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Libya, Factor 13: Demographics

Libya: The Silent Crisis

Libya, a country that is 1,775,500 kilometres squared in area, is located in northern Africa. It is bordered by Egypt and Sudan in the east, Algeria and Tunisia in the west, Chad and Niger in the south, and the Mediterranean Sea in the north. The country has had major political uprisings since the middle of the 1900's. Before the civil war, Libya was considered to be an upper middle-income country, and their food security issues were not as troubling as they are today (World Food Programme, 2011). However, the years of political unrest has created refugees and internally displaced peoples (IDPs), who are very food insecure. According to the World Food Programme, sixty per cent of IDPs are vulnerable to food insecurity (World Food Programme, 2011). The rapid rise of urbanization has created a looming threat to Libya's food security.

Libya is composed of three main regions: Tripolitania in the west, where the capital, Tripoli, is located along the Mediterranean coast; Cyrenaica in the east, where Benghazi is located and; Fezzan in the south, which includes the Sebha and Al Khalij areas. The southern region of the country is sparsely populated because of the Sahara Desert. Ninety-five percent of the population is concentrated by the coast, mostly in the western part of the country where Tripoli is. The coastal regions of Tripolitania and Cyrenaica get more annual rainfall and thus, are where most of the agricultural activity takes place. Even though there are a few oases in the desert that could be used for agriculture, the extensive oil and gas fields dominate the desert spaces (World Food Programme, 2011).

Taking Libya's history into consideration is vital in understanding the issues the country has endured and the agricultural challenges it now faces. Libya first became an independent nation under King Idris al-Sanusi in 1951. In 1969, King Idris was overthrown in a military coup d'état led by Colonel Qadhafi who, unlike Idris, followed a pan-Arab agenda and introduced state socialism by nationalising most economic activity (Libya Profile, 2017). Qadhafi used Libya's colossal oil wealth to fund revolutionary movements around the world (Dickovick, 2012).

After multiple altercations with the United States, Libya found itself isolated from the international community, with sanctions from the U.S. and the United Nations (U.N). The tense relations with the world began to thaw after Qadhafi presented himself as a reformed leader in the 2000s. By the end of 2004, he had met with many different world leaders, and the U.S. President removed almost all of the American sanctions on Libya around this time (Dickovick, 2012).

Though it had seemed Libya had been on the path to progress, everything changed in mid-February of 2011. Anti-Qadhafi groups began violent protests in Benghazi, causing Qadhafi's jurisdiction in the city to collapse, with uprisings spreading to other major cities. Battles between the forces continued until May, when the war turned into a stalemate, but by October, Qadhafi was captured by rebel forces in Sirte and soon killed (Dickovick, 2012).

The instability of the country created the perfect environment for the extremist group Islamic State of Iraq and Syria (ISIS) to swoop in. In 2016, the U.N. set up an interim-based government in Tunisia. In December of that same year, pro-government forces ousted ISIS forces from Sirte. As of July 2017, ISIS forces are continually being forced out of major cities (Libya Profile, 2017).

A typical Libyan farm family is considerably different than those in Canada. The household consists of blood relatives of the male patriarch. Thus, multiple generations will often live together, and it is not uncommon for men to have more than one wife at a time (Libya Family and Household, 2004). On average, each woman gives birth to approximately 2.04 children, opposed to 1.6 children per every woman in Canada (CIA World Factbook, 2017). Thus, it is much more likely for a Libyan farm family to be multi-generational than a Canadian one. Women are generally not allowed to intermingle with the opposite gender that are not direct relatives.

Both urban and farm families in Libya eat simply and frugally. Primary staples of a typical Libyan diet are rice, pasta, and couscous, the national dish of the country. All three of these foods are prepared a variety of ways. Most often, couscous is prepared in a spicy sauce of hot peppers, tomatoes, chickpeas, and seasonal vegetables. Libyans do not eat very much meat, so they rely on legumes to get their protein. Traditional Libyan food is composed of four main ingredients: olives, palm dates, grains, and milk. Libyans also consume mass amounts of tea, mainly black and green, throughout the day (Temehu, n.d.).

The standard of health care for the average citizen is much lower in Libya than it is in Canada. The ongoing conflict has caused 1.3 million people to have no access to life-saving services and resources. Forty-three out of one hundred ninety-eight hospitals are either partially funded, or are not functional at all, and have a critical shortage of human resources. As a result, referral and tertiary hospitals are overloaded and unable to meet the demands of the patients. There is concern that communicable diseases from migrants and refugees will put more strain onto the already weakened system (World Health Organization, 2016).

The typical farm child has access to education, although they might not always attend. Education in Libya is free and compulsory, starting with primary school at age six. Students start secondary school once they reach around age fifteen. More than two hundred thousand students are currently studying in universities around the country, with high numbers in the higher technical and vocational sector (World Education News and Reviews, 2004).

Libyan agriculture is very unique and matched to the country's geography. With approximately over ninety percent of the country's land being part of the Sahara Desert, there is not much land left for other uses. The two main areas of natural farmland are in the northeast where the high coastal plateau of Jebel Akhdar is located, and in the northwest, which contains a fertile coastal plain. Pastures cover 13.3 million hectares of the estimated 15.4 million hectares of total agricultural land (World Food Programme, 2011). The remaining land consists of 1.8 million hectares in arable land, and three hundred thousand hectares of

permanent crops, which are primarily fruit trees. The main cereals grown are wheat and barley. Olives, grapes, dates, almonds, and oranges are other important crops grown. The area of agricultural land developed for irrigation is about four hundred seventy thousand hectares, of which only two hundred forty thousand hectares are currently irrigated. The potential irrigated land is estimated to be seven hundred fifty thousand hectares, and it would mainly rely on the use of fossil water if it was to be fully developed. Of the one hundred seventy thousand farm-holders in Libya, only 39.4% are full-time farmers. The remaining 60.6% are classified as part-time farmers who continue to rely on rainfed agriculture that does not provide them with satisfactory returns (World Food Programme, 2011). Farm sizes in Libya are quite different than those in Canada. The average Canadian farm in 2011 was approximately three hundred fifteen hectares (Statistics Canada, 2011). In comparison, nearly ninety percent of Libyan farms are less than twenty hectares (World Food Programme, 2011).

In Libya, there are many barriers farmers face in improving agricultural output. The first barrier is that they are lacking the current technology that provides the potential to improve their outputs. Only four percent of farmers own a tractor, which means the remainder have to rely on traditional equipment, such as hoes, digging sticks, wooden ploughs and axes (World Food Programme, 2011). Currently in Saskatchewan, almost all farmers own more than one tractor. The technology within those tractors is astonishing. Tools such as a global positioning system (GPS), and self-driving technology are common, even in the older generation of farmers. For example, the implement dealer, John Deere, has a piece for their machines called the “4640 Universal Display”, which collects and displays crop data, shows coverage maps and application points, and so much more (John Deere, 2017). This type of technology has allowed Saskatchewan farmers to grow bountiful crops that are exported all over the world. Libya is being deprived of this type of technology. If farmers in Libya had even the most basic of modern equipment, such as tractors, their output could sizably increase, saving time and manpower.

Another barrier that Libyan agriculture faces is the shortage of workers. The spread of urbanization has created a grave shortage of workers, thus placing a heavy reliance on foreign farm labourers (migrants). These migrants can help add to the total agricultural output, but they are only there temporarily. When migrants depart the country, they leave employers with a shortage of employees, reducing manpower used for agricultural activities. Labour shortages during seeding and harvest time can possibly reduce domestic food supplies (World Food Programme, 2011). If migrants are only seeking short-term employment in Libya, jobs are being deprived from Libyan nationals. If Libyans cannot retain employment, they will not be able to earn a meaningful living wage, and will face disastrous food insecurity.

While Libya’s government invested in its infrastructure, it is not a high priority at this time. Before the civil war, most major towns and cities were accessible by car, including the desert oases. However, since the war, there has been destruction of public infrastructure. During the crisis, many experienced electricity cuts, which affected refrigeration in homes and food retail centers, which in turn affected food security to those whose power was cut. This can negatively affect food insecure households. Without proper storage, foods that require refrigeration may not be accessible to the public from the markets. If the people of Libya cannot access food markets, and if those existing food markets have poor refrigeration and poor food supplies within them, food shortages will occur, and citizens will fall prey to deeper food insecurity (World Food Programme, 2011).

Libya is currently facing a nutrition transition. In 2010, most diets of Libyan peoples were reliant on sweeteners, cereals, and oils (Food and Agriculture Organization, 2010). This type of diet is high in energy, but is low in micronutrients, which can cause overnutrition and undernutrition. Living on a diet such as this means that Libyans are getting the energy they need to survive, but are not consuming the vitamins and minerals that are essential to properly thrive. If developing children do not take in the essential nutrients that are needed to properly grow, they will be vulnerable to underdevelopment and may develop diseases such as anemia or a vitamin deficiency. Malnutrition can also cause a child to become overweight, which may turn into obesity. All of these conditions harm a child severely, and will impact them for their whole lives. Since many Libyans are food insecure, they are concerned about eating to survive, rather than eating to live (Food and Agriculture Organization, 2010). The current nutritional status of the most vulnerable will be compromised by the availability of water and sanitation.

In 2016, the World Health Organization estimated that approximately six hundred eighty thousand people were in need of safe drinking water and sanitation (World Health Organization, 2016). The disruption of desalination plants' operation has caused water contamination, causing water-borne diseases. These diseases threaten the most vulnerable, particularly those who live in rural areas (World Food Programme, 2011). If they do not have access to reliable, clean water sources, their quality of life will be substantially lower. Safe drinking water is required for citizens to maintain their good health. If they are not in good health, it can be difficult for them to earn a living, especially one through agriculture, since Libyan agriculture heavily relies on physical labour. Clean water and good sanitation is required for crops to thrive. If land used for agriculture is polluted, plants will not be able to grow well, and will result in crop failure.

Water security in Libya faces a double barrier. Along with water pollution, water scarcity is common, which most negatively affects farming. Water is being diverted into urban areas with their heavy concentration of the population, leaving rural dwellers with less water to use. The Sahara Desert region of the country does not have very much water, and Libya does not have very many permanent rivers. The Great Man-Made River (GMMR) project was expected to help supply water to those in need, but the government cut back on its funding. During the fighting in 2011, the water supply was cut off from those living in the east, causing further water scarcity to those in most need (World Food Programme, 2011).

The population of Libya is estimated at six million people in 2010. Eighty-five percent of the six million lives in an urban area. This is because over ninety percent of Libya's surface area is desert land. The capital city has a population of 1.15 million people alone, and it is only getting bigger. The population growth rate is high at 2.5 %. For the most part, the Libyan population is very young, with thirty-five percent under the age of eighteen. In 2001, more than thirty-three percent of people living in urban centres were living in slums. More and more people are flocking to cities, many because they cannot make a living through agriculture alone. For most, the hydrocarbons sector promises more opportunity for those wishing to improve their financial statuses (World Food Programme, 2011).

Urban centres generally do not have large amounts of farmland within them for people to grow crops on. With more people choosing to move to cities like Benghazi, there is more arable land being used to develop these places further. With less land available for farmers, there is less being produced initially. Libya does not get much rainfall in areas away from the coast, so it is difficult for farmers near the interior to water their crops. Existing water is being drawn into urban areas for their inhabitants to use. If crops cannot get enough rain, they will not grow properly. If crops fail, it is difficult for workers to earn a sufficient income, resulting in farmers needing to seek employment elsewhere, most likely within major municipal areas.

The present status of the situation has come to a stand-still. Even though ISIS is being driven out from cities, the country is still under stress from the extremist group. People are fleeing to and from cities, seeking protection from rebel forces. Migrants and refugees from nations such as Egypt, Pakistan, Palestine, and Sudan are seeking asylum from terrorist groups, droughts, and many other stressors in Libya, mostly because of its loose border control (CIA World Factbook, 2017). The country is hosting more people who seek food and shelter, and are not looking for permanent jobs. Libya is a transit country for many people, including men and women who are victims of forced labour and forced prostitution (CIA World Factbook, 2017). The pressure to feed everyone is being put onto rural farm families in Libya.

Improving the situation in Libya would benefit the general population of Libya greatly, but it would have the most effect on women and IDPs. Women have a hard time holding jobs outside the home, since the various different forces in the country have placed restrictions on them, such as not being able to go out in public without a male family member. As a result, women's participation in agriculture has fallen from forty-eight percent to two percent from 1973 to 2007. However, approximately sixty-six percent of the agricultural work force is women (World Food Programme, 2011). Women are already at more of a disadvantage than men in terms of gender equality, and are victims of gender-based violence (World Food Programme, 2011). Women in poverty are more likely to enter into forced labour and prostitution because they are more vulnerable than high-status women. If women are given a chance to successfully work on a farm for pay, their odds of falling victim to a forced lifestyle could lower significantly.

When the fighting in Libya is over, it could present IDPs with a chance to begin a new life. Since IDPs most often do not have employment while they are displaced, and have left their current employment, they have no chance to earn an income. Most IDPs often live with many others after they are displaced; therefore, farming would give them a chance to make a living, before and after displacement. Through earning a wage, IDPs can purchase necessities and better their lives, all while improving the food security crisis.

Through adequate research, one possible solution for Libya's food insecurity epidemic is focusing farmers' attention on productive farming methods, and upgrading their technology to successfully seed, irrigate, till, and harvest crops. After the revolution has been stabilized, farmers can work more on introducing new crops, which would increase their output in the long-term.

Improving water reliability would improve agricultural practices in remote areas. If the Libyan government increased funding for the GMMR project, it could supply water to the most remote areas of the country. This would help supply the most desperate farmers with a reliable water source. The GMMR could help kickstart irrigation practices where they are most needed. The use of desalination plants will also help improve the health of Libya's people. Desalination plants will help improve the quality of water, which will reduce the risk of water-borne diseases, improving the health of workers. When agricultural workers are healthy, they can work more efficiently.

Urban centres should focus on adding features such as community gardens. Community gardens provide city-dwellers with the opportunity to grow their own vegetables and fruit. Since most upper-class Libyans already have huge, private gardens, they could open up their garden to the public for use (Every Culture, n.d.). These gardens give everyone the chance to improve their current situation. The government should use some of the income from industry sectors to develop this type of program within their cities.

Organizations like World Vision aim to help end hunger in developing countries. They have catalogues in which people can choose a gift they would like to send to impoverished families. In the agriculture section, the gifts are items like seeds, fruit trees, and many tools. Although World Vision does not currently operate in Libya, they could expand to include Libya. If the Libyan farmers receive these gifts, it is possible for them to feed their communities, and may be able to make a profit doing it. Some of these gifts multiply in value after they are distributed to the people and communities in need. For example, if you choose to give an agricultural pack, it doubles in value, so two are given out instead of just one (World Vision Canada, 2017). Organizations, such as the U.N. and World Food Programme, should consult with Libyan farm families to see what measures should be put in place. By consulting with them, organizations can see what needs the most attention first. Families facing food insecurity know what needs to be changed first, which is why they should be involved in implementing new ideas.

Solving Libya's food insecurity is a delicate and complex issue. The population of Libya is growing at the rate of 2.10% every year (World Food Programme, 2011). With a fast-growing population and the rise of urbanization, agricultural labours are being put in the hot seat to provide the country with enough food to survive. Urbanization and population growth pose a threat to the future of agriculture in the country. By properly applying new technology and new ideas, and working with the Libyan government and their people, the problem in the country can be resolved. The GMMR river will help increase crop health, and community gardens will help provide poor urban dwellers with a reliable food source. Combined, these ideas can be used to help solve Libya's silent crisis.

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