}

According to secondary data sources, other farms in the area are in even worse state with employees stating that a lack of security is the key problem. For example, most of the equipment was stolen, as were the electricity generators used to irrigate fields during power shortages. Insecurity and the occasional outburst of violence also prevent employees from working at night.

The data collection team collected evidence of government-run farms only in Marqab, Benghazi and Obari\textsuperscript{20} districts. On average, it is estimated that these type of farms employ around 700 individuals in Marqab, 1200 in Benghazi and 60 in Obari – corresponding to around 20\% of the total population involved in cropping activities in these districts.

The workforce employed in these government-run farms is generally comprised of local men (16-55 years old) and IDPs. Female workers are employed only at a very limited scale. In terms of income, private farms reportedly provide higher salaries than government-run farms. However, government-run farms normally provide regular salaries which are fixed and not dependent on seasonal production levels.

Amongst the government-run farms that are currently operating, the assessment found that key challenges include a generalized lack of labor, rising input prices, and environmental issues (ex. drought\textsuperscript{21}, reduced water availability and increased salinity). Government-run farms also face quality-related cropping issues, driven by a multitude of diseases and pests and further worsened by the availability of low quality seeds on local markets. It should be noted that these challenges are generally not different from those facing private farms, which will be outlined in the following section.

\textsuperscript{18} Libya’s Great Man-Made River (GMMR) currently transports almost 2.5 million cubic meters of water daily. It runs through an underground network of pipelines from the Nubian Sandstone Aquifer System in the Great Sahara desert to the coastal urban centers, including Tripoli and Benghazi. The distance is up to 1,600 kilometers. The GMMR currently provides 70\% of all freshwater used in Libya. \url{https://www.dandc.eu/en/article/libya-has-worlds-largest-irrigation-project}


\textsuperscript{20} Government-run farms in Obari were in stand-by at the time of the study.

\textsuperscript{21} Drought, especially in the east, was commonly reported during the assessment. There is a lack of metrological data in this level, and the topic needs further investigation.
### III. Private farms

#### a) Participation

Economically disadvantaged households (including local, migrants, and IDP households) in the surveyed districts cultivate a range of crops on a small scale. In terms of family labor, males are the main participants in cropping activities as female are usually not involved, with the exception of some very light harvesting work. In certain contexts, particularly during the peak of the season, households also rely on migrant and IDP workforces, as reported by respondents in Marqab, Misrata, Benghazi, and Aljabal Alakhdar districts.

Regarding child involvement in cropping activities, the research team was informed that in Benghazi district, some male household members under the age of 16 years old are employed in agricultural work. In Gat, Marzaq and Obari districts, male and female members under 16 also do agricultural work during school vacations to support their households.

#### b) Seed security

Agricultural households in Libya rely on two main sources of seeds – local black markets selling imported seeds and private stocks. Official shops were also mentioned as source of seeds but only in Marqab, Misrata and Aljabal Alakhdar districts.

The research team was informed that several districts (Marqab, Benghazi, Aljabal Alakhdar, Al-Marj, Gat and Marzaq districts) face shortages in the availability of seeds as the local market often supplies insufficient quantities. Respondents in Misrata, Sabha and Obari districts, meanwhile, affirmed that they face no issues with the availability of seeds at the local level.

The research team collected various evidence about changes in the quality of seeds since the start of the crisis in 2011. More specifically, until 2010, the State supported and monitored the quality of seeds and pesticides, deploying within its circles a pool of known and specialized companies. After 2011, due to a lack of control and an absent source identification process, black market businessmen took the stage and started supplying the local population with lower quality seeds. Seeds sold on the black market are higher priced, forcing farmers to change the type and amount of purchased seeds towards cheaper (or less productive) options. Secondly, the purchase of lower quality seeds has resulted in lower quantity and quality of crop production, with crops sometimes being more vulnerable to diseases. Among the interviewed communities, respondents in only two villages stated that there had been no changes regarding seed availability after 2010: Tamanhant (Sabha district), and Tamina (Misrata district).

### Main sources of seeds

<table>
<thead>
<tr>
<th>Source/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marq</td>
<td>Misr</td>
<td>Bengz</td>
</tr>
<tr>
<td>Local market (imported)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Official shops</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private stocks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seeds supply project</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Source/district

- **Marq**: Marqab district
- **Misr**: Misrata district
- **Bengz**: Benghazi district
- **Aljab**: Aljabal Alakhdar district
- **Al-Mar**: Al-Marj district
- **Gat**: Gat district
- **Marzq**: Marzaq district
- **Sabh**: Sabha district
- **Obar**: Obari district
As a general trend, a rise in seed prices was reported in all surveyed areas, as a consequence of the weak local currency. This, along with the cession of government support for agricultural inputs, has reduced many households’ purchasing capacity to buy imported seeds. The research team received reports in the villages of Tamina (Misrata district), Al-Amoud (Marqab), and Qe’erat (Obari district), the price of seeds currently is about 200-300% higher than in 2016. In these cases, respondents indicated that a monopoly of traders were introducing seeds at very low quantities, resulting in the high prices.

**District-level availability of seeds**

<table>
<thead>
<tr>
<th>Shortage</th>
<th>Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marqab</td>
<td>Misrata</td>
</tr>
<tr>
<td>Bengazi</td>
<td>Sabha</td>
</tr>
<tr>
<td>Aljabal Alakhdar</td>
<td>Obari</td>
</tr>
<tr>
<td>Al-Marj</td>
<td>Gat</td>
</tr>
<tr>
<td>Marzaq</td>
<td></td>
</tr>
</tbody>
</table>

**c) Fertilizers and pesticides**

Across all surveyed areas, the research team heard about the regular use of fertilizers (chemical and organic) and pesticides. Mirroring the same dynamics reported for seeds, the availability of fertilizers and pesticides is currently determined by private vendors who control the black market, setting higher prices compared to previous years. Similar to seeds, these traders are not subject to any type of regulatory oversight regarding the supplied items.

Due to rising prices of fertilizers and pesticides, many farmers indicated that they have changed the type of fertilizers and pesticides that they purchase, mainly seeking cheaper options. Misrata and Obari were the only districts where respondents did not report any changes in the utilization of fertilizers since 2010, mainly because respondents indicated a greater reliance on manure rather than other types of fertilizer.

**d) Irrigation systems**

Access to irrigation water for local farmers was reported across every surveyed district. In the majority of instances, farmers use wells to access groundwater, though in a few districts (Marqab, Al-Marj and Marzaq) farmers are also resorting to rainwater and surface wells.

In certain contexts, community leaders reported limitations for certain population groups in accessing irrigation water. In particular, they referred to economically disadvantaged households in Marqab, Misrata, Aljabal Alakhdar and Al-Marj who lacked the capacity and financial means to establish their own wells. Consequently, they were forced to purchase water from other providers. IDPs in Benghazi district also reportedly are not able to access irrigation water due to their remote location.

**Main sources for irrigation water**

<table>
<thead>
<tr>
<th>Source/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marqab</td>
<td>Misrata</td>
<td>Bengazi</td>
</tr>
<tr>
<td>Wells/groundwater</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rainwater</td>
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</tbody>
</table>
f) Labor market and conditions

IDPs and local individuals are employed as agriculture paid laborers only in a limited number of cases and by and large, the migrant community is the backbone of the paid agricultural labor force in Libya. Large farmers interviewed by the research team confirmed they employ between 5 and 15 paid agriculture laborers each – all migrants and all male - with tasks that spanned from land preparation, cultivation, planting seeds, spraying pesticides, grazing, irrigation, tillage, harvesting fruits, removing weeds and packaging. Generally, as compared to before 2011, farmers are hiring fewer paid workers now due to rising costs of labor, driven by a reduction in the number of migrants workers due to insecurity within the country.

Local stakeholders reported a lack of training or placement programs to provide migrants with relevant agriculture skills. Instead, once employed, laborers receive on-the-job training from the employer himself. However, before 2010, public training programs specifically designed for migrants were in place. For instance, a stakeholder from Batta village (Al-Marj district) reported that they previously relied on agricultural advisers and governmental guidelines for training activities.

Reportedly, wages for agricultural laborers are determined by the type of task and previous experience. However, the majority of stakeholders interviewed affirmed that local residents – although few in numbers - gain higher wages than migrants. Combining the political instability, low value of the Libyan dinar, and lack of migrant labor, farmers state that they are currently paying much higher wages to migrant laborers compared to previous years. Despite their willingness to increase the number of agricultural laborers that they hire and grow their businesses, farmers indicated that current economic conditions do not allow for the recruitment of additional workers. In this context, the provision of financial support (direct support, grants, seed funding) to farmers, conditional to policies targeting vulnerable groups, could create additional employment opportunities within the sector.

g) Marketing

Access to irrigation water for local farmers was reported across every surveyed district. The crops that are most commonly sold are wheat, barley, vegetables, and fruits. All stakeholders affirmed that market prices have drastically increased during the past year, as a consequence of national inflation and higher costs of labor, seeds, and pesticides.

Across all districts, farmers reported selling a large share of their total production to local markets, though the proportion of crops sold versus consumed by the household varied depending on the district. As shown by the chart below, Marqab and Misrata districts had the highest percentages of production intended for own consumption, at 50 and 65 percent, respectively. Meanwhile, in other areas, the proportion of crops intended for consumption was generally less than 30%. Obari and Al-Marj districts had the lowest proportion of crops intended for own consumption, with 95 percent of crops sold to local markets.
Regarding the main buyers of farmers’ crops, all community leaders affirmed that private farms sell crops either directly to consumers or to middlemen and retailers. In Benghazi, Aljabal Alakhdar and Al-Marj districts, cattle and livestock breeders were, to a lesser degree, also mentioned as buyers, purchasing fodder and raw materials for animal feed. Evidence of buyers from agribusiness factories, particularly grain mills, was also reported in Aljabal Alakhdar and Al-Marj districts. Evidence of selling crops directly to agents for exportation was reported only in two districts (Marqab, Sabha). In Marqab, the main exported commodity is olive oil while in Sabha, the main exported commodities are wheat and olive oil.

Community leaders affirmed that the majority of buyers originated from the local community itself. Only a few districts reported having additional buyers coming from a different area, complementing the presence of local vendors. Namely:

- Misrata district: presence of a few vendors from the city of Zliten, Bani Walid, Al-Khamis, Al-Weshka and Sirte
- Marzaq district: presence of a few vendors from Tripoli
- Sabha district: presence of a few vendors from Tripoli

No changes have been observed in the presence of non-local traders compared to before the crisis in 2011. Local stakeholders indicated a number of difficulties hindering the sale of crops to local markets.

For example, in Sabha district, low demand on local markets, linked to the generalized lack of liquidity and rising prices, was reported as an issue by stakeholders. Low-quality, or non-existent infrastructure, has also negatively impacted markets in a few districts. For example, stakeholders in Aljabal Alakhdar and Obari districts flagged the negative effects of poor transportation facilities in their districts. Respondents in Sabha and Obari districts, meanwhile, made reference to a generalized lack of infrastructure and of electricity. More details are shown in the table below:
Crop marketing constraints

<table>
<thead>
<tr>
<th>Limitation/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
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</thead>
<tbody>
<tr>
<td>Marqab</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Misrata</td>
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<td></td>
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<tr>
<td>Benghazi</td>
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<tr>
<td>Aljabal Alakhdar</td>
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<td></td>
<td></td>
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<tr>
<td>Al-Marj</td>
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<td></td>
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<tr>
<td>Gat</td>
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<td></td>
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<tr>
<td>Marqaq</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Sabha</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obari</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No issues reported</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of government regulations, difficulties relating to importation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High labor cost, low labor availability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor transportation facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of demand from the local market</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lack of infrastructure and electricity</td>
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</tbody>
</table>

**h) Local initiatives**

The research team found no evidence of any agricultural programs in the surveyed areas. Stakeholders from certain districts mentioned that a number of agricultural programs were present in their communities before 2011. For example, local stakeholders from Marqab, Benghazi, Aljabal Alakhdar, Al-Marj, and Sabha districts made reference to the following government programs in their communities before the crisis:

- Programs providing guidance and technical backstopping;
- Seminars and scientific conferences promoted by the Ministry of Agriculture in cooperation with the Office of Agricultural Cooperation and Extension;
- Training courses, home-based and abroad, under the supervision of the United Nations;
- Awareness campaigns promoted by the Ministry of Agriculture;
- Ministry of Agriculture-led support initiatives for small farmers with seeds, pesticides, and pest control campaigns in both a preventive and emergency manner; and
- Agribusiness fairs in the town of Albawanis and in the area of Tamanhant.

**i) Challenges and opportunities**

Cropping activities in the surveyed communities suffer from a number of challenges, many of which have already been mentioned in this chapter. In particular, local stakeholders in every district pointed at the high costs of agricultural equipment and inputs – machines, pumps, seeds, pesticides – as one of their major challenges. This issue has driven several other challenges, such as reduced quality of available seeds and pesticides (reported in Benghazi, Aljabal Alakhdar and Marqaq districts), the spread of crop pests and diseases (Marqab district) and high costs of irrigation (Marqab, Aljabal Alakhdar and Gat districts).

Stakeholders largely suggest that a cropping support program should provide in-kind or cash support for farmers to access inputs and equipment that are otherwise unaffordable for many. The restoration and revival of Libyan agricultural associations – previously supported by the government – were also mentioned among the potential initiatives to mitigate the high costs of agricultural equipment and to regulate prices.
Cropping activities were also reportedly hampered by the reduced availability of agricultural laborers, as reported in Misrata, Benghazi, Aljabal Alakhdar, Al-Marj, and Sabha districts. In such districts, agricultural laborers were either too expensive or not available at all.

Stakeholders from multiple districts also reported a lack of electricity and large generators capable of mitigating the effects of power outages (Misrata, Gat, Sabha, and Obari districts). In this regard, the research team was informed by many stakeholders of the urgent need to receive support relating to this domain, such as through the provision of generators or the establishment of alternative ‘green energy’ options (i.e. solar panels).

<table>
<thead>
<tr>
<th>Challenge/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Marqab</td>
<td>Misrata</td>
<td>Benghazi</td>
</tr>
<tr>
<td>Spread of crop pests and diseases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High costs of agricultural equipment, pesticides, seeds, fertilizers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water shortages, high costs of irrigation water and pumps</td>
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<tr>
<td>Low soil fertility and high salinity</td>
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<tr>
<td>Low labor availability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of electricity, cuts and lack of large generators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low quality of seeds and pesticides on markets</td>
<td></td>
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<tr>
<td>Lack of access to bank loans and credits</td>
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</tbody>
</table>
Involvement of IDPs and migrants in gardening activities

The research team was informed by focus group discussion participants in Benghazi, Misrata and Marqab that some migrants are interested in or are already practicing gardening in the open spaces that they have in front of or inside their houses, mainly for own household consumption.

With regards to the interest of IDPs in gardening activities, focus group discussion participants generally reported that 1) there is a general interest in gardening amongst the displaced population (both male and female), and 2) households engage in these activities when they have the meanings to afford it (purchase/rental of land, seeds and tools, time to dedicate). As reported by participants to discussions in Misrata, Sabha and Marqab, IDPs have the right to own, buy, sell and own land to cultivate since they are Libyans. Contrary to the other districts where gardening is occasionally practices by IDPs for both own consumption and sale, participants to focus group discussions in Benghazi reported that only 5 percent of IDP households practice gardening, mainly growing ornamental plants and flowers in front of or inside of their houses. Many used to cultivate, however, on a much larger scale before their displacement. The main reason reported for why IDPs do not garden is a lack of space. However, some focus group discussion participants did indicate that a few IDPs in Benghazi take advantage of open spaces – such as public parks, plastic containers in balconies and corridors – to plant vegetables for own consumption.
6. LIVESTOCK ANALYSIS

This chapter provides an overview of the livestock activities in the covered districts. Based on primary data collected in the field and secondary data sources, the research team analyzed the main trends of livestock production from 2010 to 2017. Similar to the analysis of cropping activities, this chapter mainly addresses the role and current functioning of private livestock farms. The analysis includes findings related to the main animals reared, the availability and sources of animal feed, and seasonal migration patterns. The main features of the livestock-related labor market are also presented, as well as a short analysis of livestock markets and key challenges and opportunities.

I. Production

Local stakeholders reported that information on animal numbers or livestock production levels is limited. However, according to general qualitative ratings provided by local stakeholders, livestock production was negatively affected by the 2011 crisis, more specifically by insecurity, smuggling dynamics, liquidity constraints and currency instability.

Rating of livestock production - 1 (very low) to 5 (very high)
Misrata and Gat apparently recovered by 2013, reporting excellent livestock production rates. However, another generalized critical moment for livestock production occurred in 2015-2016, with significant declines in production. More specifically, during this period, seven districts reported very low-to low livestock production (Benghazi, Aljabal Alakhdar, Al-Marj, Misrata, Gat, Sabha districts). Out of these districts, only Misrata recovered again, with higher livestock production levels in 2017. Other areas witnessed a steady decline in production without a recovery phase. For instance, Sabha district has been struggling with low livestock production since 2011 while Benghazi, Al-Marj and Aljabal Alakhdar have seen poor production since 2014.

Obari, followed by Marzaq district, seemed to be the strongest—and the least vulnerable—in terms of livestock production performance, as both districts maintained medium to high rates of production during the past eight years without being drastically affected by the 2011 or 2015 crisis. If the aim of an agricultural program is to scale up production in an area with a strong performance history, these areas might be considered.

II. Government-run farms

All local stakeholders confirmed that since 2011, the Libyan government has been running no livestock operations.

Before 2011, however, there were various government-run livestock farms. For example, in Marqab district, the government was directly leading three projects: the Cattle Project, Poultry Breeding Station, and Beekeeping Project, employing around 70-100 individuals. During this time, the proportion of the population in Marqab working for government-run livestock initiatives compared to private farms was estimated to be 10% and 90%, respectively. Though salaries at government farms were fixed and not dependent on production levels, labor conditions were considered difficult because of low salaries and a lack of possibilities to gain extra benefits.

III. Private farms

a) Assets

Across the surveyed districts, the majority of local households involved in livestock activities are breeding sheep and goats. On a slightly more minor scale, evidence of farmers breeding cows, poultry, and camels was also found. In terms of herd sizes, the research team found that most households breeding animals possess no more than 15 to 20 heads, on average. However, a few wealthy households did own up to 250 sheep, 220 chicken and 15 cows. More details on the types of animals raised in the assessed districts are displayed in the chart below.
Recently, the rising price of fodder and a lack of vaccines and of awareness campaigns hindered households’ ownership of livestock-related assets. A scarcity of rainfall in pastoral areas is also negatively impacting breeding activities.

By and large, in all the surveyed areas, livestock-related work is managed by the household head while children also participate in basic operations during holidays. For open rangelands, many households also depend on expatriate labor, particularly men from Sudan, Chad and Egypt. With the exception of Marzaq, Sabha and Obari districts, migrants and IDPs are reportedly breeding a few animals themselves as well.

**b) Seasonal migration patterns**

In the majority of districts, households do not move livestock seasonally from one grazing area to another, but instead keep them in the same location year round. However, households in Marqab and Misrata districts practice transhumance with parts of their cattle during the spring time. More specifically, they transfer their animals temporarily to green areas within the same district, following the feeding needs of their animals. Community leaders from Misrata reported that transhumance movements temporarily stopped in 2011 because of war but have resumed during the following years.
c) Animal feed and health

Sources of animal feed

<table>
<thead>
<tr>
<th>Source/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
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</table>

According to information provided by community leaders, the majority of households in the surveyed districts rely on local markets (regular and black) and crops residuals for their animal feed. In particular, households in Marqab, Misrata, Al-Marj, Gat, Marzaq and Obari districts purchase feed from the local market, namely through shops, mills company suppliers, local farms, local independent factories, and government factories. Meanwhile, evidence of black market purchases was observed in Benghazi, Aljabal Alakhdar and Al-Marj districts. It was also noticed that those families resorting to black markets were also likely to use crops residuals. Only households in Sabha district reported that they primary source of feed for their animals was crops residuals.

Compared to before 2011, the main changes which have affected animal feed dynamics have been related to prices, which mirror the depreciation of the local currency against the USD and the subsequent increases in the cost of imported goods. Another driver of high prices are the current absence of agricultural associations, which previously providing breeders with fodder at 20% of its market value.

As a result of these high prices, households are forced to resort to lower quality raw materials. Additionally, a focus group discussion with female participants in Marzaq district reported that breeders are shifting more and more from purchasing commercial fodder to crops residuals.

The general health of animals has reportedly suffered from a lack of medicines and vaccines for disease control, a lack of transportation means to the Office of Animal Health and veterinary clinics, and an absence of bonuses for technicians and veterinarians who suffer from low salary conditions and a lack of motivation.

d) Labor market

Across all districts, hiring paid laborers to work as shepherds was reportedly common practice. The large majority of these laborers are migrants originating from Sub-Saharan countries, such as Sudan, Chad and Egypt. Migrant workers are typically between the ages of 30 and 60 years old as breeders reportedly prefer not to hire individuals below 30 years old because of the large amount of responsibility.

The labor market has not experienced many changes since 2011. For example, demand for livestock-related labor has remained stable. Despite this, the number of laborers currently employed has decreased, due to a decline in the number of migrants inside of the country because of concerns relating to conflict and insecurity. As a result of this reduced supply, economic conditions, and the weakness of the local currency, the wages of shepherds are estimated to be 50% higher than in 2010.
e) Markets

Generally speaking, the average household in the surveyed districts is breeding animals for its own consumption of milk, dairy products and meat. In certain districts, however, households regularly reared animals for sale, particularly in Misrata and Obari districts.

The animals which are most likely to be sold are sheep and goats. In Marzaq, however, it was noted that households are also occasionally selling camels.

The graph below shows how the number of animals sold per household now compares to before the crisis. In the majority of districts, the number of heads sold during the past year dropped compared to before 2011. The only exception is Misrata district where, as reported by two focus group discussions, no significant changes in the number of heads sold to the market has been observed. In addition, male focus group discussion participants mentioned a positive trend in 2017, as better-off households in Misrata reportedly sold up to 120 heads, compared to the 90 heads sold, on average, in 2016.

Households who sell animals typically sell them to local markets, slaughterhouses or private customers. No changes have been reported relating to the origins of livestock traders compared to before 2011. All districts reported that livestock traders originate from the same region as the breeders, or from adjacent areas. Banghazi, Aljabal Alakhdar and Al-Marj districts also reported cases of livestock traders coming from western regions, while in Marzaq district, there was mention of traders coming from Tripoli.

In terms of livestock prices, community leaders from all surveyed districts affirmed that the price of livestock is up to 30% higher than last year’s levels, as a consequence of the high costs of animal feed and vaccines, high wages for shepherds, and the decline in the dinar-to-USD exchange rate.
Among the main limitations hampering livestock trade, several districts (Benghazi, Aljabal Alakhdar, Marzaq and Sabha districts) reported being negatively affected by the high cost of animal feed and the lack of veterinary services. It should also be noted that a lack of security, fighting and smuggling trends were mentioned as factors hindering livestock trade in Benghazi and Aljabal Alakhdar specifically.

### f) Local initiatives

According to community leaders, all livestock programs were suspended after 2011. However, before 2011, key livestock programs mentioned community leaders in Misrata included 1) training courses for physicians and veterinary technicians under the supervision of the Animal Health Center, and 2) follow-up on the detection of animal diseases, under the supervision of the Animal Health Center.

### g) Challenges and opportunities

Since 2011, local informants report increased livestock smuggling activities, particularly of sheep and goats that are being illegally exported to Egypt, Chad and Sudan. Smugglers are either purchasing animals for low prices - or stealing them - from Libyan breeders and then reselling them outside the country for higher prices than those afforded by the Libyan market.

Households engaged in livestock activities in the surveyed districts have to cope with high and increasing animal feed costs. Another common challenge is the lack of both veterinary services and of the regular and punctual provision of vaccines and fortifications, according to the seasonal needs (reported in Marqab, Sabha and Obari districts). The remoteness of many grazing lands, combined with high transportation costs, were also perceived as challenges for breeders in Benghazi, Aljabal Alakhdar and Al-Marj districts. As already mentioned in the previous chapter, livestock activities in Benghazi, Aljabal Alakhdar, and Al-Marj districts are also negatively impacted by

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<table>
<thead>
<tr>
<th>Constraint/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>No specific constraint reported</td>
<td>Marqab</td>
<td>Misrata</td>
<td>Benghazi</td>
</tr>
<tr>
<td>Cross-border cattle smuggling</td>
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<tr>
<td>Lack of security, fighting</td>
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<td></td>
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<tr>
<td>Low quality/High price of fodder and animal feed</td>
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<tr>
<td>Lack of vaccines and veterinary services</td>
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<tr>
<td>Lack of awareness campaigns and programs</td>
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<td></td>
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<tr>
<td>Low purchase power, lack of liquidity</td>
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Among the main limitations hampering livestock trade, several districts (Benghazi, Aljabal Alakhdar, Marzaq and Sabha districts) reported being negatively affected by the high cost of animal feed and the lack of veterinary services. It should also be noted that a lack of security, fighting and smuggling trends were mentioned as factors hindering livestock trade in Benghazi and Aljabal Alakhdar specifically.
security threats. Issues related to labor availability, and particularly the unavailability of experienced reliable shepherds, were also flagged as a challenge in Benghazi, Aljabal Alakhdar and Sabha districts. Additionally, Gat and Aljabal Alakhdar reported difficulties related to the supply of and access to water. More details are outlined in the table below:

### General challenges to livestock activities

<table>
<thead>
<tr>
<th>Challenge/district</th>
<th>West</th>
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<th>South</th>
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<tbody>
<tr>
<td></td>
<td>Marqab</td>
<td>Misrata</td>
<td>Benghazi</td>
</tr>
<tr>
<td>High costs of animal feed</td>
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<tr>
<td>Lack of veterinary services, medicines</td>
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<td></td>
<td></td>
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<tr>
<td>and fortifications</td>
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<td></td>
</tr>
<tr>
<td>Remoteness of grazing lands, high cost</td>
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<tr>
<td>of transportation</td>
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<td></td>
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<tr>
<td>Lack of experienced shepherds</td>
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<tr>
<td>Poor security levels and burglaries</td>
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<td></td>
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<tr>
<td>Low access to water</td>
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</tbody>
</table>

To respond to the non-availability, or inaccessibility, of animal feed, vaccines, drugs and veterinary services, informants from all the surveyed districts indicated the need to provide livestock owners with these kind of products and services, either through in-kind support or through financial support.

Other initiatives to support livestock activities, as suggested by community leaders, included the promotion of micro entrepreneurial projects, such as leather or dairy factories and the implementation of awareness campaign about the risks and side effects of smuggling, particularly in Benghazi, Aljabal Alakhdar and Al-Marj districts.
## Livestock support initiatives

<table>
<thead>
<tr>
<th>Support/district</th>
<th>West</th>
<th>East</th>
<th>South</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply of animal feed (in-kind of financial support)</td>
<td>Marqab</td>
<td>Misrata</td>
<td>Benghazi</td>
</tr>
<tr>
<td>Veterinary services, medicines and vaccination provision</td>
<td>Al Akhdar</td>
<td>Al-Marj</td>
<td>Gat</td>
</tr>
<tr>
<td>General cash support</td>
<td>Gat</td>
<td>Marqaq</td>
<td>Sabha</td>
</tr>
<tr>
<td>Seed grants supporting micro projects (i.e. leather factories)</td>
<td>Marqab</td>
<td>Marqaq</td>
<td>Sabha</td>
</tr>
<tr>
<td>Awareness campaigns against smuggling</td>
<td>Marqab</td>
<td>Marqaq</td>
<td>Sabha</td>
</tr>
<tr>
<td>Provision of / facilitated access to water</td>
<td>Marqab</td>
<td>Marqaq</td>
<td>Sabha</td>
</tr>
</tbody>
</table>
Desertification and its impacts on Libyan agriculture

Desertification is a major environmental issue in the region, dramatically worsened by the mismanagement of environmental resources. Before 2010, the Government had a prominent and clear role, developing laws to regulate the management and appropriation of agricultural lands. Such legislation included the Act No. 15 of 1992 for agricultural land protection, which criminalized the infringement of agricultural lands, soil, plants, and trees. The Act also prohibited all construction over agricultural lands - whether for state or for citizens - to stop desertification and preserve the environment. Recently, however, the state is absent in anti-desertification efforts due to the current conflict within the country.

Causes of desertification in Libya include:

- Decrease in the amount of rain, generating drought episodes
- Erosion or drift/creeping dunes caused by the destruction of shelf-like terraces hosting trees and vegetation
- Population expansion
- Timber cutting, deliberate fires, and neglect of agricultural areas
- Overgrazing

The assessment found that the following agricultural areas have been particularly exposed to deforestation:

- Agricultural areas in Benghazi city and surroundings
- Suluq, Jardeena, Qaminis, Sidi Faraj, Benina, Sidi Khalifa, Qwarshah, and Omy Mabrouka
- Eastern areas of Bengazhi
- Tocra and Alabiar and Alrajmah, Almarj, Al-baydaa, Alabraq, Sidi Hamri, and south of Albaydaa

It was also reported that certain natural reserves are endangered, such as those in the Chammari “cranberry” reserve, containing very rare types of plants, located east of the Albaydaa city in Alabraq area. Mountain areas are also exposed as they are exploited as quarries and are used as a source of timber.

Adequate action and research should be conducted around the following aspects:

- Identification of areas facing particular desertification concerns
- Raising awareness about the implications of human behavior on the environment
- Monitoring of the region’s soil security
- Mainstreaming remote sensing technology and its usage to find new solutions beyond those already available through traditional methods
Due to the nature of the Libyan fishing sector, this chapter presents findings from only five coastal districts: Marqab, Misrata, Benghazi, Al-Marj, and Aljabal Alakhdar. The fishing activities analyzed in this chapter refers mainly to private, wild marine fisheries.

The analysis addresses the main trends relating to fish production from 2010 to 2017. It includes findings relating to the main types of fish caught, common fishing techniques and household participation in the sector. The main features of the labor market are also presented, as well as a short analysis of fish markets and the main challenges and opportunities for the sector.

I. Production

With the exception of Mistrata district, negative trends in marine fish production were reported across the surveyed areas since the start of the general crisis in 2011. While in Jabal Alakhdar district, production has reportedly stabilized at medium levels, production further declined in Benghazi, Al-Marj and Marqab districts to very low levels starting from 2014. The decline, according to local fishermen, was driven by the deterioration in the security situation, which prevented fishermen from reaching some of the fish-rich areas where they used to fish. The availability of fishing inputs is also a major issue in the eastern districts of Libya.

Misrata district represented an exception to the other districts’ performance, as its marine fisheries reportedly jumped from low-to-medium before 2011 to very high levels in 2012, as if it benefited from the immediate aftermath of the general crisis. In addition, after a small decline in 2015, Mistrata’s production reportedly increased again to high levels in 2017.
II. Government-run fisheries

Across the five assessed districts, the research team was informed about the existence of government-run fisheries only in Marqab district. More specifically, Marqab district reportedly hosted one government-run fish farm named Ein Ka’am, whose operations are currently suspended. The Ein Ka’am farm was apparently raising tilapia fish and operated various activities including hatchery, nutrition, screening, fertilization, and breeding. The farm only provided limited employment opportunities, however, as respondents indicated that it previously only employed three men.

III. Private fisheries

a) Fishing methods

In general, participants to focus group discussions affirmed that local fishermen were fishing all types of fish available during each season in the wild marine waters off the Libyan coasts. Participants from certain districts could also provide lists of the main types of fish caught by local fishermen, as reported below.

Relating to seasonality for fish-related work, fishermen in Marqab district were reportedly able to fish year round with different type of fish available in different seasons. Meanwhile, in Misrata district, fishermen fished most of the year though they paused in June and July to allow for fish reproduction. Fishermen in Benghazi, Al-Marj and Aljabal Alakhdar districts affirmed that winter was the best season for fishing due to an abundant availability of fish while the incubation period occurred in the summertime. They defined the period stretching from May to beginning of August as prohibited (haram) for fishing.

It should be noted that the operations of fisheries in Benghazi district are currently suspended due to insecure conditions.

Main capture techniques included the deployment of traps nets, spears and hooks. More specifically, informants in Benghazi, Al-Marj and Aljabal Alakhdar districts affirmed using hand-held gill nets and tow nets with boats. Given that the fish communities assessed were only involved in wild marine fishing activities, they had no land, infrastructure, or aquaculture processing equipment. Fishing boats are generally owned by the fishermen - mostly locals living in the coastal urban area.

<table>
<thead>
<tr>
<th>Misrata</th>
<th>Aljabal Alakhdar</th>
<th>Al-Marj</th>
<th>Benghazi</th>
<th>Marqab</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Generic species, depending on the season</td>
<td>• Hamraya</td>
<td>• Generic species, depending on the season</td>
<td>• Hamraya</td>
<td>• Farrouj</td>
</tr>
<tr>
<td></td>
<td>• Mullet</td>
<td></td>
<td>• Mullet</td>
<td>• Aldot</td>
</tr>
<tr>
<td></td>
<td>• Dogfish</td>
<td></td>
<td>• Dogfish</td>
<td>• Aidenchi</td>
</tr>
<tr>
<td></td>
<td>• Shark</td>
<td></td>
<td>• Shark</td>
<td>• Chula</td>
</tr>
<tr>
<td></td>
<td>• Spindle</td>
<td></td>
<td>• Spindle</td>
<td>• Manani</td>
</tr>
<tr>
<td></td>
<td>• Farrouj</td>
<td></td>
<td>• Farrouj</td>
<td>• Shakurvo</td>
</tr>
<tr>
<td></td>
<td>• Alqajoj</td>
<td></td>
<td></td>
<td>• Murjan</td>
</tr>
<tr>
<td></td>
<td>• Almannana</td>
<td></td>
<td></td>
<td>• Razam</td>
</tr>
<tr>
<td></td>
<td>• Ahalovh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Octopus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Sea mouse</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Main type of fish caught by fishermen from each district

22 Some of the fish types provided have local names for which the research team could not find a scientific translation.
b) Social participation

In terms of family labor, fishing is normally done by male members between the ages of 17-50 years old. Their tasks include fishing, cleaning, cooling, freezing, salting.

c) Labor market and conditions

Since the overthrow of the government in 2011, the number of fishermen has dropped dramatically, and private fisheries need to restart their work.

In general, across all of the surveyed districts, external workers were hired to work in fisheries only in a limited number of cases. This occurred when local fishermen were too busy working on boats, or in cases when some fishermen owned more than one boat. Hired fishermen were expected to undertake all the necessary work, and most of hired workers’ families lived nearby, close to the sea.

In general, only adult males were hired for this type of work. The majority of hired laborers were from the migrant and IDP communities, as reported in almost every surveyed district (Marqab, Benghazi, Al-Marj, and Aljabal Alakhdar). The research team was informed that in Marqab district, the majority of expatriate workers had Egyptian nationality, due to partnerships with Egyptian businessmen initiated before 2011.

Similar to the cropping and livestock sectors, the fishing labor market has experienced a workforce shortage due to the economic and political conditions of the country. Namely, the low availability of expatriate labor – with migrants no longer being willing to move to Libya - and the high cost of wages negatively affected the labor market functioning.

However, the profile of the employers and fishermen has not changed. Slight differences in the wages were reported between locals and migrant workers, where migrants were reportedly paid less compared to their host community’s counterparts.

d) Trading market

Across the districts surveyed, the average household is primarily conducting fishing activities for the sake of selling and – to a minor extent – for own household consumption. Proportions vary from one district to district, as shown by the graph below. However, it was noted that households living in western districts (Misrata, Marqab) were saving around 30% of their production for own consumption while households in eastern areas (Benghazi, Al-Marj, Aljabal Alakhdar) were keeping only around 5%.

<table>
<thead>
<tr>
<th>District</th>
<th>Proportion of fish consumed vs. sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al-Marj</td>
<td>5% Sale: 95% Consumption: 65%</td>
</tr>
<tr>
<td>Aljabal Alakhdar</td>
<td>6% Sale: 94% Consumption: 60%</td>
</tr>
<tr>
<td>Benghazi</td>
<td>10% Sale: 90% Consumption: 70%</td>
</tr>
<tr>
<td>Misrata</td>
<td>35% Sale: 65% Consumption: 70%</td>
</tr>
<tr>
<td>Marqab</td>
<td>30% Sale: 70% Consumption: 80%</td>
</tr>
</tbody>
</table>

Fishermen sell their fish to the local market and to restaurants, traders and fishmongers. In addition, in Misrata and Benghazi districts, the research team was informed that part of the fish production is being exported.

The fish markets in Misrata, Marqab and Benghazi districts have traders coming from other regions, such as al-Khams and Tripoli and other coastal areas. Additionally, in Benghazi district, fish traders who have specialized
partnerships with local merchants are present from Egypt, Tunisia and Jordan.

In general, fish prices are much higher this year compared to last year due to insecurity and the depreciation of the local currency.

Constraints hindering the marketing of fish were only mentioned in Misrata district where community leaders made reference to a lack of access to hunting/fishing tools, bags and refrigerants. Informants from other districts reported no constraints relating to this aspect of the sector.

g) Challenges and opportunities

All of the surveyed areas reported challenges related to running fisheries at this time. In fact, as already mentioned, respondents referred to a generalized decrease in fish-related opportunities, combined with the suspension of government support for fishermen since 2011.

In addition, local informants involved in the sector perceived as difficulties 1) the high price of boats and equipment, 2) the low availability of specialized expatriate labor, and 3) the high cost of local workers.

Focus group discussions revealed that many participants considered the lack of security as a major issue. Participants from Marqab district even flagged it as the core constraint to fishing activities. The poor security conditions of the militarized Libyan coasts were also considered as challenges by participants from Benghazi and Al-Marj.

It is important to note that there was a general scarcity of information provided by key informants and local fishermen about the sector. As a result, a more detailed assessment is needed to gain a better understanding of the fish industry in terms of types, size, contribution to local economy, practices of fishermen and their families, food insecurity, and needs.

With that said, throughout the different interviews, there were multiple recommendations highlighted as key priorities for the fishermen. These recommendations include:

- **Governmental or organizational support with gear, spare parts and fishing inputs.**
- **Increasing the involvement of the local Libyan workforce in fishing activities.** The fishing sector, according to many key informants, represents a good economic opportunity in Libya and can be a key livelihood activity in coastal areas. To achieve that, however, governmental support to encourage populations to be more engaged in the fishing sector is needed. In addition, providing loans to small fishermen to increase their activities will have a positive impact on reducing unemployment levels and increase fishing production.
- **Awareness campaigns for fishermen regarding the environmental impact of overfishing, and the necessity to preserve marine life.**
- **Support to the fishing sector with experts who can provide guidance, especially to fishermen who have only recently become involved in the fishing industry due to economic pressures.**
- **Rehabilitation of fishing landing points, and support to boat maintenance workshops.**
7. CONCLUSIONS, PRIORITIES AND RECOMMENDED ACTIONS

The findings of this study show that agriculture still represents an important source of income in rural areas, with notable regional variations. In the east and south, the population heavily depends on salaries and pensions provided by the government or private sector, while agricultural activities are generally considered secondary income sources. In the west, meanwhile, there is a higher dependency on agriculture as an income source as these areas have some larger scale farms. Eastern, southern and western districts alike hold a strong potential to enhance their agricultural production. However, since 2011, multiple episodes of conflict and political instability have exacerbated already existing challenges, such as water scarcity, animal and plant diseases, desertification, and the low availability of workers.

Although each of the assessed districts faces its own unique challenges and opportunities, the assessed team identified multiple challenges common across the areas. One of the largest challenges faced by the crop, livestock and fishing sectors is a lack of income and liquidity. While the Libyan population continues to rely heavily on public services and salaries, government institutions have been affected by the political and economic instability and struggle to maintain the needed spending levels required for these services. Among the many consequences, the shortage of cash in banks has led to strict limits on withdrawals including of public sector salaries and pensions. Additionally, the competition between the two rival governments over the control of financial institutions has further weakened the Libyan financial system, leaving space for black market and smuggling activities. In this conflict setting, the agricultural sector has primarily suffered from the scarcity of investments and initiatives from the government, as well as a lack of water, electricity, and means of transportation.

Crop productivity has been particularly affected by the high cost of agricultural equipment, such as machines, water pumps, seeds, and pesticides. This issue has compounded a number of challenges for local farmers, such as reduced quality of available seeds and pesticides, the spread of crop pests and diseases and low access to irrigation water. After 2011, black market businessmen took the stage due to a lack of regulation and started supplying the local population with lower quality seeds. This shift can be seen in local crop production patterns: seeds sold on the black market are higher priced, forcing farmers to change the type and amount of purchased seeds towards cheaper (and often less productive) options. Secondly, the purchase of lower quality seeds has resulted in lower quantity and quality of harvests. Mirroring the dynamics observed in the seed sector, the availability of fertilizers and pesticides is also currently determined by black market vendors, setting higher prices compared to previous years.

The conflict has also had important implications for the agricultural labor market. More specifically, the number of migrant laborers has fallen in recent years due to concerns about the country’s fighting and insecurity. A lack of labor, combined with the low value of the Libyan dinar, has pushed up wages compared to previous years, challenging local farmers with only limited financial resources.

Livestock farmers reported that the conflict has indirectly contributed to higher costs for animal feed. The general health of animals has also suffered from a lack of medicines and vaccines for disease control; a lack of transportation means to the Office of Animal Health and to the limited number of veterinary clinics; and the absence of bonuses for technicians and veterinarians who struggle with low salaries and a lack of motivation. Insecurity and smuggling trends were also frequently mentioned as factors hindering livestock trade, particularly in Benghazi and Aljabal Alakhdar.

Negative trends in marine fish production was reported across most of the surveyed areas since the start of the crisis in 2011. According to local fishermen, especially in the eastern districts, this decline has been driven by the deterioration in the security situation, preventing fishermen from reaching fish-rich areas. Local informants involved in fishing also reported that their activities are hindered by high prices for boats, equipment (fishing tools, bags and refrigerants) and labor, low availability of specialized expatriate labor, and the suspension of government support for fishermen since 2011. Similar to the issues faced by the crop and livestock sectors, political and civil
instability and the currency depreciation are the main drivers of these challenges.

Finally, desertification was found to be a source of concern in some of the assessed areas. Man-made causes of this phenomenon include 1) the presence of farmers and their livestock who overgraze and destroy the groundcover; 2) the conversion of agricultural lands into residential areas; 3) deliberate forest fires; and 4) unregulated timber-cutting.

**Priorities and Recommended Actions**

The study’s findings suggest that agencies engaged in supporting households should promote conflict-resilient agricultural production and help maintain farmers’ access to higher-quality inputs and support required for agricultural production, such as agricultural extension, vaccines, capacity building and financial support.

Given the scale of each sector and its potential impacts, focus should be paid on cropping and livestock activities, though fishing is an important livelihood in select communities.

The vast majority of farming activities are being managed by resident communities who in turn are employing paid migrant labors. IDPs involvement in the sector, meanwhile, is very limited. Therefore, actions to support local agricultural production should target resident communities engaged in agriculture/agribusiness while also providing migrants with employment opportunities. With that said, given protection issues flagged recently by the media and human rights organizations relating to migrant populations, agricultural support programs need to take care to ensure programs build social cohesion and have adequately taken into consideration community-level protection concerns.

Given the findings of the assessment, this study recommends a number of interventions to enhance farmers’ living conditions and productivity, which can be broken into two parts. A first category of initiatives focuses on improving food security, developing household resilience, strengthening productivity and promoting local entrepreneurship. A second category, meanwhile, focuses on infrastructure support and environmental protection. More details regarding recommended actions can be found in the table below.
<table>
<thead>
<tr>
<th>Category</th>
<th>Action</th>
</tr>
</thead>
</table>
| **Agricultural Resilience**      | • Facilitate access to agricultural inputs, through either direct distribution or financial support. Inputs for crop and livestock farms might include certified seeds and high-quality pesticides, fertilizers, equipment, machinery, animal feed, veterinary medicines, vaccines, and supplements. Inputs for fisheries could include fishing gear, inputs and equipment.  
• Encourage regulatory oversight of agricultural input markets to improve the quality of locally available products. |
| **Capacity development of agricultural households** | • Training for community-based organizations and farmers on project management, funding opportunities and resource investments.  
• Conduct awareness campaigns covering the risks associated with the smuggling of agricultural products.  
• Organize workshops focused on the implications of climate change on agriculture and about the promotion of sustainable, environmentally-friendly practices. |
| **Increase local entrepreneurship** | • Establishment of business incubators providing seed funding for medium or small farms which apply gender-sensitive, environmental friendly and social inclusive considerations.  
• Creation of an intermediary body for farmers that could facilitate access to credit from local and international institutions. |
| **Improve food quality**          | • Conduct awareness campaigns on food sanitation, quality and nutritional standards, and sensitization on pesticide-related food poisoning.  
• Train local farmers on how to comply with international food sanitary inspections standards. |
| **Marketing support**             | • Implementation of outreach and networking workshops with local farmers with a special focus on market access.  
• Support and mentorship to socio-professional organizations engaged in crop, livestock and fish production. |
| **Infrastructure Support**        | • Rehabilitation of groundwater wells, irrigation systems, and water networks, particularly in Marqab, Misrata, Aljabal Alakhdar and Al-Marj districts.  
• Train local stakeholders on best practices relating to water network maintenance. |
| **Access to irrigation water**    | • Rehabilitation of local generators, and/or improve connectivity with the general electrical network.  
• Eventual distribution of new energy sources (solar panels or generators).  
• Train local stakeholders on best practices relating to new energy source maintenance. |
| **Environmental protection**      | • Conduct water and soil conservation initiatives across erosion-prone regions.  
• Define transhumance corridors. |
| **Connecting livestock farmers to veterinary services** | • Rehabilitation roads in disrepair that connect key livestock areas, particularly in Benghazi, Aljabal Alakhdar, Al-Marj, Sabha and Obair districts.  
• Build new rural roads connecting remote areas to urban areas, opting for passages that are the least exposed to security risks. |
| **Fishing infrastructure**        | • Rehabilitation of fishing landing sites in disrepair  
• Train local stakeholders on best practices relating to landing site maintenance. |
8. ANNEXES

A) Summary sheets – district level

BENGHAZI

SITUATION

- 60% of households face low economic conditions, 30% are in the middle, and 10% are better-off
- High dependency on agriculture as a source of income
- Migrant population originating from Egypt, Sudan, Chad, Somalia, Eritrea and Bangladesh
- IDP population originating from Al-Sabri area, Albla, Alhoot, Quareshi, Leithi, Bouatni, Taourgha, Sirte, Qanfouda
- IDPs relying on subsidies and assistance. According to community leaders, this population faces moderate food insecurity
- Wheat and barley are the main crops grown though disadvantaged households often grow vegetables. Crop production dropped after 2011 Seeds were purchased from local market (imported) or derived from private stocks
- Seeds are either purchased at local markets or are derived from private stocks
- Crops were sold to local market and breeders
- Livestock production has dropped since 2014. Main reared animals include cows, sheep, goats, and poultry. Sources of animal feed include crop residuals and black market
- Fisheries production has declined since 2014. All operations have been suspended due to insecurity. Fish are usually caught during the wintertime. Around 5% of production is for own household consumption and the rest is sold. Some of these sales are to traders who then export the products. Fish market traders were previously coming from Egypt, Tunisia and Jordan

THREATS AND CHALLENGES

- Migrants have limited access to work licenses, credits and loans, and suffer from a lack of employment, liquidity, and food scarcities Cropping activities are hindered by the high costs of agricultural equipment, pesticides, seeds, fertilizers; the low availability of labor; low quality/amount of seeds and pesticides available, and a lack of government regulations
- Livestock marketing activities are hindered by smuggling; a lack of security; the low quality and high price of fodder and animal feed; a lack of vaccines and veterinary services; and a lack of awareness campaigns and programs
- Livestock activities are limited by the remoteness of grazing lands, the high cost of transportation; a lack of experienced shepherds; and poor security conditions
- Fishing activities are hindered by insecurity along Libyan coasts
ALJABAL ALAKHDAR

SITUATION

- 50% of households face low economic conditions, 35% are in the middle, and 15% are better-off
- High dependency on agriculture as a source of income
- IDPs relying on subsidies and limited daily work
- Main crops grown are wheat and barley though disadvantaged households harvest vegetables and fruits. Production dropped after 2011
- Adult male migrants and IDPs are commonly employed as agricultural laborers
- Seeds are either purchased from local markets and private shops or are derived from private stocks
- Crops are sold to local markets, private factories and breeders
- Livestock production has dropped since 2014. Main reared animals include cows, sheep, and goats. Sources of animal feed include crop residuals and the black market
- Fisheries production have been stable at medium levels since 2012. Fish are usually caught during the wintertime. Around 5% of household production is for own household production and the rest is sold

THREATS AND CHALLENGES

- The female community suffers from a lack of cash flows
- Migrants face limited housing opportunities, poor access to work licenses, credit and loans, and low purchasing power
- IDPs are affected by a lack of employment and liquidity; food scarcities; and a general environment that hinders business development
- Crop sales are hindered by poor transportation facilities and the high cost of and low availability of labor
- Cropping activities are hindered by the high cost of agricultural equipment, pesticides, seeds, fertilizers; low labor availability; poor quality and amount of seeds and pesticides available; water shortages, high costs of irrigation water and pumps.
- Livestock marketing activities are hindered by smuggling, a lack of security, and the low quality and high price of fodder and animal feed
- Livestock activities are limited by the remoteness of grazing lands, the high cost of transportation; a lack of experienced shepherds; insecurity and low water access
- Fishing activities are hindered by insecurity along Libyan coasts
AL-MARJ

SITUATION

- 50% of households face low economic conditions, 40% are in the middle, and 10% are better-off
- High dependency on agriculture as a source of income
- IDPs rely on subsidies and limited daily work
- Main crops grown include wheat and barley though economically disadvantaged households often grow vegetables. Production dropped after 2011
- Seeds are primarily derived from private stocks
- Crops are sold to the local market, private agribusinesses and breeders
- Livestock production has dropped since 2014. Main reared animals include sheep, goats, and poultry. Sources of animal feed include crop residuals and local markets (regular and black)
- Fisheries production has declined since 2014. All operations are currently suspended due to insecurity. Fish are usually caught during the wintertime. Around 5% of production is for own consumption and the rest is sold.

THREATS AND CHALLENGES

- Migrants face limited housing opportunities, poor access to work licenses, credit and loans, and low purchasing power
- IDPs are affected by a lack of employment and liquidity, food scarcities, and a general environment that hinders business development
- Cropping activities are hindered by the high cost of agricultural equipment, pesticides, seeds, and fertilizers and low labor availability
- Livestock activities are limited by the remoteness of grazing lands; poor security levels; high cost of animal feed
- Fishing activities are hindered by insecurity along Libyan coasts
Agriculture and Rural Livelihoods Needs Assessment – Libya

MARQAB

SITUATION

- 3% of households face low economic conditions, 25% are in the middle, and 72% are better-off
- Drastic, sudden drop in the quality of living conditions, lack of liquidity and increased prices; surge in the provision of assistance to local households
- Population heavily depended on salaries and pensions provided by the government or by the private sector (skilled labor); there are also secondary income sources such as agriculture, small-scale livestock activities and fishing
- The migrant population is primarily from Palestine, Iraq, Morocco, Syria, Egyptians and Sub Saharan Africa
- The IDP population originates from Tripoli, Benghazi, Darghona, Taourgha, Sirte
- IDPs rely on subsidies, humanitarian assistance and charity (i.e. Zakat)
- Overall, the main crops grown are barley and wheat. Economically disadvantaged households grow vegetables, barley, wheat and dates. Production was negatively impacted in 2011 and 2014 though these negative trends has since reversed
- Seeds are generally derived from the local market and official shops
- Irrigation water is derived from rainwater and ground wells
- Crops are sold to the local market and to exporting agents
- Livestock production has been stable at medium levels. The main reared animals are sheep, goats, and poultry. Sources of animal feed include the local market
- Fish production has declined to very low levels. Fish are caught year-round, and expatriate labors are employed, especially individuals from Egypt. Around 30% of household fish production is for own household consumption and the rest is sold.
- Fish traders come from al-Khams, Tripoli and other coastal areas

THREATS AND CHALLENGES

- IDPs are affected by low health care availability and poor housing opportunities
- Cropping activities are hindered by the spread of crop pests and diseases; high costs of agricultural equipment, pesticides, seeds, fertilizers; water shortages and the high cost of irrigation water and pumps; low soil fertility and high salinity; and low labor availability
- Livestock activities are threatened by the high cost of animal feed and lack of veterinary services, medicines and fortifications
- Fishing activities are hindered by insecurity along Libyan coasts
MISRATA

SITUATION

- 30% of households face low economic conditions, 50% are in the middle, and 20% are better-off.
- The population is heavily dependent on salaries and pensions provided by the government or the private sector (skilled labor/trade). There are also secondary income sources such as agriculture, small-scale livestock activities and fishing.
- Migrant population are mainly from Palestine, Egypt, and recently from Iraq, Syria, Niger, Nigeria, Chad, and Sudan.
- IDP populations are from Benghazi, Sirte, Abu Karin, Alushka, Sabha and Tripoli.
- IDPs rely on governmental subsidies and salaries, humanitarian aid, charity, trade and crafts.
- Crop production was negatively impacted in 2011 and 2014. However, these negative trends have reversed since 2016 when production started growing again.
- Disadvantaged households produced vegetables and greens.
- Seeds are purchased from the local market and official shops.
- Crops are sold to local markets and to agents from the cities of Zliten, Bani Walid, Al-Khamis, Al-Weshka and Sirte.
- Livestock production faced two crisis in 2011 and 2015 but have recovered with high levels of production in 2017. Main reared animals include cows, sheep, goats, poultry, and camels. Sources of animal feed include the local market (dealers, shops, agents) and previously, FAO support.
- After a small decline in 2015, fish production reportedly increased to high levels in 2017. Fish are usually caught year-round, with a pause during the months of June and July. Around 30% of the household production is for own consumption and the rest is sold.
- Fish traders come from Al-Khams, Tripoli and other coastal areas.

THREATS AND CHALLENGES

- The migrant community suffers from a lack of housing opportunities, cultural difference and social frictions, high living costs, and low purchase power.
- IDPs are affected by a lack of housing opportunities, a lack of employment and liquidity. Cropping activities are hindered by the high cost of agricultural equipment, pesticides, seeds, and fertilizers; a lack of electricity and frequent power cuts; and a lack of large generators.
- Livestock activities are limited by the high cost of animal feed.
- Fishing activities are hindered by insecurity along Libyan coasts.
**GAT**

**SITUATION**

- 10% of households face low economic conditions, 40% are in the middle, and 50% are better-off
- The main source of income for the majority of the population is governmental salaries. Secondary income sources include agriculture and livestock though they are mainly done by segments of the population that do not have access to governmental subsidies and salaries
- IDPs rely on governmental subsidies and salaries, humanitarian aid, charity, trade, crafts, and farming
- Crops production declined from medium to low levels in 2015
- Disadvantaged households produce vegetables, greens and fruits
- Seeds are purchased from the local market
- Crops are sold to local markets
- Livestock production faced a crisis in 2014, dropping to low levels. The main reared animals are sheep and goats. Sources of animal feed include local markets (ex. dealers, shops, and agents), crops residuals, and animal waste.

**THREATS AND CHALLENGES**

- Cropping activities are hindered by the high cost of agricultural equipment, pesticides, seeds, fertilizers; water shortages and the high cost of irrigation water and pumps; a lack of electricity and frequent power cuts
- Livestock marketing is hampered by limited purchasing power and a lack of liquidity
- Livestock activities are limited by the high cost of animal feed and low water access
MARZAQ

SITUATION

- 60% of households face low economic conditions, 30% are in the middle, and 10% are better-off
- The main source of income for the majority of the population is governmental salaries. Agriculture and livestock are secondary sources of income, mainly conducted by segments of the population that do not have access to governmental subsidies and salaries
- IDPs rely on governmental subsidies and salaries
- Crop production has been stable since 2010
- Disadvantaged households harvest barley, wheat and dates
- Seeds are provided by seed supply programs
- Irrigation water is provided by ground wells and rainwater
- Crops are sold to local markets
- Livestock production has been stable since 2010. The main reared animals are sheep and camels. Sources of animal feed include local markets (dealers, shops, agents)

THREATS AND CHALLENGES

- IDP communities face limited housing opportunities
- Cropping activities are hindered by high costs of agricultural equipment, pesticides, seeds, fertilizers; Seeds and pesticides available on the market are low quality
- Livestock activities are hampered by low quality and high prices for fodder and animal feed, as well as a lack of vaccines and veterinary services
SABHA

SITUATION

- 10% of households face low economic conditions, 70% are in the middle, and 20% are better-off
- The main source of income for the majority of the population is governmental salaries. Agriculture and livestock are secondary sources of income, mainly conducted by populations that do not have access to governmental subsidies and salaries
- IDPs originate from Taourgha, Sirte, Wershafana, Bani Walid, eastern region of Benghazi, Rshvanh and Obari
- IDPs rely on governmental subsidies and salaries, humanitarian aid and charity
- Potatoes and wheat are the main crops grown, though disadvantaged households harvest vegetables. Crop production experienced two crises, one in 2012 and another in 2014, dropping from good production levels in 2011 to very low levels since 2015
- Seeds are purchased on local markets
- Crops were sold to local markets and exporting agents
- Livestock production has struggled since 2011, remaining at very low levels. The main reared animals include sheep and goats. The main source of animal feed is crop residuals

THREATS AND CHALLENGES

- The migrant community faces extortion, theft and frauds episodes
- The IDP community is challenged by unavailable health care and education services, as well as food scarcities
- Crop marketing is made difficult by a lack of electricity and proper infrastructure
- Cropping activities are hindered by high costs of agricultural equipment, pesticides, seeds, fertilizers; low labor availability; lack of electricity and frequent power cuts
- Livestock marketing activities are hampered by low quality and high prices of fodder and animal feed, lack of vaccines and veterinary services, low purchase power, and a lack of liquidity
- Livestock activities are limited by high costs of animal feed, a lack of veterinary services, medicines and fortifications, and a lack of experienced shepherds
OBARI

SITUATION

- 40% of households face low economic conditions, 50% are in the middle, and 10% are better-off
- The main source of income for the majority of the population is governmental salaries. Agriculture and livestock are secondary income sources, mainly conducted by populations that does not have access to governmental subsidies and salaries
- Migrants originate from Sudan, Egypt, Mali, Niger, Palestine, Syria and Lebanon
- IDPs rely on governmental subsidies and salaries, as well as industry and farming
- The main crops grown are fodder and lentils. Economically disadvantaged households harvest vegetables and legumes. Crops production levels have been high and stable since 2010
- Seeds are purchased from local markets or are obtained from private stocks
- Crops are sold to local markets
- Livestock production has been stable at very good levels since 2010. Cattle are the main animals raised. The main source of animal feed is the local market (dealers, shops, agents)

THREATS AND CHALLENGES

- Migrant communities face cultural differences and social frictions, as well as movement restrictions due to a lack of legal IDs
- The IDP community is challenged by a lack of employment, liquidity and fuel
- Crop marketing is made difficult by poor transportation facilities; lack of infrastructure and electricity
- Cropping activities are hindered by high costs of agricultural equipment, pesticides, seeds, fertilizers; a lack of electricity and frequent power cuts; lack of access to bank loans and credit
- Livestock activities are limited by the high cost of animal feed and a lack of veterinary services, medicines and fortifications