# LIBYA AGRICULTURE AND LIVELIHOOD NEEDS ASSESSMENT REPORT

A STUDY OF THE FEZZAN REGION

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# FOREWORD AND ACKNOWLEDGEMENTS

This study was prepared by Daniele Barelli, Independent Consultant and Agricultural Livelihoods Needs Assessment Specialist, in collaboration with WFP Libya Programme Team.

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# **EXECUTIVE** SUMMARY

# RATIONALE OF THIS STUDY AND METHODOLOGY

Libya faces an unprecedented and protracted internal crisis caused by a civil war that affects the lives of millions of people in the country, including local populations and migrants from numerous countries. Due to multiple crises since 2011, livelihoods have been heavily affected, especially in rural areas of the country.

In order to understand the main impacts of the conflict on the agricultural sector and the people relying on it, the World Food Programme (WFP) decided to conduct an agriculture and livelihood needs assessment in the southern Fezzan region of Libya. This region remains extremely important for the country's agricultural production and, due to its geographical position, hosts many migrants and Internally Displaced Persons (IDPs), many of whom are employed in this sector.

This study was conducted over a three-month period (December 2019 - February 2020) and consisted of data collection, analysis and report writing. An independent international consultant was recruited to lead the assessment, working remotely with the direct support of the local Service Provider (SP), Fezzan Libya Organization (FLO). The SP was responsible for gathering field data. A mix of primary and secondary data collection methods were used in this assessment, including semi-structured interviews at the Household (HH) level, Focus Group Discussions (FGDs), Key Informant Interviews (KIIs), Face-to-Face Interviews, as well as a comprehensive desk review of existing information. Farmers, IDPs, migrants, women involved in agriculture, traders, representatives of the Ministry of Agriculture (MoA), farmers' associations and food commodity and agricultural inputs vendors were interviewed during the assessment process. All six main administrative districts or Mantikas in the Fezzan region (Al-Jufra, Ghat, Murzuq, Sebha, Ubari, and Wadi Ash Shati) were assessed during the study

## MAIN FINDINGS OF THIS STUDY

Despite the relatively small contribution of agriculture to Libya's GDP - less than 3 percent in 2011 - and although 75-80 percent of food requirements are imported from outside the country, the percentage of Libyans engaged in some form of agricultural production remains large, at 22 percent.

This study confirms that agriculture still represents an important source of income and food in all assessed areas of the Fezzan region. The interviewed farming population reported owning the majority of land they cultivate, whereas IDPs and migrants generally work on local farms, which in most cases are between 5-10 hectares (ha) in size. Some larger farms (above 10 ha) still exist, but they represent a small minority of all farms. IDPs and migrants are generally paid in cash and/ or in-kind (i.e. crops harvested) and their daily remuneration appears to be equal across the assessed areas. IDPs and migrants reported that the demand for labour in the agricultural sector remains high, which is the main reason why they continue working in this sector.

Women continue to increase their involvement in agriculture, especially since the crisis of 2014. They mainly work with land preparation and planting operations up to harvesting. They also play a major role in rearing animals, especially goats, sheep and poultry. The absence of both skilled and unskilled labour in the assessed areas and the lack of liquidity to pay for labour are the main reasons pushing women to support agricultural activities. It is important to note that women generally work on family farms, as the poor security situation in the country and local cultural norms do not allow women to work for other private farms.

According to most of the interviewed farming households, the protracted crisis in the country continues to push a large number of households (44 percent) to spend up to 75 percent of their income on food. The same respondents also reported that between 25 percent and 75 percent of the food they consume comes from their own production, especially vegetables, fruit and animal products. Other food commodities usually consumed (rice, pasta, flower, bread, oil, canned products) are purchased from shops and markets. Most of the HHs and people interviewed in FGDs and KIIs reported that the local population is consuming less preferred food and reducing the number of meals per day. These coping strategies help families to meet their food needs in the face of the protracted crises. As food in Libya is mainly imported, food price inflation is strongly affected by currency exchange rate dynamics, the country's import and tax policies and other import constraints.

# MAIN CHALLENGES IDENTIFIED BY THIS STUDY

The results of this study show that a large proportion of the population involved in farming in the Fezzan region currently face serious challenges in continuing their operations. Many people were obliged to discontinue agricultural production, including crop and livestock production, because they did not have the means to endure through the crises. According to all stakeholders interviewed, the main obstacles to continuing farming operations are: 1) poor security situation affecting the overall agricultural value-chain, from production, to sales, storage and processing, 2) scarcity of water and fuel, coupled with an irregular electricity supply and frequent power outages, 3) lack of or high prices of agricultural inputs (i.e. seeds, fertilizers and pesticides), 4) lack of income available to purchase required agricultural inputs, equipment, and machinery, 5) difficulties in accessing markets and shops due to the lack of liquidity and transportation constraints, 6) absence of extension services and inoperability of farmer's associations; and 7) inconsistent exchange rate between the United States Dollar (USD) and the Libyan Dinar (LYD), due to the depreciation of the national currency and lack of bank liquidity for accessing loans and financial services.

# **CROP SUB-SECTOR OVERVIEW**

Barley, wheat and vegetable/leguminous products (tomatoes, onions, beans, etc.) remain the main crops cultivated in the Fezzan region. Further crops include fruit trees (dates, citrus, olives, figs, and grapes) and other crops such as alfalfa and clover, generally used as fodder, melons and aromatic plants.

The agricultural sector relies mainly on groundwater for irrigation. In general, the government manages the water network on which farmers rely. Various machines, including electrical water pumps and generators are used to access and distribute this important resource. Fluctuations in electricity and power outages experienced by the population since before the start of the crisis of 2011 create many problems for irrigation and for the storage and conservation of harvested crops. In addition, many irrigation networks as well as private agricultural productive assets (e.g. large machinery) have been either vandalized and/or stolen by armed fighting groups, resulting in major losses for farming communities. In some markets and shops it is still possible to purchase new equipment and machinery in low quantities, yet the costs are very high, which the majority of the population cannot afford.

With regards to agricultural inputs the situation differs slightly, as access to good quality seeds, fertilizers and pesticides is not always possible. At times the availability of these inputs is very low and prices are very high. In addition, it is very rare to find improved

seed varieties on the market. Hence, many farmers use their own seeds to cope with these limitations. The use of animal manure as fertilizer is widespread, since it is easier and cheaper to source. The proliferation of pests and diseases on crops also appears to be an increasing problem in the assessed areas.

## LIVESTOCK SUB-SECTOR OVERVIEW

Sheep, goats and poultry, followed by camels and other livestock, including rabbits and cows are generally the most frequently bred livestock in the Fezzan region.

Access to safe pastureland, water and quality fodder are the main challenges for livestock keepers, as well as the lack of veterinary services and medicine, electricity, and refrigerators to store livestock products. Many people reported the loss of livestock since the start of the crisis in 2011, due to the inability to maintain herds, recurrent thefts, and high livestock mortality rates due to diseases. The scarcity of high quality fodder and animal medicines, combined with their high market prices inhibit many animal breeders from accessing these important inputs.

## MARKET ACCESSIBILITY

Most food and agricultural/animal input requirements are imported from outside the country. The majority of these commodities are distributed from the northern Tripolitania region through the city of Sebha. The security situation in the country creates many obstacles for the transportation sector. The majority of the interviewed traders reported acting as wholesalers to transport most commodities (food and inputs) directly to shopkeepers and market vendors. The high price and frequent unavailability of fuel are the main constraints faced by traders, along with the poor security situation, which contribute to price increases at markets and shops and affect all commodities sold. The interviewed population reported challenges in accessing markets, mainly due to transport constraints, high market prices, lack of liquidity, and security issues. Many vendors of food commodities and agricultural inputs also reported an increase of payments on credit from the local population, especially since 2014.

## MAIN NEEDS AND INTERVENTION

The graphic on the next page shows the main focus areas and suggested interventions for building a more resilient agricultural sector and for supporting the population by the protracted crisis. Some intervention mechanisms are also recommended to facilitate the preparation and implementation of those interventions.



# AREA OF FOCUS ------ INTERVENTION MECHANISMS ----



# **BOOST AGRICULTURAL PRODUCTIVITY**









## SUGGESTED INTERVENTIONS

- Provision of free and subsidized good quality agricultural and livestock inputs (seeds, fertilizers, feed, etc.), including restocking of animal vaccines
- Provision of material and seedlings to reestablish nurseries for fruit production
- Restructure crop production sector (i.e. varieties, timing) towards climate smart agriculture

# **INFRASTRUCTURE SUPPORT**







### SUGGESTED INTERVENTIONS

- Improve access to irrigation and electricity through rehabilitation of governmental networks, equipment, machinery (generators, water pumps, etc.)
- Establish key critical processing facilities/ infrastructure (milling plant, slaughterhouses, packaging and storing etc.)
- Provision of solar water pumps and generators

# **IMPROVEMENT OF LOCAL SERVICES**



#### SUGGESTED INTERVENTIONS

- Enhance crop and animal extension services
- Facilitate access to formal low interest rate loans to restore the agriculture sector and sub-sectors

# **IMPROVED LIVELIHOODS / MARKET ACCESS**









# SUGGESTED INTERVENTIONS

- Rebuild community agricultural infrastructure
- Provide skills development to support agriculture and complementary livelihood activities
- Improve market access by restoring roads in terms of security and improve transportation facilities at lower cost

# **CAPACITY DEVELOPMENT**



# SUGGESTED INTERVENTIONS

- Conduct trainings on crop diversification, water-saving practices, pest and disease control
- Conduct trainings on livestock production, including disease prevention, composting, advanced rearing practices and livestock diversification (i.e. bee production)
- Train local stakeholders on best practices relating to new energy (e.g. solar) source maintenance

# **OTHERS**





#### SUGGESTED INTERVENTIONS

- Conduct an assessment on the status of irrigation in the Fezzan region
- Conduct a market assessment to verify the possibility of establishing a cash/ voucher mechanism for agricultural and livestock inputs
- Review relevant agricultural policies
- Support the rehabilitation of farmers' associations and the establishment of new ones
- Conduct scientific research and more in-depth studies to better understand issues related to soil and salinity, climate change and the spread of pests and diseases

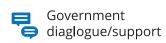












# **SECTION**

Background, objectives and methodology of the assessment

# Introduction



Libya, officially the State of Libya, is a country located in North Africa bordering the Mediterranean Sea in the north, Egypt to the East, Sudan to the southeast, Chad to the south, Niger to the southwest, Algeria to the west and Tunisia to the northwest. Most of the country lies in the Sahara Desert, while much of its population is concentered along the coast and in its immediate hinterland. Libya comprises three historical regions: Tripolitania in the west (where the capital Tripoli is located, along the Mediterranean coast), Cyrenaica in the east (where Benghazi, the 2<sup>nd</sup> largest city, is located) and Fezzan in the south (which includes Sebha and Al Khalij areas). Libya is the

armed conflict dividing Libya into competing factions. Since 2014 until today fighting has continued across the country causing civilian causalities, displacement of people and the destruction of key networks and infrastructure, including those related to the agricultural sector.

The crisis has adversely affected 2.4 million people, about 40% of the population2, with differentiated impacts by region, ethnic group, gender and age. More than 0.82 million people are in need of humanitarian assistance, including 413,000 migrants, refugees and asylum seekers, 97,000 Internally Displaced Persons (IDPs), 165,000 returnees and 148,000 non-displaced persons<sup>3</sup>. The majority of the people in need are men and boys (approximately 66%), while children make up one third of those needing assistance.4

Despite the Libyan economy primarily relying on the oil sector, which accounts for over half of GDP and 97% of exports<sup>5</sup>, in 1958, before the era of oil wealth, agriculture supplied over 26% of GDP while Libya exported food. Although gross levels of agricultural production have remained relatively constant, increasing oil revenues have resulted in a decline in agriculture's overall share of national income. Thus, by 1962 agriculture was only responsible for 9% of Gross Domestic Product (GDP) and by 1978 this figure had tumbled to a mere 2%.6

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