Food Insecurity Coping Strategies in Conflict-Affected Libya

Abstract: We explored if there were lessons to be learned for food security assessment and interventions by studying household food insecurity 'coping strategies' in conflict contexts. Data were collected using 55 in-depth interviews during 2016-2017 from three regions in Libya – a country affected by protracted conflicts since 2011. Thematic analyses of the data revealed eight major categories of coping strategies, some of which resembled those reported in the global literature. However, some strategies, both negative and positive, were 'unique' to the conflict context. Implications of the findings for food security assessment and interventions in areas of protracted conflicts are discussed.

1. Introduction

In this paper we aim to explore if there are lessons to be learned for food security assessment and interventions by studying the coping strategies that household adopt in response to food insecurities caused by protracted conflicts. Global food insecurity continues to remain as one of the key developmental challenges in the current era (FAO, IFAD, and WFP 2017). Food insecurity is a complex problem that may arise from a plethora of factors, including demographic change, poverty, failure in institutions and governance, and climate change and natural disasters. However, in recent times, conflict has been identified by pertinent UN institutions as a key driver, accounting for the increase in global food insecurity from 777 million in 2015 to 815 million in 2016 (FAO, IFAD, and WFP 2017; WFP 2017). This conclusion is well-founded. Some of the countries plagued by conflict in the recent decades are characterized by widespread hunger and chronic undernutrition (Breisinger, Ecker, and Tan 2015). More recent evidence found armed conflict as a significant predictor of food insecurity in West Africa (Ujunwa et al. 2019). Conflicts destroy infrastructure, affect agricultural production, and disrupt access to markets which increase food prices (Breisinger, Ecker, and Tan 2015; Deininger and Castagnini 2006). They also detract investors and tourists, create refugees, leading to economic declines and food insecurity (Breisinger, Ecker, and Tan 2015).

Food insecurity, in turn, may foment and perpetuate armed conflicts (Brinkman and Hendrix 2011; Pinstrup-Andersen and Shimokawa 2008; WFP 2017). This can be due to food price increase and volatility, grievances from hunger, the availability of valuable commodities for rebel funding, weak governance performance, ill-defined political regimes, a disproportionately higher young people in the population, slow or stunted economic growth, and high inequality among groups (Brinkman and Hendrix 2011;

Bohstedt 2014; Hendrix and Haggard 2015; Pinstrup-Andersen and Shimokawa 2008; Walton and Seddon 1994; World Bank 2010).

Despite such well-documented links between conflicts and food insecurity, very little is known about the measures people adopt in response to food insecurity caused by armed or violent conflicts. Based on a review of available evidence Justino (2012, 15) concludes, "…in general, we have very limited knowledge about what people do in areas of violent conflict, and how their choices and behaviour may affect their wellbeing and livelihoods (including food security)….". This paper makes a contribution by further developing these considerations in the context of ongoing and emerging conflicts in the Middle East and North African (MENA) region.

Behavioural responses to food insecurity, defined in the academic literature as 'coping strategies', have long been of interest to development researchers (e.g. Corbett, 1988) and have been studied in a variety of non-conflict contexts, e.g. environmental stress in the Malian Sahel, Drought in pastoral communities in Kenya, and post-Tsunami situations in Sri Lanka (Davies, 1996; Maxwell and Caldwell, 2008).

Identification of food insecurity coping strategies has also influenced development practices on the ground, e.g. in food security assessments, monitoring, and planning. An example is the Coping Strategies Index (CSI), which is used as a proxy measure of household food insecurity by international institutions like the World Food Program, USAID and CARE International (Maxwell and Caldwell, 2008). Originally developed based on research in Kenya, Ghana, and Uganda (Maxwell and Caldwell, 2008), the CSI is constructed based on four categories of coping behaviours, including: dietary change

(e.g. relying on less preferred or less expensive foods), increasing short-term household food availability (e.g. borrowing food, purchasing food on credit), decreasing the number of household food consumers (e.g. sending children to eat with neighbours), and rationing (e.g. limiting portion size, restricting consumption by adults to feed children). Different weights are assigned to these strategies according to their severity, e.g. eating less preferred food is considered as less severe compared to restricting the consumption of adults to feed children. Index scores for each household are then calculated based on the sum of the frequencies multiplied by the weights of the corresponding strategies adopted by the household over a seven day recall period (Maxwell and Caldwell, 2008). Another similar example is the Household Food Insecurity Access Scale (HFIAS) (Coates, Swindale, and Bilinsky 2007), which is also based on several coping mechanisms, such as compromising food quality and variety, reducing food quantities, skipping meals, and going hungry.

Coping-based, self-reported measures like the CSI and HFIASs are currently widely used in assessing the prevalence of food insecurity within a population, deciding about the type of food security interventions required in a given context, evaluating the appropriateness and impacts of food aid programs, and developing early warning systems to predict an impending food crisis (Maxwell and Caldwell, 2008). Yet, coping-based measures have been criticised for their lack of generalisability across cultures, focus on consumption-related strategies only, the difficulty of identifying and interpreting a pattern of coping strategies that reflect food insecurity only, and as a cop out (Davies, 1993, 1996; Haysom and Tawodzera, 2018; Jones et al., 2013).

Against the above background, in this paper we raise the question – what complementary and/or additional insights, if any, can coping strategies in areas of protracted conflicts provide us about food security assessment and interventions? We explore this question in the context of Libya – one of the MENA countries facing prolonged conflicts since 2011 (Lagi 2011; World Bank 2011; Coates et al. 2006; Breisinger et al. 2014; WFP 2016), with severe consequences on food security (WFP 2016; WFP 2018).

The rest of the paper is structured as follows. In section 2, a brief account of the Libyan conflict is provided. In section 3, the research methods are described. Section 4 contains the results of this investigation. The research findings are discussed and key conclusions drawn in section 5.

2.   The Libyan Conflict

The onset of the ongoing Libyan conflict could be traced back to the anti-Gaddafi protests which started on 17 February 2011, arguably, inspired by the uprising called *Arab Spring* in neighbouring countries, such as Tunisia and Egypt (Salih 2013; Paoletti 2011). The protesters demanded Colonel Muammar Gaddafi to give up power and leave the country. The protests turned into armed conflict when Colonel Gaddafi used armed forces to break up the revolution, leading successively to the intervention by the UN Security Council and the NATO forces attacking Qaddafi forces (Gaub, 2013; Kuperman, 2013). The war led to the death of Gaddafi in October 2011 and of thousands of other people (Kristensen et al. 2013).

An election was held in 2012, with the General National Congress (GNC) based in Tripoli, taking over power (Sawani, 2012; St John, 2012). Following internal disputes and political fragmentation within the GNC as well as discontents among various opponents of the GNC, another election was held in 2014 that brought the House of Representatives (HoR) government, known also as the "Tobruk Parliament", to power (Pargeter, 2014; Fitzgerald 2016). Then, an interim government was formed from the parliament of Tobruk in the Al-Bayda city located in eastern Libya (al-Bayda is the seat of the former Libyan king Idris). This, however, did not resolve the conflicts, with both factions – including the Tobruk government which is strongest in the East of Libya and the Tripoli government strongest in the West of Libya – began fighting each other to gain control over territory and Libyan oil reserves. The collapse of the political processes and the conflicts that ensued since 2014 are reported by the WFP (2019, p.3) as follows.

> *"The Government under Muammar Gaddafi was ousted in early 2011 and the ensuing transitional political process collapsed in July 2014, with a renewed outbreak of armed conflict dividing Libya into competing factions. Since 2014, fighting has continued in populated areas across Libya, causing civilian casualties, displacement of people and destruction of key infrastructure. On 17 December 2015, the United Nations facilitated the signing of the Libyan Political Agreement to end the hostilities and bring unity to national institutions. It established a nine-member all-male Presidency Council of the Government of National Accord in Tripoli, but rivalries and parallel institutions continue to impair the agreement's effectiveness. Libya is ranked 108th on the 2018 Human Development Index and is listed by the World Bank as a fragile state."*

3.   Methodology

A qualitative method was used in this research. The fieldwork was conducted during November 2016 to January 2017 in three different areas: Alzintan in West Libya, Tobruk in the East, and Sabha in the South (Figure 1).

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The three selected areas are different in terms of geography, demography, socio-economic status, and agro-ecological conditions (Table 1). All of these regions have been affected by the recent conflicts according to UN reports (UN 2018) and news agencies (LNN 2017).

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The sampling technique used in this research was purposive and convenient, since the purpose was in-depth study of a limited number of sample and to identify conceptual categories, rather than statistical generalization. Samples from both rural and urban areas in the three regions were chosen. The key attributes of the households, as relevant to food security, are provided in Table 2.

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Data were collected through 55 in-depth interviews. Of this, 44 were household interviews. For 38 of those households the interviewees were family heads – the persons responsible for family income, maintenance, and key decisions. All of these interviewees

were males. For the rest six households, in which the heads were unavailable, the interviewees were the adult sons (of the heads) who had knowledge of household matters. Interviews were also held with 11 food-related officials, including the mayors of Al-Zintan, Sabha, and Tobruk; the food officials in Libya (Municipal Guards); and visiting local charities, food aid and relief centres in the study sites. An interview guide was used in data collection. Most of the interviews were conducted face-to-face at the interviewees' houses or premises. However, some interviews were conducted over telephone in circumstances whether it was difficult and/or risky to travel to the interviewees' premises. The interviews were complemented with informal conversations with people in the streets and markets as well as observations during data collection.

All interviews were conducted by the first author who is a Libyan national and fluent in the Arabic language. The research was a part of the author's doctoral studies in the UK. Before conducting the research an ethical approval was obtained from the author's affiliated university. Data were then collected with strict adherence to those ethical guidelines. Informed consent was achieved, participation was entirely voluntary, and all interviews have been anonymized.

All interviews were digitally recorded, transcribed, translated from Arabic to English, and analysed using the qualitative software package NVivo 11. The data were coded into themes or nodes and similar nodes were then grouped into corresponding categories. Additionally, documents and reports on the Libyan conflicts were collected through web search and analysed for complementary information.

4.   Results

3.1 Conflicts and household food insecurity in Libya

The interviews revealed that, since the conflict began in 2011, most of the households were subjected to shocks and stresses. In addition to the destruction of houses and assets, one of the common shocks was death of and injuries to household members. As an interviewee mentioned:

> *"We have experienced so much suffering and we are still suffering from the effects of the conflict and we just ask God's goodness; houses bombed and damaged as well as we lost two members of our family since 2011 war."* (interview 8-Z[1], 27 Dec 2016)

Loss of jobs and income was another commonly identified shock, as one household said:

> *"In 2011, my salary was stopped because of the conflict, and my salary sometimes stops now because there is no flow of money in the banks"* (interview 13-T, 12 Dec 2016).

According to the interviewees, at the beginning of the conflict in 2011, there were some difficulties in accessing foods because most markets were closed (see Figure 2). Some types of foods disappeared from the markets, especially baby milk, dairy products, vegetables, and fruits. Moreover, in 2011, the conflict and protests across Libya increased food and fuel prices.

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[1] The interview transcripts have been coded as Z for Al Zintan, T for Tobruk, and S for Sabha.

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The interviewees further reported that, in the years 2012 and 2013, food security had improved because the country became stable with a new government elected in 2012 (see section 2). There was a great recovery in food supply in the whole country as food were imported in large amounts from around the world. As a result, there were ample foods in the markets. In addition, the government increased salaries in 2012, which had a positive effect on household food security. One interviewee stated this situation as follows.

> *"In 2012 and 2013 the situation was very good and there had been significant improvement in the security and living conditions of all Libyans. These were the years I would consider better than the Gaddafi era, for example, we had new types of food and commodities entering Libya which we didn't know before"* (interview 11-Z, 4 Dec 2016).

According to the interviewees, in 2014, food security had declined again as the country faced renewed conflicts. The Tripoli international airport was burned, all foreign embassies were closed, and foreign companies and workers from Tripoli were sent back to their home countries. This renewed conflict aggravated food security through displacement, death, and destructions of physical and natural capital. In addition, the conflict affected normal economic activities such as food production, destroyed infrastructure, and disrupted electricity and food supplies. All these, in turn, pushed food prices up in local markets. In addition, price controls were difficult because of weak government capacity and control. In 2014, many households lost their jobs due to the departure of companies operating in Libya, the departure of most foreign workers, and the suspension of most embassies and consulates from working in Libya. According to

the interviewees, the conflicts also resulted in fallen exchange rates in Libyan dinar against the USA dollar. Eight Libyan dinars were equivalent to one US dollar, down from 1.30 per dinar in the pre-conflict time. The households also faced some financial barriers such as a lack of liquidity in the banks, and loss of jobs and businesses, and this, in turn, led to poor income. These problems continued due to the perpetuation of armed and political conflicts in the years 2015, 2016 and 2017. The government became divided between the governments in the West and the East of Libya. This had deteriorated the economic situation and thus severely affected Libyan households. Another important finding was that all Libyan households used to receive subsidized foods from consumer associations before 2011, which helped them to get all basic foods, such as sugar, oil, wheat, tomato, rice, and many others. However, after 2011, these associations ceased to exist. The grave food insecurity that ensued the 2014 conflicts resulted in the WFP resuming its food assistance operations.

> *"Renewed violence following the 2014 parliamentary elections, however, led WFP to resume food distributions, which were operated remotely from Tunisia following the evacuation of all international United Nations staff from Libya in July 2014." (WFP, 2019, p. 9).*

The interviewees also reported that household food security became slightly stable in 2016 as there were no further conflicts or road closures or food supply stoppages. Many households were getting used to the situation, the majority of food issues had been resolved, but food prices were still very high, which was the biggest problem for the majority of the households.

> *"….in the past, we used to buy a carton of oil at the price of 3.5 Libyan Dollar (LYD); in 2013 it increased to 16 LYD; and now in 2016, I swear that it has increased to 63 LYD. I bought 1 kg of sugar at the price of 6 LYD whereas a 5 kg sack was just 5 LYD before." (interview 38S, 23 Dec 2016).*

Another problem was adulterated or low-quality foods in the market.

> *"These days, there are foods that are not suitable for human consumption. The foods are not stored well and contain preservative and the method of transport and storage is not good. In addition, there is a lack of quality control compared to the period before the conflict." (interview 25T, 11 Dec 2016).*

The findings showed some variations between urban and rural households. Whilst, the former relied mostly on purchased foods, the latter mostly on food production, such as cereals, fruits, and meats. The conflicts and the consequent departure of migrant agricultural workers made the rural households more vulnerable. One such household said:

> *"We also planted some grains and fruit on our farm….. I had some of the workers from the Republic for Egypt. When the conflict intensified ….. the workers left to Egypt" (interview 31-S, 23 Dec 2016).*

Moreover, sixteen of the 17 rural households interviewed informed that their land was attacked and corps destroyed during the 2011 conflict. They found it difficult to purchase seeds, fertilisers and farm equipment due to the high prices after the 2016 conflict.

Whilst, in both rural and urban areas, the households faced difficulty in accessing foods because of road closures, decline in food stocks, and consequent high food prices, those in rural areas faced more problems due to the faraway distance of markets and distribution centres. Rural households also had poorer infrastructure for food transportation, storage and marketing than urban households. Although most rural households had private cars, they could not travel to the market during the conflict because of fuel shortgage (e.g. some fuel stations stopped service). One such household mentioned:

"To purchase food for my household I usually drive….The nearest store is about 12 km from my house. Things have become more difficult than it was before 2011 due to the fuel crisis in the country. I normally wait for a week or two without fuel, which adversely affects my ability to buy food" (interview 40-S, 27 Dec 2016)."

3.2 Coping strategies adopted by Libyan households

Faced with the conflicts and resultant food insecurity, as discussed above, the Libyan households adopted a range of coping strategies which could be grouped under eight categories: food compromising, asset compromising, changing employment and income generation, budgeting, borrowing and renting, relying on food aids, using location cooperation, and migration.

Food compromising

Food compromising manifested in several ways, one being sacrificing their 'preferred'

animal proteins for other animal proteins. One such household said:

> *"Before the conflict, I used to buy lamb meat approximately every day, but nowadays I am just able to buy once or twice a week; alternatively, we eat more chicken and fish"* (interview 39-S, 26 Dec 2016).

Some households completely stopped eating meats or reduced the number of days meats eaten.

> *"We overcome such troubles by stopping the consumption of some kinds of foods, such as meat, which we would now consume at intervals during the week. We also started to consume some other foodstuffs less than before"* (interview 16-T, 7 Dec 2016).

Many households said they cut down meal size or ate meals without fruits and salads, which was very unusual in Libya. In some households, the infants were given adults' milk to drink, because of the shortages of baby milk in the market.

> *"So I had to buy and give the baby normal milk which adults drink, because there was no alternative or choice"* (interview 11-Z, 4 Dec 2016).

Eating traditional foods more frequently than normal was another food compromising strategies that many households adopted. One such traditional food was Bazin, which is made mainly of barley grains produced from previous seasons. Traditionally, Bazin was usually eaten on Fridays during the pre-conflict period, but during the conflict period, it became a daily intake for most households along with other traditional foods such as Couscous and Ftat. In addition, some households relied on a local bread, known as 'Tanur' bread, instead of the regular bread bought from supermarkets.

> *"We were eating our grandparent's traditional food, which is milled at home and based on wheat and barley such as Bazin, local bread and others"* (interview 10-Z, 4 Dec 2016).

In some households, the adults ate less than normal to feed children and in some others, the children were given priority over adults in protein, fruits, and vegetable consumption. One food official described this sacrifice in food quality as follows.

> *"We used to eat Italian pasta of high quality that most Libyans used to buy before the conflict. However, now we buy other types which are coming from Egypt and Tunisia. These are cheaper in price but poorer in quality. In the past, we also consumed the high-quality rice coming from America, but now we are consuming the rice coming from Egypt and other countries which are not so good quality as the American one"* (interview 38-S, 23 Dec 2016).

Food quality became an issue as the state was no longer able to import good quality food. Further, many cheap and poor-quality foods were smuggled into Libyan markets. According to the interviewees, food compromising strategies were the first steps they had adopted in order to overcome the crises situations and those were easier to adopt, compared to the other strategies, as described below.

Asset compromising

Selling household assets was a common coping strategy for many households. This included selling lands, livestock, jewellery and even homesteads in order to meet household expenses (including foods) or to migrate to safer areas. One household described this situation in the following way.

> *"In the past, I had more sheep. I sold part of them for cash during the conflict period. We had agricultural land in the past but after 2011 we sold it too and then we migrated to Tunisia for 6 months"* (interview 2-Z, 16 Nov 2016).

Typically, this type of strategy worsened the households' economic situation in the long-term and was undertaken only under extreme situations.

Some households said that they had spent their financial savings (cash at home or in the bank) during the conflict to buy foods.

> *"During the conflict, I spent almost all my money in buying food for my family and my children, so there was only a little left, but now, thank God, I am back to my previous job and my salary has restored and the situation is not too bad"* (interview 39-S, 1 Jan 2017).

Asset selling however was not entirely driven by poverty or household expenditure requirements. Some urban households, for example, sold their luxury items because of fear, since wealthy household members were being kidnapped for ransom (interview 9-S, 30 Nov 2016).

Change in employment and income generation

This category included both legal or positive and illegal or negative activities. One of the positive or legal coping strategies included starting part time work alongside regular work, which was the case for more than a quarter of the 44 households interviewed.

> *"Also, I have a part time job at this time and this work is enough to provide food for the family"* (interview 11-Z, 4 Dec 2016).

Moreover, non-earning household members like women started working in various jobs. Before the 2011conflict, women were mostly working as homemakers. According to Muslim and Arab cultural (tribal) traditions in Libya, women were restricted from undertaking work outside of their homes, with the exception of some disciplines, such as healthcare (nursing) and education (teaching). However, the conflicts changed this situation and many women became engaged in new jobs such as sales workers, government office workers, and self-employment. One such household said:

> *".... recently my wife started working and this was a surprise to my family and tribe. In the past it was hard to be a working woman; women just stayed at home without education or work, but now women obtained this kind of freedom especially after we faced a difficulty in covering household expenses these days"* (interview 20-T, 9 Dec 2016).

Another positive strategy was that some households started working on their lands to contribute to household food consumption. This specially happened in 2015-2017 when foreign agricultural workers had left Libya and food became more expensive due to the fall of the Libyan dinar against foreign currency.

> *"In fact, my land was neglected before the conflict and we did not rely on it a lot, but after the conflict, we looked after our land to produce some vegetables"* (interview 19-T, 9 Dec 2016).

Regarding illegal or negative strategies, in some households, the youths stopped their university or school studies and joined militia groups for income. However, this strategy had harmful consequences, such as losing some young family members.

"I have lost two martyr sons in the conflict of 2011, the first dated 01/05/2011

and the other son was killed on 5/12 / 2011" (interview 13-Z, 6 Dec 2016).

Some household members became involved in illegal trading, for example, smuggling weapons from neighbouring countries such as Tunisia and Egypt. Weapons could be seen for sale on public roads, markets, and streets as well as on social media sites such as Facebook. These activities were illegal before the conflict, but since the conflict began, the Libyan state had been unable to control its borders. Another reason was that the neighbouring countries, Egypt and Tunisia, also witnessed similar conflicts as Libya during the period known as the Arab Spring. Thus, weapon sales were rapidly growing and becoming a source of livelihood for many households, especially those who lived close to the border between Libya, Tunisia and Egypt (interview 1-T, 7 Dec 2016; interview 2-T, 13 Dec 2016; interview 2-Z, 19 Dec 2016; interview 5-Z, 18 Nov 2016). Smuggling food was another illegal coping strategy that many people adopted. One food official described this in the following way.

> *"Many people are dependent on smuggling as the source of their income, especially in these circumstances, taking advantage of the weakness of the government and the regulatory bodies in the state"* (interview FO2-T, 9 Dec 2016).

Income, however, was not always the driver of food (and fuel) smuggling. Some households said that they were compelled to do so because of siege on their cities (e.g. interview 11-Z, 4 Dec 2016; interview 13Z, 6 Dec 2016).

The illegal coping strategies were mostly adopted by the most vulnerable and food-insecure households who did not have assets or savings. This strategy was their last resort

as it was highly risky, since it could result in irreparable damage, such as a loss of family members, as mentioned in the quotation above (interview 13-Z, 6 Dec 2016).

Budgeting

Several budgeting strategies have been identified. Almost one-half of the 44 households interviewed said that they had cut down on non-food items in order to provide for household food and medical treatments, with one household stating:

> *"The household's budget goes almost all on food and treatment; there is not enough amount left to buy clothes and electronic devices"* (interview 21-T, 10 Dec 2016).

Another positive strategy was reducing the amount of foods purchased for household consumption. During the pre-conflict period Libya was an affluent country with a wasteful culture (as can be seen now in many Western societies). At that time most households used to buy excessive quantities of food, more than was necessary for their households. This excess food, in most cases, was wasted (e.g., dumping in rubbish bins and landfills) or given to the poor as *Zakat*. During the post-conflict period, however, most households tried to avoid food wastes.

> *"We have become rationed in the consumption of food, so this pressure on household budget is driving us to cut food waste too"* (interview 17-T, 7 Dec 2016).

Other households saved money for food by cutting expenses on luxury goods. For instance, some households sold their expensive cars, precious furniture, and smartphones and purchased cheaper ones.

> *"I sold my Toyota 2010 car and purchased cheaper car with lower price. I saved about 15,000 dinars and I used this money for the family expenses of food and medicine, etc."* (interview 13-Z, 7 Dec 2016).

As mentioned earlier, however, this comping mechanism was not entirely driven by household expenditure and consumption requirements. For some households the motivation was the fear of being kidnapped for ransom.

Borrowing and renting

Some households adopted measures such as borrowing money from friends or relatives and buying food on credit from private grocers. These strategies were adopted mainly by households with larger family size (e.g., >5 people). A quarter of the 44 households interviewed used cheques to buy food instead of using cash due to the lack of liquidity in banks.

> *"To overcome the problem of lack of money in banks I have used cheques to buy food. I have dealt with two food stores and in a way that helped me a lot to get food"* (interview 22-T, 10 Dec 2016).

Two rural households mentioned that they had rented agricultural tools instead of buying them due to the high prices of agriculture equipment.

> *"Well, some equipment, like the tools for the tractor and harvester, became very expensive after the conflict, so sometimes I rented them for several days"* (interview 19-T, 9 Dec 2016).

Relying on food aid

Interviews with the food officials revealed that, during the 2011 conflict, there was some minor food relief, coming mostly from UN organizations such as the WFP and the FAO, as well as some donor countries, especially the UAE and Saudi Arabia. However, this aid began to gradually disappear in 2012-13 until it slightly returned in 2014-16 when Libya faced another conflict that resulted in the displacement of many households in the city of Sirte, Tripoli, Benghazi and other parts of Libya. Only two households said that they had relied on food aid from the FAO and the WFP, with one household saying:

> *"We received food aid including a small box of tomatoes, a bottle of oil, rice and some biscuits that meant it was just a little help and was distributed once a month"* (interview 11-Z, 4 Dec 2016).

However, there were also local charities and NGOs, which played significant roles in helping the conflict-affected households. These associations started again in 2016 and provided some basic foodstuffs – such as oil, sugar, tomatoes, rice and flour – at reasonable prices. Some households took their share monthly.

Using local cooperation

Historically, the nature of cooperation in Libya has been tribe-based. Tribal affiliation has been deeply entrenched in Libyan society for hundreds of years. Many Libyans still felt proud to belong to their tribes. Tribal affiliation played many positive roles in household food security during the conflicts. For example, tribal leaders supervised the collection of donations and provided financial and food aids to households in need. Some households also mentioned the role of tribal leadership in resolving disputes, e.g. concerning the inheritance of lands and other assets. Many households mentioned that the

solidarity and cooperation between households and their friends, relatives and tribes became stronger since the conflict had begun.

> *"Social relationships here in Alzintan are very good and the whole town of Alzintan is considered as one family and one tribe and it is like a social umbrella for all residents. People are getting support when they need from tribe members"* (interview 12-Z, 22 Nov 2016).

This local cooperation included food, medicine, gifts and cash. However, this help did not fully cover all food needs of the households.

Some rural households used their social networks based on kinship and neighbourhoods. For example, when faced with a fuel shortage to travel to the market, some rural households obtained their foods and other household commodities through neighbours and relatives (interview 19-T, 9 Dec 2016).

Migration

A commonly used coping strategy was temporary migration to areas less affected by conflict or to areas considered safer. Many households from the west of Libya, such as Alzintan and Sabha regions, moved to Tunisia. However, in eastern regions such as Tobruk, some households migrated to Egypt, which is on the border with Tobruk. The households mentioned that migration was their last choice and this choice was made only under extremely compelling conditions.

> *"Well, in fact, the war was brutal and Gaddafi's forces bombed Alzintan with Grad rockets. People were afraid and many of them fled to Tunisia to protect women and children"* (interview 14-Z, 5 Jan 2016).

The households who fled to Tunisia found shelters under the auspices of the United Nations and some countries such the UAE, Qatar, and Saudi Arabia. Some households who had financial savings had rented houses with their own money in Tunisia, while other households had lived with their friends in Tunisia and Egypt. All households had returned to their homes by the end of the conflict in 2011. Although migration had temporarily improved food access, the costs incurred in migration negatively affected household economic situations in the longer term, thereby affecting households' ability to buy quality foods (interview 11-Z, 4 Dec 2016; 12-Z, 6 Dec 2016).

The drivers of migration were, however, quite diverse and complex and were not always related to consumption problems (although this strategy did affect household food access). In addition to military violence, many households, in particular the wealthy ones, migrated to safer areas because of fear of kidnapping (interview 9-S, 30 Nov 2016). Others, for example, two households with sick children and elderly members, migrated to Tunis because of a lack of availability of medicines in their home towns (interview 11-Z, 4 Dec 2016; interview 08-Z, 30 Nov 2016).

5.   Discussion and Conclusions

In this paper we aimed to explore if there were lessons to be learned for food security assessment and interventions from a study of household coping strategies in conflict contexts. From our study in conflict-affected Libya we find that the food compromising strategies adopted by the households are very similar to those identified in non-conflict contexts and can be found in coping-based food security assessment tools like the CSI and the HFIAS. Similarities can also be found in asset compromising, change in income generation activities, budgeting and borrowing, relying on food aids, the use of local

norms of cooperation (social capital), and migration. Although, not all of these measures were directly related to consumption problems, they did have implications for household food security. Currently, tools like the CSI/HFIAS include food-related coping behaviours only and thus are limited in their ability to provide a comprehensive account of the behavioural responses that may signify food insecurity.

This study reinforces the importance of identifying locally appropriate coping mechanisms in food security assessment, as suggested by the proponents of coping-based tools like the CSI (Maxwell and Caldwell, 2008). Some coping mechanisms in Libya – such as switching to traditional foods like Bazin, the use of tribal-based cooperation, and reducing food waste – were not previously identified in the literature. Likewise, some of the strategies reported in the literature – such as going entire days without eating, sending some household members to eat outside the house, begging, gathering wild food, relying on fishing or hunting, harvesting immature crops, and permanent migration – were not found in Libya (Crush, 2013; Farzana et al. 2017; Maxwell and Caldwell 2008; Rademacher et al. 2014). A reason could be that these coping mechanisms were identified mostly in countries less wealthier than Libya[2] (e.g. a considerable proportion of the sampled Libyan households had assets and employments as shown in Table 2). Moreover, Libya did not have livelihoods based on hunting and gathering, which can be found in many low-income African countries. This reinforces the criticism that coping-based tools may not be cross-culturally compatible (Haysom and Tawodzera, 2018; Jones et al., 2013), raising the need to develop locally appropriate, country- or region-specific tools.

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[2] For example, in 2017, the GNI PPP was $19,960 in Libya compared to $3,250 in Kenya, $4280 in Ghana, and $1820 in Uganda, and $4,040 in Bangladesh (see the World Bank database at https://data.worldbank.org/indicator/NY.GNP.PCAP.PP.CD)

The Libyan study also suggests that coping strategies in conflict-affected areas can be both negative and positive in terms of their potential long-term impacts on household welfare. For instance, measures like the selling of productive assets could be harmful for a household, but measures like allowing women to work outside of home, starting work on family farms to produce food, and reducing food waste, are likely to have positive effects on household income and food security. Many oil-rich MENA countries like Libya, for instance, have historically relied on their oil money to buy foods from overseas at the neglect of developing their own agriculture and food systems. Agriculture in those countries has been relegated to a neglected profession and carried out through migrant workers from poorer African countries. In such a context a refocus on family farms and the development of agriculture can help enhance the resilience of households against potential shocks. The same can be said about the importance of empowering women, developing them as a valuable workforce, and recognising their valuable contribution to family welfare. In most previous studies, however, such positive aspects of coping strategies have been ignored. The findings of this study therefore raise the need to accommodate the unique coping strategies found in conflict-affected areas into the existing tools, for example, the CSI. In such measures, a reverse weighting system can be used for the positive coping strategies.

Another important message from this study is that certain types of coping mechanisms, such as joining militia groups and engaging in weapons sale, are unique to conflict contexts, as also found in other countries (see Justino 2012 for a review). These negative behaviours, if unchecked, may create vicious cycles of conflicts and food insecurity. The existing literature on conflicts and food insecurity (e.g. as reviewed in section one) do not

seem to adequately focus on the mediatory role of coping behaviours within the conflict-food insecurity nexus. Neither do coping-based tools like the CSI/HFIAS include these unique behavioural responses as indicators of food insecurity. There is, therefore, a need to develop 'conflict-sensitive' CSI tools in food security assessment and monitoring. The findings also suggest the need to create alternative employment opportunities, especially for young people, in order to break conflict-food insecurity cycles.

This study also identifies other issues in relation to quantitative metrics like the CSI/HFIAS. Although both tools are intended to capture the consumption not only of food *quantity* but also of food *quality*, the latter is assessed in terms of the consumption of 'preferred' foods (Coates, Swindale, and Bilinsky 2007; Maxwell and Caldwell 2008). This can be problematic because a food may be culturally preferred, but nutritionally poor. For instance, eating lamb meat (or any red meat) frequently may not be nutritionally appropriate from a health perspective, but for the respondents of this study lamb meat was a preferred food and a reduction in its consumption (e.g. by switching to poultry meat) equated to a stress. Likewise, store-bought breads were more preferred than local breads like *Tanur*. Such a choice can be questioned from food quality and nutritional point of view, given the overwhelming evidence worldwide of the poor nutritional quality of store-bought or processed foods. Is it appropriate then to consider such behaviour as indicators of food insecurity?

Another crucial issue is the 'sole emphasis' in both tools on 'lack of money or resources' as motives for food-related coping, e.g. in both tools the respondents are asked what they do when they do not have enough money or resources to buy foods. Although, there is a strong theoretical basis to focus on assets/resources – for example, according to the

entitlement, livelihoods and capability related theories (Chambers and Conway 1992; Sen 1981) –, our study shows that such a focus may not be adequate. As we have found, the adoption of a coping behaviour may not always be due to a 'lack of money or resources'. For example, the main driver of using adult milk as baby food and food smuggling was a food supply shortage in the market caused by conflicts, e.g. road blockage by militia, disruption in imports due to bombing of airports, siege on cities. Considering monetary or resource-related stresses only, whilst ignoring such violence, may provide a partial, or even distorted, picture about food insecurity in a conflict context.

While this study identifies important lessons for improving coping-based measurement tools and metrics, it compels us to question the usefulness of the very language of 'coping', which seems to undermine people's resistance, resilience, and agency. For instance, faced with income shortfalls many Libyan households broke out of tribal traditions and allowed women to undertake unconventional employment. Shall this be considered as a sign of food insecurity or a sign of social progress? Questions can also be raised about other behavioural responses, e.g. a shift away from a wasteful food culture and a motive for migration unrelated to hardship or consumption problems. Quantitative measures like CSI/HFIAS also tells nothing about the violence and suffering that households in conflict zones encounter, as has been described in section 3.1. We therefore concur with Davies (1993) who has cautioned about the shorthand use of the term 'coping strategies' in famine early warning systems, policy making, and planning. According to Davies (1993, 1996), the term may convey a misleading idea that people merely cope, i.e. get by somehow. The author also cautions that reinforcing coping strategies in food security interventions may trap people permanently in coping mode. The language of 'coping' may also make it immensely difficult to identify patterns of behaviour that could

reliably be used to assess and monitor food related stresses only. This, in turn, can make coping-related data collection, analysis, and interpretation extremely difficult (Davies, 1993, 1996). As this study shows, many of the behavioural responses in Libya were not necessarily in response to food consumption problems only. Rather, they were related to overall household welfare and driven by diverse and complex motives. We also question the usefulness of the term 'strategy', since many of the coping behaviours that the Libyan households displayed were 'compulsions' rather than 'strategies'.

Despite such limitations, the use of short-cut, quantitative tools continue to prevail in international development intervention due mainly to satisfy donor demands for more rigorous impact measurement in which organisational learning is of secondary importance (Lewis, 2017). In order for food security assessments and interventions to be more effective it would be desirable that such a culture of short-cut is changed and more emphasis is placed on understanding people's suffering, resilience, and agency.

Perhaps, the most important conclusion that can be derived from this study is that food insecurity in conflict contexts cannot be resolved by focusing only on agricultural development or providing short-term food aid and relief, such as the ongoing works of the WFP and the FAO in the conflict-affected regions of the Middle East and North Africa[3]. Whilst, the importance of such support cannot be underestimated, it is also important to create alternative employment opportunities for the youth and women,

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[3] Examples of the ongoing works of the WFP in Libya can be found at http://www1.wfp.org/countries/libya and those in Syria at http://www1.wfp.org/countries/syrian-arab-republic. The works of the FAO can be found at http://www.fao.org/emergencies/crisis/syria/en/

resolve violent conflicts between warrying parties, and build or improve the governance

and law enforcement capacities of the government.

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