Comparative Whole of Syria Agricultural Market Systems study

MARCH 2020
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<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACDC</td>
<td>Agricultural Community Development Company</td>
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<tr>
<td>AI</td>
<td>Artificial Insemination</td>
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<tr>
<td>BPPO</td>
<td>Beirut partnership Programme Office</td>
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<tr>
<td>DFID</td>
<td>United Kingdom, Department for International Development</td>
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<tr>
<td>FCS</td>
<td>Food Consumption Score</td>
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<td>FFP</td>
<td>Food for Peace</td>
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<tr>
<td>FFSs</td>
<td>Farmer Field Schools</td>
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<tr>
<td>FGD</td>
<td>Focus Group Discussions</td>
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<td>FSL</td>
<td>Food Security and Livelihood</td>
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<td>GAP</td>
<td>Gender Action Plan</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>HACCP</td>
<td>Hazard Analysis Critical Control Point</td>
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<tr>
<td>HOBOOB</td>
<td>General Establishment for Cereal Processing and Trade</td>
</tr>
<tr>
<td>IDPs</td>
<td>Internally Displaced People</td>
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<tr>
<td>IPDM</td>
<td>Integrated Pest and Disease Management</td>
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<tr>
<td>IPs</td>
<td>Implementing Partners</td>
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<tr>
<td>LRRD</td>
<td>Relief, Rehabilitation and Development</td>
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<tr>
<td>MDF</td>
<td>Multi-Donor-Funds</td>
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<tr>
<td>MEAL</td>
<td>Monitoring, Evaluation, Accountability and Learning System</td>
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<tr>
<td>NDVI</td>
<td>Normalized Difference Vegetation Index</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>NES</td>
<td>North east Syria</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>NW</td>
<td>North west Syria</td>
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<tr>
<td>PLWD</td>
<td>people living with disabilities</td>
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<tr>
<td>PMU</td>
<td>Programme Management Unit</td>
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<tr>
<td>SIDA</td>
<td>Swedish International Development Cooperation Agency</td>
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<td>SRP</td>
<td>Syria Resilience Programme</td>
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<tr>
<td>SYP</td>
<td>Syrian Pound</td>
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<tr>
<td>TOC</td>
<td>Theory of Change</td>
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<tr>
<td>UN-OCHA</td>
<td>United Nations Office for the Coordination of Humanitarian Affairs</td>
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<tr>
<td>USD</td>
<td>United States Dollar</td>
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<tr>
<td>VC</td>
<td>Value Chain</td>
</tr>
<tr>
<td>VHTC</td>
<td>Vulnerable Households Within Targeted Communities</td>
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<td>WEE</td>
<td>Women's Economic Empowerment</td>
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EXECUTIVE SUMMARY

This study is a wrap-up of CARE Syria Resilience Programme (SRP) activities which center on selected agricultural value chain informed Food Security and Livelihood (FSL) programming funded by the United Kingdom, Department for International Development (DFID) in Syria. The study comparatively assessed how the conflict affect the relevant agricultural market systems and the vulnerability of the local population across Syria. In addition to literature review from existing value chain studies reports and CARE SRP reports/documents in collaboration with iMMAP, this present study administered interviews with some wheat, olive and dairy value chain beneficiaries of SRP. Furthermore, two direct focus group discussions (FGD) were held with the Food Security and Livelihood personnel from CARE and its implementing partners. The study explored the pre- and post-conflict status of the Syrian economy and the agricultural sector of Syria. The analysis also highlighted the impact of the conflict on the population of Syria. Special emphasizes was provided to the wheat, olive and livestock value chains as being the core focus of CARE SRP activities for resilience building and restoration of livelihoods of the targeted beneficiaries across the selected four hubs in Syria. The report highlighted the objectives of the CARE SRP and its planned objectives before delving to the steps taken in selection of the identified value chains in collaboration of the targeted communities’ stakeholders and assistance of CARE implementing local partners. Comparative analysis of the selected agricultural value chains are stipulated and discussed in the report. Thus, the factors of production, trade, processing and consumption cycles of each f the selected agricultural value chain (livestock and dairy, olive/olive oil, wheat) is compared to its corresponding cycle of similar value chain implemented across the SRP hubs of Syria. Agricultural market system maps are provided to explore the linkages between various market actors. The women involvement across the selected value chains is thoroughly presented in the report as being of the most vulnerable population segment impacted by the conflict nevertheless of their prominent role in mitigating the adverse impacts of conflict on the Syrian households. While implementing the value chain interventions, CARE and its partners adhered to the notion of Do No Harm and accordingly the environmental aspects and measures taken are highlighted as well.

The impact of the value chain approach in FSL programming was significant in improving the wheat, olive and dairy productivity across targeted SRP locations which was reflected in the improved food security indicators across beneficiaries as well as reducing the rate of adopting negative coping mechanism and improving their economic status. The targeted communities benefited the better access to agricultural inputs that was significantly divested after the withdrawal of subsidies of the Syrian Government from supporting the agricultural sector in the opposition-controlled areas. The success stories and lessons documented from the interviewed value chains beneficiaries and CARE FSL staff indicated the possibility to positively intervene in devastating conflicting situations such as the one prevailing in Syria and not just limited to the humanitarian interventions but extended to address even unanticipated disasters like pre-harvest crop fires which affected parts of SRP location. Farmers were able to some extent, be able to combat these fires at household level. The CARE SRP achievements proved the possibility to implement early recovery interventions even under hostile environment. The study provided certain recommendations for improving agricultural value chain informed FSL programming in emergency and early recovery settings. The present study proved that in CARE SRP, there has been special attention to endogenous knowledge and exert of more effort for the community’s involvement since the intervention design stages and throughout the project cycle management. The study further recommend that the distinguished positive results attained from the CARE SRP implementation need to be continued to sustain the attained resilience capacities of the Syrian population till reaching the rehabilitation stage that is foreseen once the war is over. Special emphasis is to be given on cost recovery and tailoring interventions in ways that raise the partnership and ownership of project activities to ensure the success and sustainability of projects at exit stage for a smooth weaning of donors’ support.
1. INTRODUCTION

1.1 THE OBJECTIVES OF THE HUMANITARIAN SYRIA RESILIENCE PROGRAMME (SRP)

The Comparative Whole of Syria Agricultural Market Systems study resembles a wrap up of the support provided by the CARE Syria Resilience Programme (SRP) which is funded by the United Kingdom, Department for International Development (DFID). CARE International was granted the fund in 2016 for providing emergency aid as well as building resilience of the Syrian population. This study aims to build on two rounds of the agricultural value chain and livelihood assessments that CARE SRP conducted over 2017-2019 to comparatively assess how the conflict affect the relevant agricultural market systems and the vulnerability of the local population. The study assessed the CARE SRP evaluation, design, implementation and evaluation phases as well as highlighting the food security and livelihood (FSL) operational response mechanisms. The study further documented lessons learnt, challenges and success stories on enhancing the population resilience on food security and livelihood through the agricultural market-based interventions implemented by CARE SRP.

The study was designed to answer the following questions;

1.2 STUDY QUESTIONS

I. How is the agriculture market system structure impacted by the conflict? How did the impact differ across the regions in Syria? What is the impact on the population?

II. What are population resilience enabling and hindering factors across the assessed regions of Syria?

III. How do the FSL interventions targeted the relevant population with market system support for resilience building?

IV. What are the most appropriate intervention activities to improve population resilience by supporting the agricultural market systems through a value chain approach in a range of crisis-settings as observed in Syria?

V. What are the success stories and key lessons learned from adopting the value chain approach in the FSL interventions under the CARE SRP?

VI. What are the recommendations for improving livelihoods and value chain informed FSL programming in emergency and early recovery settings in the case of CARE SRP?

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1 Value chains represents the sequence of market actors involved in producing, processing, trading and consuming a commodity. Value chains are embedded into broader systems called market systems, which also comprise the market environment (regulatory functions, business enabling or disabling formal and informal factors, social and environmental issues which affect the way market actors interact within the value chain) and support functions that facilitate functioning of the chain.
1.3 METHODOLOGY

Two direct focus group discussions (FGD) with the FSL personnel from CARE and its implementing partners were conducted. The FGD sessions were meant to understand FSL personnel and beneficiaries’ perceptions on SRP and highlights of possible areas of improvement for related programme. The interviews draw information on the extend of suitability of the value chain approach in achieving FSL positive outcomes. The individual interviews were conducted remotely (via Skype calls) with 9 beneficiaries and the FDGs with the FSL personnel were extended to draw responses on the gains and challenges of SRP. (The utilized interview tools are in annex 1).

1.3.1 DATA COLLECTION AND ANALYSIS

The present study made use of data collected during the previous rounds of assessments (wheat, olive, livestock/dairy value chains assessments done by iMMAP) of SRP activities which were implemented by CARE and its local partners, which are compared to relevant data collected during follow up surveys. This data source and information included the impact evaluation study of the wheat and olive value chain informed FSL programming in Syria, the CARE Syria agricultural value chain assessments, the CARE SRP monitoring and evaluation reports, CARE SRP quarterly reports that have been provided by the CARE SRP management unit covering the period January 2017 to December 2019.

1.3.2 ANALYSIS PLAN

The analysis plan was based on 4 phases,

- **The 1st phase** of the analysis plan was devoted for compiling all the previous value chain work to reflect on the impact of the conflict on the agricultural value chains performance in Syria
  - This included compiling the previous value chain data, reports, and relevant secondary sources (reports/data)

- **The 2nd phase** of the analysis plan was based on content analysis of agricultural value chain reports based on the implementation that took place across the regional hubs of Syria. The analysis centered on how the agricultural value chain data was used to inform the FSL design of the CARE SRP, focusing on what went well and what did not go well. This included:
  - Reviewing the CARE FSL programme reports of the hubs for the last years
  - Interviewing CARE FSL team members across the hubs and staff across project locations and those who were based in Amman.

- **The 3rd phase** of the analysis plan was on;
  - Integrating the impact evaluation assessment results of the value chain informed FSL programming into the present study.
  - Considering the gender aspects as presented in a separate dedicated chapter within the present study.
  - Preparing sets of market system maps showing the linkages between various market actors, their primary functions, and flows of value and information.

- **The 4th phase** of the analysis plan was based on lessons learned, conclusions and recommendations on the whole of Syria Agricultural Market Systems study.
2. THE IMPACT OF CONFLICT ON THE SYRIAN AGRICULTURAL SECTOR

Exploring the agricultural production and the associated marketing system structure that prevailed prior the conflict is vital for getting an overall understanding of the prevailing conditions and how they are impacted by the conflict. The agricultural value chain interventions implemented by CARE SRP i.e. wheat, olive and livestock sectors are given special emphasis.

2.1 PRE-CONFLICT (2011) AGRICULTURAL PRODUCTION AND MARKET SYSTEM STRUCTURE

2.1.1 THE CONTRIBUTION OF THE AGRICULTURAL SECTOR TO SYRIA ECONOMY

Syria economy was improving as the Gross Domestic Product (GDP) witnessed an increasing pattern, with an average annual growth rate of 5.4% between 1990 and 2011. According to (Harun O. et al, 2017), the GDP growth rate during this period was mainly due to growth in non-oil sectors. Agriculture contribution to the GDP of Syria started to witness gradual deterioration since 2006; however, a 60% drop in this contribution occurred after the onset of the conflict, between 2011 and 2017 which is primarily attributed to the crises impact as illustrated in figure 1. Despite the devastating conflict and its impact on agriculture production; the sector remains a safety net for rural areas which received most of the displaced Syrians. About 10.5% of Syria population work in this sector according to 2017 estimates issued by the Syria Central Bureau of Statistics.
According to Fiorillo, And and Vercueil, 2003, Syria economic reforms towards diversification that started in the beginning of the 1970’s resulted in shifting the dominance from the agricultural sector to the industrial and mining sectors. However, a tight government control was imposed on the economy. Regarding agriculture, a policy towards attaining self-sufficiency of major staple crops was adopted. The government took a primary role in importation and trade of agricultural inputs especially for the major crops beside establishing publicly owned processing plants for the domestically produced agricultural commodities.

A policy of tax abolishment for encouraging the agricultural sector began on year 2001 after being imposed since 1970. The initiatives for achieving self-sufficiency of the main staples was supported through providing credit and loans for inputs through the Agricultural Cooperative Bank which used to operate 380 branches distributed across the country as per the map (Figure 2). The government control over the agricultural sector was even extended to set the cropping pattern across the country through a central planning mechanism.
The Syrian agriculture was featured by many small producers while the government used to own most of the processing facilities beside its control over agricultural inputs supply and marketing. Thus, the government was able to regulate production and distribution of products especially for major strategic crops such as cereals like wheat and barley, fodder, potatoes, industrial crops such as cotton, sugar and some fruits.

2.1.1 WHEAT PRODUCTION PRIOR THE CONFLICT

Syria achieved self-sufficiency of wheat by 1994 (Pala et al., 2004). The hard wheat is the dominant type that is produced on rainfed lands that used to be averaged at about one million hectares annually depending on rainfall conditions. 40% of the Syrian wheat used to be cultivated in Al-Hasakeh governorate. The soft wheat varieties are mainly produced on irrigated lands that reached about 0.6 million hectares in 1998/99 season. The average yield ranged between 0.5 tons to 1.7 tons per hectare for rainfed and irrigated wheat respectively (PMazid et al., 2003). The Syrian government tended to support the wheat production by the provision of certified and treated seeds. Its support used to be extended to the complementary components of the centralized wheat-flour to bread system (IMMAP, 2019) including wheat storage in well managed silos supplying milling plants which tended to ultimately supply wheat flour to public bakeries. The whole chain components i.e. silos, mills and bakeries were owned and operated by the government prior the conflict.

2.1.2 OLIVE PRODUCTION PRIOR THE CONFLICT

Olive is produced mainly in the northwest region of Syria, as according to the statistics of 2010 published by the Syrian Ministry of Agriculture and Agrarian Reform 72% of 9.6 million olive trees are grown in the NW Syria region while the balance (28%) are located at the central and southern governorates of Syria. The total production of olive increased by about 76% between 1987 and 1997 as influenced by the government quantity maximization-oriented policy. According to the International Olive Oil Council, 2011 contributed by about 35 000 MT of olive oil which represented about 5% of the world production in the season of the 2011/2012.

2.1.3 SYRIA LIVESTOCK PRODUCTION PRIOR THE CONFLICT

The dairy sector is one of the main food sources for the population of Syria as well as a source income for the poor rural households. About 35% of Syria annual agricultural production used to be provided by the livestock with about 20% of the agricultural exports value. Although the Syrian government was more focused to the crop sector; however, livestock production has benefited from such expansion especially in terms of availability of crop residues as livestock feed/fodder; but on the other hand, the livestock and dairy production faced competition over land and water against the crop sector. The livestock sector was also dominated by private small scale producers while the government, in similar control of the crop sector, used to regulate the feed, veterinary and credit services through its governmental foundations that tended to maintain strategic stocks of the livestock feed to be provided at stable prices, while the feed distribution was the role of the cooperatives. The cruciality of the livestock sector was reflected in CARE SRP interventions as being in north west, north east, central and south hubs of SRP.

Figure 3: Olive Production in MT by Governorate for 2010

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Olive Production (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idelib</td>
<td>211,863</td>
</tr>
<tr>
<td>Aleppo</td>
<td>206,374</td>
</tr>
<tr>
<td>Latikkia</td>
<td>201,428</td>
</tr>
<tr>
<td>Tartous</td>
<td>96,561</td>
</tr>
<tr>
<td>Homs</td>
<td>75,127</td>
</tr>
<tr>
<td>Dara</td>
<td>59,577</td>
</tr>
<tr>
<td>Damscus</td>
<td>39,632</td>
</tr>
<tr>
<td>Hama</td>
<td>30,679</td>
</tr>
<tr>
<td>Alragga</td>
<td>16,015</td>
</tr>
<tr>
<td>Algab</td>
<td>9,673</td>
</tr>
<tr>
<td>Sweida</td>
<td>7,194</td>
</tr>
<tr>
<td>Qunitira</td>
<td>4,338</td>
</tr>
<tr>
<td>Deir Azour</td>
<td>1,470</td>
</tr>
<tr>
<td>Alhaska</td>
<td>280</td>
</tr>
</tbody>
</table>
2.1.2 AGRICULTURAL CROP MARKETING PRIOR THE CONFLICT

The public sector control over agricultural production was extended to dominate the marketing processes as well, however a direction towards liberalization of agricultural trade started by 1987 moving from state monopoly that tended to set farm prices for most of the products that used to be purchased by the public enterprises. The liberalization process continued till that only cotton, tobacco and sugar prices were set by the government central mechanism. Wheat and barley were priced according to an indicative index set by the government. The General Establishment for Cereals Processing and Trade used to purchase unlimited quantities of wheat and barley based on the declared prices. This pricing policy used to substantially influence the market price; however, the farmers deemed to accept the government price and sell to the public entities as most grain traders would purchase at credit compared to the public institutions that used to pay directly in cash.

2.1.3 MARKETING OF ANIMAL PRODUCTS PRIOR THE CONFLICT

Basically, the marketing of livestock products was a private sector activity, however; the Syrian government used to intervene through setting prices that were limiting high profits margins. The government was targeting the protection of local industries working on the sector from international competition while exerting efforts to have surpluses of livestock products for export.

2.1.4 THE CONSTRAINTS FACED BY THE AGRICULTURAL SECTOR

Even though Syria is endowed with better water resources than some of its neighboring countries, still the water resources are considered scarce especially when compared to its vast agricultural activities. According to Haddad, G., and Széle. S, 2008, the mismanaged water-supply system was another reason that exacerbated the situation that led to migration of a considerable number of Syria population from the rural areas to the over-populated and under-serviced urban areas. The utilization of groundwater for irrigation has dramatically increased since late 1980s where sixty percent of all irrigated area in Syria is currently irrigated by groundwater. Most are privately developed and operated. A substantial portion of the increase in groundwater use is related to irrigated wheat (40%) as well as other industrial crops and orchards. According to Salman, M., and Mualla, 2008, much of the expansion in wheat has been driven by rapid expansions of its price while water cost has remained low while the groundwater costs do not reflect its real value because the energy required for pumping which were also subsidized. The main factors that have the strongest influence on Agriculture
production and need to be considered are, those that influence crop/forage and livestock growth and development. The two most important elements are temperature and water availability; in both situations daily and seasonal variations are common and temporal and spatial quantities are crucial. Extreme weather events (drought/floods) form an integral part of Syria’s semi-arid climate and is not an exceptional phenomenon with cycles of wet and dry years. Over the last 50 years, from 1961 to 2010, Syria experienced nearly 25 years of drought, which represents over 40% of the period (Châtel, 2014). On average, the droughts lasted around four and a half years each, though a drought in the 1970s lasted ten consecutive years (Breisinger et al., 2011). Several droughts of two or more years had a significant impact on agricultural production and livestock in North-East Syria: a drought in 1961 resulted in the loss of 80% of the camel population and 50% of sheep. In the 1998-2001 drought, 329,000 people (47,000 nomadic households) had to liquidate their livestock assets, suffered food shortages and required urgent food assistance, which was ‘not an exceptional occurrence’ (Hole, 2009). The link between climate change and drought in Syria has been highlighted in a number of assessments based on climate models, which predict that the effects of climate change will lead to more frequent and harsher droughts, higher temperatures and lower and more unpredictable precipitation levels (Châtel, 2014).

Farmers in North East Syria and south Syria described the rainfall this year as some of the worst they have witnessed in living memory. Rains in the country did not start until early January 2018 and ended early in March 2018, this was followed by a dry spell which consequently affected the crucial stages of crop development and thus limited yields. Cropping season was topped off by torrential rains which caused flooding mid-May to early June making it extremely unsuitable for harvesting (Mercy Corps, 2018).

Based on the information available and provided by the Syria WFP/FAO and Implementing Partners (IPs) contributing to the Agriculture Working Group (AWG), the recent drought events caused acute water and food shortages coupled with extreme deterioration in health and nutritional status. According to the CFSAM 2018 report, wheat and barley production in Syria 2018 was at its lowest since 1989, with only 1.2 million tonnes of wheat produced amounting to 30% of the pre-conflict average of 4.1 million tonnes. In 2018 only 390,00 tonnes of barley were produced, the lowest it has been since 2008. As mentioned previously the low yield is due to the extended dry period followed by unseasonal torrential rains which affected crop growth. Low yield has subsequently had a negative impact on the livelihood of farmers who are solely dependent on agriculture, particularly small to medium scale farmers growing rain fed crops. Livestock keepers are also affected with reduced pasture and increase in fodder prices. Moreover, drought led to soaring of food and input costs making the most necessities inaccessible to households. Consequently, harmful coping strategies, such as reduced food intake, the sale of livelihood assets, withdrawal of children from school and large-scale migration to urban areas, are rendering affected populations more vulnerable and further from recovery. There might be the potential, high risk that drought and water scarcity can fuel further conflicts among communities and beyond the national borders. Reducing the risks of water-related conflicts calls for reducing the pressures on water resources that heavily contribute to economic, social, political, and environmental disruptions. A further complication is represented by the international water agreements. Turkey and Syria have a long-standing dispute over the management of the Euphrates River. Those tensions have worsened over the past several decades as average annual flows in the Euphrates at the Turkish–Syrian border have declined substantially since 1990, coinciding with both the completion of the Ataturk Dam and an apparent decrease in precipitation in the region.
2.2 POST-CONFLICT MARKET SYSTEM STRUCTURE

2.2.1 CONFLICT IMPACT ON AGRICULTURAL PRODUCTION SYSTEMS

Syria has been witnessing enormous military conflict between the government and various opposition groups since March 2011. The violent conflict resulted in wide destruction of the physical infrastructure. The destruction spread to include the housing and health facilities in a manner that directly impacted the local citizens in various parts of Syria.

The conflict, either directly or indirectly imposed intense constraints over the agricultural activities in both the crop and livestock facets. Many of the agricultural facilities including silos, mills and irrigation structures as well as other economic infrastructure such as roads and bridges became strategic targets of the conflicting parties. The devastating effect hampered the agricultural inputs and outputs supply facilities and networks. The conflict effect spilled over to adversely impact the services associated with production and marketing services providers such as the agricultural cooperatives and banking system, the processing plants as well as the crop protection and veterinary services centers. FAO, in its report “Counting the cost, Agriculture in Syria after six years of crisis” (FAO, 2017), estimated the damage and loss of the agricultural sector at about 16 billion United States dollars as per 2016 prices; however, the conflict is still ongoing, and the cost is still counting.

The sanctions imposed on the Syrian government by the Arab league and the European Union in terms restricting exports and imports have worsened the already dampened economic situation of the country which also suffered from reduction in oil production as most of the petroleum oil fields areas are reportedly under the opposition control. These harsh conditions resulted in leaving around half of the population that remained in Syria with food security problems to the extent of being unable to secure their daily food needs (SNAP, 2013) Another adverse impact of the conflict was the disruption of the formal financial and banking system as well as the informal credit system due to a combination of factors including the escalating risk and spikes of inputs prices.

2.2.1.1 CONFLICT IMPACTS ON WHEAT PRODUCTION IN SYRIA

The food gap in terms of bread scarcity was induced due to several factors including the drop-in wheat production as depicted in figure 5, a situation that prevailed since the start of the crises as despite the availability of arable land and experienced farmers. Wheat production revolved to be practiced in an inefficient manner at the onset of the crisis. The high cost of inputs and unavailability of quality seeds, fertilizers, pesticides and fuel started to be widely faced by wheat farmer who are normally pushed to purchase cheaper low-quality seeds and contracting low quality harvesting machinery that could smashes the harvested grains. The farmers also suffer from the frequent fires that destroy vast areas especially in the north east region of Syria, resulting in a combination with other factors in reducing the annual wheat production by about 60% from about 4.8 to 2 million metric tons between 2006 and 2014 respectively (MOAAR, 2017).

Figure 5 clearly illustrates the drop in wheat area, production and yield all over Syria between the conflict starting period in 2011 and its peak period in 2014, the only prominent exception was Latakia where the production and yield increased by 72% and 52% respectively, spikes that compensated the 12% drop in area. This trend my be attributed to the continuation of the governmental support to that allying governorate.
Figure 5: Wheat and barley annual production in (000) metric tons (2000-2017)

Source: Ministry of Agriculture and Agrarian Reform, moaar.gov.sy/main/archives/

Figure 6: Percentage change of wheat yield, production and harvested area (2011 versus 2014)

Source: Ministry of Agriculture and Agrarian Reform, moaar.gov.sy/main/archives/
2.2.1.2 CONFLICT IMPACTS ON OLIVE PRODUCTION IN NORTHWEST SYRIA

The conflict has a devastating effect on olive production across Syria. The adverse effects ranged from making olive fields as scene of military operations repelling farmers from accessing their field for consecutive seasons. In a comparison between the onset of the crisis in 2011 and at its peak in 2014, indicates that the north west Syria region was the most adversely impacted by the conflict with an average of -71% drop in production of Aleppo, Latakia and Idleb. The olive production of central region followed the same trend with about -48% drop in production over the period 2011 to 2014. The impact was mild on Ar Raqqa and Deir Ez Zor of the north east region while Al Hasakah although being the least in olive production, was the only to report production increase with 28%. The conflict impact extended to the spread of olive pests mainly olive fruit fly (Bactrocera oleae) and diseases such as peacock spot (Spilocaea oleaginea) which cause significant losses in olive fruit yield as well as causing fruit rot and low oil quality, as olive plantations remains unattended for long due to insecurity faced by farmers. The spread of such pests and diseases was also due to lack of government support that used to be rendered by the formal lending institutions in terms of provision of loans to farmers to access quality inputs including seeds, fertilizers, pesticides and herbicides.

Some farmers tended to adopt erosive coping strategies through disposal of productive assets. One of the interviewed olive farmers reported that he had to sell 10 donums of land with 100 olive trees at a price of 50 United States Dollars per tree, whereas the actual price was on the range of 350 United States Dollars in year 2010. Farmers also tended to rely more on family labor to reduce the cost as well as moving towards more child labor.
2.2.1.3 CONFLICT IMPACTS ON LIVESTOCK PRODUCTION IN SYRIA

According to Conforti, P., Ahmed, S. and Markova, 2018) the Syrian conflict caused around USD 2.8 billion losses due to the reduction in the livestock production between 2011 and 2017 in addition to almost USD 5.5 billion incurred due to the sector’s destroyed assets. The sheep and cattle production subsectors were the most negatively impacted by the conflict with USD 2.7 billion and USD 1.5 billion respectively during 2011 to 2017; where the losses were mainly due to poor animal husbandry conditions, as well as livestock being killed or stolen particularly in Al-Hassakeh, Deir-ez-Zor, Lattakia, Quneitra and Rural Damascus governorates. The veterinary services were seriously negatively impacted as the animal health workers were unable to carry the regular vaccination campaigns beside the halt of vaccines production in Syria and the imposed imports restrictions. The collapse of the government support system adversely impacted the dairy value chain. The waned support to the agricultural sector was extended to cause poor fodder production while the amount of crop residues diminished following the trend of the main staple food crops and consequently milk production dropped significantly.

**Figure 9: Milk production 2011 versus 2014**

<table>
<thead>
<tr>
<th>Region</th>
<th>2011</th>
<th>2014</th>
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<tbody>
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Source: Ministry of Agriculture and Agrarian Reform, moaar.gov.sy/main/archives/

**Figure 10: Percentage change of cattle herd size, lactating cows and milk production (2011 versus 2014)**

Source: Ministry of Agriculture and Agrarian Reform, moaar.gov.sy/main/archives/
2.2.1.4 CONFLICT IMPACTS ON POPULATION OF SYRIA

According to the United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA) the number of internally displaced people increased from 4.25 million in 2013 to 6.6 million in 2019 while those who require humanitarian assistance soared from 6.8 to 13.1 million people over the same period. OCHA attributes the drivers of the Syria humanitarian crises to a number of reasons including the escalating violence that resulted in destruction of neighbourhoods of urban centres. The violence triggered a large-scale population displacement that induced disruption of lives of millions of people forcing them to rely on family and community support as well as humanitarian assistance. The third driver of the crisis is the inability of the impacted population to access basic services including health care. The situation is aggravated by the economic decline and the associated loss of jobs and livelihoods that increase vulnerability among large sections of the society including the agricultural sector. The successive price hikes as depicted in figure (11) that affect the basic staples including bread, thus, increase population reliance on humanitarian assistance. However, the severity of the conflict impact differed across the regions of Syria. For instance, the agricultural sector across Al-Hasakeh governorate of north east region was relatively less negatively impacted by the conflict. Being under a stable control of the self-administration this is one of the reasons which result in a stable region since it was relatively less exposed to military operations. In contrast, the north west region of Syria which has been exposed to heavy military operations and frequent bombardments that significantly deteriorated its economic infrastructure, a situation that is coupled by the high rates of internal displacements towards the region adversely affect the population of this region and its agricultural market systems.

Figure 11: Syria Food Basket Price trend (2013-2018) in SYP

Source: https://reliefweb.int/sites/reliefweb.int/files/resources/2019_Syr_HNO_Full.pdf
3. SRP OBJECTIVES AND OUTPUTS

The goal of CARE SRP is that conflict affected households in Syria are supported to achieve a greater level of resilience, mitigate protection risks, avoid negative coping mechanisms and participate in economic life. Increasing resilience, means enhancing people’s ability to anticipate and cope with shocks, while enabling them to adapt and transform in order to manage risks and transition towards recovery of their livelihoods (CARE-SRP, 2019b).

The CARE SRP aims to achieve 6 major outputs through providing support to the vulnerable households within targeted communities as well as provision of protection information to the vulnerable individuals and strengthen the value chain to restore the household incomes as per the following chart.

The support provided through CARE SRP activities contributed in providing the daily food needs for the most vulnerable households as well as supporting the individuals through providing protection information and services. However, the most important aspect of the CARE SRP interventions that made it positively impactful and unique from the commonly known emergency or early recovery intervention is the adoption of the agricultural value chain approach in its FSL programming. This intervention contributed in achieving the resilience of the targeted population while addressing the devastating conditions which had resulted from the Syrian conflict.
Figure 12: SRP Outputs

Output 1: Vulnerable households within targeted communities (VHTC) are supported through temporary income opportunities (particularly during lean times).

Output 2: VHTC are provided with multipurpose cash/voucher grants enabling them to meet their essential needs.

Output 3: VHTC are provided with non-food items.

Output 4: VHTC are provided with regular food assistance.

Output 5: Strengthened and adapted value chains restore and expand household incomes for conflict affected communities.

Output 6: Vulnerable individuals within targeted communities are provided with protection related information and access to specialized protection services and the capacity building.
4. THE INCEPTION PHASE OF CARE SYRIA RESILIENCE PROGRAMME

The inception of CARE SRP included several activities that started immediately after CARE received the DFID grant. Some preliminary discussions were conducted during the fourth quarter of 2016 with the participation of about twenty Syrian professionals as technical representatives from the local communities. The discussion explored the potential value chains and its pertinent selection criteria designed to inform the FSL programming.

To gain wider knowledge and community needs about the implementation strategy on which the CARE SRP was to be implemented, two inception workshops were held in February 2017 in Amman and Gaziantep (CARE-SRP, 2017). Those workshops facilitated setting up the CARE SRP implementation strategies, implementation plans, structures along with the operational roles and responsibilities and supporting systems across CARE and its implementing partners. Four hubs were identified (northwest Syria, northeast Syria, central Syria and southern Syria). The CARE SRP management established communication lines across the hub levels, with an overall central programme management unit (PMU) reporting to DFID. There was also a central monitoring, evaluation, accountability and learning system (MEAL) unit which was established. Furthermore, CARE selected its implementing partners and thereafter, the selection process of the value chain resumed with consultation with the local stakeholders.

The CARE SRP inception phase witnessed a base line survey which was conducted between March and April 2017. The survey covered the northern, central and southern SRP hubs as indicated in figure 8 the map. With a sample of 903 potential beneficiaries, the baseline assessment managed to gather some important information, where divergent needs and types of coping strategies adopted by conflict affected households were identified. Those differences even extended to the household vulnerability situations and population resilience capacities across the surveyed locations. The survey results highlighted that households headed by women and including persons living with disability tended to be more vulnerable.
The survey identified the nutrition and food access gaps that resulted from the conflict and its associated livelihoods shocks. The baseline survey results indicated that the assessed households had an average food consumption score (FCS)\(^2\) of 37.29 which falls within the borderline threshold indicating that those households used to consume staples, vegetables oil and pulses a few times a week. The FCS among the three SRP hubs averaged 56.25% for acceptable\(^3\) food consumption, 35.02% for borderline\(^4\) food consumption, and 20.61% for poor\(^5\) food consumption. The situation attributed from one side to the relatively limited access and utilization of arable land and agricultural production; while the excessive influx of the internally displaced people increased demand on the already shortened food items supplies.

### 4.1 INCEPTION PHASE CHALLENGES

- Despite having recruited personnel for the key positions across the three hubs; the main challenge faced by SRP during the inception period was the delay in recruiting personnel for a variety of positions. This was mostly due to the relative lack of qualified and experienced national humanitarian workers in Syria.
- The escalating insecurity conditions resulted in limited access to project sites and disturbance of the set plans.
- The personnel recruitment delays and the disturbance of the project implementation resulted in underspending of the allocated SRP financial resources during the first quarter of the first year of programme implementation.

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2 The food consumption score is a measurement used as an acceptable proxy indicator to measure caloric intake and dietary quality at household level, giving an indication of overall food security status. It is a composite score based on dietary frequency, food frequency, and the relative nutritional importance of different food groups. Dietary diversity is the number of food groups consumed by the household over the past seven days. Food frequency is the number of times that a specific food item has been consumed by a household over the past seven days.

3 **Acceptable food consumption**: households that are consuming staples and vegetables every day, frequently accompanied by oil and pulses and occasionally meat, fish and dairy.

4 **Borderline food consumption**: households that are consuming staples and vegetables every day, accompanied by oil and pulses a few times a week.

5 **Poor food consumption**: households that are not consuming staples and vegetables every day and never or very seldom consume protein-rich food such as meat and
5. VALUE CHAIN APPROACH DESIGN

The value chain approach and design followed a systematic process developed by CARE international which considered the most likely conflict scenarios for each location and followed a Do No Harm approach. 1) Value Chain Selection 2) Women’s’ engagement in value chains 3) Risk identification and management and 4) Theory of change development. The designed interventions planned for household support to meet their basic needs, enhance community strengths, and empower market capabilities.

5.1 VALUE CHAIN SELECTION

Communicating the value chain approach that CARE intended to implement within the SRP was a foundation step. This task was conducted through holding workshops that engaged all relevant stakeholders and technical representatives of the local communities in the value (VC) selection process across the four defined hubs/regions of Syria. The value chains were selected according to specific criteria within the following four dimensions: 1) economic; 2) social; 3) environmental; and 4) institutional.

The workshops managed to identify nine potential value chains. However, the local experts with their in-depth knowledge of the Syrian context reached a consensus on the selection of VC that best address the basic needs, enhance community strengths, and empower market capabilities.

The following value chains were selected:

- South Syria: Food processing and Livestock value chains;
- North West Syria: Wheat, Olive and Livestock value chains;
- North East Syria: Wheat and Livestock value chains; and
- Central Syria: Food processing and Livestock value chains.
The assessment of the selected VCs was conducted by iMMAP in full collaboration with CARE team and participating partners as part of the partnership that was signed with CARE at the end of 2017. The assessments covered the value chains functions through individual in-depth interviews conducted with producers, processors, traders, service and input providers and key informants.

The process was also accomplished through focus group discussion with the consumers where the data collection and focus group discussions were conducted through CARE partners inside Syria. The collected information assisted in producing market systems maps that assisted in understanding the relationships among the value chain actors. The maps also helped in comparing the baseline and emergency affected situation over time. The analysis pointed out the value chain’s crucial support services and infrastructure as well as strengths and constraints; where the market expansion opportunities were identified. The identification of these aspects assisted in prioritizing the solutions and interventions based on the planned SRP.

5.2 WOMEN’ ENGAGEMENT IN VALUE CHAINS

The CARE SRP put clear emphasis on women support and worked to ensure “Gender Equity” across all implemented activities aimed at food security and livelihood restoration outcomes. The selected value chains and livelihood activities under the CARE SRP were designed to expand Women’s Economic Empowerment (WEE) across the targeted communities. This objective was translated through active women participation in the economic activities availed by the value chain informed FSL programming under the CARE SRP. As for instance the livestock-dairy value chain, was mainly designed to support women-headed and vulnerable households through capacity building to improve/build their skills in milk processing for producing high quality dairy products. In the same direction, some cash for work activities were designed to suit women and refrained from putting them at risk, this included women preferred work like harvesting olive fruits. Some training sessions were fully dedicated to women only while preserving the local norms that does not welcome women to attend events with men. The support to women extended to include the in-kind assistance where 30% of these assistances were gender sensitive and directly received by women. All these livelihood activities were implemented with the lens of the CARE’s Gender Action Plan (GAP) which is an essential component of CARE’s commitment to achieve the goal of gender equality and it is also a strategic tool to help CARE and its Implementing Partners’ (IPs) management ensuring that gender focus is upheld at every stage of the programme cycle management.

5.3 RISK IDENTIFICATION AND MANAGEMENT

Considering the highly dynamic context of Syria under which the SRP is being implemented, the programme management developed a risk matrix where the top 15 risks associated with the SRP are listed. The regular monitoring and reporting by the SRP hubs management units assisted in risk mitigation and anticipation.

5.4 THEORY OF CHANGE DEVELOPMENT

The theory of change (TOC) (also known as the causal model) summarizes the overall SRP goal and purpose; while identifying the causal linkages between the SRP activities and the anticipated outcomes and impacts. The SRP theory of change communicate the programme objectives to a wide range of stakeholders including internal audiences, partners and project participants (Operations Partnership, 2019). The planned main change is a result whereby, families and communities affected by conflict have achieved a greater level of resilience, can mitigate protection risks and participate in economic life.
6. IMPLEMENTATION OF THE SELECTED VALUE CHAINS

Starting from the objective of supporting and restoring the productive assets of the crises impacted communities, the value chain approach facilitated the FSL programming under the SRP. The implementation of the designed activities was merely in collaboration with the experienced local implementing partners that have humanitarian access to project sites across the four hubs of Syria. The value chain approach was designed to extend from supporting the production cycles to the local markets to reinforce the private sector to take the lead; as several opportunities materialized after the withdrawal of the governmental subsidies. The CARE SRP interventions targeted the whole community including females, people living with disabilities (PLWD), internally displaced people (IDPs), and host communities; the targeted beneficiaries were selected by applying household identification criteria based on different aspects. The household vulnerability was the starting feature followed by the eligibility criteria, access to productive assets (land, livestock... etc.). The willingness of the beneficiary to participate in the intervention and its associated trainings and in capacity building activities was also considered a primary selection criterion.

iMMAP, as contracted by CARE, conducted the agricultural value chain assessments across Syria; where the assessments were used to inform and adjust FSL programming. Furthermore, after a considerable period of SRP implementation iMMAP conducted the impact evaluation assessments of the value chain informed FSL programming under the SRP. The purpose was to assess how the household food security and livelihood status have been influenced by the value chain interventions. CARE SRP rolling baseline beneficiary registration data and follow-up survey data of the wheat and olive value chains were used for the impact evaluation analysis purpose. The analysis is supported by Agricultural market system maps that explore the linkages between various market actors, the produced maps are provided in the following sections.
CARE faced constraints in implementing the value chain activities across the northeast region of Syria due to delays and challenges either emerged from the volatile security condition or to constraints associated with the procurement of agricultural inputs due to their unavailability in NES local markets. However, some of the planned SRP activities were implemented in northeast Syria and reported by CARE, namely the wheat and livestock value chains supported.

6.1 THE WHEAT VALUE CHAIN

6.1.1 COMPARATIVE ANALYSIS OF THE WHEAT VALUE CHAIN ACROSS SYRIA

PRODUCTION

The land tenure differs between northwest (NW) Syria and northeast (NES) Syria in terms of unit land size per farmers in NW Syria is about 5 to 10 hectares, revealing small to mid-scale of wheat production that involve only about 10% of the region’s population. In contrast 50% of the local population of NE Syria currently involved in wheat farming while the land ownership in this region ranges from 3 to 26 hectares with a mode of 15 hectares per farmer. Despite the relatively larger land ownership across NE Syria, a considerable number of farmers in the region would not be able to cultivate the entire owned land due to difficulties that include expensive inputs and lack of governmental support. The private sector at both regions tended to fill the gap emerged following the government withdrawal from supplying the production inputs. In NW Syria, the Syrian Public Establishment of Grains supported by the local council and some local NGOs continued providing farmers with seeds, however its limited capacity mobilized the inputs traders to respond to the market needs. A similar situation existed in NE Syria as the local traders play the same role. The private sector also tends to participate in the wheat value chain through provision of machinery operation services as well as the chemical inputs supply (fertilizers and pesticides). Rains constitute a major source of irrigation at both regions, the farmers tend to utilize the underground water for complementary irrigation. The local council of NE Syria provide subsidized fuel to the wheat farmers for operating of the diesel-powered pumps and machinery. Family involvement in farm works is common in both regions however the reliance on family member is more dominate in NW Syria for performing activities such as seeding, plowing, weeding and mouse eradication. Wheat harvesting in NW Syria is mostly done by hired workers and/or agricultural machinery. Local workers and IDPs are the current workforce in the area. Mechanization is more prominent in NE Syria, wherever farmers in that region tend to hire more workers to help in land preparation seeding and harvesting.

TRADE

Traders perform important supporting activities for the wheat to bread value chains of both regions. 75% of NW Syria produced wheat is sold directly to local grain traders and consumers while around 20% of the production is sold to local councils. NE Syria traders tend to purchase about 80% of the produced wheat. The local traders’ channel most of the purchased quantities to the Agricultural Community Development Company (ACDC) as well as to the General Establishment for Cereal Processing and Trade (HOBOOB). The agricultural loans and official financial services are not available across NW Syria, which implies financial stress on the traders in the form of limited cash capital to be able to finance the business transactions. NE Syria traders are considered better as being able to perform their transactions in cash. Warehousing services tend to be provided by traders especially after destruction of grain silos, Traders prefer to store their grains in open areas as silos are being considered as strategic military targets.
PROCESSING

Several mills and bakeries previously operated by the government in NW Syria are not functioning due to conflict-related issues such as destruction and lack of maintenance. SPEG stepped in through the local councils to manage the remaining mills and bakeries. However, the production of this initiative could not cover the market demand completely. As a result, many private mills and private bakeries are newly established in the area to cover the demand for wheat flour and bread.

The milling and bread making in NE Syria used to be regulated by the ACDC, the company continued to play its role at the remaining functioning mills and bakeries while still receiving inputs (fuel, flour and yeast) from the Syrian government. The public bakeries supply 80% of NES bread needs. Due to the limited milling capacity of the local ACDC mills, several private mills were established in the area to bridge the gap in the local market supply. In parallel to the public-bread system, private bakeries are also active in producing bread. The private bakeries can register with the local councils to receive a specific amount of flour to bake regular bread; while can also work completely independently from the public bread system to produce a higher quality ‘private’ bread by utilizing high-quality flour (white flour) that is either domestic or imported from Turkey through Iraq. The wheat bran produced during the milling process is mainly purchased by livestock owners for use as fodder especially in NE Syria where farmers tend to own livestock beside their crop farming activities.

CONSUMPTION

Wheat and wheat products are staple food commodities to the Syrian households. The wheat producing households tend to maintain at least a part of their annual requirements from their own production. While the non-producing households are net purchasers of wheat, bulgur, and flour from the local retailers. Regarding consumption quantities, the consumers reported that the weekly consumption per person of bread ranges from 6 to 7.5 kg compared to 5 to 6.5 kg per person across NW Syria and NE Syria respectively. This high staple-dependency especially in NW Syria is probably the main food security coping strategy used by the Syrian population to overcome the high prices of vegetables and proteins. The local and international humanitarian agencies were reported to distribute wheat flour to the population across NW Syria and NES Syria on a regular basis to the beneficiaries of food parcels.

VALUE ADDITION

The following value-added trajectory is based on average costs and revenues calculated for NW Syria wheat value chain. Farmers net profit gained from wheat grain sales reaches about 48% to 52% of the invested capital. Traders gain 7-11% profit upon selling to milling plants. The milled flour brings a margin of about 20% while the bakeries acquire 14% margin. Hence the wheat value chain in NW Syria provide about 90 to 96% value added. Although the details for NE Syria wheat value chain would be highly expected to achieve higher returns on investment due to the economics of scale in terms of land size cultivated by farmer which is almost double the average size of land cultivated by NW Syria wheat farmer.
6.1.2 WHEAT VALUE CHAIN BENEFICIARIES SELECTION AND CARE SUPPORT

The targeted beneficiaries were identified after a vetting process based on a set of household vulnerability and eligibility criteria such as the verification of landownership and having a source of irrigation water if the farmer was intending to cultivate soft wheat variety. The CARE SRP supported those farmers by provision of 200 kg of pure certified wheat seeds with high germination rate for cultivating one hectare of land for each household. The distribution of seed also fulfills the objective of restoring and enhancing the local seeds varieties. The support package also included herbicides, pesticides and 200 kg of urea fertilizers. However, the distribution of fertilizers was conditioned to verification of accomplishing the wheat sowing phase using the wheat seeds as distributed by CARE (CARE-SRP, 2018a). The VC support included agricultural extension services and farmers training on the best wheat crop cultivation and harvesting practices. At the community level, the cash for work modality was used to support the wheat production value chain through work related to opening fire lines for fire prevention. The support continued at the market systems through initiatives to improve irrigation structures, storage, and wheat processing facilities.

6.1.3 WOMEN INVOLVEMENT

The wheat value chains across both the NW Syria and NE Syria are a male-dominated sector. However, females are involved in supportive activities along the VC, such as harvesting, sewing packing bags, selling at retail shops, processing of bulgur and freekeh. This finding matches the known gender dynamics of the Syrian society, where women involvement in the VCs as commercial actors is very limited due to limited capital possession and gender-biased socioeconomic societal structure. However, women-led business happens as a coping strategy when the male breadwinner of the family is missing (for example, in widow-headed households).

Women-led household-based production and processing is standard in the region, for securing the household needs and generating some income by selling the rest of the production to the neighbouring families. However, due to the challenging nature of the wheat value chain and the limited household-based processing compared to other VCs (such as in the dairy sector for example), opportunities targeting women among the wheat value chain are limited.

6.1.4 CARE-SRP IMPLEMENTATION OF THE WHEAT VALUE CHAIN – NORTHWEST SYRIA

The wheat value chain in the northwest Syria hub targeted 3,700 farmers in 74 villages across 6 sub-districts. The initiative started by advertising for the activity by a local committee consisting of community representatives, and CARE SRP field monitoring team. The committee first filtered the applicants based on the household eligibility and vulnerability criteria and then secondly conducted visits to verify the land ownership and accessibility(CARE-SRP, 2018b). From another perspective, part of the wheat value chain support financial resources was devoted for rehabilitating some of the agricultural infrastructure across the northwest Syria region. In this regard, the SRP managed to establish new grain warehouses at Al-BAB, Azaz and Jarablus districts. The SRP support was extended to rehabilitation of 12 Silos in Akhtarin that were damaged during the conflict. The SRP rehabilitated a bridge in Suran that facilitated the farmers access to their lands and as well as trucks movement in the area. The wheat VC also intervened in cleaning Suran at Kafrghan and Jarablus from accumulated waste to improve the irrigation of the surrounding wheat fields(CARE-SRP, 2019a).
6.1.5 CARE-SRP IMPLEMENTATION OF THE WHEAT – NORTHEAST SYRIA

Despite being the main wheat producing area in Syria, the northeast Syria (NES) region was negatively impacted by the conflict and the resultant withdrawal of the government agriculture support. The wheat value chain faced several challenges in terms of the inaccessibility to subsidized agricultural inputs significantly augmented the farming and processing costs and products prices coupled by adverse climate conditions. These challenges induced wheat average production at Al-Hasakeh governorate to be only about 16% (IMMAP, 2018) of pre crises levels. However, having less intensive military operations compared to other parts of Syria, the agricultural production in northeast Syria remained relatively better off as compared to other regions. Regarding the wheat value chain activities, CARE SRP supported the wheat farmers with agricultural inputs as well as preparing for conducting 5 Farmer Field Schools (FFSs) to train 100 farmers.

Unfortunately, the project for seed propagation did not managed to take off due to the unavailability of pure certified seeds in NES markets. The project was planned to be implanted for 2019/2020 season.

674 workers were recruited under two cash for work activities rounds which started early December 2019 and continued for a month. The workers managed to perform weeding of wheat fields to improve the crop establishment and get rid of harmful weeds. They also managed to transfer the animal manure from livestock farms to crop fields for improving the soil fertility, and subsequently improved wheat production.
Figure 13: Wheat Market System Mapping, Key challenges, and Opportunities

The Market Environment
Institutions, rules, norms & trends

- Cross-border taxes
- SYP Depreciation
- Laws and Regulations
- Water Scarcity
- Agriculture Plan and Loans
- Climate Events
- Gov-led production
- Business Network
- Quality Control

OCT 2017

Value Chain
Market actors & their linkages

- Aid Agencies (Local and international)
- Local Councils
- Large Commercial Farms
- Grain Traders
- Retail Market Prices
  - Price of Flour (SYP/kg): P(2010) 22 - 30
  - Price of 1kg Bulgar (SYP/kg): P(2010) 50 - 30
  - Price of 1kg Bread (12 loaves) (SYP/kg): P(2010) 15
- Private Mills
- Retailers
- Local Households

Key Infrastructure
inputs, market-support services

- Expensive Fertilizers and pesticides.
- Poor Roads
- Transport
- Electricity
- Fuel
- Financial Services
- Credit based trade
- Machinery
- Silos

Source: Mapping of Wheat, Olive and Dairy Market Systems in opposition-held areas of Idlib, Hama and Aleppo
Figure 14: Derek and Qamishli Districts Wheat Value Chain

Source: Mapping of Wheat and Small Ruminants Market Systems in Al-Hasakeh Governorate

Value Chain
Market actors & their linkages

Key Infrastructure
inputs, market-support services

Price of Wheat Grain (SYP/kg):
P (2010): 14
P (2018): 140

Price of Flour (SYP/kg):
P (2010): 10
P (2018): 100-200

Price of Bulgar (SYP/kg):
P (2018): 250

Price of Reg. Bread - 16 loaves (SYP/kg):
P (2010): 15
P (2018): 50

Price of IRD Bread - (SYP/kg):
P (2018): 20

Price of Private Bread - (SYP/kg):
P (2018): 250

Farmgate Prices
Wheat Grain (Mostly Soft) (SYP/kg):
P (2010): 14
P (2018): 135

Retail Market Prices
Price of Wheat Grain (SYP/kg):
P (2010): 14
P (2018): 140

Price of Flour (SYP/kg):
P (2010): 10
P (2018): 100-200

Price of Bulgar (SYP/kg):
P (2018): 250

Price of Reg. Bread - 16 loaves (SYP/kg):
P (2010): 15
P (2018): 50

Price of IRD Bread - (SYP/kg):
P (2018): 20

Price of Private Bread - (SYP/kg):
P (2018): 250

Water Scarcity
Roads
Banking and Financial Services
Fuel
Silos
Expensive fertilizers and pesticides.
CROP DISEASES
Machinery Maintenance
MILLING CAPACITY
Credit based trade
Electricity
High Production Seeds

Exchange Rate Volatility
SYP Depreciation
AID Wheat Products
Aromatic Crop Farming
Laws and Regulations
IDPs
Agriculture Plan and Loans
Intersection with other VCs
Climate Events
Quality control
Gov-led production
Business networks

The Market Environment
Institutions, rules, norms & trends

May 2018

May 2018

May 2018
6.2 THE OLIVE VALUE CHAIN– NORTHWEST SYRIA

PRODUCTION

Olive production ranges from small scale household-based farming with few olive trees for family home based processing and selling surplus in the market. Commercial farming is also common in the region. Winter is the high season for olive production. The owned land area cultivated with olive trees starts as small as four dunams up to 1 hectare.

Regarding farming inputs, the olive cultivation is mainly rainfed due to low water resources for irrigation. In case of low rainfall, farmers use wells and water tankers for supplemental irrigation. The private sector is the leading provider of seeds and chemical inputs (fertilizers, pesticides).

Olive farming is mainly family-based in terms of workforce. All the family members are involved in the process, including females. The activities include cultivating the land, trimming, weeding, watering and harvesting the crop. For the larger scale production, workers are recruited to support family members, particularly in the harvest season. Female workers are the majority, mostly older than 18.

A significant percentage of the population in the areas of the assessment reported being involved in the olive value chain. Income from this VC as a percentage of the total household income ranges from 10 to 100 %, which includes olive production, picked olives, and soap making.

TRADE

The olive traders buy the farm olive production from the small and large-scale olive farmers. Later, the olive trader sells the yield mainly to the local oil presses for oil production, some of the olive yield are sold to the local retailers. Olive oil is either sold directly to the consumer at the presses or through the local retailer shops. Olive and olive oil exports were common before the crisis. Currently, it is not possible to export due to the significant drop in production, which is almost enough for the local consumption. In addition, the absence of oil certification prevents olive oil exporting. Many traders reported income shares from oil trade as a percentage of the total household income in a range higher than 50%. The olive trade market is quite competitive; the market has several players at every level of the value chain. The market entry capital is high because of the currency depreciation, overpriced inputs due to scarcity and unavailability of financial services and credit-based trade.

PROCESSING

Olive processing is a main economic activity in the region. Pressing olive to olive oil is the main olive processing-based production due to the high added value of the olive oil. Processing oil production is mainly factory-based, a limited portion being processed at household level, mainly for pickling and soap manufacturing. The oil presses later sell the olive oil to the retailers and directly to the local consumers. The current unavailability of quality assurance mechanisms for the olive oil is one the main challenges facing olive processing according to the processors. A central government-led quality control measures, and certification system was in place before the conflict and is no longer operational. The olive oil used to be examined by a reference laboratory against a specific list of quality measures (purity and virginity). Based on the tests, a quality certification that qualifies oil for proper pricing and exporting is given. The absence of this system led to lower quality olive oil in the market.
CONSUMPTION

Olive oil is a known essential item in the Syrian food basket. Households reported a range of 0.25 to 0.5 L of olive oil per person per week, which is around 12 liters annually per person. In case of unavailability of olive oil in the market, the population reduces their olive oil consumption by mixing it with sunflower oil or replace completely with sunflower oil.

WOMEN INVOLVEMENT

The olive value chain is a male-dominant activity. Females are heavily involved in several activities along the value chain. During the olive farming, family females are involved in picking and weeding. The home-based processing activities (olive pickling and soap production) are done by women (wives and daughters). Also, female workers were reported as part of the workforce of farms and shop.
Figure 15: Olive Market System Mapping, Key Challenges, and Opportunities

The Market Environment
Institutions, rules, norms & trends

Value Chain
Market actors & their linkages

Key Infrastructure
inputs, market-support services

Source: Mapping of in opposition-held areas of Idlib, Hama and Aleppo
JAN 2019

<table>
<thead>
<tr>
<th>Critical Issue</th>
<th>Major Disruption</th>
<th>Partial Disruption</th>
<th>Oil</th>
<th>Olive</th>
<th>Pickles and Soap</th>
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Price of Olive (SYP/kg):
- P (2017): 250 - 300
- P (2018): 250 - 400

Price of Olive Oil (SYP/Lt):
- P (2010): 150 - 300
- P (2017): 800 - 1850
- P (2018): 900 - 1000

Price of 1kg Soap (SYP/kg):
- P (2017): 1500
- P (2018): 200 - 250

Price of Olive Oil (SYP/Lt):
- P (2010): 150 - 300
- P (2017): 800 - 1850
- P (2018): 900 - 1000

Source: Mapping of in opposition-held areas of Idlib, Hama and Aleppo
The olive value chain was designed to strengthen the links among its various actors. Considering improving the livelihood of the targeted beneficiaries; the needs and opportunities of each actors’ segment dictated the various modes of interventions applied at each level. The interventions included farmers training on the best practices for olive production and harvesting processes. They received training on the appropriate method of olive trees pruning. The farmers support included plant protection services to limit the adverse effects of the spreading insects and olive fungal diseases. While addressing the community needs, the cash for work modality was also used for involving women in olive fruit harvesting. Women also received training in olive pickling. The value chain involved the processing cycle through the support provided to oil pressing units’ owners in terms of stainless-steel oil tanks, fire extinguishers and oil quality check kits. The chain involved support to oil marketing through purchasing the produced oil which was followed by its distribution to the vulnerable women headed households with a 16 kg olive oil container. The total number of olive VC beneficiaries was 270 farmers with less than 100 trees where 14% of the selected farmers were females. This category of farmers was identified as the most vulnerable among the different wealth groups within the farming VC. The targeted farmers selected five nearby oil mills which received the above-mentioned support while accepted to provide their services free of charge to the olive VC farmers for one season(CARE-SRP, 2018a).
7.1 THE LIVESTOCK VALUE CHAIN

7.1.1 COMPARATIVE ANALYSIS OF NW AND NES LIVESTOCK VALUE CHAINS

PRODUCTION

The livestock value chains across north west Syria and north east Syria differs in terms of scale and production types. The dairy product across NW Syria is generally a home-based activity that was more common before the crisis as almost 70% of the households used to own dairy cows compared to only 30% during 2018. The NW Syria farmers owns a small number of cows or goats (ranging from 3 to 10) producing 50-100 kg of milk for family consumption and sell the surplus to neighbouring households for income. However, a large-scale dairy production farms also existed which can produce up to 6,500 kg of milk per day but the grazing areas in the northwest Syria are insufficient; rainfed fodder is the primary source of dairy livestock feeding. In contrast, the livestock production in NE Syria tend to be a commercial activity where the farmers usually own a herd of 30 to 200 heads of small ruminants. A practice that coincides with the agricultural nature of the area, where the wheat and barley fields provide vast considerable supplies of green and dry pasture. At this area, the average milk production ranged between 0.5 - 1 kg of milk per head of small ruminant depending on the head nutrition, health, age and season. Most of the milk quantity is sold after processing as dairy products. Just a small amount is sold as raw milk. Around 10% of the production is kept for the household consumption, and the rest is sold directly to the locals or retail shops.

Concerning the offspring reproduction of livestock, the NW Syria farmers tend to receive a calf every year provided that proper veterinary services including artificial insemination are timely provided while across NE Syria, an average of 70-head herd tend to produce 40 lambs per season. Male sheep are kept and fed until one year old at least and then sold for meat production. The female lambs are kept and fed till the reproduction stage for dairy production. The sharp increase in production costs especially the rations and unavailability of supportive governmental policies that led to inadequacy of veterinary services induced the livestock population in NE Syria to significantly drop after the onset of the crisis. There are certain common challenges facing livestock production at both areas including the high market entry capital and the negative impact of drought on pasture availability. However, milk producers indicated their need for refrigerators for cold storage as well as the need for electric generators due to frequent power cuts.

TRADE

The involvement of brokers is common either in milk selling across NW Syria region or in trading of small ruminants across NE Syria. Across NW Syria milk collection is an active intermediary trader who collects the milk from small scale farms and households, to transport it to traders, retailers, households and processing factories. While across NE Syria, a broker plays an intermediary role in facilitating the transactions from farms to livestock traders and butchers. He/She mediates heads purchasing from farmers to traders, butchers and consumers against specific quality measures. NW Syria is witnessing high demand for dairy products due to influx of IDPs and high vegetable prices. The demand for small ruminants is raised mainly through exports of male sheep and goats to other governorates in Syria. Iraq used to be a significant demand source however, the border crossing policies are changing frequently altering the exporting plans, costs and trade profits. The retail dairy shops across NW Syria are run mainly by family members, while workers are hired on needs based. The employed workforce is from IDPs or locals from the same villages or nearby ones. Similarly, most of the small ruminants’ traders across NE Syria depend on their family members as workers. However, some of them tend to hire some workers to support their business.
The worker helps in maintenance and cleaning the barn and the animals. The challenges facing dairy trade across NW Syria region includes lack of market information (on commodity availability and prices, high percentage of waste due to unavailability of refrigerators as well as lack of larger tanker trucks to transport the milk. On a similar note, the small ruminant traders face certain challenges in terms of expensive transportation and maintained and poor roads conditions. They also suffer from unavailability of official banking and financial services

**PROCESSING**

The dairy processing in NW Syria follows the production pattern as being a home-based activity. The dairy processing mainly addresses the family’s needs of yoghurt and cheese. The extra amount can be sold to neighbours for income. Similarly, dairy processing across NE Syria takes place at the household level where the herd owner processes the milk and sells the dairy products for income, however a second level of commercial dairy workshops also exists at that governorate as well as across NW Syria region but the processing factories are small-scale workshops, where products are sold directly to consumers or to traders. Small ruminants across NE Syria are also kept for meat production where the butchers are the main processors involved in this value chain. Butcher shops sell small ruminants’ meat to the local population. The male sheep and goats at the age of 1 year at least are subject to be sold to butchers or consumers for meat production.

**CONSUMPTION**

Both of dairy products and meat production from small ruminants are main source of protein and constate essential diet for the Syrian population. The current average consumption of milk and yoghurt in the NW Syria region is 2 to 6 kg weekly per person. The demand for dairy products increased after the conflict as vegetable prices are high. The local population used dairy products as substitutes for vegetables and meat, which have tended to be more subject to price variations. The current consumption across NE Syria of dairy products per person are almost half the pre-crisis quantities. Some households even do not consume meat at all due to their low income and overpriced meat. The locals report consumption quantities in an average range in kg per person per week. Yoghurt, cheese, and, meat is consumed per person per week in ranges of 0.5-1kg, 0.25-0.5kg, 0.15-0.5kg, respectively.

**WOMEN INVOLVEMENT**

Women involvement across NW Syria dairy value chain is limited as it is a male-dominant activity in terms of assets ownership and business management while the home-based production is mainly done by family females (wives and daughters). However, females represent 40 to 70% of workforce at dairy processing workshops. The same situation regarding business ownership exists at NE Syria however, the women involvement in small ruminate value chain is more prominent due to the larger scale of dairy and livestock husbandry activities in the region. Women are heavily involved in several activities along the value chain, starting from animal keeping to dairy processing.
7.1.2 CARE-SRP IMPLEMENTATION OF THE LIVESTOCK VALUE CHAIN – NORTHWEST SYRIA

The dairy sector is one of the main food sources for population of northwest Syria as well as a source income for the poor rural households in the region. The targeted farmers used to produce milk for their own household consumption and sell the surplus to neighboring households and processing factories for cash. The shortage of fodder supplies and inability to go for the natural grazing due to the escalating insecurity situations intensified the need for support in availing feed and fodder in northwest Syria (NWS) hub. The livestock and dairy value chain programme supported the dairy farmers who own very small number of dairy cows or goats with green fodder and veterinary services. The dairy VC interventions implemented by the Islamic Relief Association (IYD) and WATAN, the local implementing partners of CARE international tended to involve the entire value chain actors while strengthening the interlinks among them. This process succeeded in improving the quality of the dairy products that the ultimate consumer purchase. 321 livestock owners benefitted from livestock value chain services including mobile clinic, para-vets training, vaccination campaigns, and artificial insemination in addition to the barely green fodder produced from the hydroponic barley production units.

The dairy value chain managed to establish three mobile clinics for providing the veterinary services to the project beneficiaries. 17 male technicians were hired and provided with para-vet training to work under the supervision of an expert veterinarian who manages each clinic. These technicians were hired to work for the three mobile clinics (three in Aleppo, and one in Idlib) under the supervision of an expert veterinarian who manages each clinic. The cows of 123 beneficiaries received artificial insemination (AI) as part of the mobile clinic services in addition to 2 vaccination campaigns that reached 11,584 herders(CARE-SRP, 2018b). 10 hydroponic barley production units were established for producing green fodder at a fairly calculated fixed price. Having the home-based dairy production proved to be a preferred female dominate activity, thus, CARE SRP established 42 women groups who own 202 livestock units collectively. And in order to improve the marketing capabilities of the established farmer groups as well as the market component of the dairy VC; the women groups were provided with training on a number of topics including food processing best practices, HACCP (Hazard Analysis Critical Control Point), basics of animal health, and business management. An assessment of the VC was conducted in April 2019, the results indicated that 98% livestock owners were satisfied with the services provided by the mobile clinics and reported that positive improvements had been observed in the cows’ health, while 91% were very satisfied with the quality of the distributed green fodder.

7.1.3 CARE-SRP IMPLEMENTATION OF THE LIVESTOCK VALUE CHAIN – NORTHEAST SYRIA

The well-established crop production activities in Al Hasakeh governorate used to significantly support the livestock value chain in terms of the availability of feed and crop residues. Despite this statement, the conflict significantly disturbed the livestock production in north east Syria. In that regard, CARE SRP intervened through distribution of livestock inputs such as provision of fodder and vaccination campaigns. 527 livestock owners who were unable to vaccinate their livestock due to lack of financial resources for vaccines and veterinary services were reached through 8 vaccination campaigns. 100 milk processing kits were distributed households under the livestock VC support the family’s income.

Another important form of support was the training delivered through 2 farmers field to 13 female farmers and 12 male farmers who own livestock where CARE SRP managed to train them on the chemical treatment of straw to increase nutritional value of animal feeds produced at household level. This practice resulted in improving the animal’s productivity and families’ income. The training component was extended to 75 female livestock farmers by providing them 4-day training on business management. Each of the participants was provided a small grant of 900 US Dollars to start up their businesses and/or or expand their existing businesses. The support to livestock value chain was also supported by distributing 100 milk processing equipment kits to 100 HHs.
7.1.4 CARE-SRP IMPLEMENTATION OF THE LIVESTOCK VALUE CHAIN – BEIRUT PARTNERSHIP PROGRAMME OFFICE (BPPO)

After having the government taking over the opposition territories in Central and South Syria; CARE renamed the central hub to Beirut partnership Programme where the activities of this hub are coordinated from CARE office in Beirut. The SRP initiated a dairy value chain support to 200 farmers in Dar’a governorate to improve milk production and family income. The supported package include distribution of 3 pregnant ewes, a fodder kit and a set of dairy processing equipment to each of the targeted vulnerable farmers. A registration and a base line survey were conducted. Unfortunately, most of the distributed ewes were not pregnant at the distribution time which resulted in many complications followed by a political unrest in Beirut that constrained the cash transfers towards the end of 2019. The project was re-initiated for supporting 400 cattle owners with fodder and veterinary services. The base line survey has been conducted while the end line will be done towards April-May 2020 to assess the VC impact on livelihood and food security status of the beneficiaries.

7.2 THE ENVIRONMENTAL ASPECTS

Despite the pressing conflict context across Syria, environmental aspects, still received attention as reflected in certain intervention practices. Among the main environmental aspects taken into consideration, was the ban on utilization of Nitrate fertilizers which can increase toxicity especially in the aquatic environments beside its dual usage as can be an ingredient for explosives manufacturing in a conflict context. The implementation of integrated pest and disease management (IPDM) approach in controlling olive pests and diseases, was a vital contribution for environmental preservation. The concern about the environmental issues was reflected in the installation of 40 insect traps during the first quarter of 2019 for the observation of olive fly infestation in the NWS region, where the pesticide application would be confined to reaching the economic threshold. Although a spraying pesticides campaign was launched in September 2019 covering 23,020 olive trees in 4 communities in Idleb, a decision was taken to hold that operation in the fields located nearby the camps as perceived harmful to camps residents (CARE-SRP, 2019b). The cash for work modality was used to get rid of solid waste and other environmental interventions such as the cleaning of Suran river from wastes.
## Figure 16: Dairy Market System. Mapping, Key Challenges, and Opportunities

### The Market Environment
Institutions, rules, norms & trends

- Imported Dairy Products
- Crossing Policies from Turkey
- Laws and Regulations
- Agriculture Plan and Loans
- Drought
- Quality Control
- SYP Depreciation
- Business Networks

### OCT 2017

### Value Chain
Market actors & their linkages

- Small Commercial Farms
- Imported from Neighboring Countries as Turkey
- Neighboring Villages - as Northern Hama Countryside
- Large Commercial Farms
- Small Scale Headers-HH Based
- Milk Collector
- In-house Processing
- Local Dairy Factories
- Traders
- Self-production
- Local Households

### Key Infrastructure
inputs, market-support services

- Livestock losses
- Fodder
- Wet Drugs & Vaccines
- Road Closures
- Transport
- Electricity
- Fuel
- Processing Inputs
- Machinery
- Maintenance / Spare Parts
- Refrigerated Storage / Cold Chain
- Financial Services
- Credit based trade

### Source: Mapping of Wheat, Olive and Dairy Market Systems in opposition-held areas of Idlib, Hama and Aleppo

### Price of milk (SYP/kg)
- **P (2010): 20-125**
- **P (2017): 200 - 300**

### Price of Cheese (SYP/kg)
- **P (2010): 90 - 250**
- **P (2017): 900 - 1,600**

### Price of Yogurt  - cow / sheep (SYP/kg)
- **P (2010): 40-80**
- **P (2017): 250- 600**

### Major Disruption
- Vet Drugs & Vaccines
- Processing Inputs
- Maintenance / Spare Parts
- Refrigerated Storage / Cold Chain

### Critical Issue
- Price of milk cow / Small ruminants (SYP/kg)
- P (2017): 200 - 300

### Partial Disruption
- Price of Cheese (SYP/kg)
- P (2010): 90 - 250
- P (2017): 900 - 1,600

### Business Networks

### Importing Dairy Products
- Into Neighboring Countries as Turkey
- Small Scale Headers-HH Based

### Key Issues:
- Price of milk cow / Small ruminants (SYP/kg)
- P (2017): 200 - 300
- Price of Cheese (SYP/kg)
- P (2010): 90 - 250
- P (2017): 900 - 1,600
- Price of Yogurt  - cow / sheep (SYP/kg)
- P (2010): 40-80
- P (2017): 250- 600

### OCT 2017

### Source:
Mapping of Wheat, Olive and Dairy Market Systems in opposition-held areas of Idlib, Hama and Aleppo

### March 2020 : Comparative Whole of Syria Agricultural Market Systems study
Figure 17: Derek and Qamishli Districts Small Ruminant Value Chain

The Market Environment
Institutions, rules, norms & trends

Source: Mapping of Wheat and Small Ruminants Market Systems in Al-Hasakeh Governorate
MAY 2018

Value Chain
Market actors & their linkages

Key Infrastructure
inputs, market-support services

- Farmgate Prices

- Retail Market Prices

- Water Scarcity
- Poor roads
- Banking and Financial Services
- Expensive Vaccines and medications
- Electricity
- Pasture Availability
- Livestock Diseases
- Expensive Fodders
- Informal Credit based trade

Source: Mapping of Wheat and Small Ruminants Market Systems in Al-Hasakeh Governorate
In full collaboration with CARE and its partners, iMMAP conducted a study to assess the impact of the wheat and olive value chain approach adopted by CARE’s Syrian Resilience Programme to execute the food security and livelihoods activities in Northwest Syria. The evaluation aimed on examining how the beneficiary’s households benefited with regard to their food security and livelihood status. For the purpose of comparison, a baseline survey was conducted with supported as well as non-supported farmers at the initial phase of the value chains intervention. The end line survey followed after accomplishing the agricultural season and the associated FSL implementation activities. The overtime and between farmer group comparison was used to test the potential contribution of wheat and olive value chains. The evaluation examined the food security, economic vulnerability, and wheat and olive crop productivities. The surveys also collected data about the household food consumption scores, livelihood based coping strategies, household income and household food expenditure.

### 8.1 FOOD SECURITY INDICATORS OF THE WHEAT VC BENEFICIARIES

The wheat value chain impact assessment confirmed that CARE SRP beneficiaries group showed higher magnitude of improvement on food security and livelihoods despite their worse-off situation compared to the non-beneficiaries whose FSL status also improved over the intervention period. The wheat VC beneficiaries experienced a positive gain in the monthly household income by 36% (from USD 55 to USD 75) while the non-beneficiaries had a higher income by 21% (from USD 71 to USD 86)(iMMAP, 2020).

On the same track, the wheat value chain beneficiaries tended to build strong resilience and be more dependent on the sustainable agricultural income source. This was confirmed by the percentage of the households which do not adopt any negative or unsustainable livelihood based coping strategies which increased from 6% at the baseline to 22% at the follow-up study time(iMMAP, 2020).
8.2 WHEAT PRODUCTIVITY

CARE SRP beneficiaries, hard grain cropping increased from 50% to 73%. Probably this is reflecting increasing rainfed farming among the beneficiary or the adoption of drought tolerant crop varieties. Stability from conflict enabled farmers to more access to fields. The availability of inputs and labour were among the promoting factors for attaining higher productivity where the average wheat yield increased among the wheat value chain beneficiaries of CARE SRP from 1.9 to 2.5 metric tons of grain per hectare area over the study time.

Remote sensing techniques were used to compare the vegetation/plant cover of the comparable wheat crop fields from the CARE SRP wheat value chain beneficiaries and non-beneficiaries; During the 2017 farming season, the wheat crop fields of wheat value chain beneficiaries of CARE SRP who had not receive any support at that time, had lower vegetation/plant cover along the season when compared to the field of the non-beneficiary group, probably due to the limited economic capacity of the beneficiary group that limit their ability to support their wheat crop field by agronomic practices like fertilization. Looking at the 2018 farming season revealed that the CARE SRP beneficiary’s wheat crop fields showed a better vegetation/plant cover norm over the season that was very close to that of non-beneficiaries, where it even exceeded it at the maturation phase. Figure 8 below shows more details.

Such a validated increase, reflects the impact of supporting the vulnerable beneficiaries by inputs and agricultural guidance which empowered them to reach the same productivity level of the better-off non-beneficiary group, which highlights a positive impact of the provided support to the wheat value chain beneficiaries in meeting their needs and improving their agricultural productivity, income and improved household financial stability and debt servicing as a result. Such improvements are likely boosting beneficiary’s economic resilience

Figure 18: Temporal presentation of the average wheat crop NDVI for the beneficiary and nonbeneficiary groups, 2017-2018 & 2018-2019 wheat seasons

Source: Impact Assessment of Wheat and Olive FSL Programming in Northwest Syria
8.3 FOOD SECURITY INDICATORS OF OLIVE AND OIL VC BENEFICIARIES

The overall food security situation among CARE SRP beneficiary households supported on olive and oil production improved comparing to the status at baseline with follow-up status of the study period. According to household food consumption scores, the proportion of households with poor food consumption declined by 13 percent among the olive value chain benefiting households while it increased (by 12%) among non-beneficiary households over the study period.

Both olive value chain benefiting and non-benefiting households reported to be still adopting both crisis and emergency livelihood coping strategies to obtain food. This indicated a high likelihood of the deteriorating food security situation in the near future for both groups (CARE SRP beneficiaries and non-beneficiaries) as livelihood options/assets were recorded as being eroded.

With a focus on female headed households, food consumption levels highly improved, especially when compared with male non-beneficiaries. Women with a poor food consumption score decreased from 33% to 15%. Moreover, households with acceptable food consumption score (food secure) increased from 30 percent to more than double (63%). This contrasts starkly against the male non-beneficiaries, where the proportion of people with an acceptable food consumption score decreased from 46% to 43%. This provides evidence that SRP’s targeted approaches to include women pay off (IMMAP, 2020).
9. THE POPULATION RESILIENCE ENABLING AND HINDERING FACTORS

Although the agricultural area of the Syrian Arab Republic is spread over large areas of the country, the agricultural market systems is facing many fluctuating difficulties considering deteriorating security conditions and the high cost of farming. Whereas, the country’s diverse crops reflect its environmental and geographical areas, and include wheat, barley, legumes, olives, grapes, cherries, and citrus fruits. The study observed an increase in agricultural activities, mainly due to improved security in many parts of the country, re-opening of supply routes, good winter rains and greater market access. Several areas recorded an increase in the number of IDP farmers returning to their place of origin, mainly in Aleppo, Deir-ez-Zor, and Dara’a. Yet, the activities of farmers and other groups depending on the agricultural sector have been impacted by the high costs of inputs, poor status of infrastructures and marketing constraints. Due to overall greater stability, small business/petty trade activities are regularly running in many urban areas. The study found that markets are well supplied with agricultural produce; however, several constraints affect Syrians’ ability to purchase food, mainly high transport costs to reach markets, reduced demand due to high unemployment rates and limited household purchasing power resulting from the depreciation of the Syrian Pound. Prices have decreased compared to the peak of the crisis in 2016, however, they are still very high. Limited purchasing power continues to be a key driver of food insecurity.

Crops are susceptible for several seasons to severe ecological stresses, however, such as frost during initial growth stages, or to rainfall retention and high temperatures during the maturity stage. Although the country is still plagued by frequent droughts, results for 2017/19 show an improvement in vegetation conditions and crop stands and livestock in the northern crop-growing areas of Aleppo, Idlib, Hama and Al-Hassakeh governorates. However, “severe” moisture stress, affecting 55 to 85 per cent of crops, has been observed in cropland areas across the southern and in some parts of central Syria (M. Zapacosta and M Hadi, 2019). These factors of agricultural productivity directly influence agricultural market systems regarding local agricultural produce availability. Despite the hardship imposed by the conflict limiting resources for the vulnerable farmers, the agricultural market systems like many facets of the Syrian community, are...
entrepreneurial and resilient. With proper resources, facilitation, and targeted funding as provided by CARE SRP, the agricultural market systems flourish without intense regulations and fierce competition for large businesses. As evidenced by CARE SRP across Syria, this could be done by humanitarian agencies playing a role as facilitators rather than market actors to support the agricultural sector; by focusing on supporting small business owners and smallholder farmers; by maximizing the support with provision of inputs; by favoring local procurement for in-kind input distributions; and by investing in training farmers on agribusiness and taking farming as agribusiness.

From another facet, the remittances received from relatives working abroad is another crucial enabling factor. According to the World Bank Statistics about 1.6 billion US Dollars are received annually in Syria (World Bank, 2019).

**Figure 19: Personal remittances, received by Syrians (2000-2018) (current US$)**

![Graph showing personal remittances received by Syrians from 2000 to 2018.](https://data.worldbank.org/indicator/BX.TRF.PWKR.CD.DT?locations=SY)

The support provided by relatives form inside Syria was another important resilience enabling factor despite the severe laceration of the Syrian social fabric that occurred due to the crises.
10. FSL INTERVENTIONS THROUGH MARKET SYSTEM SUPPORT FOR RESILIENCE BUILDING

In the wheat value chain, CARE SRP provided direct support to wheat farmers to improve production while also strengthening their enabling environment at community and market level. The interventions included investments in productive infrastructure to improve production, storage, processing and marketing of wheat. At production level, vulnerable wheat farmers received high quality seeds, fertilizers, herbicides and pesticides (5,750 wheat farmers from Idlib and Aleppo were supported by CARE SRP). In addition, SRP supported the farmers through technical training and harvesting using a voucher modality. At community level, cash for work was used to provide fire prevention and firefighting services in the dry season before harvesting. Based on an assessment that identified obstacles in the value chain, infrastructure rehabilitation projects were implemented to improve irrigation, grain storage conditions and agricultural market access. CARE SRP targeted and supported with the provision of wheat inputs, which included seeds, herbicides, pesticides and fertilizers.

For the livestock value chain in Northwest Syria, many activities were implemented that focused on the interlinkages between the different segments within the value chain. For instance, CARE and its partners focused on linking the milk producers (herd owners) with the milk collectors who were also linked to dairy products retailers. The established linkages along the chain were intended to increase the value added at each segment and to improve the quality of the dairy products at each stage so the final beneficiary (consumers) would receive a high-quality dairy product at a reasonable price.

In the olive value chain, activities were implemented to link the different players starting with input suppliers to olive producers to oil mills (processors) and finally to consumers. The interventions varied at each segment (level) based on the needs and opportunities for improving the livelihood of the targeted beneficiaries. At the production level, farmers received plant protection services such as spraying with chemicals and pruning. Farmers also received agronomical training on best production and harvesting practices. At the processing level, the olive oil mills received stainless-steel tanks and technical advice to properly store the milled oil. At the consumer level, to support the market functionality - vulnerable consumers received vouchers to purchase the produced olive oil from producers and millers. Many women were involved in the olive value chain in Northwest Syria. Cash for work activities were implemented within the olive value chain to train and employ women on olive harvesting and processing.
11. THE MOST APPROPRIATE VALUE CHAIN INTERVENTION ACTIVITIES FOR RESILIENCE BUILDING

A lack of a central government of Syria to support agricultural market systems across the SRP locations means that agribusinesses are no longer protected by regulatory quality-control bodies, if any such existed, and this presents problems particularly when agricultural commodities are meant for export. For instance, Turkey bans imports of olive oil from Syria due to the lack of quality and origin certification. This is a critical issue as before the conflict a very dynamic trade existed across the border, and Turkish demand for Syrian products was very high and vice versa. The CARE SRP addresses this issue, for instance by implementing value chain informed agricultural market system projects that focus on developing small agribusinesses along existing agricultural value chains that could support processing, marketing, and demand. These businesses take the form of certification systems with CARE SRP support on agricultural produce processing for local consumption that could provide skills development and training in quality-control of produce, thereby creating opportunities to re-establish export market with quality produce. Instilling quality control certification in agricultural systems would make it possible for the purchasing of goods from a local supplier, including agricultural inputs and seeds, supporting the growth of more localized economies. Additionally, support for processing and packaging of agricultural products as evidenced by the CARE SRP ensures revitalization on availability of agricultural commodity supplies to meet the local demand across Syria, thereby encouraging income generation for local communities. Therefore, to stimulate the agricultural market systems, it is recommended that more humanitarian aid be targeted at the agricultural sector by facilitating market actors, creating cooperatives, and offering a variety of funding options for local smallholder farmers and agro-traders. The lack of regulation has facilitated the emergence of more small businesses and agricultural entrepreneurs; making food markets more localized. To ensure sustainability, the present study suggests that humanitarian agencies play a role as facilitators to these existing markets rather than market actors. Increased involvement of humanitarian operators in the market systems of food commodities such as high value crops like spices, olives and dairy products could lead to improved livelihoods throughout the market chain.
Currently, a major issue facing the agricultural industry in Syria is the monopolization of production by farmers as well as the entire agricultural sector; yet farmers themselves face limitations. Agricultural traders have the best access to market information on prices, volumes, availability, and level of demand so farmers must rely on the information given by traders. Farmers are also vulnerable due to their limited financial capacity. This vulnerability is further exacerbated by the high cost of equipment, and fuel; farmers lack negotiating power with traders. This means traders play a large role in increasing and decreasing prices. Therefore, the study recommends that aid focus on small business owners and smallholder farmers through the creation of cooperatives that are owned, organized, and managed by the farmers themselves; rather than going through local administrative councils. Through the conflict, the economy has shifted towards a greater number of small actors in the agricultural market chain. Focusing humanitarian aid on sustaining those with little financial capacity, empower smaller actors to compete with bigger business. Maximizing the support for livelihood assistance instead of in-kind food aid to increase the resilience of communities is also suggested. The request for financial support to producers was one of the most frequent pleas from research survey respondents. This could come in the form of access to cash for inputs, irrigation, and supporting farmers financially during years when they are not able to produce. Giving access to cash for inputs and favoring modalities (revolving funds, microfinance) that depend on the productivity of beneficiaries are sustainable ways to balance the market, while targeting individuals in need.
12. IMPACT ON NON-BENEFICIARIES AND OTHER MARKET ACTORS

The impacts of value chain interventions were not only confined on the direct beneficiaries of CARE SRP but were extended to the other non-beneficiaries principally the neighbours who were observing the various activities of the interventions. According to some of the key informants of the study, they mentioned that they were usually enquired on some technical details and the benefits they get form the value chain interventions either on wheat, olive or dairy; additionally, some of the non-supported recipients were much eager and tended to attend the agricultural extension service delivery sessions held as part of the value chain interventions where the appropriate sowing dates, land preparation practices and proper crop protection methods were introduced. Neighbouring farmers as indirect beneficiaries benefits from the farmer-to-farmer extension service delivery systems from CARE SRP trained farmers in the absence of a government supported agricultural extension service delivery. It was also reported that some of the non-beneficiaries tended to apply what they regard as useful and doable form the new agricultural methods and technical know-how introduced by CARE SRP.

A major positive impact on non-beneficiaries is the improvement of the general food security situation in terms of food availability across the SRP location areas; where availability and access to staple food and other nutritious food items are locally produced. This have been materialized through the wheat to bread value chain in collaboration with the Syria FFP as a considerable number of non-direct CARE SRP beneficiaries benefitted from the produced bread with reduced price. On a similar note, the support that some non-beneficiaries of the olive value chain actors received in terms of olive oil and soap and coal distributed to the vulnerable household is also considered as one of the important benefits that non-beneficiaries enjoyed from the CARE SRP implementation.

On the other hand, tensions occasionally rise between the selected beneficiaries and some of the non-included community members (non – selected) where arguments of why not being selected although of having similar conditions compared to the selected ones. Some of interviewed beneficiaries considered those tensions with non-supported neighbors as a hampering factor limiting the spillover effect of the intervention.

Some of the interviewed widowed women mention that they have limited interactions with their neighbours, a condition that is perceived due to the prevailing social norms in the rural areas of Syria and thus was not able to tell how the neighbors interacted with the intervention activities.
13. WOMEN EMPOWERMENT AND GENDER ASPECTS

The Syrian crisis has exposed women to a wide array of the common ugly features of war. Despite these stresses and being part of the most vulnerable community groups during the conflict time; the Syria women managed to play new roles imposed on them within the crisis’s context.

Women in many Syrian households became the breadwinners due to the loss of their husbands or sons in the war toll or becoming permanently disabled. The burden of securing the family basic needs was totally shifted to considerable number of women; while the job opportunities are scarce even prior to crises. Despite the women high literacy rate, as according to the Global Gender Gap Reports issued by the World Economic Forum, the Syrian women educational attainment surpasses 95 percent. Nevertheless, women share in the country labor force in most of the conflict years went below the 22 percent attained in 2010 (Hausmann and Tyson 2010).

Figure 20: Syrian women economic participation and education attainment (2010-2018)

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As stated by one of the implementing partner - Watan officers who participated in the focus group discussion, the CARE SRP intervention efforts resulted in supporting high quality olive oil by the female farmers who were involved in donation of their part of their products to widowed non-beneficiary women which strengthens the social ties across the areas covered by the project.

Syrian women are well known for their skills in processing of homemade food products, the rural women made use of the privileges in getting involved in small businesses either solely or in neighbours’ partnerships with the aim of improving their families’ income.

Some male farmers were inquired about their perspectives on women involvement in the agricultural sector. A general positive trend was indicated, mentioning that women were welcomed and there were no restrictions on women work in crop field; adding that women were dominant contributors and saluted for their hard work.

The gender aspects were well considered since the planning and design phases of the value chain interventions. Accordingly, the implementing teams were formed from both women and men to assure effective implementation with female beneficiaries. Similar strategy was adopted in the beneficiaries’ selection criteria to ensure a balanced social representation and adequate response to the vulnerable farmers.

As mentioned in the value chain design section CARE SRP, emphasized the gender focus in the Value Chains and Livelihoods interventions. Thus gender-sensitive project activities were implemented to empower and promote women on their economic capabilities. CARE SRP highly considered building equitable opportunities to women. The implementation of the wheat, olive and dairy value chains involved more Syrian rural women and their households, communities and link them to the economic activities to enable them becoming more self-resilient by enhancing their capacity in wheat and olive and dairy production and agribusiness skills.
14. SUCCESS STORIES

Several success stories were documented throughout the value chain informed food security and livelihoods intervention. A major success story for the wheat value chain was the enabling of farmers to resume their cultivation activities and get back to the production cycle after five consecutive seasons in which they had lost their productive assets except the land and were lacking the financial working capital for purchasing the necessary inputs. According to Shafag, another CARE International implementing partner, the 2019/2020 season will witness an increase in the number of wheat beneficiaries from 3700 to 5000 households.

Some of interviewed farmers indicated that they will tend to continue cultivating and even increase their wheat production areas for the next season as they managed to secure the seeds and other necessary inputs.

Again, the wheat to bread value chain and the collaboration with Syria FFP is worth mentioning as a prominent success story that resulted in multiplying the CARE SRP achievement through extending the wheat value chain and coordination with the other humanitarian actors.

The improvement of olive production and attainment of better oil quality of the most predominant success stories in the olive sector; a multiplied impact was realized through the intervention in the processing cycle of olive. Revitalized olive plantation thanks to CARE SRP, would go a long way to provide seasonal employment and household income to local vulnerable people as they would provide seasonal casual labour.

The olive value chain was extended to include making use of the olive by-products in soap manufacturing beside charcoal manufacturing from olive cake which otherwise, would accumulate and form an environmental hazard for the surrounding communities.

The dairy value chain impact was tangible and reflected by the interviewed beneficiaries’ responses indicating that without the artificial insemination intervention and the accompanied veterinary services and feed provision they would have never gained off-springs of their cows. These offspring resemble a crucial source of income for the poor families as they tend to fatten the calves and sell at a price on which they depend for securing various family and feed needs for a considerable part of the year ahead.

One young widowed mother mentioned that through the dairy intervention program she was able to look after her four children and let them continue at school. Another success story was reflected by the FSL team at Gaziantep that the value chain interventions and assessments are usually refereed to during FSL cluster meetings. The CARE SRP is looked at as model where important lessons and experience can influence humanitarian partners involved in Syria crises to adopt the value chain approach in FSL programming. For example, a local NGO, Shafag representatives confirmed that they are involved in the preparation for a new FSL project that will be implemented adopting the value chain approach. According to CARE Syria FSL staff, the selection of the value chain approach was appropriate, and the achieved success encouraged some other local counsels to intervene in their areas and tend to apply the same methodology for implementing new interventions. Some CARE Syria FSL staff highlighted that the value chain informed FSL programming was a good opportunity for them to gain new experience as followed the intervention from the design up to the intervention and evaluation phases; adding they tend to share the assessment tools as well as the intervention results with the Syria FSL sector as the ultimate target are the beneficiaries.
15. LESSONS LEARNED

The major lesson learned from CARE SRP intervention is the possibility to implement productive interventions within a hostile environment such as the extreme condition of the Syrian crises. The ability to design the interventions while linking the activities of the various outputs resulted in a bigger propelling capacity and more efficient resources utilization. A success that was highly supported by the adopted agility during the implementation phase that significantly contributed to achieving the stated and desired change.

Various key lessons were learned while exerting efforts to build the targeted population resilience through the value chain approach in the FSL interventions. Some lessons revert to the preliminary stages of CARE SRP. A considerable time was allocated to the development of data collection tools used for the basic assessments of the selected value chains. However, having non-Arabic language speaker analyist during the early stage of CARE - iMMAp partnership compelled the translation at both tools design and later at the analysis stage, a process led to misinterpretation or loss of some details regardless the extra time consumed. The appointment of Arabic speaker analyst at a later stage saved time and made the process more efficient.

In the same context, an important lesson learned was to employ local facilitators with adequate knowledge of the local context and accents of the targeted communities, an essential issue to ensure that the questions and responses are well comprehended and documented.

The selection of the value chain beneficiaries should not always be adhered to the vulnerability and eligibility criterion; but should consider beneficiaries that will contribute to the targeted value chain activation through their readiness to get involved in the various aspects of the provided intervention in a fruitful manner. In some value chains, such as wheat, women participation is very limited due to cultural aspects. However, CARE and its partners are planning for increasing the women role in the wheat value chain in Y5 of SRP.

The design of various intervention elements would result in more efficient utilization of resources and augments the rate of performance. A clear example was the utilization of cash for work modality in supporting the wheat and olive value chains; which reciprocally supported the basic need component of SRP. Similarly, the coordination with other agencies like the one conducted with Syria FFP also contributed in maximizing utilization of resources and contributed to achieving better outcomes. SRP in Y5 will be establishing more linkages with other programs such as the SIDA, Multi-Donor-Funds (MDF) and FFP.
16. RECOMMENDATIONS

The following recommendations aim at highlighting some issues that can improve the value chain informed FSL programming in emergency and early recovery settings.

The interventions conducted on the wheat value chain significantly improved the food security status in the programme targeted areas. Special attention should be given to make benefit of the wide long experiences of the local farmers and strengthen them through the provision of further training on wheat seed production and treatment to overcome any future unfavorable conditions that might arise.

The olive value chain needs back interventions in terms of supporting the olive seedlings production as most of the nurseries were destroyed during the conflict while the demand for seedlings as there are high number of burnt orchards, beside other services such as the trimming, ploughing, fertilization and irrigation to attain better olive quality.

The olive forward interventions may need more emphasis and focus on oil milling and the resulting by products that can be used to gain value added in term of soap, fertilizer and charcoal production in addition to services that ensure better olive oil quality and provide extra income to the producers.

More efforts need to be exerted to improve olive and oil marketing for achieving encouraging prices to the farmers and processors.

The distinguished results attained from the SRP implementation need to be continued to sustain the attained resilience capacities of the Syrian population till reaching the rehabilitation stage that is foreseen once the war is over.

Emphasis on cost recovery and tailoring the interventions in ways that raise the partnership and ownership of project activities to ensure the success and sustainability of projects at exit stage for a smooth weaning of donors’ support.

The integrated pest management needs to be expanded to cover wider olive areas and to be applied to other crops where applicable.

Any new interventions should stand on the shoulders of what have already been achieved, while the acquired experience can be shared with other organizations for more efficient value chain informed FSL programming across Syria FSL Cluster partners.

The impact on non-beneficiaries should be documented and included in the program design to maximize the gains of the value chain interventions.

It is recommended for FSL programming to continue to be guided by the approach of Linking Relief, Rehabilitation and Development (LRRD) in Syria, which relates to the concept of sustainability and highlights the importance of linking short and medium-term actions to a long-term development goal that is independent of outside donor support. Thus, involves linking transitional early recovery assistance to more permanent systems like agricultural market system development (household agricultural production and market linkages) while it also provides an immediate and temporary option
of direct emergency Food Aid through Cash transfer to support those affected by linking up with humanitarian aid measures, with cash for work modalities aimed at reconstruction of basic infrastructure e.g irrigation canals, small earth dams for flood water harvesting to reduce flood events in NW Syria and NE Syria which are commonly detrimental to crop production (livelihood options). Cash for Work groups and Crop Producer groups of farmers will be supported with a particular focus on generating sources of household income (livelihood measures) and this support will integrate host communities, IDPs and Returnees, thereby, promoting capacity development for conflict resolution and reduction measures among people of different ethnical background, collectively working together for the common good aimed at restoring their livelihoods through a food security project in Syria, where inter-tribal lines are well defined across territories. In all these areas, the present proposed transitional development assistance will harness the potential and capacity of people and institutions to establish a basis for sustainable agricultural market systems development in the context of crisis, conflicts and Climate change induced disasters like natural flood/droughts which are common across Syria. As stated in the Principles of Good Humanitarian Donorship, humanitarian assistance should be provided in 'ways that are supportive of recovery and long-term development, striving to ensure support, where appropriate, to the maintenance and return of sustainable livelihoods and transitions from humanitarian relief to recovery and development'. In turn, well-designed development cooperation programmes should reduce the need for emergency relief, and LRRD development activities should include measures for conflict prevention, disaster risk reduction, disaster preparedness and the development of early warning systems for the four defined hubs (central Syria, northeast Syria, northwest Syria and south Syria) of Syria.
REFERENCES


**ANNEXES**

**PRODUCER INTERVIEW**

**TYPE OF RESPONDENT: FARMERS (AGRICULTURAL PRODUCTS)**

The purpose of this interview is to better understand conflict effect on the relevant agricultural market systems and the vulnerability of the local population. We are interested in learning about the resilience hindering and enabling factors, how did the implemented interventions supported the resilience of the targeted population, exploring the success stories and the lessons learned from the view point of the beneficiaries. The information we collect will help understand how to improve the delivery of humanitarian assistance and recovery programs, but there are no direct benefits to participating in this interview.

The information you share with us today will remain anonymous. We will only use your contact details in case we need to ask you for a clarification in the days after the interview but they will not be shared.

We expect that the discussion will last between 1 and 2 hours.

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<tr>
<th>Name of interviewer</th>
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<th>Type of business / activity</th>
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<th>Name of interviewee (only if agrees)</th>
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<th>Gender of interviewee</th>
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<table>
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<tr>
<th>Name of business (only if agrees)</th>
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<tr>
<th>Area/Location of Operation</th>
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<table>
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<th>Governorate</th>
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<th>district,</th>
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<table>
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<tr>
<th>Sub-district</th>
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<th>Village</th>
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<tr>
<th>Phone No. (only if agrees – for further clarification if needed)</th>
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</table>
A. Main features of Syria the agriculture market system structure Pre and post-conflict

1. What are your main activity(s)?
   Crop production (wheat/Olive/Green Fodder/)
   Animal Production (Cattle/ Ruminates/Poultry)

2. When did you start your production activity(s)?

3. Did you have to stop, at some point, since 2011, and restart?

4. If this was due to the conflict, could you explain what impact this had and how you managed?

5. What are the main challenges facing production business activities?
   a. Challenges linked to conflict
   b. Challenges linked to climate, weather, other

6. Did you receive any assistance from other organizations than Care International?

7. If yes,

<table>
<thead>
<tr>
<th>Who provided the assistance</th>
<th>What was the kind of assistance</th>
<th>Quantities provided</th>
<th>The time span of the assistance</th>
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</table>

A.3 Market Context

<table>
<thead>
<tr>
<th>Currently</th>
<th>pre-conflict (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How has the number of producers of your product in own area has changed between current time compared to that prevailed before the conflict (before 2011)?</td>
<td></td>
</tr>
<tr>
<td>2. Are there any specific types of actors who control the market for this product (ie by having the sole capacity to import or export goods, to set prices, etc)?</td>
<td></td>
</tr>
<tr>
<td>3. What type of power do they have on this market?</td>
<td></td>
</tr>
<tr>
<td>4. How are imports and exports functioning (in and out the area, across frontlines and across borders)?</td>
<td></td>
</tr>
<tr>
<td>5. Who are the actors?</td>
<td></td>
</tr>
<tr>
<td>6. What are the rules and practices?</td>
<td></td>
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</tbody>
</table>
7. What are the rules, regulations and practices that influence production in your area.

8. Formal rules from GoS, LACs, authorities


10. Whom do you sell to

11. (type and size of actor)?

12. How many traders do you sell to

13. Do you sell on credit (formal or informal)? Has this changed?

### A.4 Area cultivated/number of animals owned

<table>
<thead>
<tr>
<th></th>
<th>Currently</th>
<th>At the beginning of Intervention</th>
<th>pre-conflict (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area cultivated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green fodder</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt; crop</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt; crop</td>
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<td></td>
<td></td>
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<tr>
<td>Other specify</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Animals owned</td>
<td>Currently</td>
<td>At the beginning of Intervention</td>
<td>pre-conflict (2011)</td>
</tr>
<tr>
<td>Number of Animals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cattle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Ruminates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
### A.5 Inputs

<table>
<thead>
<tr>
<th>Seeds</th>
<th>Chemical inputs (fertilizers, pesticides)</th>
<th>Organic inputs (manure, etc)</th>
<th>Animal Feed</th>
<th>Veterinary services</th>
<th>Extension services</th>
<th>Tools</th>
<th>Fuel</th>
<th>Water</th>
<th>Other (precise)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

#### Inputs provided by Care International

<table>
<thead>
<tr>
<th>Other Sources</th>
<th>Is source different from pre-conflict?</th>
<th>Availability before conflict</th>
<th>Availability after conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: private traders; 2: support from LAC / authorities; 3: aid agencies; 4: own production; 5: other (precise)</td>
<td>Yes / No</td>
<td>(Always; Sometimes; Rare; Never)</td>
<td>(Always; Sometimes; Rare; Never)</td>
</tr>
</tbody>
</table>

### A.6 Crop Production

<table>
<thead>
<tr>
<th>Currently</th>
<th>pre-conflict (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop production</td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td></td>
</tr>
<tr>
<td>Olive</td>
<td></td>
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<tr>
<td>Green fodder</td>
<td></td>
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<tr>
<td>4th crop</td>
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<tr>
<td>5th crop</td>
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<tr>
<td>Other specify</td>
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</tbody>
</table>
### A.7 Animal production

<table>
<thead>
<tr>
<th>Animal production</th>
<th>Currently</th>
<th>pre-conflict (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Milk</td>
<td>Litre</td>
</tr>
<tr>
<td></td>
<td>Calves</td>
<td>Head</td>
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<tr>
<td></td>
<td>Mature</td>
<td>Head</td>
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<tr>
<td>Small Ruminates</td>
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<tr>
<td></td>
<td>Milk</td>
<td>Litre</td>
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<td></td>
<td>Offspring</td>
<td>Head</td>
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<td></td>
<td>Mature</td>
<td>Head</td>
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<tr>
<td>Poultry</td>
<td>Egg</td>
<td>Number</td>
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<td></td>
<td>Hens</td>
<td>Number</td>
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<tr>
<td>Other</td>
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### A.8 Processing

<table>
<thead>
<tr>
<th></th>
<th>Currently</th>
<th>pre-conflict (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of home-based vs external</td>
<td></td>
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</table>

**If processing is home-based:**

- Who does the processing?
- Where do you get processing inputs from (i.e. tools, bottles or bags, etc)?
- Do you share processing facilities or tools with other farmers?
- Do you ever process for other farmers?
- What challenges do you face in processing your own production?

**If service is provided by an external processor:**

- Where is the processor?
- How much does transport to the processing facility cost?
- How much does processing cost (in SYP, precise the unit – per kg, litre, bag, etc)?
- At what price do you sell the processed output?
### A.9 Selling price

Please specify if the per unit selling price is considered too high, higher, same, lower or too low in comparison between the current time and that prevailed before the conflict (before 2011).

<table>
<thead>
<tr>
<th>Type of customers</th>
<th>Currently</th>
<th>pre-conflict (2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other farmers</td>
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<tr>
<td>Processors</td>
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<tr>
<td>Traders</td>
<td></td>
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<tr>
<td>Households (end consumer)</td>
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<tr>
<td>Olive</td>
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<tr>
<td>Other farmers</td>
<td></td>
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<tr>
<td>Processors</td>
<td></td>
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<tr>
<td>Traders</td>
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<td>Households (end consumer)</td>
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<tr>
<td>Green fodder</td>
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<td></td>
</tr>
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<td>Other farmers</td>
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A.10 Your annual net income from this activity (s)

How do you evaluate your annual income from the following activities (, higher, same, lower) in comparison between current time and that gained from pre conflict (2011)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Current Average</th>
<th>pre-conflict Average (2011)</th>
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</thead>
<tbody>
<tr>
<td>Crop production</td>
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<td>Wheat</td>
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<td>Olive</td>
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<td>Green fodder</td>
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<td>4th crop</td>
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<td>Animal Production</td>
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<td>Cattle Milk</td>
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</table>

B. Resilience enabling factors

What are the main reasons or factors that assisted you to overcome the stress and difficulties raised by the conflict?

● Having good quality local seeds
● Good experience in agriculture practices
● Good relations with the suppliers
● Good relations with market actors (traders, processors, customers).
● Remittances
● Good financial status or assets
● Innovative ideas (please elaborate)
● Proximity to markets
● Were not highly impacted by the conflict
● Good roads and infrastructure
● Having multiple activities
C. Resilience hindering factors

What are the main reasons or factors that hindered you from overcoming the stress and difficulties raised by the conflict?

- Became disabled (please elaborate)
- Loosing productive assets (please elaborate)
- Highly impacted by the conflict (please elaborate)
- Destroyed roads and infrastructure
- Poor financial status
- Unavailability of agricultural labour
- Poor demand on our products
- Suppliers insist in to pay in advance
- Traders tend to delay the payments
- Products became of low quality
- Markets are too remote
- High transportation costs
- Instability
- High living costs
- Other hindering factors (please specify).

D. Feedback on Implemented interventions

1. Did you make use of the intervention to retain your productive/processing or marketing capabilities? (yes, no) If yes go to Qs 2 – if No go to Qs 3
2. How did you make use of the intervention to retain your productive/processing or marketing capabilities?
3. Why the intervention was not effective to retain your productive/processing or marketing capabilities?
4. How can you continue adopting the positive aspects of the intervention in the future without external support?
5. What type of support would you need to improve your business and livelihoods (yourself, but also for other producers like you)?
6. If greater demand for your goods could be guaranteed, to what extent would you be able to increase your supplies / business volumes in the affected area?
7. Did you receive a technical training with the intervention package?
8. If yes, did you changed your farming practises as a result of that training.
E. Impact on Non-Beneficiaries and Other Market Actors

1. Do you notice that some of your neighbours / colleagues who were not selected in the intervention are interested in what you have been involved? (yes, no) If Yes go to Qs 2 – if No go to Qs 3
2. In what aspects you neighbours / colleagues showed to be interested.
3. Do you notice that some of your non selected neighbours / colleagues try to imitate some aspects of the intervention that you were receiving e.g farming practices? (if yes, please elaborate).
4. Are you willing to share the knowledge you gained to non-selected neighbours / colleagues?
5. What do you think are the factors that will encourage your non selected neighbours / colleagues to adopt the positive results of the intervention?
6. Why do you think they didn’t show interest in the intervention?
7. Why do you think the intervention didn’t grasp the attention of your non selected neighbours / colleagues.
8. What were the effects of the intervention on the commodity market (a disruption effect, no effect or positive effect) – Please elaborate.

F. Role of women and gender aspects

1. Do you accept women in your family to participate in any activity (production, trading, processing or marketing)? (yes, no) if yes go to Qs 2.
2. How many women do participate in the family activities (mother, wife, sisters or daughters)
3. What activity (s) do women in your family usually participate in
4. How do the women in your family assists in production, trading, processing or marketing activities?
5. Why Don’t you accept women in your family to participate in any activity?

G. Success Stories

1. Do you have a success story to tell regarding your activities? If yes please elaborate.
2. If you know success stories that your neighbours / colleagues are proud of and sharing with others?, if yes, please elaborate.

H. Lessons learned

1. What do you think were most appropriate aspect of the program activities that contributed in recovering your business capabilities in a sustainable manner?
2. What do you think were most un-appropriate aspect of the program activities that caused failure in recovering your business capabilities in a sustainable manner?
3. What are main lessons learned form participating in the intervention program?

Conclusion and recommendations

What recommendation do you suggest?

Is there anything you would like to add?