Food Security and Livelihood Assessment

Syria



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An assessment by RFSAN, FAO, iMMAP and the Food Security Cluster (South Turkey)









Food and Agriculture Organization of the United Nations

RFSAN REGIONAL FOOD SECURITY ANALYSIS NETWORK

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Abbreviations and acronyms

AoC	Area of Control
CARI	Consolidated Approach to Reporting Indicators
CFSAM	Crop and Food Security Assessment Mission
CSI	Coping Strategy Index
FAO	Food and Agriculture Organization of the United Nations
FCS	Food Consumption Score
FGD	Focus Group Discussions
FSA	Free Syrian Army
FSL	Food Security and Livelihoods
FSLA	Food Security and Livelihood Assessment
GDP	Gross Domestic Product
GIS	Geographic Information Systems
GoS	Government of Syria
HFIAS	Household Food Insecurity Access Scale
HH	Household
HHS	Household Hunger Scale
HoH	Head of Household
IDP	Internally Displaced Person
ISIS	Islamic State of Iraq and Syria
KII	Key Informant Interview
NGO	Non-Governmental Organization
NFI	Non Food Items
rCSI	Reduced Coping Strategy Index
RFSAN	Regional Food Security Analysis Network
SYP	Syrian Pound
UN	United Nations
USD	United States Dollar

Executive Summary

With the Syrian crisis now in its sixth year, the humanitarian situation across the country continues to deteriorate. Since March 2011, violence in Syria has claimed hundreds of thousands of lives and resulted in more than 11 million people – over half of the population - fleeing their homes. Approximately 4.8 million Syrians have taken refuge in the region, most notably Turkey, Iraq, Lebanon, Jordan, Egypt and North Africa. As of December 2015, out of a population of around 18 million, 6.5 million people were estimated to be internally displaced. A deep economic recession, depreciating national currency, soaring food and fuel prices, disrupted markets, and food insecurity continue to contribute to extreme vulnerability throughout the country.[2]

To better understand pressures on food security and livelihoods and to support strategic planning for interventions, the Food Security Cluster in Gaziantep, Turkey commissioned a Food Security and Livelihoods Assessment that was carried out between December 2015 and February 2016. The assessment drew upon several methods of primary data collection, including household-level interviews, focus group discussions (FGDs) and key informant interviews (KIIs).

A total of 1,995 household surveys were conducted in 150 randomly selected communities across eight geographic clusters throughout Syria. Clusters were identified on the basis of geographic proximity of communities to one another as well as shared socio-economic and livelihoods characteristics. The survey design process was guided by the findings of previously conducted livelihoods and agriculture FGDs, which also informed the subsequent analysis. Household survey data was cross-checked against secondary data sources as well as information from key informants in order to contextualize the findings.

Livelihoods

The results indicate that livelihoods have experienced severe strain as a result of the conflict. More than half of households reported that their main sources of income are different than before the crisis and a large majority (80%) reported a severe decline in income in the year prior to the assessment. Salaried employment, work in skilled trades, and government jobs have largely disappeared in many areas of the country, forcing households to take low-skill and/or high-risk jobs. There has been dramatic growth in jobs such as processing fuel and collecting firewood as well as in remittances. Many households have come to also depend on agricultural wage labour, despite the fact that farmers are increasingly unable to pay for assistance to plant or harvest. Accordingly, most households interviewed did not have sufficient income to meet their needs, with strains being felt most acutely during the winter months. Many have had to take jobs that are less stable than the ones they held previously and have had to resort to taking on debt and relying on coping strategies in order to make ends meet.

In light of these challenges, there is a need to provide livelihoods-supporting assistance across the entire value chain. The rapid growth of high-risk and low-skill jobs, including ones focused on short-term resource exploitation makes support for livelihoods a priority. Cash-for-work activities focused on improving and repairing agricultural infrastructure would not only provide households with incomes but help ensure the long-term viability of the sector as a whole. Microfinance initiatives may help households to replace lost livelihoods with new income-generating opportunities and support households dependent upon skilled trades or farming to restore productive assets. As they have lower access to income-generating opportunities, women and female-headed households should be specifically targeted as should youth at risk of joining armed groups. With levels of income falling and costs rising during the winter months, assistance should take into account seasonal variations.

Food Security

Livelihoods pressures have had a significant effect on household food security. The vast majority of the households interviewed accessed food from markets, and their diminished purchasing power has forced them to cut back on the quality and quantity of the food they consume. While a majority of households were found to be food secure at the time they were interviewed, many were at risk of food insecurity, based on the types of foods they reported consuming as well as a widespread use of coping mechanisms. Overall, households reported low levels of hunger but a dependence upon foods that were high in energy and low in nutrients. While most reported access to markets that stocked most essential food commodities, isolated shortages and reports that many food items are often difficult to obtain may make obtaining food a challenge for households even when they have the means to afford it. Unsurprisingly,

2 OCHA. 2015. Humanitarian Needs Overview http://reliefweb.int/sites/reliefweb.int/files/resources/2016_HNO_English_20%FINAL.pdf

the vast majority of households reported that they were in need of humanitarian food assistance. Overall, there is a need to promote and encourage food production on a local level. One means to do this is through the use of cash and vouchers, which reinforces how most households already access food while supporting local producers and sellers. Given that many of the households reported relatively high levels of market functionality (albeit with challenges related to specific commodities), careful monitoring systems must be in place to understand when markets stop functioning. Furthermore, even when markets are functional, vulnerable populations, including female-headed households, may require in-kind assistance. Promoting households' engagement in agriculture, whether it is for income generation or consumption, may make important contributions as well.

Agriculture

A majority of households interviewed for this assessment lived in rural areas and were engaged in agriculture as a source of income generation or food production. Households engaged in crop or livestock production typically reported higher indicators associated with livelihoods and food security. They also reported scaling back their engagement in agriculture over the past two years and approximately 15% had stopped altogether. Difficulties obtaining or affording inputs were the main reasons for households to stop or scale back their production, but at the same time, changes in value chains make it increasingly unprofitable for households to remain engaged in agriculture. In an effort to continue farming, households have changed the ways they use land, abandoned pre-crisis/traditional agricultural practices, and shifted to planting more profitable non-food crops. Many households reported liquidating their herds and flocks and selling trees for firewood.

The challenges facing the agricultural sector in Syria are immense, but addressing the toll the conflict has taken on pre-crisis support systems may be the first step in encouraging agricultural production. This includes providing technical and extension services, seeds, fertilizers, veterinary support and the rehabilitation of irrigation systems. Restoring value chains is also crucial and entails restoring infrastructure and production facilities. While households' practices have changed, finding ways to increase the productivity of their current holdings may help ease pressures on livelihoods until access to land, inputs and services have improved. Encouraging forms of agriculture that had not been used previously in some areas, such as greenhouses, may also enhance production and provide employment during winter months.

Background

Context

As the conflict in Syria continues, the humanitarian situation and the impact on the country's economy have become increasingly dire. As of October 2015, an estimated 4.18 million Syrians had fled the country and another 6.5 million Syrians had been displaced internally. Throughout Syria, an estimated 8.7 million people are estimated to need of food assistance.[2] Decreased national agricultural production and severed rural-urban supply lines have led to rising food prices; on average, the cost of a standard food basket has tripled since the start of the crisis.[3] The acute effects of prolonged conflict on food security and livelihoods are being felt on both the national and household level throughout the country.

In the first three years of the conflict, the economy lost 3 million jobs; unemployment stood at 57% in the fourth quarter of 2014, up from 10% at the start of the conflict. Dependence on assistance as well as high-risk or illegal jobs has grown. As many as four out of five Syrians live below the poverty line, while nearly two-thirds live in extreme poverty and are unable to cover basic needs, including food.[4]

The effects of the conflict on agricultural production and agriculture-based livelihoods have been particularly severe. Before the crisis, the agriculture sector was a mainstay of the productive economy, contributing to 18% of the gross domestic product (GDP) and providing employment and livelihood opportunities to approximately 37% of the population. However, years of restricted access to land due to conflict, internal population displacement and the reduced availability and increased cost of farming inputs (seed, fertilizers, animal feed, veterinary supplies, etc.), damage to farming equipment and infrastructure (including irrigation, storage and seed processing facilities), and limited veterinary supplies and services have devastated the country's agricultural capacity on both a household and national level.[5]

In particular, the compounding destruction of prolonged conflict has greatly diminished the availability and capacity of infrastructure essential to the agricultural sector. Electricity failures and damage to power lines and stations have incapacitated pumping stations used for irrigation. Worse, in many cases, pumps have been damaged and stolen and irrigation canals have been destroyed and left in disarray due to security concerns and the high cost or unavailability of replacement parts. In addition, rainfall anomalies have led to additional strains, with many farmers either forced to cut back on irrigation or revert to rain-fed production.[6] Faced with these challenges, individual farmers have reduced their production levels or have abandoned agriculture altogether.

Crop production has decreased sharply and livestock numbers have been significantly reduced. For example, in 2015, despite receiving highly favourable rainfall[7], cereal production for the year remained 40% below the pre-crisis average.[8] The 2015 CFSAM estimated that numbers of cattle and sheep have fallen by 30% and 40%, respectively. Poultry flocks – generally one of the most affordable sources of animal protein – have reportedly shrunk by half.[9]

This decrease in national production has had significant effects on economic access to basic food supplies. Decreased crop yield, high fuel prices, and other challenges such as road closures, checkpoints, market disruptions, and generalized insecurity have caused food prices to rise sharply.[10] With less to be harvested, the agricultural sector is failing to provide income and livelihood opportunities at its pre-crisis level when it supported over one-third of the population.

The effects of these strains are being felt heavily on the household level. Price hikes and stagnant or decreasing wages have left over three in four Syrians living in poverty, unable to afford sufficient basic food items. Despite large-scale food and livelihoods assistance programs in the country, one in three households in Syria reported going to sleep hungry three to ten times a month in 2015.[11] For livelihoods, the impact includes falling wages, rising unemployment, decreased production, and rising prices.

Methodology

This assessment was commissioned in the interest of better understanding the current food security, agriculture, and livelihoods situation in Syria on the household level in order to be able to drive efficient and effective humanitarian and early-recovery interventions in accordance with the following goals:

- Improve understanding of the implications of the crisis in Syria on food security, livelihoods and agricultural production.
- Understand issues of that remain to be addressed for food security,

2 OCHA. "Humanitarian Needs Overview – Syrian Arab Republic," October 2015 (HNO 2015
3 Ibid.
4 FAO/WFP. "Crop and Food Security Assessment Mission to the Syrian Arab Republic," 23 July 2015
5 Ibid.
6 RFSAN. NDVI and Rainfall Anomaly. http://rfsan.info/portfolio/3
7 Ibid.
8 Op. cit., HNO 2015
9 Op. cit., CFSAM 2015
10 WFP. mVAM Price Monitoring
11 Op. cit., HNO 2015

livelihoods and agricultural production and their implications on future programming.

The assessment was conducted between December 2015 and February 2016 by the Food Security (FSL) cluster in Turkey in cooperation with the Research and Management Team (RM Team) as well as the Regional Food Security Analysis Network (RFSAN[12]) and was funded by the Food and Agriculture Organization of the United Nations (FAO). The FS Cluster Secretariat contracted the RM Team to coordinate field work and conduct training and data management. The analysis phase and data processing were conducted and overseen by a consultant and FSL experts of the RFSAN team in Amman, Jordan and Gaziantep, Turkey.

The assessment employed a phased mixed-methods approach, using information drawn from multiple primary data collection methods, which were complemented by available secondary data. Primary data collection consisted of the following stages:

- Stage 1: Focus Group Discussions
- Stage 2: Household Interviews
- Stage 3: Key Informant Interviews

Consultations with FSL Cluster partners took place throughout the various stages of primary data collection, and partners provided their technical support during the design and the analysis phases, particularly for portions of the assessment focused on agriculture. Finally, enumerators' direct observations were taken into account during debriefing sessions and were used to inform the analysis and presentation of findings.

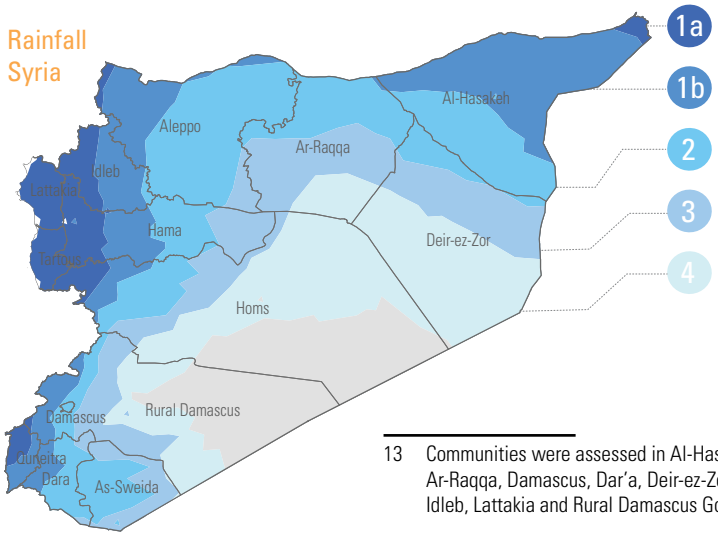
12 The Regional Food Security Analysis Network (RFSAN) is a joint initiative between the Food and Agriculture Organisation (FAO) and iMMAP.

The following subsections provide additional information on the data collection approaches and tools used during the assessment. Because the household-level interviews comprised the main source of data used in the assessment, the methodologies used to complete them, particularly the sampling frame that was utilized, are discussed in greater detail.

Focus Group Discussions

The first phase of the assessment consisted of focus group discussions (FGDs) covering topics related to livelihoods and agriculture. A total of 30 gender-segregated livelihoods FGDs were conducted in 15 randomly selected communities across different rainfall zones. In addition to livelihood focus group discussions, teams conducted 15 FGDs focused on challenges affecting agricultural production. Whenever possible, teams targeted participants who were farmers with different land holding types and different sizes of land. Livelihoods and agriculture FGDs were held before the household-level interviews and the information they provided informed the subsequent design of the household-level questionnaire. Selection was based on rainfall zones, with a target of six livelihoods FGDs and three agriculture FGDs per rainfall zone. A map of these zones is presented below while additional information about how they were derived is presented in Annex E.

Figure 1: Rainfall Zones in Syria

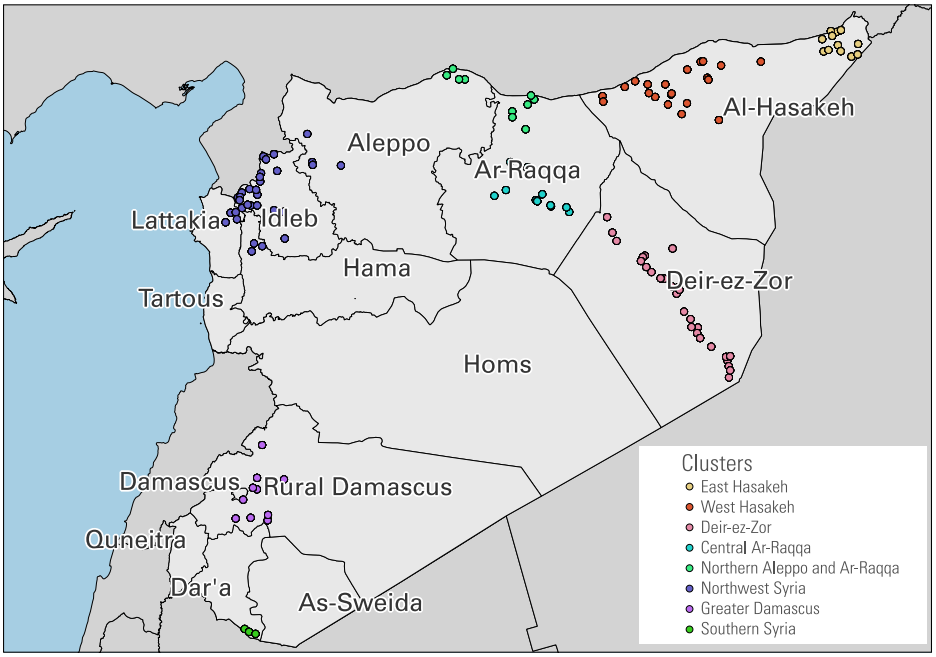


Household-Level interviews

Household-level interviews were the primary data source used in the assessment. Due to access difficulties, it was not possible for sampling to be conducted on the basis of Syria's administrative subdivisions. Instead, sampling was based on a multi-stage cluster sampling approach in which different communities were grouped into clusters based on geographic proximity and shared livelihoods attributes. Throughout these clusters, households in a total of 150 communities were surveyed. These communities were randomly selected from 2,000 villages and neighborhoods identified prior to the field work phase of the assessment.[13] Finally, households within selected communities were also randomly selected, and enumerators sought to conduct 15 household interviews in each.

13 Communities were assessed in Al-Hasakeh, Aleppo, Ar-Raqqa, Damascus, Dar'a, Deir-ez-Zor, Hama, Idleb, Lattakia and Rural Damascus Governorates

Figure 2: Assessment Coverage Clusters



Description of Clusters

- **East Hasakeh:** Located in the Northeast of Syria and bordering Iraq and Turkey, a majority of the communities in this cluster are rural and are located near the Tigris River and its tributaries. This cluster has a large agricultural base with the main crops being wheat and cotton.
- **West Hasakeh:** All the communities in this cluster are located in Al-Hasakeh Governorate in the north of Syria, close to the Turkish border. A majority are rural, with the exception of few major cities such as Qamishli. Agriculture provides the main livelihoods sources. The main sources of water for irrigation are water wheels, with the Al-Khabour River passing near or through many communities.
- **Deir ez-Zor:** All the communities in this cluster were located in Deir ez-Zor governorate in the east of Syria. These areas are mostly rural, with the exception of several urban areas such as Mayadeen, Deir ez-Zor City and Ashara. Agriculture is the main income source due to the large area of land available for cultivation near the Euphrates River as well as the stable supply of water for irrigation. Oil production is also a major source of income.
- **Central Ar-Raqqa**: The majority of the communities in this cluster are located close to the Euphrates River and its tributaries, and the main crops grown are wheat, barley and vegetables. Agriculture is the main income source, and the population lives in both rural and urban areas.
- **Northern Aleppo and Ar-Raqqa:** Communities in this cluster are located in the north of Syria, close to the Turkish border. Agriculture is one of the main sources of income for the population, with wheat, barley, cotton and vegetables being the main crops.
- Northwest Syria: Located in the west of the country, this cluster included communities from Idleb, Aleppo, Lattakia, and Hama Governorates. These communities depend on a wide variety of crops, including as fruit trees, olives, vegetables and wheat. Rainfall levels in these areas are higher than the rest of the country and households have access to multiple sources of water, including groundwater and rivers.
- **Greater Damascus:** This cluster is located in central Syria and includes communities in both Damascus and Rural Damascus Governorates. Agricultural activities are widely dependent on rain, in addition to water from rivers and underground wells for irrigation. These areas produce a large number of both summer and winter crops such as vegetables, fruits, cereals and barley.
- **Southern Syria:** This cluster is located in the south of Syria, close to Jordan. The population in this cluster mainly lives in rural centres but depends upon agricultural production for income. The main crops cultivated in this cluster are wheat, barley, chickpeas and lentils.

Figure 3: Number of Households

Cluster	Estimated Total Cluster Population	Sample	Confidence Interval	Margin of Error
Greater Damascus	3,282,043	147	90	7
Northwest Syria	3,039,344	476	95	5
Deir ez-Zor	970,526	465	95	5
West Hasekeh	833,447	315	90	5
Central Ar-Raqqa	501,542	202	90	6
Southern Syria	413,973	45	90	12
East Hasekeh	294,176	195	90	6
Northern Aleppo and Ar-Raqqa	164,824	150	90	6

Assuming completely randomized and non-clustered selection of households, the margin of error for each cluster would have ranged between 5-12%, with confidence intervals of 90-95%. Two clusters, Deir ez-Zor and Northwest Syria, were assessed at a 95% confidence level and a 5% margin of error, while the remainder fell below this threshold. Given the design effects associated with the approach used, this level of statistical significance was not attained. (Please see Challenges and Constraints section, below.)

The data collected in the field level was cross-checked and triangulated using secondary data. Where applicable, data was discarded if outliers could not be cross-verified. Each enumerator was debriefed at the conclusion of their field work in order to provide more details about the findings and difficulties faced.

Key Informant Interviews

Following the household-level interviews, teams conducted key informant interviews in 25 pre-identified communities (five per agricultural zone) chosen by Agriculture Working Group members and taking into account the findings of the results of the agriculture FGDs. Key informants were individuals with substantial knowledge about topics covered in the assessment, particularly agriculture and livestock, and included agronomists, local council members, major traders, major livestock owners and veterinarians.

Challenges and Constraints

The sampling approach used to conduct the household assessment sought to account for food security and livelihoods conditions across multiple rainfall zones and lines of control throughout Syria in the context of an operational environment in which a larger scale statistically representative sample of the entire country was not possible. In spite of challenges, it represents one of the first assessments of its kind and provides a critical baseline of information on food security, livelihoods, and agriculture that did not exist previously.

Research Design

Results of the household-level assessment as well as other stages of primary data collection may be considered indicative but not fully representative of trends throughout the country. Taking into account design effects of the cluster approach that was utilized as well as the fact that communities within clusters were not sampled in proportion to their population, a lower level of statistical significance was attained.

While clusters have been given names of governorates or regions in some cases, they are not intended to be conterminous with established administrative subdivisions.
While the assessment was able to cover all four major areas of control within Syria, restrictions on data collection resulted in only 5% of the total number of household interviews having taken place in areas controlled by the Government of Syria. While a significantly larger sample was obtained in other areas of control, the fact that a disproportionately large number of interviews were conducted in areas outside of government control needs to be taken into account when interpreting the results.

The approximately 2,000 communities that were identified as being accessible to enumerators consisted of both urban and rural areas with varying populations. Rural communities with small populations were just as likely to be selected as urban ones with large populations, leading to results that were more likely to reflect trends within rural areas than in Syria as a whole.

Along similar lines, enumerators were instructed to randomly sample households in communities selected for interviews without regard to IDP status. This likely contributed to an over-sampling of permanent residents at the expense of displaced populations. With the 2016 HNO estimating that 6.5 million Syrians are IDPs – a figure corresponding with at least one third of the country's remaining population – the proportion of IDP households obtained in the sample from this assessment, 13%, was low. This prevented a better understanding of the needs of IDPs and the role that displacement plays in vulnerability.

Data Collection and Field Operations

The assessment management team was based in Turkey, where there was limited access to field teams due to border restrictions and security concerns. As a result, the team coordinating the assessment used a remote training approach. Five trainers conducted online training of enumerators that covered the questionnaires and indicators used in the assessment as well as humanitarian principles, data collection techniques, and security and logistics protocols. Still, in several cases, communities initially selected for assessment had to be excluded due to access problems.

At the time of the assessment, the prevailing security situation throughout Syria prohibited the use of mobile data collection tools. Instead, paper-based data collection tools were used, which led to a significantly longer period of time spent on data cleaning and validation.

Additional data collection challenges included inconsistent understandings amongst enumerators and interviewed households of the recall period associated with some questions. For example, income figures were variously reported as the average or cumulative amounts. Some households reported monthly income whereas others reported annual income, and further discrepancies were found when analysing the number of persons contributing to the household income as well as in the reporting of the primary, secondary and tertiary income sources. Issues with the quality of data from ISIS-held areas in Ar-Raqqa led to surveys from some communities being excluded.

Main Findings

Introduction

The following sections of the report present the main findings of the household interviews, FGDs and KIIs. The first section provides a summary of the demographic characteristics of the households interviewed and includes information on household composition, characteristics of heads of household, age and gender, special needs, and displacement. The second section provides an overview of household livelihoods, covering trends related to income and employment while highlighting strains resulting from the conflict. A third section presents an overview of standard food security indicators included in the household questionaire as well as information specific to the context of the Syria crisis, particularly the role that the conflict has had in household-level access to food. Finally, a fourth section presents key findings related to agriculture, including an overview of agricultural livelihoods and agricultural markets.

In most cases, aggregate as well as cluster-level findings are presented, with geographic variations highlighted in graphs and charts. (Annex sections at the end of the report also provide more detailed profiling of the characteristics of each of the clusters included in the assessment.) While the sampling approach used during the household-level interviews did not yield a large enough sample size to analyze the needs of IDPs and other vulnerable groups in-depth, salient variations amongst groups are highlighted in cases where they were observed.

Section 1: Demographics and Household Composition

The following section summarizes information on the demographics and composition of the 1,995 households interviewed for the assessment. It is worth mentioning that the figures presented represent a summary of the households interviewed in the assessment and may not correspond with UN or official figures.

Overall, 93% of the respondents in the assessment were male and 7% female. Of the respondents, 96% were heads of household; 97% of heads of household were men and 3% were women. The vast majority of heads of household were married (93%), while 5% were widowed and 2% were single. The average age of the household head was 44. The vast majority of the heads of household (80%) had some education, with 43% completing primary education, 22% having attended secondary education, and 10% having attended university. Youth under the age of 14 years comprised 46% of the surveyed households. There was an almost even representation of males (50.8%) and females (49.2%). Altogether, a total of 13,839 individuals were represented by the household interviews.

The average and household size across all households surveyed was seven, with an average of 3.2 children under the age of 14, 3.5 members between the ages of 15 and 64, and one person over the age of 64 in every four households. Differences in household size were observed across clusters as represented in the graph below. The West Hasakeh and Northern Aleppo and Ar-Raqqa Clusters both had average household sizes over eight, while in the Greater Damascus Cluster the average was below six.

Figure 4: Households Education

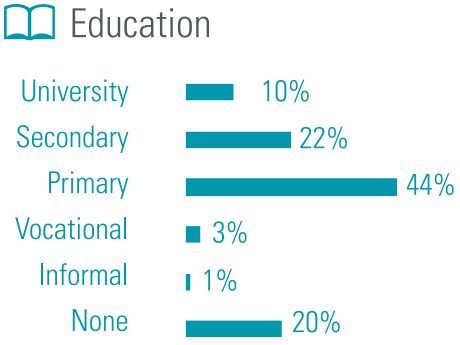
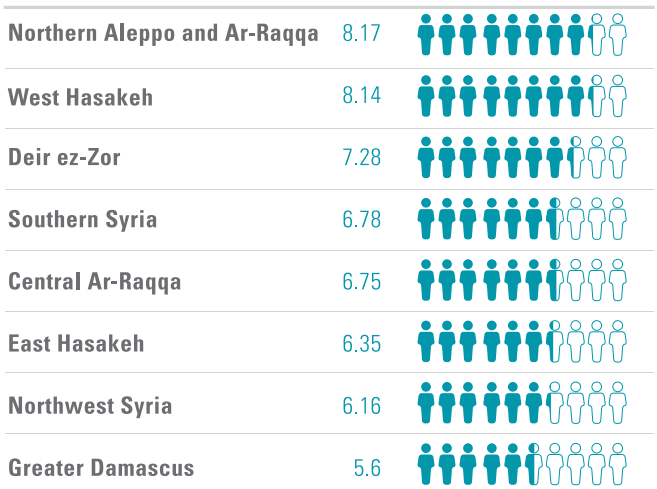


Figure 5: Average Household Size by Cluster



Displacement

In total, 264 households (13%) across seven clusters were IDP households. Of these households, almost three out of four (74%) had been displaced for more than six months. The length of displacement by cluster is shown in Figure 7 below. Traditionally, newly displaced IDPs are harder to reach via random sampling methodology as their dwellings are often in flux or not fully established. As discussed in the Challenges and Constraints section above, the sampling approach utilized obtained a disproportionately small number of IDPs in comparison with other commonly accepted estimations, such as the 2016 HNO.

Figure 6: Proportion of Displaced Household by Cluster

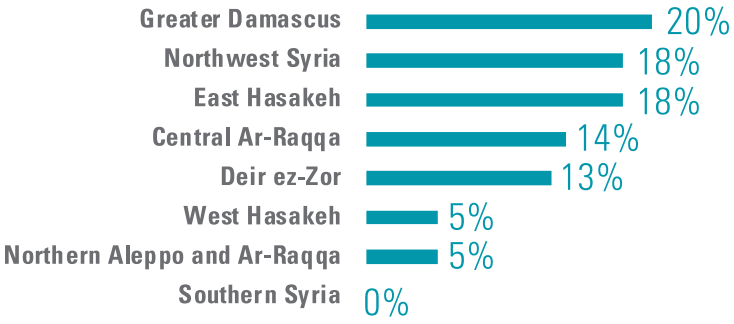
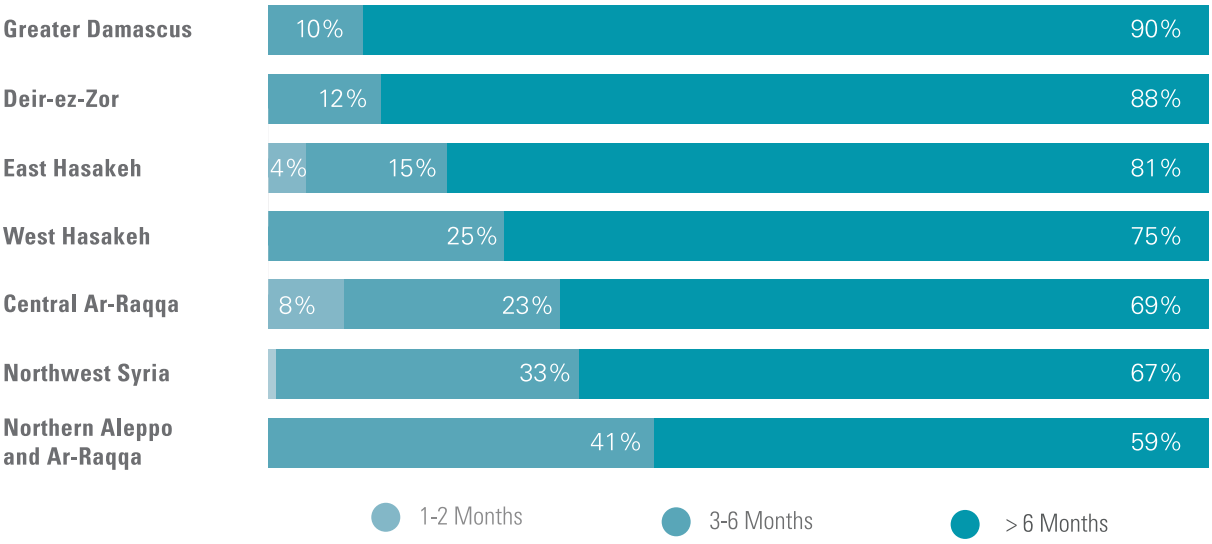
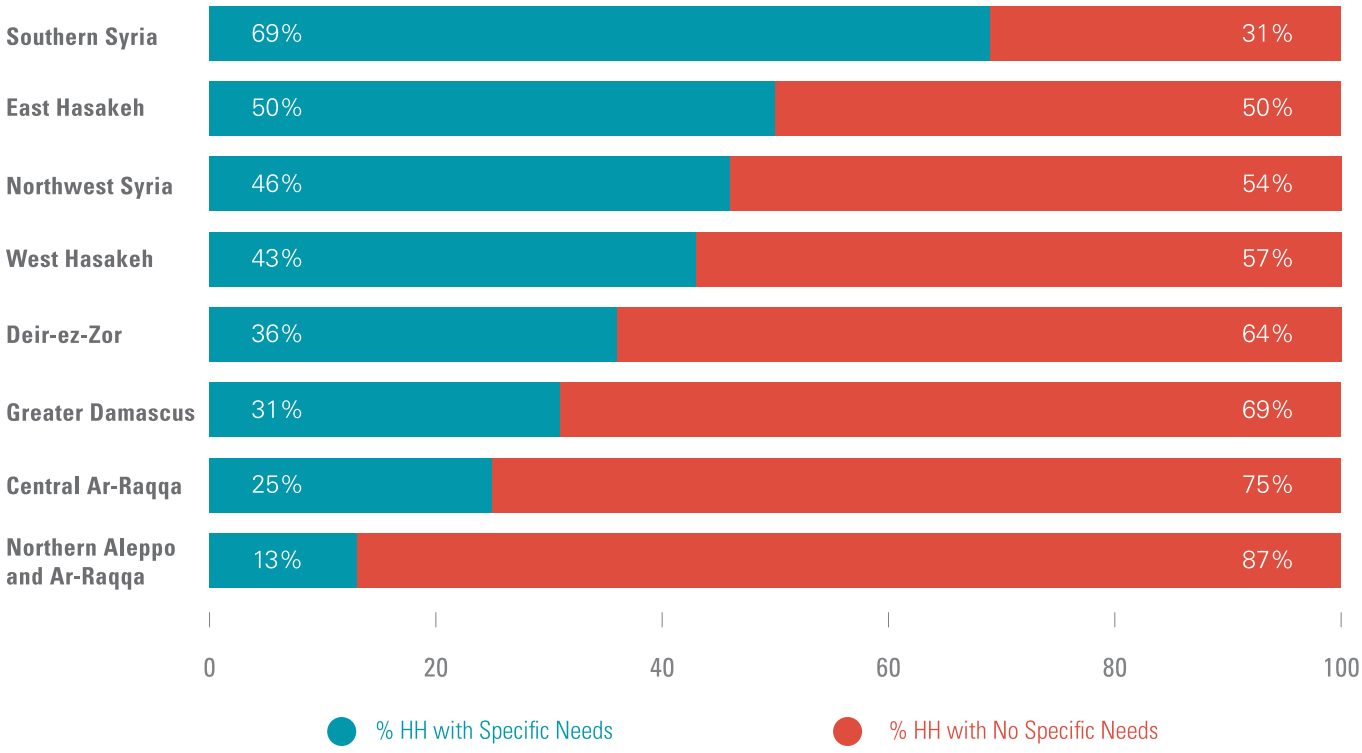


Figure 7: Length of displacement



In total, 38% of households reported having at least one member with at least one of the three specific needs included in the survey: chronic illness (19%), disability (15%), or being pregnant or lactating (12%). The majority (83%) of these households reported having one member with only one of the specific needs addressed in the assessment. As Figure 8 (below) shows, the proportion of households with specific needs varied by cluster.

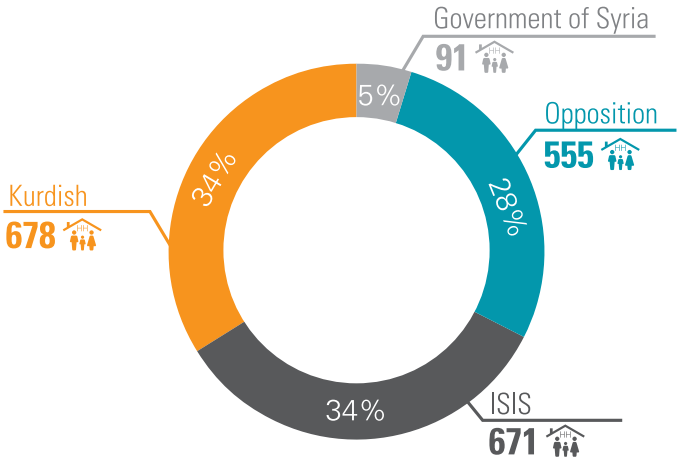
Figure 8: Households with Specific Needs



Areas of Control

Clusters sometimes comprised different areas of control. The East Hasekeh, West Hasekeh, and Northern Aleppo and Raqqa Clusters were under Kurdish control; Deir ez-Zor and Central Ar-Raqqa were under ISIS control, and the majority of the Northwest Syria and Southern Syria Clusters were under the control of armed opposition groups. The Greater Damascus Cluster was the only cluster that was substantially divided between different conflicting groups; approximately two-thirds of households interviewed were in areas controlled by the Government of Syria while one-third of the households interviewed were in areas controlled by opposition groups.

Figure 9: Proportion of Interviews Conducted in Each Cluster by Area of Control



Section 2: Livelihoods

The following section presents key findings with regard to income, employment and income-generating opportunities. At the time of the assessment, the vitality of livelihoods had deteriorated significantly from the previous year, with households reporting lower incomes, mounting debts, reduced purchasing power, fewer jobs, and a high use of coping mechanisms.

These topics constitute the main focus of this section. First a short subsection presents findings on household income, including summary statistics and trends, challenges related to income, and information on primary income sources. A subsequent subsection on employment highlights trends resulting from the crisis, including areas of employment that have grown or declined over the past several years. With many households facing additional livelihoods pressures, a third subsection examines coping strategies and household debt in greater depth. Finally, as many of the challenges households face may take years to address, a brief subsection highlights long-term challenges.

Key Findings

- A majority (80%) of households reported that their incomes had fallen over the previous year, with nearly 60% reporting that the reduction had been significant.
- The main sources of income were agricultural wage labor, skilled trades, and non-agricultural wage labor. The proportion of households reporting salaried work, including government jobs, declined significantly. The proportion of households reporting income sources associated with high-risk and low-skill jobs as well as financial transfers increased.
- In the month prior to the assessment, households surveyed spent an average of 24,880 SYP (62. 51 USD) on food, the equivalent of 57% of total household expenditures.
- Nearly two-thirds of households (64%) contracted debt in the past year, indicating that many households faced economic challenges in meeting their needs. The level of debt for the majority of the households was 197,107 SYP (495.24 USD) on average (approximately three to five months of wages). In most cases, households took on debt to pay for agricultural or livelihoods assets.
- The main livelihoods challenges as ranked by the households were that income sources no longer covered the cost of living, income was unavailable or insufficient in the winter months, and that work was unavailable.
- The vast majority of households (95%) reported employing coping strategies, with reducing household expenditure on health and education, spending savings, and selling assets being the most common.

Income

Households were asked to provide information about their three main sources of income in the month prior to the household interview. Overall, 43% of households reported one source of income, 39% indicated they had two sources of income and 18% reported three. Only a small proportion of households (approximately 0.3%) reported no source of income at all.

The assessment showed that the conflict has caused widespread shifts in income sources; less than half (47%) reported their current primary sources of income were the same as before the crisis. As discussed below, there has been a shift towards lower-skill employment with households moving into jobs such as agricultural wage labour or the fuel processing after losing higher-skill jobs.

In most households, male heads of household were reported as the primary income earners; only 5% of households reported female primary income earners. A small proportion of households, only 2%, reported children as contributing income, a figure that is likely understated, taking into account data collected on the use of livelihoods coping mechanisms as well as the stigma associated with child labor.

Across all households surveyed, the overall average annual and monthly income was 60,579 SYP (152.21 USD) and the median was slightly lower, 40,000 SYP (100.50 USD)[14] Incomes varied considerably between the clusters assessed, with a high of 51,000 SYP/month (128.14 USD/ month in Central Raqqa Cluster and 48,000 SYP/month (120.60 USD/ month) in Deir ez-Zor Cluster, to a low of 25,000 SYP (62.81 USD/month) in the communities assessed in the Southern Syria Cluster.

Figure 10: Median Income by Cluster

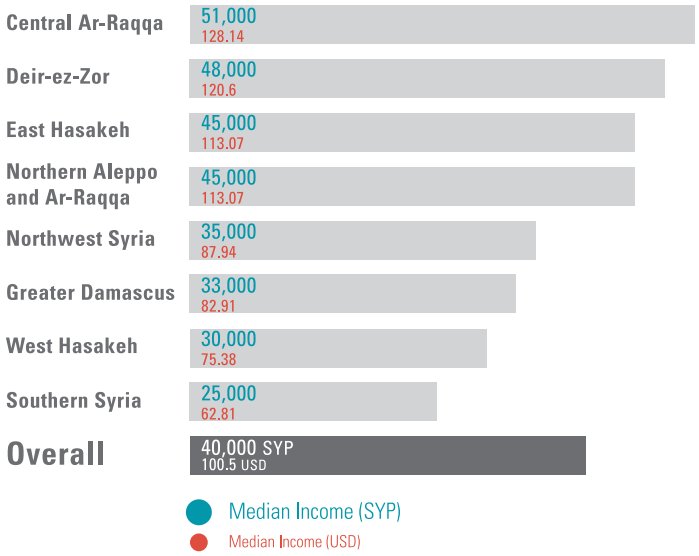
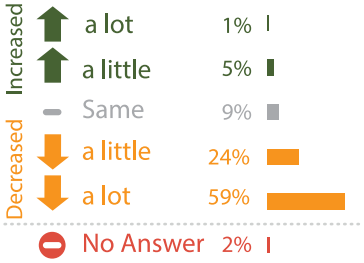


Figure 11: Income Trends (Past Three Month)



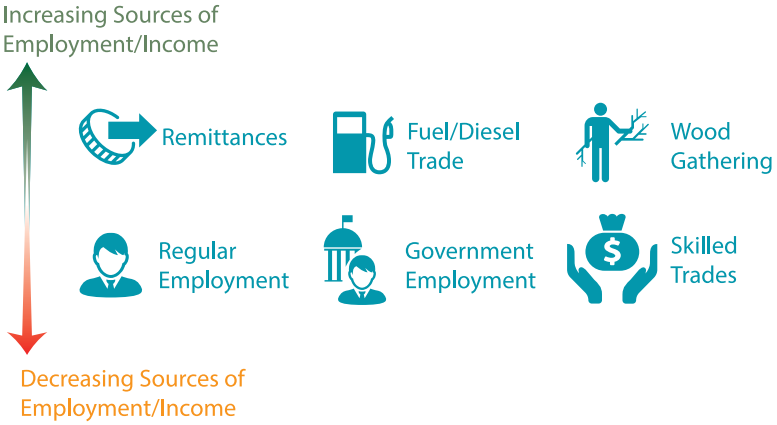
The income figures reflect, in most cases, a steady reduction in household earnings from their pre-crisis levels as well as a steep decline over the previous year. Approximately 80% of households reported that their incomes had fallen over the past year, with nearly 60% reporting that the reduction had been significant. Only 6% of households reported that their incomes had risen in comparison with the previous year. Households that reported significant increases in income had household members working in the medical professions, in NGOs or in other professional occupations. A minority of households involved in the wood and fuel trades, agriculture, education, and skilled trades also experienced increases in income.

Employment and Income-Generating Opportunities

Nearly all households reported at least one source of income. In many cases, however, the types of income sources respondents described were low-skill, temporary or offered only limited earning potential. Sources of income not associated with work, particularly remittances, which grew nearly seven-fold as a primary income source among households surveyed, appeared to be a rapidly growing means of making ends meet. It is worth noting, however, that the assessment did not account for other income streams, including ones related to humanitarian aid.

FGDs highlighted significant changes in livelihoods sources, with a sharp reduction in high-skill occupations in favor of low-skilled, non-professional jobs. The public sector, private businesses and industry have been severely disrupted and have largely ceased to provide employment in many locations. The pre-crisis middle class in particular is struggling with high competition over unskilled employment. Therefore, in many of the FGDs, population groups previously employed in high-skilled occupations were frequently identified to be most vulnerable to food insecurity, due to the lack of access to the highly competitive labour market for low-skilled jobs.

Figure 12: Increased and decreased sources of Income



14 The exchange rate during the period of HH Interviews data collection was on 398 Syrian Pounds (SYP) per United States Dollar (USD)

Figure 13: Primary Sources of Income Overall

Average Monthly Income	**50,421** SYP 126. 69 $	**45,773** SYP 115.00 $	**36,505** SYP 91.72 $
Primary Income Source	**Agricultural Wage Labor**	**Skilled Trades**	**Non - Agricultural Wage Labor**
Percentage of Households Reporting as a Primary Income Source	20%	9%	7%

For those households that reported a change in their main income sources, the top three pre-crisis income sources were trade, employment in the public sector, and service provision. Reduced engagement in these sectors and the increased prevalence of agricultural wage labour found in the assessment displays a clear shift from high-skilled labour to more low-skill and low-paying livelihoods across all zones.

Agricultural wage labour, the largest source of employment income amongst households both before and after the crisis, grew as a primary source of income by one-third despite the fact that agricultural production has been simultaneously decreasing. The reduction of agricultural production likely creates less need for additional assistance during harvest and planting times, placing further downward pressure on wages and an increase in sporadic, temporary, and seasonal employment. At the same time, it is worth mentioning the situation facing households engaged in agriculture, whether as a household food source or as a primary, secondary or tertiary source of income, is itself unique. These pressures and difficulties are detailed more fully in a separate section on agriculture below. With diminishing opportunities for skilled employment, the seasonal nature of income-generating opportunities poses specific challenges. One of these is that income declines during the winter months. Falling demand for labor has depressed wages and increased the strain on individuals and families, leaving little room for savings to cover seasonal variations. Unable to cover the cost of living throughout the year, households have been moving towards higher-risk jobs, while vulnerable groups, such as IDPs and children, are engaging in low-paying and low-skill activities.

When respondents were asked to rank the top three challenges they faced related to livelihoods, households across all clusters reported that their income does not cover the cost of living. The second, third and fourth-ranked challenges were that there were no jobs available in their communities, that there was not enough income in the winter months, and that work was unstable. These findings were also highlighted in the FGDs: While the shift from high-skill to low-skill jobs ensures households a basic income, earnings are often insufficient to cover the needs of the household.

Livelihood FGDs mentioned two sources of income that have been growing since the start of the crisis: working in the fuel trade (oil refinement and fuel markets) and collecting firewood. The fuel trade has absorbed many workers that were once engaged in agriculture while IDPs and children have been increasingly engaged in collecting firewood. Both, however, have also been absorbing workers pushed out of other occupations.

Figure 14: Main Changes in Primary Income Sources

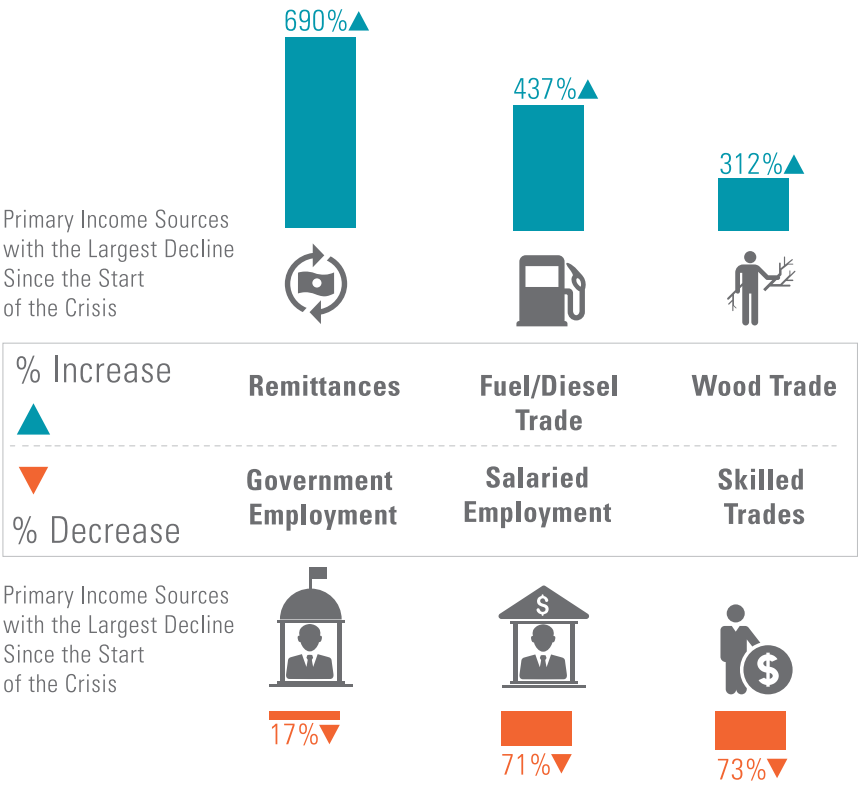


Figure 15: Livelihoods and Employment Main Challenges



Debt and Coping Strategies

Approximately 34% of households reported taking on additional debts in the year preceding the survey. Among households owing debts, average total amounts are equivalent to three months of income (197,107 SYP or 495 USD). Asked about the top three reasons they took on on debts, households across all zones indicated that they had borrowed money to buy agricultural inputs, followed by payment of household bills (e. g., water and electricity) and health expenses. The collapse of the pre-crisis financial support system provided by the government has forced farmers to borrow money from other sources in order to buy inputs for agriculture. If the crisis continues, households will likely exhaust their access to credit or be forced to resort to coping strategies.
With mounting debts, households reported the frequent use of coping strategies, particularly crisis livelihoods strategies such as selling productive assets, removing children from school, and selling seed stocks. This suggests that these households have already exhausted less extreme measures and are at high risk of becoming food insecure.

Figure 16: Household Debt (in the past year)



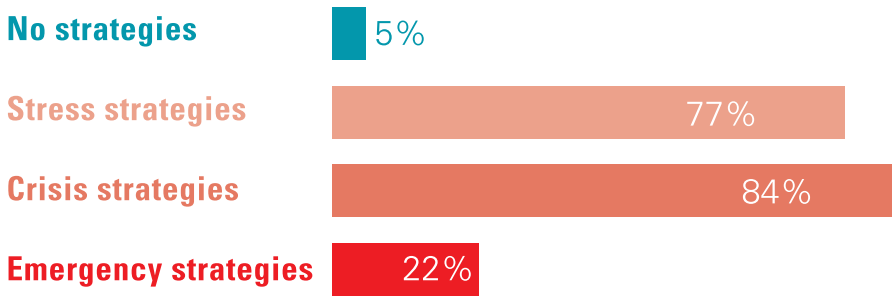
The survey asked households if they had utilized any livelihoods coping strategies that were classified into three broad groups:[15]

- Stress: Strategies that decrease a household's ability to weather future shocks due to a reduction of resources or an increase in debt, spending savings, purchasing food on credit or borrowing money to buy food and spending less money on other needs (e. g. education or health).
- Crisis: Strategies that negatively affect future productivity. These include selling household assets (jewellery, phone, furniture, etc.) or selling productive goods/ assets (sewing machine, tools/ machinery, car, livestock, etc.)
- Emergency: Strategies that may pose long-term consequences or are drastic in nature. These include taking jobs that are high-risk and/or socially degrading, sending adult household members to beg or sending children household members to beg.

The strategies can be used to derive a composite indicator of asset depletion and coping capacity. If households have exhausted specific strategies because they have no more resources left to utilize them, they are still counted as having been utilized.

Overall, the vast majority of households surveyed (95%) reported using one or more coping strategies in the month prior to the survey. In most cases, households used multiple coping mechanisms that encompassed both stress and crisis strategies. Approximately one-fifth of households (22%) used one or more emergency strategies, indicating that they have already exhausted less severe measures and are food insecure or at risk of food insecurity.

Figure 17: Overall Prevalence of Coping Mechanism among Households by Severity



15 WFP. 2014. VAM Guidance Paper; Consolidated Approach for Reporting Indicators of Food Security (CARI). https://resources.vam.wfp.org/sites/default/files/CARI_Final_0.pdf

The table below details the prevalence of specific coping strategies used amongst households in the 30 days prior to the household assessment. Most commonly, households reported spending less on education or health, with approximately two-thirds of households (64%) using this strategy. Spending savings was the next most common strategy (59%); however, 15% of households had already used and exhausted their savings. Sale of household assets was the third most frequently used strategy, reported by 48% of households and with 18% having already exhausted it. It was also common for households to report that they had removed their children from school, but in most cases this was due to security concerns rather than work pressures.

Figure 18: Overall Proportion of Households Utilizing Specific Livelihoods Coping Strategies

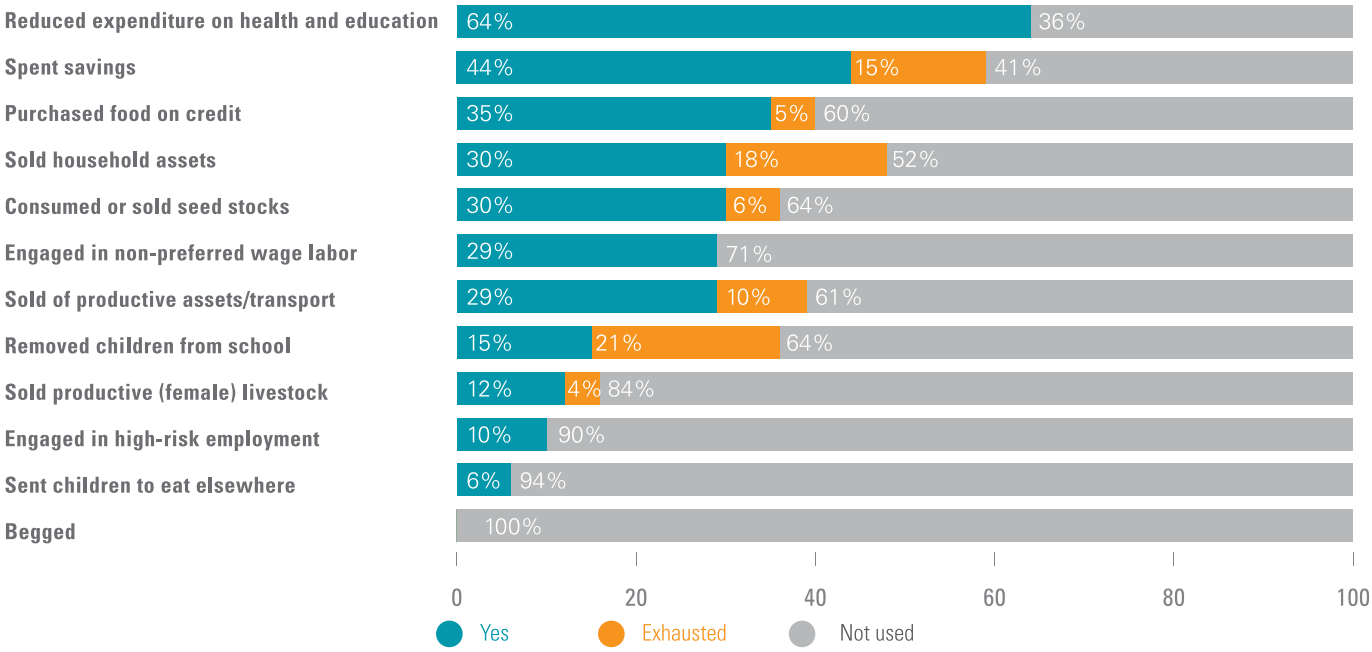
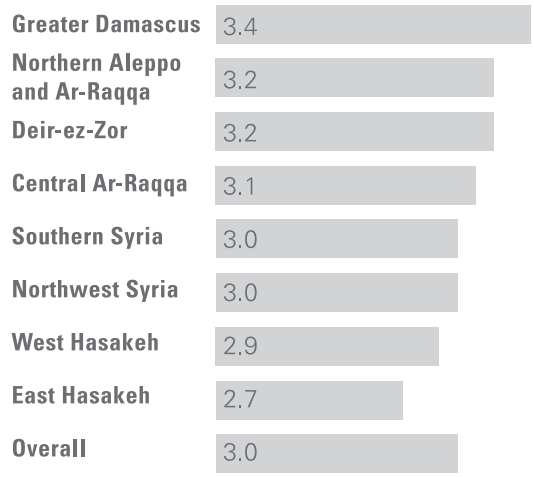


Figure 18 above shows variations in the severity of coping strategies amongst the clusters assessed. On average, households reported an average coping capacity score of 3, which corresponds with moderate food insecurity. The Greater Damascus Cluster had the highest use of livelihoods coping strategies, while households in the East Hasakeh Cluster reported using coping strategies that were less severe on average.

Figure 19: Overall Proportion of Households Utilizing Specific Livelihoods Coping Strategies



Long-term Challenges

In the long term, the impact of conflict on all aspects of daily life, including war-related disabilities and injuries, the collapse of the Syrian Pound, and the erosion of social cohesion and family nucleus, were the main threats to livelihoods identified in FGDs. Fear of besiegement and road/border closures were also a great concern. Male FGDs further highlighted concerns around conflict-related destruction of crops and agricultural land, decrease of humanitarian assistance as well as displacement, as further threats to food security in the coming months. In female FGDs, the decrease of humanitarian assistance along with unequal access to aid was highlighted as a serious concern.

Problems that participants believed they may face in the future varied by cluster and by areas of control. The survey showed that armed conflict was a major concern for 62% of the households across all clusters while difficult access to humanitarian assistance was a major concern for another 51% of the households. In ISIS and opposition-held areas, bombings were a concern for over 80% of the households. Lack of sufficient arable land for gardening was not a major concern in government, Kurdish and opposition-controlled areas but were elsewhere. Access to health services, a lack of processing facilities and a lack of fuel for heating and cooking were the major concerns in government-controlled areas.

Section 3: Food Security

As defined by the FAO World Food Summit held in 1996, food security "exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life." [16]

Household-level interviews included questions to derive a number of international standard composite food security indicators to evaluate the food security status of households. These included the Household Dietary Diversity Score (HDDS) and the Food Consumption Score, which measure dietary diversity and nutrient adequacy. Additional indicators of access and adequacy are also discussed below including the Household Hunger Scale (HHS).

The conflict in Syria has changed how markets function as well as how households access food. As a result, the assessment paid special attention to how households access staple items and whether or not they have access to markets. Indicators of market access, including how households source the items they consume as well as the difficulties they face in doing so are presented alongside more universal indices, including the Household Food Insecurity Access Scale (HFIAS).

Key Findings

- Across all geographic clusters, 61% of households reported acceptable food consumption scores; 30% reported borderline scores associated with a high risk of food insecurity, and 9% reported poor scores, suggesting that they were already food insecure.
- Over 91% of the households used some kind of food-related coping strategy; relying on less-preferred food sources was the most common.
- Households commonly reported low levels of hunger, but many have prioritized consuming foods with high energy and low nutrient value.
- There appeared to be a strong correlation between food security and livelihoods indicators (income levels and employment) as well as IDP status and household characteristics. (Female-headed households and IDPs, for example, appeared more likely to be food insecure.)
- While the vast majority of households reported that they could access markets and that they depended on them for most of the food they consumed, households commonly reported difficulties obtaining key food commodities, and other measures of food access, such as the Household Food Insecurity Access Scale (HFIAS) suggested that many were at risk of food insecurity.
- Of the households surveyed, 90% felt that they needed humanitarian food assistance and nearly one-third reported actually receiving food aid.

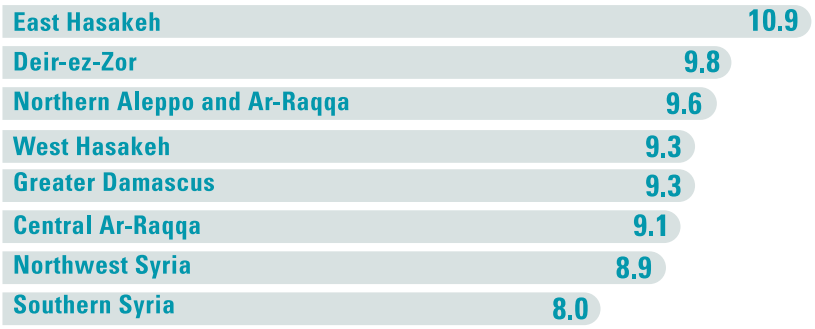
16 World Food Summit, Declaration on World Food Security. Held in Rome, Italy 17-13 November 1996. http://www.fao.org/docrep/003/w3613e/w3613e00.htm

Household Dietary Diversity Score

The household Dietary Diversity Score (HDDS) [17] is a proxy indicator for household nutrient adequacy and is defined as the number of unique food groups consumed over a one-week period. Studies have shown that an increase in dietary diversity is associated with socio-economic status and household food security (household energy availability). [18] The indicator is based on 12 food groups and a score is given ranging 0-12, with 0 being no food groups consumed and 12 indicating at least some quantity of each group was consumed. It is important to note that the HDDS does not measure quantity or quality of food consumed. A sample of the survey form including the twelve food groups can be found in Annex F.

The average HDDS of the households surveyed was 9.4. While there are no standard cut-offs associated with the HDDS, this is a relatively high average, considering that the maximum score is 12. There was significant variation between clusters, with the Northern Aleppo and Ar-Raqqa Cluster reporting an average score of 8 and the East Hasakeh Cluster reporting an average score of 10.9. Differences in local production and the functionality of supply chains could be attributed to some of these variations, with Hasakeh, for example, having high levels of agricultural production and the communities assessed in the Northern Aleppo and Ar-Raqqa being affected by conflict and interrupted supply lines at the time of the assessment.

Figure 20: Household Dietary Diversity Score (HDDS) by Cluster



While there were not significant variations between IDP and non-IDP households, there were variations between other household types. For example, female-headed households had HDDS scores of 7.9 on average versus 9.5 in male-headed households. Lower access to markets for women as well as lower incomes amongst female-headed households are likely the main factors contributing to such low scores.

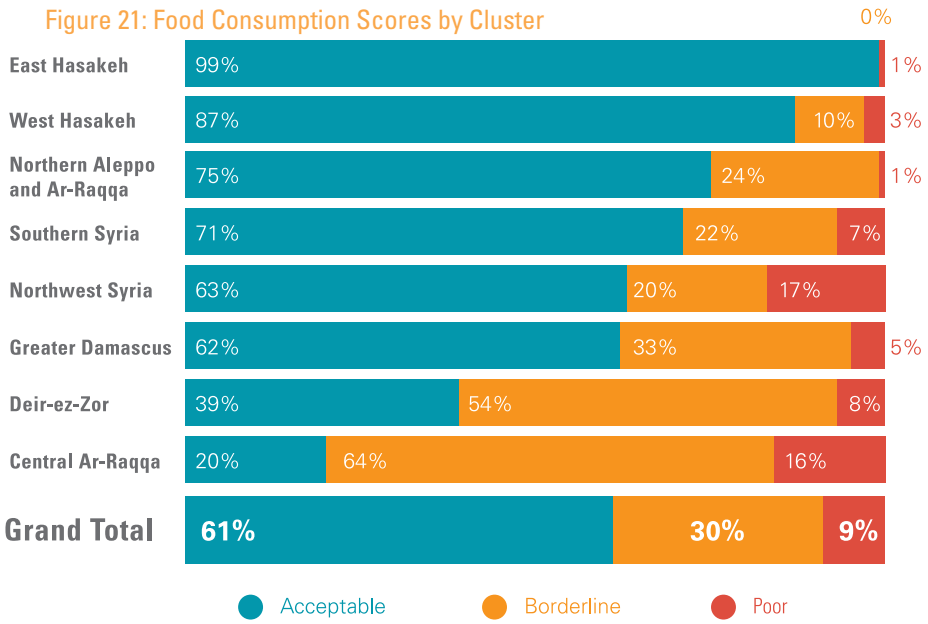
Food Consumption Score (FCS):

The FCS uses the information provided about weekly food consumption by type of food and frequency of consumption (how many days per week) and weights it against nutritional value to provide an indication of a household's consumption patterns and food security. Once scored, a household's food consumption is classified into three categories based on the following thresholds and intervals: [19]

- "Poor:" Households with an FCS less than or equal to 28 are considered food insecure.
- "Borderline:" Households with food consumptions above 28 and less than or equal to 42 are considered vulnerable to food insecurity.
- "Acceptable:" Households with food consumption scores greater than 42 are considered food-secure.

While FCS helps to provide a snapshot of dietary diversity and consumption,

Figure 21: Food Consumption Scores by Cluster



17 The HDDS was developed by the USAID funded Food and Nutrition Technical Assistance (FANTA) Project in collaboration with Cornell, Tufts, Africare and World Vision

18 Guidelines for Measuring Household and Individual Dietary Diversity, FAO, http://www.fao.org/fileadmin/user_upload/wa_workshop/docs/FAO-guidelines-dietary-diversity2011.pdf

19 These thresholds are commonly used in Syria and surrounding countries and account for high intakes of sugar and oil in the region.

like the HDDS it accounts neither for the amount of food a household consumes nor for its quality. A more extensive technical explanation is available in Annex F of the report.

The Central Ar-Raqqa and Northwest Syria Clusters had the highest proportion of households with poor food consumption scores. Households in the Central Ar-Raqqa Cluster also had a high proportion of households with borderline food consumption scores, indicating that many households were at risk of food insecurity.

In FGDs participants identified female-headed households, households with disabled or chronically ill members, and child-headed households as the groups most vulnerable to food insecurity. Focus groups also indicated that IDPs are at greater risk for food insecurity than non-IDP households. Although the sample size in the household survey was too small to indicate overall trends for some of these groups, the data available appears to confirm findings from the FGDs. For example, 21% of female-headed households reported poor food consumption scores. Despite reporting incomes that were similar to the population as a whole, IDPs were more likely to have poor food consumption scores (12%), as were households with disabled or chronically ill heads of household (15%).

As the chart below highlights, nearly all households reported consuming cereals and grains in the week prior to the household interview. Large proportions of households also reported consuming tubers, vegetables, oils, and milk products in the week before the assessment. Approximately three-quarters of households consumed meats (78%) and pulses (72%) while consumption of eggs was relatively higher (86%). Consumption rates of fruit were relatively low (61%), a factor that may have to do with data being collected during the winter season. Only a small proportion of households (11%) reported consuming fish.

Despite the relatively high proportion of households that reported consuming nearly all items included in the FCS index in the week prior to the survey, a closer examination of consumption patterns shows that in many cases, households are prioritizing intake of high-energy foods and consuming fruits and vegetables and sources of protein less frequently.

Figure 22: Percentage of HH Consuming Food Groups in the Week Prior to the Survey

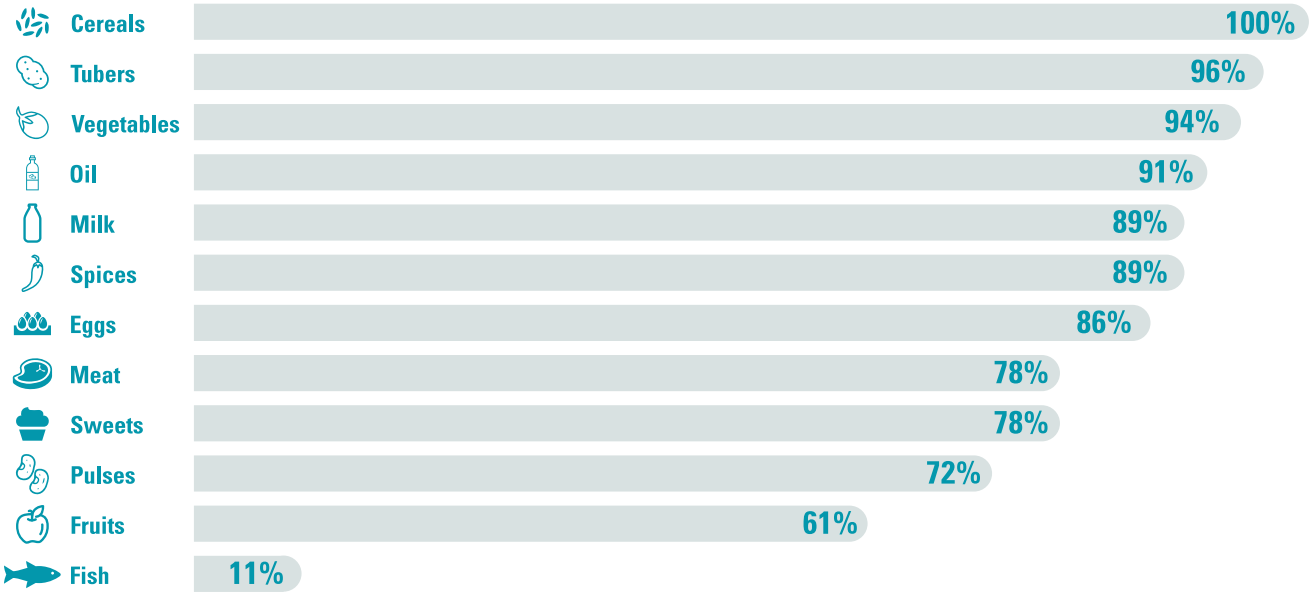


Figure 23, highlights some of the differences in food consumption between households with acceptable, borderline and poor food consumption scores.

Figure 23: Food Consumption Score

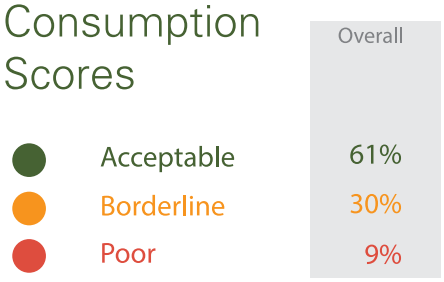


Figure 24: Average Number of Days Each Food Group was Consumed by main Food Consumption Group

	Acceptable	Borderline	Poor	Overall
Cereals	6.5	6.6	6.0	6.5
White Tubers and Roots	5.0	3.2	1.8	4.2
Pulses	4.6	2.0	1.3	3.6
Vegetables	3.6	3.1	0.7	3.2
Fruits	4.2	1.5	0.6	3.1
Meat	2.9	2.3	2.2	2.7
Eggs	3.7	1.0	0.5	2.6
Fish	2.8	2.2	1.6	2.5
Milk	2.3	0.8	0.5	1.7
Sweets	1.7	0.9	0.2	1.3
Oil and fats	1.2	0.8	0.2	1.0
Spices/Condiments	0.3	0.1	0.0	0.2

Across households with different FCSs, respondents reported consuming bread, potatoes, and vegetables with comparable frequencies. Households with acceptable food consumption scores consumed high-protein foods, such as pulses, meat, eggs and milk at least several times per week, while these items were nearly absent from the diets of households with poor food consumption scores. Consumption of these items was minimal (approximately one day per week on average) in households with borderline food consumption scores.

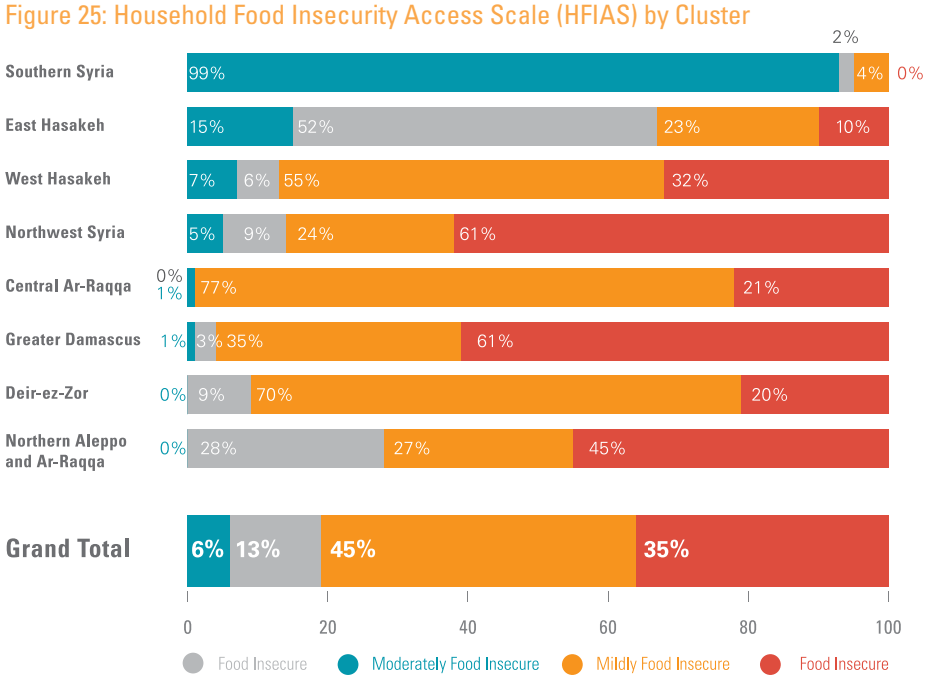
Unsurprisingly, FCSs appeared to be closely correlated with income. Households that reported acceptable food consumption scores had incomes of 69,412 SYP (174.40 USD) per month on average, while ones with poor FCS earned almost half that amount – 36,364 SYP (91.37 USD) per month on average. Household with borderline FCSs earned 49,613 SYP (124.66 USD) per month on average.

Food consumption scores were markedly higher among households engaged in agriculture; only 26% of households engaged in livestock production reported borderline or poor scores and only 32% of households engaged in crop production reported borderline or poor scores. Notably, 63% of households that abandoned agriculture in the past year reported acceptable food consumption scores; however, these households were more likely to report poor food consumption scores (15% vs 5% amongst households still engaged in agriculture), suggesting that abandoning farming may have severe consequences for some households.

Household Food Insecurity Access Scale (HFIAS)

The HFIAS is designed to measure the experience of food insecurity and is based on the premise that households have similar reactions and responses to food insecurity that can be compared across contexts and be adapted into a quantifiable scale. The HFIAS is based on nine questions that measure perceptions of food vulnerability or stress, while others ask about the respondents' behavioural responses to food insecurity over the past four weeks. [20]

Figure 25: Household Food Insecurity Access Scale (HFIAS) by Cluster



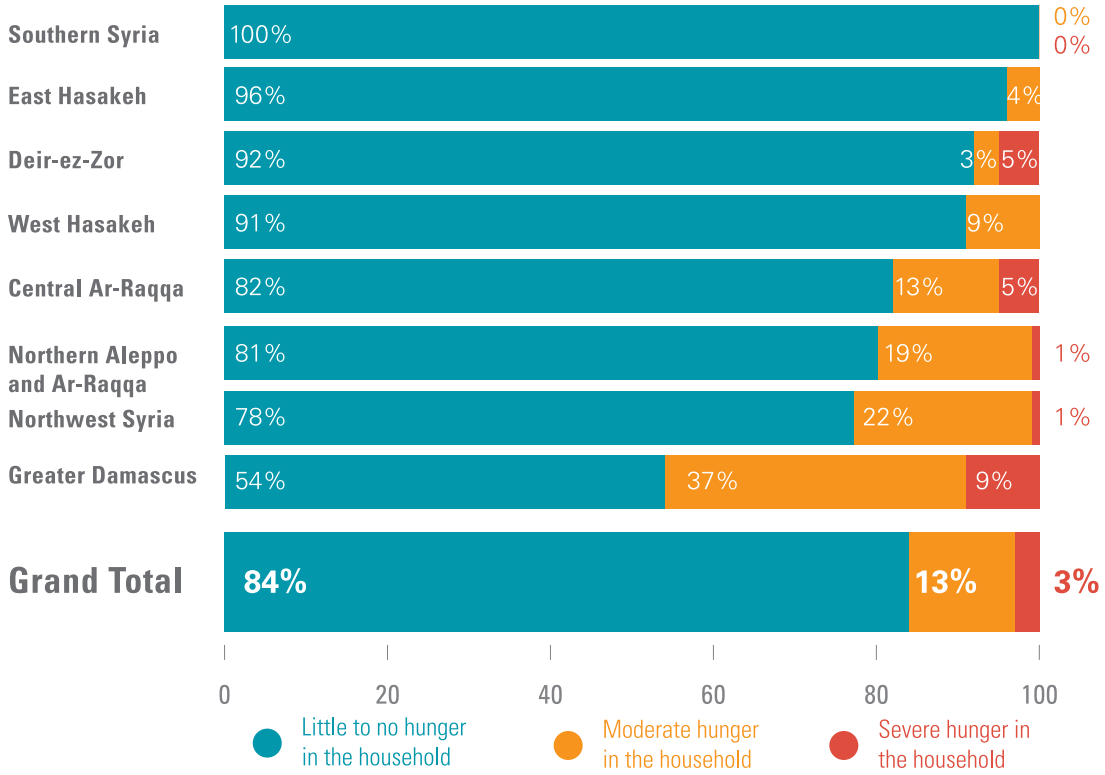
20 Coates, Jennifer, Anne Swindale and Paula Bilinsky. "Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide."

The majority of the households had low food access concerns as measured by the HFIAS. 15% of households felt they had sufficient access to cover all of their needs, while the 52% were mildly food insecure in terms of access. Overall, only 10% of the HH indicated that they were severely food insecure in terms of access.

Household Hunger Scale (HHS)

Questions from the HFIAS contribute to the Household Hunger Scale (HHS), a measure of household food access that captures insufficient food quantity based on physical consequences of hunger experienced in a household over the past 30 days. The HHS is unique compared to other food insecurity indicators in that it has been developed and validated for cross-cultural use and is comparable across contexts. The index measures whether households fall into severe or moderate categories of hunger or whether they exhibit "little to no" hunger.

Figure 26: Household Hunger Scale (HHS) by Cluster

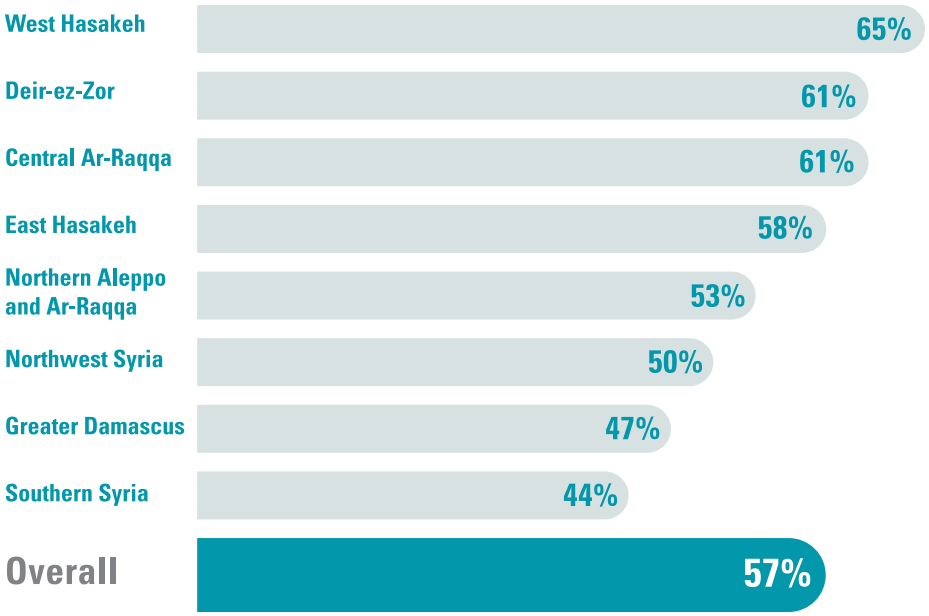


As Figure 26 above shows, approximately 84% of households exhibited little to no hunger, while 13% exhibited moderate hunger. A small proportion, 3%, exhibited severe hunger. The highest rates of hunger were reported by households in the Greater Damascus Cluster, a result that may owe to the high number of besieged locations there. IDP households were more likely to report severe hunger (6%) versus the overall population assessed, as were female-headed households (5%).

Food Expenditure

Food comprised households' largest category of household expenditure, followed by fuel and electricity costs, healthcare, and debt repayment. On average, households allocated 57% of their overall expenditures to food in the month prior to the survey, an equivalent of 24,880 SYP (62.51 USD). As a proportion of household expenses, spending on food was highest in the West Hasakeh Cluster at 65%, while in the Greater Damascus Cluster and the Southern Syria Cluster, food comprised only 47% and 44% of household expenses each, respectively.

Figure 27: Food Expenditure Share by Cluster



While food expenses comprised the greatest proportion of households' expenses, fuel (9,943 SYP or 24.98 USD/month), education (4,008 SYP or 10.07 USD/month) and health care (3,096 SYP or 7.78 USD/month) also comprised significant areas of expense, on average.

Female-headed households and IDPs allocated a smaller proportion of their household expenditures to food. IDPs spent approximately 53% of total household expenditure on food, while female-headed households spent approximately 50%.While higher levels of food expenditure are often a sign of stress, in these cases, lower food expenditure may reflect the fact that households have to devote higher proportions of their income to other expenses, such as rent, and have less to spend on food.

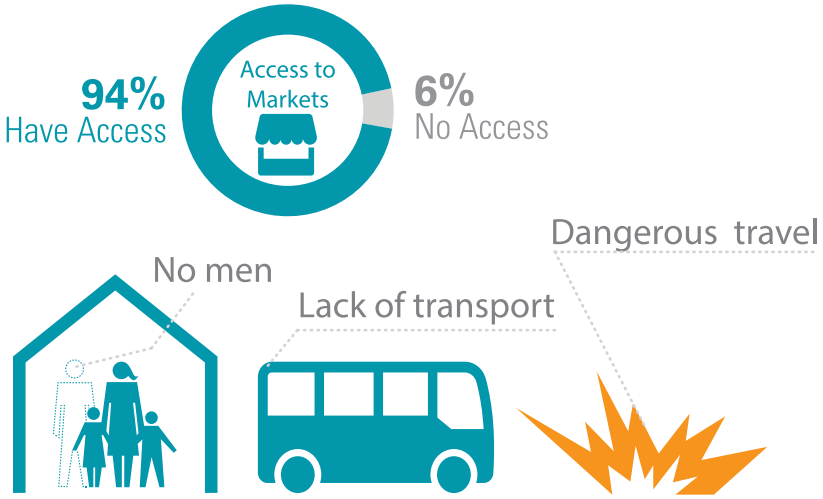
Market Access

The conflict in Syria has disrupted markets for food, and the household survey as well as the FGDs and KIIs included a number of questions related to market access and functionality. Due to the conflict, market access and functionality in besieged and hard-to-reach areas is low or nearly non-existent. The collapse of infrastructure, road blockages, and changing areas of control also pose further challenges in areas that are relatively less affected. Furthermore, markets, bakeries and other food infrastructure have become targets of attack, raising additional concerns about availability and access.

Household interviews indicated that households rely predominantly on markets as a food source and that levels of access are high. Households' own production and humanitarian aid generally play a secondary and tertiary role in ensuring food security. At the same time, qualitative data from FGDs and KIIs, show that households often struggle to access adequate food from markets and may need to travel further than they did before the conflict or through insecure areas to obtain it.

The vast majority of households surveyed (94%), reported being able to access markets. These households overwhelmingly reported that a majority of their food consumption came from items that they purchased themselves from markets in the week prior to the survey. The 6% of households that were not able to access markets cited dangerous travel conditions, transportation, and a lack of male family members as reasons for lacking access. Levels of access were lowest in the Greater Damascus (82%), Northwest Syria (85%), and Northern Aleppo and Ar-Raqqa clusters (91%). Given levels of conflict and number of besieged and hard-to-reach areas in these clusters at the time of the assessment, the fact that market access was more of a problem in these areas is not unexpected. Women and female-headed households in particular, appear to have the greatest difficulties accessing markets overall.
After markets, households' own production was the second-most frequently reported source of food.

Figure 28: Reasons for being unable to access markets



Rates of consumption of food items produced at home were highest for milk products, cereals, and eggs, with 15-25% of households citing their own production as the source of these foods in the week prior to the survey. Overall, humanitarian aid was the third most important source of food, but there were significant variations by individual food item. Approximately 12% of the households that reported consuming pulses indicated that they obtained them through food aid rather than markets or their own production. A small proportion of households (approximately 4%) reported that they consumed cereals and grains, eggs, and oils and fats that they obtained from food aid.

Overall, approximately one-quarter (26%) of households reported receiving some amount of food aid in the month prior to the survey; however, two-thirds (67%) reported that they required food aid but had not received it. Only a small proportion (less than 1%) reported receiving food aid even though they did not require it. High levels of access to markets reported in the household survey may also belie other challenges. These include relying on markets that are distant or in insecure areas or markets that are poorly stocked or dependent upon smuggled goods. Increased transportation and transaction costs mean that households may not be able to afford items in markets when they are available.

Figure 29: Source of Food Consumed by Food Group

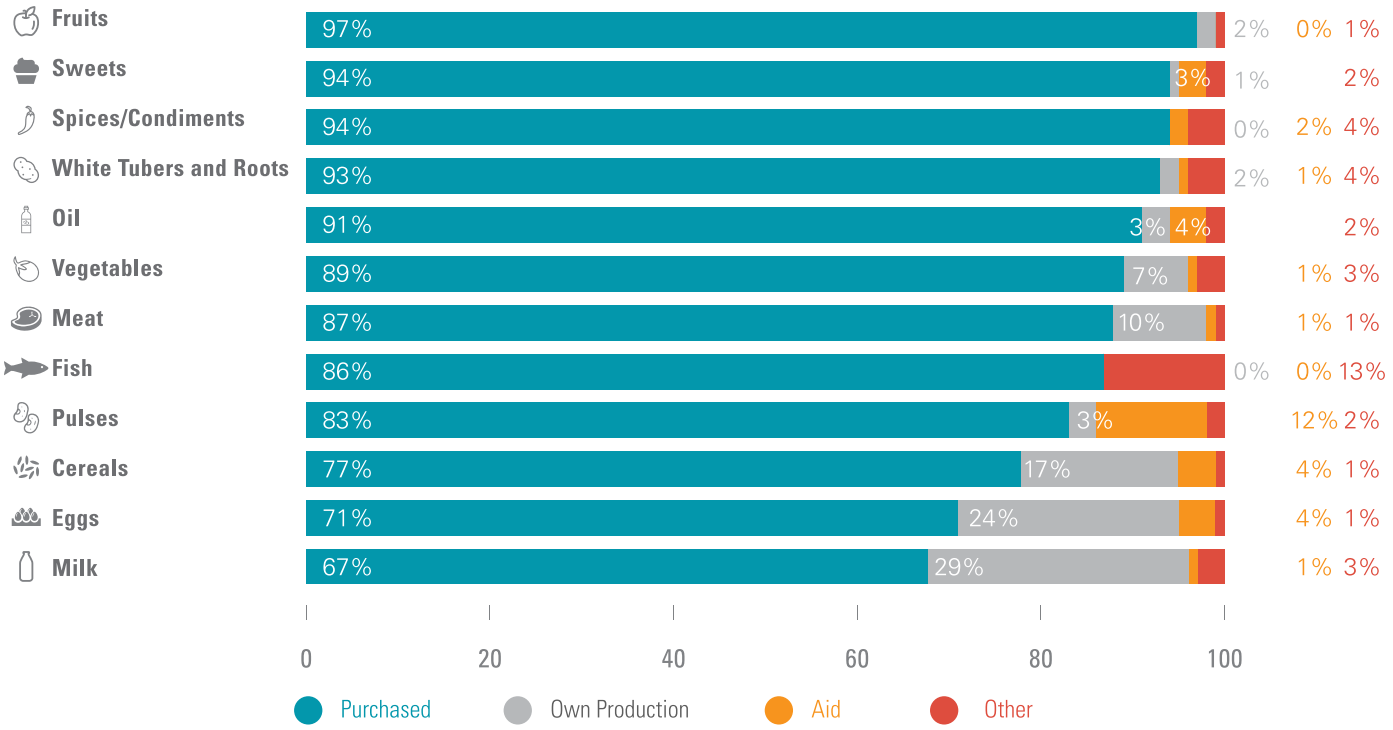
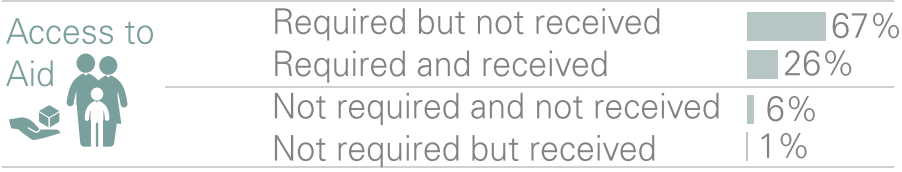


Figure 30: Access to Aid

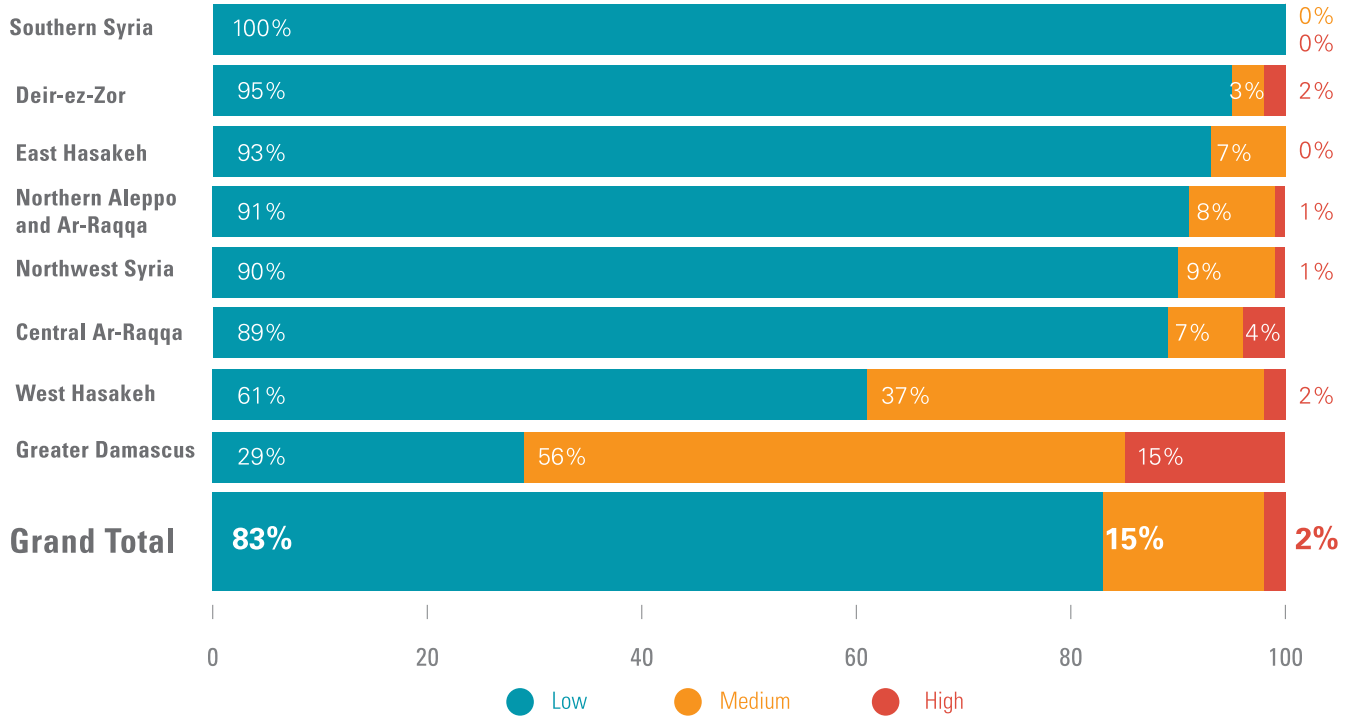


Along those lines, the vast majority of households reported that key food commodities were available on the market. Only a small proportion reported shortages although households frequently reported that some items were hard to find. Instances in which goods are unavailable or difficult to obtain appear to be localized and commodity specific. For example, 8% of households reported that canned foods were unavailable, 4% reported that chicken was unavailable and 3% reported that they could not obtain fruit or meat. Goods may also be available but are more frequently hard to find. For example, while only 2% of households reported that sugar was unavailable, 37% reported that it was hard to find. Other items that were reportedly hard to find included wheat flour (27% of households) meat (23%), fruit (22%), vegetables (19%), cooking oil (18%) and lentils (18%).

Coping Strategies Index (CSI): [21] The CSI assesses how many times during a seven-day period a household employed specific coping strategies in response to a shortage of food. The reduced CSI (r-CSI) enquires about five could be reused, limiting portion size at meals, and reducing the number of meals eaten each day.

detrimental alimentary behaviours: the consumption of less preferred and less expensive food, the borrowing of food, the reduction of portion sizes, the restriction of adults' consumption in favour of children and reduction of the numbers of meals consumed per day. The higher the score, the more frequent and severe these strategies are, and the more vulnerable and food insecure the household is. Relying on less preferred and less expensive foods was used as a coping strategy more often than any other food-related coping strategy. [22] Overall, 93% of households had a low reduced copying strategy index and no households had a high rCSI.

Figure 31:Reduced Coping Strategies Index by Cluster



Overall, 91% of households reported using one or more of the coping strategies in the seven days preceding the assessment. Households most commonly reported relying on less preferred and less expensive foods. Other strategies were far less common but included, in order of frequency, finding new ways to maintain and store food so that it could be reused, limiting portion size at meals, and reducing the number of meals eaten each day.

Figure 32: Average Number of Times Households Used Coping Strategies in the Previous Week.

Food Related Coping Strategies	Number of times in 7 days
Rely on less preferred and less expensive foods	4.2
Find new ways to maintain and store food so that it could be reused	1.7
Borrow food, or rely on help from a friend or relative	0.5
Gather wild food, hunt, or harvest immature crops	0.2
Restrict consumption by adults in order for small children to eat	0.7
Look for food in garbage	0.0
Limit portion size at mealtimes	1.5
Reduce number of meals eaten in a day	1.5

21 The Coping Strategies Index (CSI) measures a given household's behaviour when they do not have sufficient amounts of food. (WFP. 2008. "The Coping Strategies Index." http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp211058.pdf

22 In this assessment the Reduced CSI was also utilized, which may be especially useful for comparing food security across different contexts or for geographical targeting and planning of food assistance.

Section 4: Agriculture

The conflict in Syria has resulted in diminished agricultural production and disrupted supply chains, leading to a reduction in levels of access and availability of food. In the long term, these may have severe effects on households that are not only engaged in agriculture, but on food security and development in Syria as a whole. While previous assessments, such as the CFSAM, have provided aggregate figures on the effects of these trends, information on linkages to household-level agricultural production has been limited.

Accordingly, this section aims to explore these linkages further. First, a subsection on agricultural livelihoods provides an overview of the beneficial effects of continued involvement in agriculture as well as the pressures that households face in sustaining their engagement. Subsequent subsections outline these pressures in greater detail. As markets for inputs were highlighted as one of the factors limiting households' engagement in agriculture, a separate subsection examines challenges that households face in obtaining seeds, fertilizer, and feed. With value chains severely affected by the conflict, a subsequent subsection details constraints farmers and herders face in selling an adding value to what they produce.

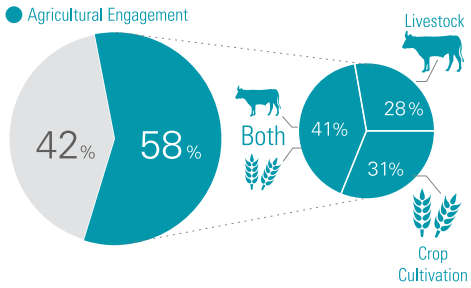
Key Findings

- The survey revealed that 58% of the households were engaged in agriculture, with 42% involved in crop production and 40% involved in livestock production. Amongst households involved in agriculture, 41% were engaged in both crop and livestock production.
- Households engaged in agriculture were more resilient and food secure than those that were not or had had recently given up farming or herding.
- In the 24 months preceding the assessment, the livestock sector experienced a decline, with the number of animals owned by households falling sharply. There was an overall reduction of nearly 50% in cattle, goat, and sheep numbers, while aggregate poultry holdings fell by 94%. The main causes of the reduction were consumption and sale of household livestock.
- Over the same time period, a large proportion of households that had planted staple food crops previously reported that they had stopped cultivation. The number of households planting potatoes and pulses fell by approximately 50%; the number planting barley fell by nearly 40%; and the number planting wheat, olives and vegetables fell 15-20%.
- Markets for agricultural inputs have suffered as a result of the conflict with the expense or unavailability of inputs for crop production (e.g., fertilizer, fuel and water) being one of the main reasons for halting or scaling back cultivation. Similar factors have also affected household engagement in livestock production, with households naming the expense or unavailability of fodder and veterinary care among the top reasons for ending or curtailing their engagement with agriculture.
- Changes in markets resulting from the conflict have made continued engagement in agriculture less profitable. Access to transportation, mills, processing plants, and changes in value chains as a whole have meant that households have fewer options to earn a living from what they produce.

Agricultural Livelihoods

More than half (58%) of households interviewed were engaged in agriculture (crop production, livestock or both) at the time of the assessment; 42% were engaged in crop production, while 40% in livestock production and 24% were engaged in both.
A relatively large proportion of households reported having stopped crop production (10%) and livestock production (11%) in the year prior to data collection.
On a whole, households involved in crop production and livestock herding were more resilient and more likely to report higher food consumption scores, larger incomes, and a lower use of coping strategies. However, households engaged in agriculture faced a number of pressures that place their ability to remain engaged in crop production and herding at risk. On average, households engaged in

Figure 33: Agricultural Engagement



agriculture had higher incomes than those that were not. For households involved in livestock production, monthly incomes were 2,001 SYP (5.03 USD) per month more than those that were not; among households engaged in crop production, monthly incomes were 14,559 SYP (36.58 USD) higher. Households that gave up agriculture, by contrast, earned 19,003 SYP (47.75 USD) less per month than households overall on average.
The positive effects of agricultural agricultural activities in many areas assessed, and even though the work they perform is often unpaid, they are directly contributing to household livelihoods. In farming families, women are often involved in land preparation and weed control; in herding households they are engaged in selling livestock products as well as feeding and caring for animals.

Households that gave up crop production or livestock herding in the year prior to the assessment had markedly lower incomes than those that were able to continue.

engagement were also apparent in food consumption patterns, with 74% of households engaged in livestock having acceptable food consumption scores, versus 52% of those that were not, and households engaged in crop production 12% more likely to have acceptable food consumption scores than those that were not.

Households engaged in agriculture generally owe their higher levels of food security to their ability to rely on their own food production as well as While many had acceptable food consumption scores, they appeared more prone to more severe food insecurity, with 15% reporting poor food consumption scores.

At the same time, households engaged in both crop production and livestock appeared to be more resilient and had higher incomes as well as food consumption scores. While households engaged in crop production exclusively had markedly higher incomes than those that did not, their food consumption scores were only marginally higher. Similarly,

access to multiple sources of income.

Along these lines, approximately two-thirds (64%) of households engaged in agriculture named primary sources of income that were not directly associated with farming or herding. Accordingly, livestock or crop production may serve as an important supplement to other livelihoods opportunities, improving purchasing power and food security in the face of depressed wages and increased costs. Women are heavily involved in households engaged in livestock production reported relatively high food consumption scores but incomes that were below average.

In most cases, households that have remained engaged in agriculture have already drastically curtailed their production of key crops as well as their livestock holdings. For example, in the year prior to the assessment, the number of households cultivating potatoes and pulses fell by over 50%, while the percentage of households planting barley fell by nearly 40%. Overall, households also reported

Figure 34: Livestock and Crop production Engagement

Food Consumption Scores	Overall	Livestock Households: Engaged	Livestock Households: Not engaged	Crop production Households: Engaged	Crop production Households: Not engaged	Abanoned Agriculture
Acceptable	61%	74%	52%	68%	56%	63%
Borderline	30%	21%	36%	27%	32%	22%
Poor	9%	5%	12%	5%	11%	15%

Figure 35: Changes in Crop Cultivation

Crop	Percentage of Household Cultivating	Percentage Change*	Main Challenge
Wheat	31%	-16% ▼	Changes in value change and buyers of wheat
Barley	15%	-38% ▼	Lack of demand for livestock; poor rains
Olives	11%	-18% ▼	Lack of access to mills
Vegetables	11%	-15% ▼	Broken connections between processing facilities, traders, and farmers
Pulses	7%	-49% ▼	Lack of agrochemicals; market changes
Potatoes	2%	-53% ▼	Lack of adequate storage and processing capacity

*Percentage change in HH cultivating specific crops during the past year

drastic reductions in flocks and herds. Total poultry holdings dropped 94% during the two years prior to the assessment, and sheep, cattle, and goats dropped by approximately 50%. In many cases, this was due to households cutting their herds and flocks dramatically, often retaining only a fraction – often only two or three animals - of their previous holdings. For example, while poultry farmers interviewed had average flocks of 303 animals two years ago, they reported average flock sizes of 16 at the time of the assessment. Such dramatic reductions were often the result of large-scale farmers ceasing production, but smaller farmers have also been affected; median poultry holdings, for example, went from 25 to 15 animals over the same period.

Figure 36: Percentage of HH with Livestock holdings and change over the past year

Livestock	Percentage of HH Holding	Percentage Change*
Sheep	39%	-51% ▼
Poultry	38%	-94% ▼
Cattle	30%	-48% ▼
Goats	21%	-47% ▼
Horses, Mules, Donkeys	8%	-64% ▼

*Percentage change in aggregate livestock holdings over the past year

In addition to the pressures on agriculture listed above, FGDs and key informant interviews revealed a prevalence of long-term changes in land use. Households that have abandoned agriculture altogether have reallocated their land for other uses or sold their livestock. Conflict and restrictions on movement have reduced the land available for grazing, while households have taken over state-owned pastures and other communal lands and converted them into rain-fed farmlands. The burning of land and crops was also widely mentioned as a reason for the decreasing availability of access to arable land. In addition, reduced agricultural production was also linked to high land rental costs, insecurity on the land and increased costs of agricultural inputs, which lead to negligible (or negative) profit margins. Together, these changes present a significant concern not only to current levels of agricultural production but also for the future cycles. Changes in land use have been accompanied by a shift in cultivation practices that include planting crops several times during the agricultural season and replacing traditional crops with

ones that are more profitable and less resource intensive. For example, in focus group discussions and key informant interviews, farmers discussed switching to crops that require less water and high-cost inputs, cultivating cash crops, or limiting production to their own household's consumption needs. Similar pressures could be seen with households engaged in livestock. In focus group discussions, participants reported the consumption or sale of livestock that would normally have been used for income, while in some cases, livestock had been sold and moved to neighboring countries.

Markets for Agricultural Inputs

The conflict in Syria has destroyed much of the country's agricultural infrastructure and disrupted markets, placing severe constraints on households that had come to rely upon the provision of cheap and readily available inputs to sustain crop and livestock production. Not surprisingly, one of the top reasons that households reported taking on debt to pay for agricultural inputs, and one of the top reasons for abandoning agriculture was the high cost or unavailability of inputs. Accordingly, input markets as well as output markets warrant specific attention as they represent one of the most severe constraints on sustaining agriculture, both in the short and long terms.

FGDs and key informant interviews provided basic information on markets for inputs as well as outputs. The information participants and respondents provided is mainly based on personal experience and impressions, but it underscores a need for a better understanding of market functionality.

Agricultural equipment and spare parts: In most areas assessed, the availability of agricultural equipment reportedly declined significantly. At the same time, in about half of communities assessed, KIs and FGDs reported that spare parts, such as ones needed to repair machinery and pumps, had remained about the same and that such equipment is usually relatively easy to obtain despite the fact that it needs to be imported.

Daily labor: Despite the fact that households were significantly more likely to report agricultural wage labor as an income source, FGDs and KIIs discussed how labor costs had risen. Participants and respondents reported that labor shortages and labor costs were one of the top reasons for not harvesting crops. Exceptions to this overall trend were apparent, however, particularly in some areas with large IDP populations, such as northern Aleppo.

Diesel: The availability and cost of diesel varied by community. While just over half of KIIs reported that prices had stayed the same, a nearly equal number of KIIs reported either increases or decreases in cost. Communities reporting a decrease tended to be in the northeast of the country where oil fields are situated and where informal fuel trading has become a source of income. At the same time, rises in cost were reported in a majority of communities in opposition-held areas and outside of the core oil-producing regions.

Fertilizers: Most key informants reported that the availability of fertilizers has fallen since the start of the crisis, with only a small number, primarily in government areas, reporting an increase in supplies. Before the crisis, the Ministry of Agriculture subsidized fertilizers, and most farmers had access to governmental loans to cover their needs. These subsidies have ended in most areas not falling under government control and a lack financial supports have affected farmers' abilities to cover costs. Fertilizers are available in markets near Turkey and Iraq but at prices that farmers are either unable to afford or are unaccustomed to paying. Sanctions, directed at ensuring that fertilizers are not used in the production of explosives, have also disrupted supply chains and reduced availability.

Electricity: Approximately one half of key informants reported an increase in the price of electricity, which is closely tied to diesel costs due to an increased reliance on generators. Differences in prices were often significant across areas of control, with ISIS-controlled communities that have access to fuel and hydroelectricity reporting little change and some resource-constrained communities in Dar'a reporting little to no electricity at all.

Herbicides and pesticides: About one half of communities assessed reported decreased supplies of pesticides and herbicides, while nearly all reported increased costs. The fact that costs increased throughout the country may largely reflect constraints on production resulting from international sanctions.
Seeds: Non-government-controlled communities reported a decrease in the availability of seeds, while communities still under government control reported an increase, a pattern that owes largely to the

government's role in distributing seeds, particularly for wheat and barley, both before and after the crisis. Outside of government areas, high-quality seeds are largely unavailable or supplies are inadequate. Even when available, high-quality seeds may be inaccessible for farmers, who cannot afford the higher unsubsidized costs. As a result, many farmers have been forced to choose lower-quality alternatives or rely on their own production.

Water: Nearly all communities reported an increase in the price of water used for irrigation. This is due to the fact that irrigation has become increasingly dependent upon electricity provided by generators and on the diesel fuel used to operate them.

Value Chains and Markets for Agricultural Outputs

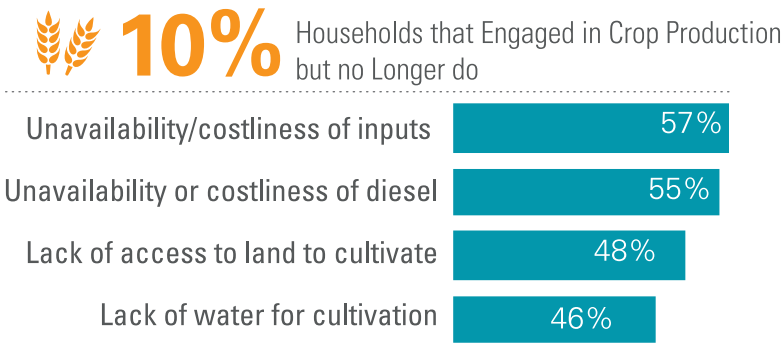
Value chains for agricultural products have been significantly impacted by the conflict. While farmers face pressures due to reduced access to and availability of inputs, they also face disincentives to remain engaged in agriculture as a result of changes in value chains and access to markets. The destruction of mills and processing facilities has reduced opportunities for farmers to add value to their products and make a profit while conflict has severed accesses to markets. Ultimately, a continuation of these trends will result in a sharp decrease in production and availability of food.

Trends for individual agricultural commodities varied. With producers of specific commodities facing varied pressures and adjusting their levels of engagement in agriculture as well as production accordingly, some farmers have suffered the effects of the conflict more than others. As with markets for agricultural inputs, trends may be heavily influenced by lines of control, with the conflict cutting off established means of both obtaining and selling goods. On the demand side, reduced household consumption and purchasing power have meant that dramatically lowered production has not resulted in higher prices for commodities, even though supplies have fallen dramatically.

Wheat: Wheat was the main crop grown by households engaged in crop production. With some exceptions, particularly in Ar-Raqqa, Deir ez-Zor, Hasakeh, and Rural Damascus, wheat production was reportedly high enough to cover local needs as well as yield surpluses for sale elsewhere. In communities where wheat was not the main crop, a lack of mills and incentives in the market to store yields for a higher price later on reportedly pushed production downward. In other locations, such as in Hama and Idleb, wheat production fell as more lucrative crops took its place, rain-fed farming grew in importance, and lower-quality seeds entered the market. Respondents expected this trend to worsen and for productivity levels to deteriorate further in the face of lower rainfalls.

Barley: Barley is the main feed grown for livestock, but in years of poor rainfall, other crops, which are not economical to harvest for grain, including cotton, have contributed significantly as a source of fodder for ruminants. As a result, production of barley has fallen. Cotton seed-cake has reportedly come to constitute the main source of supplementary protein to grazing animals in some areas and wheat bran and straw have become important crop by-products for feed production.

Figure 37: Reasons for no longer engaging in crop production



Fruit: The impact of the conflict on the production and storage facilities has resulted in significant shifts in value chains. The effects of the conflict on transportation, storage, and processing facilities cut off farmers' access to value chains that would allow them to sell their crops to producers of juice and preserves. As a result, farmers reported that their crops have been spoiling before they can be processed or sold on the market. Without access to markets and faced with high fuel costs, many farmers were reported to have cut their trees for firewood.

Olives: The conflict has affected transportation, limiting the capacity

of farmers to reach olive mills. This has resulted in high levels of waste and spoilage, as well as farmers being forced to mill their products themselves, resulting in reduced output and higher overall prices in markets. Combined with other pressures, including rising costs of labor and fuel, many farmers reported cutting trees for firewood rather than continuing with olive cultivation.

Tubers/Potatoes: Potato production was down dramatically over pre-crisis levels, largely because of reduced supply of seed potato, low yields and costs associated with irrigation. In areas outside of government control in particular, lack of seeds and agrochemicals has also contributed to decreased potato cultivation. As a result, production has fallen below local needs in a number of areas, and surpluses for sale elsewhere have also disappeared.

Vegetables: After wheat, barley and olives, vegetables were the fourth-most important crop amongst the households assessed. In most areas, production does not cover the local year-round consumption needs, due to the effects of diminished storage and production capacities, disrupted market access, and interruptions in cultivation and supply during the winter. At the same time, households continue to cultivate tomatoes, cucumber, eggplant, zucchini and parsley for their own consumption, supplementing what they grow with what they are able to purchase on the market.

Legumes/Pulses: In general, the production of legumes and pulses failed to meet local demands or just met them, with little opportunity to sell additional production outside of individual communities where they are cultivated. In most cases, diminished production was the result of inadequate supplies of agrochemicals.

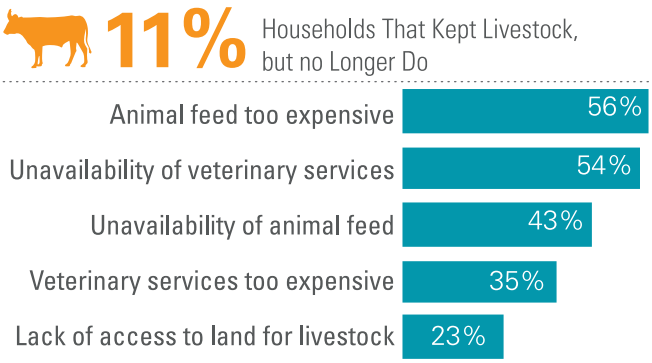
Livestock and Animal Products: In contrast to crop production, challenges affecting livestock were more generalizable, having to do primarily with the unavailability or high costs of inputs, particularly animal feed and veterinary care. In some cases, the same pressures affecting crop production also affected livestock. For example, changes in land use as well as poor rainfalls, which have reduced the quantity of fodder, have also limited livestock owners' ability to properly feed their herds and flocks. Conflict and changes in land use are also affecting land available to graze livestock; in some cases, landowners have turned farmland into pastures, while pastures have been converted to farmland.

These pressures have resulted in a dramatic reduction in the sizes of herds and flocks and in some cases, their virtual liquidation. The size of cattle, goat and sheep herds has fallen by approximately 50%. Of all livestock producers, poultry farmers appear to be the most affected. For example, in 2015, the CFSAM found that of all livestock, poultry has suffered the greatest reduction in numbers since 2011 with the destruction or abandonment of poultry units. Similarly, this assessment found that aggregate poultry holdings have fallen dramatically—by 94% according to the household survey—and many formerly large-scale producers have taken to keeping just several chickens for household consumption instead of for commercial sale.

With households unable to sustain the costs of keeping livestock, many have sought to liquidate their holdings. Despite reported increases in the number of livestock keepers selling their flocks and herds below market prices, distress sales were not pervasive (5% to 40%) in most areas assessed. One exception was in northern Aleppo, where approximately half of livestock keepers sold their animals for what was considered to be less than the market price.

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Figure 38: Reasons for no longer holding livestock



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Agricultural Production by Assessment Cluster

Each cluster assessed had varying levels of agricultural engagement. The Greater Damascus Cluster had the lowest number of households engaged in agriculture – only 14% of households were engaged in crop production and 12% in livestock production -- as well as the smallest plots of land under cultivation (16 donems). By contrast, the East Hasakeh Cluster and Southern Syria Cluster had the highest number of households -- 65% and 54%, respectively -- that were involved in agriculture production.

East Hasakeh: Nearly half (44%) of households in this cluster were engaged in crop production, the vast majority of whom (84%) were planting wheat. Smaller proportions reported planting pulses or barley. The land size cultivated was relatively large (82 donems). Approximately four-fifths (78%) of the households used livestock for household consumption (meat or milk). Sheep were used for consumption in one-third of households. The main uses for sheep were for income generation (45%) and for milk (16%) of the households respectively.

West Hasakeh: Approximately one half of the households in this cluster were involved crop production and 8% reported that they used to engage in agricultural activities but stopped.. The average land area owned and cultivated by the households was 80 donems. Wheat and barley were the main crops grown at 91% and 59% of the households engaged in crop production, respectively. The unavailability or expense of inputs (seeds, fertilizer and pesticides) and a lack of water for irrigation were reported as the main reasons for not continuing. There was a decline in the number of households growing wheat, barley, potatoes, olives and citrus fruits compared to 24 months before the assessment. At the same time, there was a 30% increase in the number of households growing pulses compared to two years prior to the assessment. A majority of households (56%) were keeping livestock, with sheep (76%) and poultry (79%) being the main animals.

Deir ez-Zor: Approximately one-third (34%) of households in this cluster were engaged in crop production. The average land area owned and cultivated by the households was 21 donems, which is small compared to other clusters. Wheat and vegetables were the main crops grown by 91% and 51% of the households respectively. Overall, 30% of the households in this cluster kept livestock. Of those that did not, only 6% had been keeping livestock before. Those that stopped reported the unavailability or expense of veterinary services as well as a lack of processing facilities as the main reasons for stopping. services.

Central Ar-Raqqa: Just over half (54%) of households assessed were currently engaged in crop production, and the average land area owned and cultivated by the households was 42 donems. There was an increase in households cultivating wheat (48% versus 44% two years before the assessment), and small increases in cultivation were reported forbarley, olives and pulses. There were reductions in the number of households that grew potatoes and vegetables. The average size of land cultivated was 42 donems. Approximately 46% of the households kept livestock; 22% owned cattle whereas sheep and goats were owned by 18% and 11% of the livestock owners respectively. The average number of sheep owned was 11 and there was no change in numbers compared to two years before the assessment.

Northern Aleppo and Ar-Raqqa: Nearly 51% of the households were engaged in crop production at the time of the assessment. Of the 49% that were not, 19% used to before. A substantial drop in wheat production was reported while the production of other crops remained largely the same. Households abandoned crop production due to the availability and expense of inputs and the high cost of labor. Overall, 47% of the households reared livestock and 10% reported abandoning livestock production in the past two years. Approximately half of households engaged in livestock owned cattle. While 85% of livestock owners held sheep, households average holdings were down from 68 to 28 two years before the assessment. Approximately 42% of livestock owners held goats--eight on average, a decrease from 21 two years before the assessment.

Northwest Syria: Overall, 51% of the households were engaged in crop production at the time of the assessment – 15% lower than two years before. The availability and expense of fuel and a lack of water for irrigation were the main reasons why households abandoned crop production. Households cultivated 78

donems on average.
Approximately one half of households (48%) were engaged in livestock production. Over half of households kept cattle but reported reductions in herds in the two years before the assessment—from three animals to one on average. Over half of households also kept sheep, but they reported reductions in herd sizes of 50% over the two years before the assessment. Similar reductions were also reported for households that held goats (49%). For those that abandoned livestock, the unavailability and expense of animal feed and the unavailability of veterinary services were the major reasons.

Greater Damascus: Located in the central of Syria, this cluster included communities from both Damascus and Rural Damascus Governorates. Only 14% of the households surveyed were engaged in crop production at the time of the assessment, and 10% reported abandoning agriculture in the two years prior to the assessment. The average land area owned and cultivated by the households was 16 donems, with wheat being the most common crop. Almost 12% of the households were rearing livestock. Among households that held livestock, over two-thirds held cattle and sheep; however, average holding sizes fell by two-thirds over the past two years.

South Syria: This cluster had the largest proportion of households engaged in crop production (64%), with the average land size being 48 donems and the main crops being wheat, vegetables, olives and citrus fruits. Unlike in other clusters, there was little change in the proportion of households growing specific crops in comparison to two years before the assessment. Among the 38% of households engaged in livestock production, most reported keeping cattle (94%) or sheep (82%). Reductions in cattle and sheep holdings were similar to those observed in other clusters, with reductions in herd sizes of one half or more.

Conclusion and Recommendations

This assessment was conducted to provide information to humanitarian and development actors on food security, livelihoods and agriculture status and needs throughout Syria, addressing information gaps identified in previous assessment and data collection initiatives. By analysing people's food security status and needs, this assessment sought to provide a better understanding of how the conflict has affected individuals, families and communities. This section provides the conclusions and recommendations, firmly based on the main findings of the assessment.

Conclusion

The conflict has had a far-reaching effect on Syria's economy, including on individual households and communities. The types of income-generating opportunities that were available before the crisis have disappeared in many cases, and more than half of the households interviewed in this assessment reported relying on sources of income that were different than before the start of the crisis. Approximately 80% of households reported that their incomes had fallen over the previous year, with nearly 60% reporting that the reduction had been significant. Over the same period, one-third of households took on additional debts, with average amounts owed equivalent to more than three months of income.

Over time, households will face greater difficulties in paying off these debts. Many of the jobs that are available are seasonal and do not provide sufficient income to pay off loans, let alone make ends meet, particularly during the winter. Agricultural wage labor increased as an overall income source, despite relatively poor crop yields, while financial transfers and high-risk, low-skill jobs are increasing in importance as a source of income.

Trends such as these have been applying downward pressure on the already strained purchasing power of Syrian households, and the deterioration of livelihoods has had a deleterious effect on household food security. Most households relied primarily on access to markets to meet their daily food needs, followed by household production and finally humanitarian aid. Food expenses were a significant portion of households' budgets, and respondents reported spending an average of 57% of total expenditures on food. Despite this fact, 93% of households reported that they felt they required food aid.

While various indices of food security indicated that most households were food secure, many were at risk of food insecurity as measured by the types of foods they consume as well as their use of coping mechanisms. For example, despite the fact that the proportion of households reporting hunger was relatively low, it is largely due to high consumption levels of food that is high in energy and low in nutrients. Coping strategies that households have adopted in response to these pressures include selling livestock and personal assets, spending savings, and consumption/sale of seed stock, and may have long-term implications, the effects of which are difficult to reverse.

Households engaged in agriculture tended to report higher levels of food security and had higher incomes than those that were not; however, as with other sectors, agriculture is under severe strain as a result of the conflict. Approximately 15% of the households surveyed used to be engaged in crop or livestock production but stopped in the past two years. Households that have continued with crop and livestock production have begun cultivating less land or have dramatically reduced the size of their flocks and herds. As a consequence, the proportion of households planting staple crops, such as wheat and barley, is down dramatically, and overall holdings of cattle, sheep and poultry are a fraction of what they were before.

In most cases, households reported that they stopped farming because they could not afford inputs such as fertilizer and seeds or feed; however, other challenges have played a role in reducing the profitability of agriculture as well as households' ability to sustain crop or livestock production. Damaged infrastructure, including barriers to irrigation due to a lack of electricity and damage to pumps are leading to an increased reliance on rain-fed crops and subsequent increases weather-related risks. On the production side, households have far fewer opportunities to add value to what they produce; storage and processing facilities have been damaged and access to markets has been disrupted. Overall, the deterioration of the agriculture in Syria poses long-term threats to the food security of the country as a whole.

As the conflict becomes protracted, the compounding effects of diminishing food security, fewer livelihoods opportunities, and reduced agricultural output as highlighted in the assessment will likely cause economic and humanitarian situation in Syria to further deteriorate. Changing areas of control as well as increasing levels of displacement will further erode households' ability

to remain engaged in agriculture. The Humanitarian Needs Overview completed in October 2015 predicted that little progress would be made in household level food security in Syria due to the extreme strains on all four pillars of food security – access, availability, utilisation, and stability. With changing conflict dynamics, the capacity for humanitarian actors to make tangible, effective and lasting impacts on these pillars is consistently in flux, but these opportunities do exist. Understanding the conditions on the ground as outlined above is essential do designing effective programming to support food security and livelihoods in Syria.

Recommendations

Based on the main findings of this assessment, and conclusion the following recommendations have been formulated. They include directions for future research as well as very specific recommendations that should help programming in the various areas of livelihoods, food security and agriculture.

Directions for Future Research

Given access and logistical constraints, it was not possible to collect data throughout Syria that would have provided statistically significant results for the country as a whole or for its administrative subdivisions. Provided that these constraints are less of a factor in the future, subsequent food security and livelihoods assessments should attempt to sample at the second-level (district) or third-level (sub-district) administrative division. Such an approach would provide results that correspond more closely with humanitarian and development actors' operational approaches and could be used to derive caseloads and numbers of people in need of assistance. Further assessments are necessary to gain a better understanding of pressures on livelihoods and food security. This assessment also did not focus on covering information gaps related to the food security pillars of stability and utilization, which could be better understood through an integration of conflict analysis and data on nutrition. Given the importance of markets to food security, a more detailed assessment of commodities and markets, including further analysis of results in light of regular price data is needed. Further research on livelihoods is also recommended, including a more in-depth analysis on incomes and wealth distribution through a household economy approach.

For agriculture, additional analysis of markets and value chains is also necessary to gain a fuller picture of the constraints that farmers face, including markets for inputs and production. With the quality of inputs such as fertilizers and seeds identified as a major constraint on production, there is also a need to better understand certification processes and quality control mechanisms. Similarly, significant shifts occurring in the extension system warrant a detailed assessment of the currently existing gaps and needs for services in order to determine priority interventions.
A number of specific recommendations that relate to the main sections in the survey, namely livelihoods, food security and agriculture have been identified. They are meant to inform programming opportunities inside Syria.

Livelihoods

- Livelihood-supporting assistance across the whole value chain to improve agricultural production, foster resilience, and to ensure that households with borderline food security status do not further deteriorate.
- Target programming specifically towards women and female-headed households as well as other vulnerable groups, such as people with disabilities and IDPs.
- Develop and expand access to microfinance to allow households to replace lost livelihoods with new income-generating activities.
- Assist households in moving from indebtedness to productive investments through financial education and savings management.
- Support in transitioning out of low-paying, dangerous jobs to mitigate pressures to join armed groups
- Provide cash-for-work activities to improve agricultural productivity, such as repairing irrigation infrastructure that has been damaged.
- Increase assistance during winter months when costs for NFIs such as fuel are highest, and streams of income are lowest.

Food Security

- Target livelihoods interventions towards households in moderate and severe food insecurity situations to enable them to engage in income-generating activities / microenterprises.
- Improve monitoring and early warning systems to better track the many households at risk of falling into food insecure categories.
- Conduct value-chain analysis of food commodities to assess constraints and opportunities given the current context.
- Design interventions to simultaneously address basic food/livelihood needs while re-establishing local productive capacities to ensure that markets remain functional and accessible to local populations.
- Prioritize activities aimed at promoting agricultural production and livelihoods opportunities amongst households already engaged in agricultural wage labour.
- Support local producers and sellers through the use of cash and vouchers for food aid to sustain already widespread use of markets.
- In areas where markets are functional, limited in-kind support to the most vulnerable households may still be necessary to meet the hunger gap and prevent deterioration of the food security context in both the IDP and host communities.
- Small-scale agriculture, including encouraging gardens (microgardens and homesteads), may make important contributions to household food security and dietary diversity.

Agriculture

- Support livelihoods activities aimed at restoring agricultural infrastructure
- Develop livestock-restocking interventions and fodder banks to reverse a trend of households increasingly utilizing stocks for their own consumption.
- Provide support to IDP households as well as host community members to access land and inputs.
- Provide quality agriculture inputs for the winter and spring seasons such as high-yielding and early-maturing variety seeds.
- Support the keeping of small livestock such as chickens, goats, and sheep.
- Intensify small-scale urban and peri-urban agriculture activities that require low external inputs.
- Target subsidies for wheat production to allow initial volume required to set up distribution networks and lower initial costs.
- Provide technical capacity and extension services as well as inputs such as seed and fertilizer and veterinary support to make up for the breakdown of state support systems.
- Address constraints related to infrastructure, input supplies, marketing, and transportation to enhance value chains for vegetable, wheat and fruit production.
- Although the increased cultivation of cash crops may serve as a coping strategy in response to the diminished viability and profitability of traditional crops, supporting and sustaining it in the short and medium term may provide employment opportunities and stimulate markets until the broader recovery is possible.
- Invest in greenhouses, nurseries, and agriculture projects that give households income streams during winter months and supply markets with fresh vegetables.
- Build capacity of local institutions, local partners, particularly community-based organizations and local councils, to better prepare them to handle disasters and shocks.

Indicator	East Hasekeh	West Hasekeh	Deir ez-Zor	Central Ar-Raqqa	Northern Aleppo and Ar-Raqqa	Northwest Syria	Greater Damascus	Southern Syria
Median Monthly Income (SYP)	45,000	30,000	48,000	51,000	45,000	35,000	33,000	25,000
Three Main Income Sources								
1	Agricultural Labor	Agricultural Labor	Trade work	Agricultural Labor	Livestock	Agricultural Labor	Trade Work	Agricultural Labor
2	Non-Agricultural Labor	Non-Agricultural Labor	Agricultural Labor	Crop Sales	Government Employment	Other	Agricultural Labor	Merchant
3	Trade Work	Livestock	Livestock	Fuel/Diesel Trade	Teacher	Trade Work	Service Provision	Service Provision
Share of food expenditure over total expenditures	58	65	61	61	53	50	47	44
Average Household expenditure (SYP)Food	19,654	23,756	30,897	27,995	27,433	21,254	21,813	19,289
% HHs in debt	33%	32%	32%	22%	55%	34%	52%	No data
Median Debt (among debtholders)	300,000	180,000	90,000	125,000	100,000	75,000	200,000	No data
Major Livelihood Challenges								
1	Income Does Not Cover Cost of Living	Income Does Not Cover Cost of Living	Income Does Not Cover Cost of Living	Income Does Not Cover Cost of Living	Income Does Not Cover Cost of Living	Income Does Not Cover Cost of Living	Income Does Not Cover Cost of Living	Transport to Work is Too Expensive
2	No Jobs Available in the Area	No Jobs Available in the Area	Work is Not Always Available (Unstable)	Not Enough Income in Winter Months	Work is Not Always Available (Unstable)	Not Enough Income in Winter Months	Security Concerns Traveling to Work	Income Does Not Cover Cost of Living
3	Transport to Work is Too Expensive	Not Enough Income in Winter Months	Not Enough Income in Winter Months	Work is Not Always Available (Unstable)	Not Enough Income in Winter Months	Work is Not Always Available (Unstable)	Available Jobs are Dangerous	No Jobs Available in Profession

Indicator	East Hasekeh	West Hasekeh	Deir ez-Zor	Central Ar-Raqqa	Northern Aleppo and Ar-Raqqa	Northwest Syria	Greater Damascus	Southern Syria
Households engaging in crop production	44%	50%	34%	54%	51%	43%	14%	64%
Main crops produced amongst those engaged in crop production	Wheat 84%	Wheat 91%	Wheat 94%	Wheat 90%	Wheat 70%	Olives 63%	Wheat 90%	Wheat and Vegetables- 100%
	Pulses 46%	Barley 59%	Vegetables 50%	Olives 26%	Barley 51%	Vegetables 42%	Vegetables 67%	Olives 24%
	Barley 35%	Vegetables 4%	Barley 20%	Barley 25%	Olives 45%	Barley 31%	Barley 57%	
Average area cultivated by	82	80	21	42	78	18	16	48
Households engaging in livestock production	68%	56%	30%	46%	47%	33%	12%	38%
Households engaged in Livestock that Own:								
Cattle	42%	18%	74%	23%	48%	56%	67%	94%
Sheep	57%	76%	53%	18%	85%	52%	72%	82%
Goats	38%	37%	9%	11%	42%	49%	33%	6%
Poultry	95%	79%	16%	12%	70%	53%	83%	59%

Annex C: Household Questionnaire

Food Security and Livelihoods Assessment
Household Questionnaire
Syria, December 2015

Pre-screening questions: (tick boxes) <u>If one of these boxes is not ticked, stop interview.</u>

☐ Interviewee is Head of HH ☐ Interviewee is currently residing in this village/neighbourhood quadrant	☐ Interviewee is currently residing with 2 or more family members "under one roof" at this location ☐ Interviewee participates voluntarily and is informed that the interview is completely anonymous

A: Enumerator Profile		
A-1	**Enumerator Name:**	
A-2	**Date of Interview** *(dd/mm/yyyy)*	_ _ / _ _ / _ _ _ _
A-3	**Report Number** *(dd – daily number starting at 1 each day – First letter of Governorate and First letter of District – Enumerator Initials)*	_ _ - _ _ - _ _ - _ _

B: Area Information		
B-1	**Governorate:**	
B-2	**District:**	
B-3	**Sub-District:**	
B-4	**Village**	

Good Morning/Afternoon. My name is _____ from _____. I am conducting an assessment to determine how people are doing and how they are managing to provide for their families. The information will help to determine what needs still exist in order to help organizations better meet them. All the information being collected will be kept strictly confidential. Will you sit with me to answer some questions? The entire questionnaire will take about 45 minutes

DD: Demographics			
DD-1	**Gender of Respondent**	Male = 1, Female = 2	[ ]
DD-2	**Is this an IDP household?**	Y = 1, N = 0 (if = 1 Skip to DD-4)	[ ]
DD-3	**How long have you been Displaced?**	< 1 Month = 1 3 – 6 Months = 3 1 – 2 Months = 2 > 6 Months = 4	[ ]
DD-4	**Are you the head of household?**	Y = 1, N = 0 (If = 1 Skip to DD-8)	[ ]
DD-5	**Gender of Head of Household**	Male = 1, Female = 2	[ ]
DD-6	**Is the head of household currently living in the household?**	Y = 1, N = 0 (If = 1 Skip to DD-8)	[ ]
DD-7	**If Not, Why Not?**	Deceased = 1 Jailed = 3 Emigrated (Long-Term) = 2 Other = 4 (Specify Other):	[ ]
DD-8	**What is the Marital Status of the Head of Household?**	*(write '888' if they refuse to answer)* Married = 1 Widowed = 3 Single = 2 Divorced = 4	[ ]
DD-9	**What is the Age of The Head of Household?**		[ ]
DD-10	**What Education has the Head of Household Completed?**	(Y = 1, N = 0) a) None [ ] d) University [ ] b) Primary Education [ ] e) Vocational Training [ ] c) Secondary Education [ ] f) Informal Education [ ]	
DD-11	**Does the head of household have any disabilities or chronic illness that prevents her/him from working?**	Y = 1, N = 0	[ ]

DD-12	***Please provide the age and sex of each of the permanent household members***									
		0 – 4 y	5 – 14 y	15 – 18 y	18 – 30 y	31 – 64 y	64 y +	Disabled	Chronically ill	Pregnant / lactating women
	Male	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

	Female	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
	Permanent residents	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
	IDP residents	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

LI: Livelihoods, Income and Expenditure

LI-1 **What was your household's total combined income for the last 24 months in SYP?** [ ]
(Estimate as good as possible, and do not include loans or any money borrowed)

LI-2 **What were your household's three main sources of income over the course of the last month? Is it permanent or temporary employment? How much did you earn from each of them? And, was the primary income earner male or female or child?** *(child being 14 years and younger)*

LI-3

	Income Code	Temporary = 1 / Permanent = 2	Amount in SYP	Primary Earner
1st Source	[ ]	[ ]	[ ]	M [ ] F [ ] G [ ] B [ ]
2nd Source	[ ]	[ ]	[ ]	M [ ] F [ ] G [ ] B [ ]
3rd Source	[ ]	[ ]	[ ]	M [ ] F [ ] G [ ] B [ ]

Income Codes:

a)	Trades Work (Blacksmith, Carpentry, Plumber, Electrician, Butcher, etc.)	b)	Worker in Service Industry (Shops, Café, Restaurant, etc.)	c)	Service Provider (Tailor, Barber, Hairdresser, etc.)	d)	Permanent Employment (Business Secretary, etc.)
e)	Worker (Non-Agriculture, Construction, etc.)	f)	Merchants (Vendors, Vegetable Stall, etc.)	g)	Professional (Accountant, Lawyer, etc. – NOT Doctor)	h)	Medicine (Nurse, Pharmacist, etc.)
i)	Medicine (Doctor)	j)	Medicine (Midwife)	k)	Remittances -outside Syria	l)	Worker in NGO
m)	Fuel/Diesel Trade	n)	Wood Trade	o)	Trader (Other)	p)	Employee
q)	Agriculture – Crops	r)	Agriculture – Engineer	s)	Agriculture – Livestock	t)	Worker (Agriculture)
u)	Teacher	v)	Shop Owner	w)	Journalist	x)	Driver
y)	Maintenance	z)	Babysitter	aa)	Pensions (Retired)	bb)	Religious Leader
cc)	Government Employee	dd)	Other				

LI-4 **Were these 3 sources of income the same before the crisis?** (Y=1, N=0) If = 1, skip to LI-3 [ ]

LI-5 **What were your 3 main sources of income before the crisis?**
(use the same codes as above, and rank the top 3)
1st Income Source [ ] 3rd Income Source [ ]
2nd Income Source [ ]

LI- 6 **Has your income increased or decreased in the last [??] months?**
(write '888' if they refuse to answer)
Increased a lot = 1 Decreased a little = 4
Increased a little = 2 Decreased a lot = 5
Stayed the same = 3
[ ]

LI-7 **What are the major challenges you currently face with regard to your livelihood?**
(rank top three 1 to 3 with 1 being the most critical and 3 being the least – use letter code)

a) Income does not cover the cost of living	g) No transport to go to work	1st Challenge [ ]
b) No jobs available in your profession	h) Transport to work is too expensive	2nd Challenge [ ]
c) No jobs available in this area	i) Salary is paid in government controlled areas	3rd Challenge [ ]
d) The jobs that are available are dangerous	j) Not enough income in winter months	
e) Concern over security on way to work/workplace	k) No clients anymore	
f) Work is not always available (unstable)	l) Other (Specify)[_____]	

LI-8 **How much did you spend on the following items for your household in the past month? (exclude livelihood assets)**
(Y = 1, N = 0)
Food [ ] Water [ ] Housing (Rent) [ ]
Health [ ] Education [ ] Debt Repayment [ ]
Energy (Fuel, Diesel, Electricity, Gas, etc.) [ ]
Other [ ]

LI-9 **Have you incurred any debts in the last year?** *(Y=1, N=0)* *If = 0, skip to IN-1* [ ]

LI-10 **Approximately how much debt does your household currently have? (SYP)** [ ]

LI-11	**When did you take on this debt? (break down into approximate percentage for each option)**	Less than 1 month ago [ ] 6 to 12 months ago [ ] 1 to 6 months ago [ ] Over 12 months ago [ ]
LI-12	**What were the top three reasons for taking this debt? (rank 1 to 3 with 1 being the most and 3 being the least – use letter code)** If any = j, go to next question, otherwise skip to next section a) Travel expenses e) Health expenses g) To pay for housing k) Legal expenses b) Education expense f) To buy clothing h) Fuel l) Marriage costs c) To buy livelihood/agriculture inputs i) To buy tools or machinery for livelihood d) To pay household bills j) Other (Specify) [_____]	1st Challenge [ ] 2nd Challenge [ ] 3rd Challenge [ ]

IN: Infrastructure

IN-1 How often can you access the following? *(Please check one option for each)*

	Electricity	Water	Mobile phone network	Internet	Fuel	Heat	Markets
All the time	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Often	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Rarely	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Never	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

IN-2	**How far is the closest market (in km)**		[ ]
IN-3	**Can you access the market?**	*(Y = 1, N = 0)*	[ ]
IN-4	**If not, why not?**	*(Y = 1, N = 0, select all that apply)*	
	IDPs are not able to access markets [ ]	Too dangerous to travel there [ ]	
	No men in the family to access the market [ ]	Have no transport Other (Specify): [_____]	

FS: Food Security

FS-1 Over the last 7 days, how many days did you consume the following food? What was the main source of food in the past 7 days? *(Please score 0 to 7 according to number of days where HH consumed the food type. Please refer to Food Source Codes to right for the food source codes)*

	Score (0 to 7)	Source
Cereals (bread, pasta, wheat flour, bulghur etc.)	[ ]	[ ]
White Roots and Tubers (Potatoes, Sweet Potatoes)	[ ]	[ ]
Vegetables/Leaves (tomato, eggplant, cauliflower, cabbage, etc.)	[ ]	[ ]
Fruits	[ ]	[ ]
Meat, Poultry (Beef, chicken, organ meat, etc.)	[ ]	[ ]
Eggs	[ ]	[ ]
Pulses, nuts and seeds (beans, chickpeas, hummus, foul, lentils, etc.)	[ ]	[ ]
Sweets (Sugar, honey, jam, cakes, sweet tea, sweet coffee)	[ ]	[ ]
Milk and dairy products (yoghurt, cheese, etc.)	[ ]	[ ]
Oil and fats	[ ]	[ ]
Fish and other seafood	[ ]	[ ]
Spices/Condiments/Tea	[ ]	[ ]

Food source codes:
a) Own production (crops/animals)
b) Gathering in the wild
c) Hunting / fishing
d) Borrowed
e) Purchase
f) Food Aid (NGOs, UN, Other)
g) Exchange Labour for Food
h) Exchange items for food
i) Other

FS-2 ***Please provide the age and sex of each of the permanent household members***

	Sugar	What flour	Lentils	Infant formula	Dairy products	Rice	Bulgur	Cooking Oil	Fruits	Vegetables	Canned food	Meat	Chicken	Other:
Hard to find	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
Missing	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

FS-3 **Consumption Based Coping Strategies:**
During the last 7 days, how many times (in days) did your household do any of the following in order to cope with lack of food? (Please score 0 to 7 for the number of days)

Rely on less preferred and less expensive foods [ ]	Look for food in garbage [ ]
Find new ways to maintain and store food so that it could be reused [ ]	Limit portion size at mealtimes [ ]
Borrow food, or rely on help from a friend or relative [ ]	Reduce number of meals eaten in a day [ ]
Gather wild food, hunt, or harvest immature crops [ ]	
Restrict consumption by adults in order for small children to eat [ ]	

FS-4	**In the past four weeks…** Did you worry that your household would not have enough food? Were you or any household member unable to eat the kinds of foods you preferred due to lack of resources? [] Did you or any household member have to eat a limited variety of foods due to a lack of resources? Did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food? Did you or any household member eat a smaller meal than you felt you needed because there was not enough food? Did you or any household member have to eat fewer meals in a day because there was not enough food? Was there ever no food to eat of any kind in your household because of lack of resources to get food? Did you or any household member go to sleep at night hungry because there was not enough food? Did you or any household member go a whole day and night without eating anything because there was not enough food?	*(Please respond for each)* *1 = Never* *3 = Often* *2 = Rarely* *4 = Always*

FS-5	**In the past 30 days, has your household done any of the following to meet basic food needs?** *(Please check for each)*		
	a)	Engage in non-preferred wage labor	Yes [ ] No [ ]
	b)	Sales of household assets (e.g. jewelry, radio, furniture, television)	Yes [ ] No [ ] No, Because they have all been sold [ ]
	c)	Spend savings	Yes [ ] No [ ] No, Because they have all been spent [ ]
	d)	Send children to eat with other people in the community?	Yes [ ] No [ ]
	e)	Purchase food on credit?	Yes [ ] No [ ] No, no one will sell us food on credit [ ]
	f)	Removing children from school	Yes [ ] No [ ] No, Because already done [ ] **If Yes or Already done:** Due to: Security [ ] To Work [ ] Cannot afford School [ ] Other Reason [ ]
	g)	Sale of productive assets or means of transport	Yes [ ] No [ ] No, Because all have been sold [ ]
	h)	Consume / Sold seed stocks	Yes [ ] No [ ] No, Because all have been Sold / Consumed [ ]
	i)	Reduced expenditure on health (including drugs) and education	Yes [ ] No [ ]
	j)	Engaging in high risk employment	Yes [ ] No [ ] **If Yes:** Who works in this employment? Men [ ] Women [ ] Boys [ ] Girls [ ]
	k)	Begging	Yes [ ] No [ ] **If Yes:** Who? Men [ ] Women [ ] Boys [ ] Girls [ ]
	l)	Sold productive (female) livestock	Yes [ ] No [ ] No, Because all have been Sold / Consumed [ ]

AN: Assistance, Challenges and Needs

	Please Respond to each of the following, in the last month, did you… *(Y = 1, N = 0, No aid Was Distributed = 2)*				
		Require Assistance?	Receive Assistance?	Receive Enough?	Rate the Quality 1 – 3 (1 = Good)
AN-1	Food Aid	[ ]	[ ]	[ ]	[ ]
	Cash/Voucher	[ ]	[ ]	[ ]	[ ]
	Health	[ ]	[ ]	[ ]	[ ]
	Non-Food Items	[ ]	[ ]	[ ]	[ ]
	Other (Specify) [ ]	[ ]	[ ]	[ ]	[ ]
AN-2	**Which of the following are problems you are currently facing?**				*(Y = 1, N = 0)*

	Armed conflict here or nearby [ ]	Lack of processing facilities [ ]	
	Bombing / barrel bombing in area [ ]	Lack of fuel for heating [ ]	
	Conflict or tension with local community [ ]	Lack of fuel for cooking [ ]	
	Discrimination by local community [ ]	Lack of electricity [ ]	
	Crime in area [ ]	Lack of freedom of movement in area [ ]	
	Risk of forced recruitment to armed forces [ ]	Dangerous access to schools [ ]	
	Immediate family members are missing [ ]	Difficult access to health service [ ]	
	Presence of landmines or UXOs [ ]	Difficult access to humanitarian assistance [ ]	
	Women or girls are insecure in area [ ]	No humanitarian assistance provided [ ]	
	Inadequate or overcrowded housing/shelter [ ]	Behaviour of humanitarian assistance personnel [ ]	
	Difficult access to drinking water [ ]	Lack of/ insufficient food/water/pasturage for livestock [ ]	
	Lack of/ insufficient land for garden or crops [ ]	Other (Specify) [_____]	
	Absence or loss of identity/education certificates/official documents[ ]		

Agriculture					
A-1	Do you engage in agriculture? (If the answer was yes, move to question A-4)			Yes ☐ No ☐	
A-2	If the answer was no, did you engage in agriculture before? (If the answer was no, do not proceed)			Yes ☐ No ☐	
A-3	If the answer was yes, then why did you stop engaging in agriculture? (Select the main 3 reasons, no ranking)				
	Lack of access to land to cultivate [__]	Land burnt / destroyed [__]	Crops stolen / seized [__]		
	Crops destroyed [__]	Unavailability of labor [__]	Labor too expensive [__]		
	Lack of water for irrigation [__]	Unavailability / costliness of diesel [__]	Unavailability / Costliness of inputs (seeds, fertilizers, pesticides) [__]		
	Unavailability of transport to market to sell production [__]	Transport to market too expensive [__]	Lack of customers to buy production [__]		
	Crop pests and diseases [__]	Other (specify)			
A-4	How much land do you cultivate? (Dunums)			[_____]	

A-5	***What crops do you currently grow? What did you grow 24 months ago? For the crops you stopped growing, why did you stop?***									
		Wheat	Barley	Potatoes	Vegetables	Grapes	Olives	Pulses	Citrus	Other
	Currently grown	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
	Used to grow 24 months ago	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

LI: Livestock		
L-1	Do you keep livestock *(if the answer was yes, move to question L-4)*	Yes ☐ No ☐
L-2	If the answer was no, did you engage in livestock activities before? (if the answer was no, end the interview)	Yes ☐ No ☐
L-3	If the answer was yes, why did you stop engaging in livestock activities?	
	Lack of access to land for livestock [_____] Land burnt / destroyed [_____] Livestock stolen [_____] Livestock destroyed [_____] Unavailability of labor [_____] Labor too expensive[_____] Lack of water for livestock [_____] Unavailability of animal feed [_____] Animal feed too expensive [_____] Unavailability of veterinary services [_____] Veterinary services too expensive [_____] Unavailability of transport to market to sell products [_____] Lack of customers to buy products [_____] Unavailability of processing facility (meat / milk) [_____] Other (Specify) [_____]	

L-4	If you are engaged in livestock activities, then how many of each of the following animals do you currently have? How many did you have 2 years ago? What is the main use for each type of animal now?			
		Total number of each type (NOW)	Total number of each type (2 YEARS AGO)	Utilization *1=household consumption (meat or milk)* *2=selling of live animal* *3=sale of meat* *4= sale milk / dairy products* *5=ploughing or field preparation* *6=other (specify)*
	Horses/donkeys/mules	[_____]	[_____]	[____]
	Camel	[_____]	[_____]	[____]
	Cattle	[_____]	[_____]	[____]
	Sheep	[_____]	[_____]	[____]
	Goats	[_____]	[_____]	[____]
	Poultry	[_____]	[_____]	[____]
	Pigeon	[_____]	[_____]	[____]

Annex D: Rainfall Zones

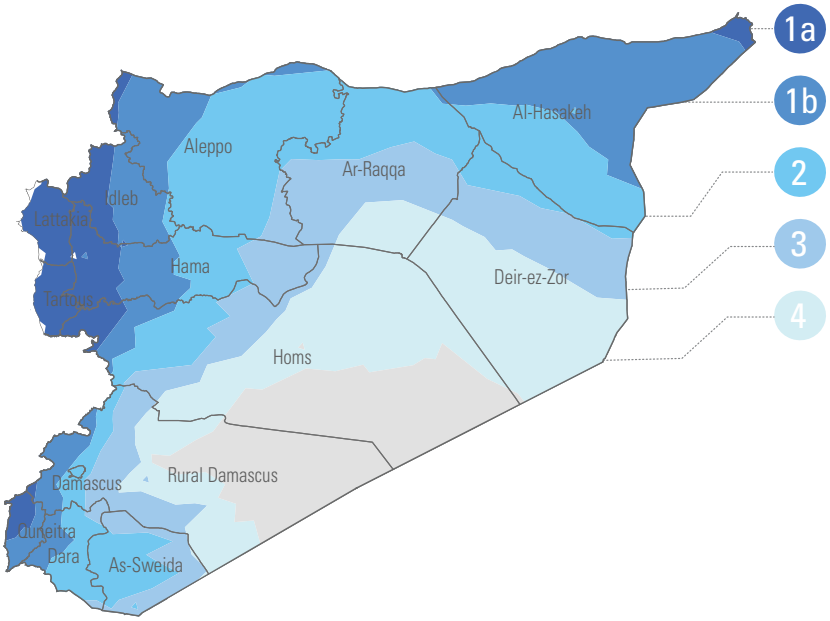
Zone I covers some 2.7 million hectares and has an average annual rainfall of 400-650 mm.

Zone II covers about 2.5 million hectares and has an average annual rainfall of 300-400 mm.

Zone III covers about 1.3 million hectares and has an average annual rainfall of approximately 200-300 mm.

Zone IV is agriculturally marginal, with a total area of around 1.8 million hectares and an average annual rainfall of 100-200 mm.

Zone V is the Badia or steppe; it has a total area of approximately 8.3 million hectares and an average annual rainfall of less than 100 mm.



Annex E: Calculation of Indices and Indicators

Household Dietary Diversity

The household dietary diversity score (HDDS) measures the variety of food groups consumed by a household. Using the same questions as the Food Consumption Score, results are calculated to show if a food group was or was not consumed in the previous week. Results are then added together to provide an overall HDDS, with a maximum score of 12 and a minimum score of 0.

Category	Weight
Cereals (bread, pasta, wheat flour, bulgur)	1
White tubers and roots (potato, sweet potato)	1
Pulses, nuts and seeds (beans, chickpeas, etc)	1
Vegetables, yellow tubers, leaves	1
Fruits	1
Eggs	1
Fish and other seafood	1
Meat	1
Milk and dairy products	1
Oil and fats	1
Sweets	1
Spices and condiments	1

Food Consumption Score

The Food Consumption Score is a composite score that measures dietary diversity and frequency of consumption while weighting the relative nutritional importance of different food groups. Information is collected on whether different food groups are consumed as well as the number of times per week each group is consumed. Each group is then weighted to provide a household food consumption score, with the maximum possible being 112. Thresholds are applied to classify scores as "Poor," "Borderline," and "Acceptable."

Category	Weight
Cereals (bread, pasta, wheat flour, bulgur)	2
White tubers and roots (potato, sweet potato)	2
Pulses, nuts and seeds (beans, chickpeas, etc)	3
Vegetables, yellow tubers, leaves	1
Fruits	1
Eggs	4
Fish and other seafood	4
Meat	4
Milk and dairy products	4
Oil and fats	0.5
Sweets	0.5
Spices and condiments	0

In Syria and surrounding countries a revised threshold is generally used to account high intake of sweets and fats. Households obtain a poor score if they only consume cereals, tubers vegetables, sweets, and fats. The revised threshold was applied in this assessment.

Food Consumption Category	Standard	Revised
Acceptable	> 35	> 42
Borderline	21 - 35	28 - 42
Poor	<= 21	<= 28

Household Food Insecurity Access Scale (HFIAS) and Household Hunger Scale (HHS)

The HFIAS score is a measure of food insecurity (access) in the household over 30 days that aims to measure access to sufficient amounts of food. Tabulation is based on whether a practice has occurred in response to insufficient food and the frequency with which it occurred. Practices are codes and weighed according to their severity. Frequency may be reported as "Never," "Rarely," "Sometimes" and "Often."

Responses to hunger included in the HFIAS contribute to the HHS and are marked with an asterisk below:

Question	HFIAS Frequency and Severity Scale		
	Rarely	**Sometimes**	**Often**
1-Did you worry that your household would not have enough food?	Food Secure	Mildly Food Insecure	Mildly Food Insecure
2-Were you or any household member unable to eat the kinds of foods you preferred due to lack of resources?	Mildly Food Insecure	Mildly Food Insecure	Mildly Food Insecure
3-Did you or any household member have to eat a limited variety of foods due to a lack of resources?	Mildly Food Insecure	Moderately Food Insecure	Moderately Food Insecure
4-Did you or any household member have to eat some foods that you really did not want to eat because of a lack of resources to obtain other types of food ?	Mildly Food Insecure	Moderately Food Insecure	Moderately Food Insecure
5-Did you or any household member eat a smaller meal than you felt you needed because there was not enough food?	Moderately Food Insecure	Moderately Food Insecure	Severely Food Insecure
6-Did you or any household member have to eat fewer meals in a day because there was not enough food?	Moderately Food Insecure	Moderately Food Insecure	Severely Food Insecure
*7-Was there ever no food to eat of any kind in your household because of lack of resources to get food?	Severely Food Insecure	Severely Food Insecure	Severely Food Insecure
*8-Did you or any household member go to sleep at night hungry because there was not enough food?	Severely Food Insecure	Severely Food Insecure	Severely Food Insecure
*9-Did you or any household member go a whole day and night without eating anything because there was not enough food?	Severely Food Insecure	Severely Food Insecure	Severely Food Insecure

The algorithm used to calculate the HFIAS can be found at: Household Food Insecurity Access Scale (HFIAS) for Measurement of Food Access: Indicator Guide

Reduced Coping Strategies Index

The Reduced Coping Strategies Index (r-CSI) is an indicator of household food insecurity that is measured through responses to questions about how a household manages to cope with a insufficient. It is based on five standard indicators that can be compared across contexts. Where appropriate, additional indicators can be included that do not contribute to the r-CSI. Changes in the r-CSI score indicates whether household food security status is declining or improving in the. To measure the r-CSI, each household is asked how many times over the previous week they utilized each of the strategies. Each strategy is the multiplied by the internationally standard severity weight. A threshold is then applied by taking maximum score (56) and dividing it into three thresholds showing low, medium and high usage of coping strategies of 18.6 each.

Strategy	Weight
Rely on less preferred and less expensive food	1
Borrow food, or rely on help from friends or relatives	2
Limit portion size at meals	1
Restrict consumption by adults in order for small children to eat	3
Reduce number of meals eaten in a day	1

Livelihoods Coping Strategies

Livelihood coping strategies were collected using a 30-day recall period as a base and were used to measure a household's use of negative coping strategies relating to increased livelihood stress and asset depletion. Respondents are asked if they used any of the listed strategies over the 30 days before the interview and, if not, if the reason was because they have exhausted that possibility (e.g. have no assets left to sell) or because they did not need to. The strategies are then classified into three broad categories:

- Stress: Strategies that lead to reduced ability to deal with future shocks due to increased debts or reduced resources.
- Crisis: Strategies that directly reduce future productivity (e.g. selling off productive assets)
- Emergency: Strategies that affect future productivity that are more difficult to reverse or strategies that are more dramatic in nature (e.g. taking high risk/illegal employment).

If households exhausted a coping strategy is was counted as having been used.

Category	Strategy
Stress	Spent savings
	Bought food on credit or borrowed money to buy food
	Sold household assets (jewellery, phone, furniture, etc)
Crisis	Spent less money on other needs (eg. education/ health)
	Sold productive assets (sewing machine, tools/machinery, car, livestock, etc)
Emergency	Taken jobs that are high risk, illegal and/or socially degrading
	Sent adult household members to beg
	Sent children household members to beg

Annex F: Communities Assessed

Cluster A (East Hasakeh)

Al Hasakeh	**195**
Al Malikiyeh	**90**
Najaf	15
Tal Adas	15
Tal Zyara	15
Fardos	15
Esmailiyeh	15
Qalqilya	15
Jawadiyeh	**15**
Thaheriya	15
Malikiyeh	**90**
Hozon Castle	15
Tal Hadid	15
Tunisiyeh	15
Mzeireb	15
Ghassaniyeh	15
Maabada	15

Cluster B (West Hasakeh)

Al Hasakeh	**315**
Al Hasakeh	**15**
Eastern Hamra	15
Amuda	**45**
Billet Bkara	15
Kherbet Sheib	15
Lower Tal Arus	15
Derbasiyeh	**45**
Salam	15
Tal Sukkar	15
Western Shmuka	15
Qamishli	**15**
Jermez	15
Ras al Ain	**120**
Abu Shakhat	15
Arshet Ras El Ein	15
Big Abu Jarada	15
Hakimeh	15
Shara	15
Tal Sheer Ras El Ein	15
Um Elasafir	15
Qotniyeh	15
Tal Tamer	**75**
Bab Elfaraj	15
Derdara	15
Mjeibret Zarkan	15
Maqbara	15
Tal Talaah	15

Cluster C (Deir-ez-Zor)

Deir ez Zor	**465**
Abu Kamal	**31**
Abu Kamal	1
Hasrat	15
Siyal	15
Abu Kamal Center	**45**
Abu Kamal	15
Ghabra	15
Hura	15
Ashara	**60**
Ashara	15
Dablan	15
Dweir	15
Tishrine	15
Thiban	**30**
Abu Hardoub	15
Jarda	15
Deir ez Zor	**75**
Baglieh	15
Deir ez Zor	15
Jafra	15
Jbeileh	15
Upper Safira	15
Tabni	**45**
Qasabiyeh	15
Tabni	15
Tarif	15
Muhasan	**45**
Abed	15
Muhasan	15
Toob	15
Mayadeen	**45**
Mahkan	15
Upper Baqras	15
Zbara	15
Basira	**45**
Breiha	15
Zir	15
Kassar	15
Jalaa	**15**
Sabkha	15
Susat	**15**
Marashdeh	15
Hajin	**15**
Kishkiyeh	15

Cluster D (Central Ar-Raqqa)

Ar Raqqa	**202**
Ar Raqqa	**67**
Khayala	12
Htash	15
Marj Abu Shareb	15
Yamama	10
Zahera	15
Karameh	**15**
Nasra	15
Mansoura	**30**
Debsi Afnan	15
Ghamamiz	15
Sabkha	**60**
Rahbi	15
Masarra	15
Rabyeh	15
Sabka	15
Sabkha	**30**
Hweijet Shna	12
Hweijet Shnanasra	3
Shamra	15

Cluster E (Northern Aleppo and Ar-Raqqa)

Aleppo	**60**
Ain al Arab	**60**
Korbinar	15
Hbab - Yadi Qawi	15
Qola	15
Zobar - Zorabi	15
Ar Raqqa	**90**
Ain Issa	**30**
Jahjah	15
Sharkrak	15
Tal Abiad	**60**
Mashrafet Elsheikh	15
Shreian	15
Zanbaqa	15
Saideh	15

Cluster F (Northwest Syria)

Aleppo	**60**
Afrin	**15**
Afrin	15
Atareb	45
Hreibel	15
Kafr Taal	15
Little Orm	15
Hama	**45**
Madiq Castle	**45**
Hurriyeh	15
Sehriyeh	15
Karim	15
Idleb	**311**
Badama	**75**
Baksariya	15
Ein El-Bayda	15
Maraand	15
Armala	15
Hanbushiyeh	15
Kafr Takharim	**15**
Kuku	15
Harim	**15**
harim	15
Heish	**15**
Heish	15
Ihsem	**30**
Kafr Shalaya	15
Sarja	15
Janoudiyeh	**15**
Hamama	15
Jisr Ash Shoghour	**75**
Balmis	15
Jdidet Eljisr	15
Bshlamon	15
Bteibat	15
Salhiyeh	15
Darkoush	**30**
Darkoush	15
Ghazala	15
Salqin	**41**
Azmarin	11
Big Hir Jamus	15
Kafrahlat Jallad	15
Lattakia	**60**
Kansaba	**60**
Kadin	15
Karura	15
Tala	15
Kansaba	15

Cluster F (Northwest Syria)

Aleppo	**60**
Afrin	**15**
Afrin	15
Atareb	45
Hreibel	15
Kafr Taal	15
Little Orm	15
Hama	**45**
Madiq Castle	**45**
Hurriyeh	15
Sehriyeh	15
Karim	15
Idleb	**311**
Badama	**75**
Baksariya	15
Ein El-Bayda	15
Maraand	15
Armala	15
Hanbushiyeh	15
Kafr Takharim	**15**
Kuku	15
Harim	**15**
harim	15
Heish	**15**
Heish	15
Ihsem	**30**
Kafr Shalaya	15
Sarja	15
Janoudiyeh	**15**
Hamama	15
Jisr Ash Shoghour	**75**
Balmis	15
Jdidet Eljisr	15
Bshlamon	15
Bteibat	15
Salhiyeh	15
Darkoush	**30**
Darkoush	15
Ghazala	15
Salqin	**41**
Azmarin	11
Big Hir Jamus	15
Kafrahlat Jallad	15
Lattakia	**60**
Kansaba	**60**
Kadin	15
Karura	15
Tala	15
Kansaba	15

Cluster H (Southern Syria)

Dar'a	**45**
Busra al Sham	**45**
Abu Katuleh	15
Smaqiyat	15
Tisiya	15