HASAKEH GOVERNORATE MULTI-SECTOR NEEDS ASSESSMENT 2016

SYRIA

ASSESSMENT REPORT

AUGUST 2016

REACH Informing more effective humanitarian action

Photo girls in Quamishli © Beshr Abdulhadi, 19 March 2013

About REACH

REACH is a joint initiative of two international non-governmental organizations - ACTED and IMPACT Initiatives - and the UN Operational Satellite Applications Programme (UNOSAT). REACH's mission is to strengthen evidence-based decision making by aid actors through efficient data collection, management and analysis before, during and after an emergency. By doing so, REACH contributes to ensuring that communities affected by emergencies receive the support they need. All REACH activities are conducted in support to and within the framework of inter-agency aid coordination mechanisms. For more information please visit our website: www.reach-initiative.org.
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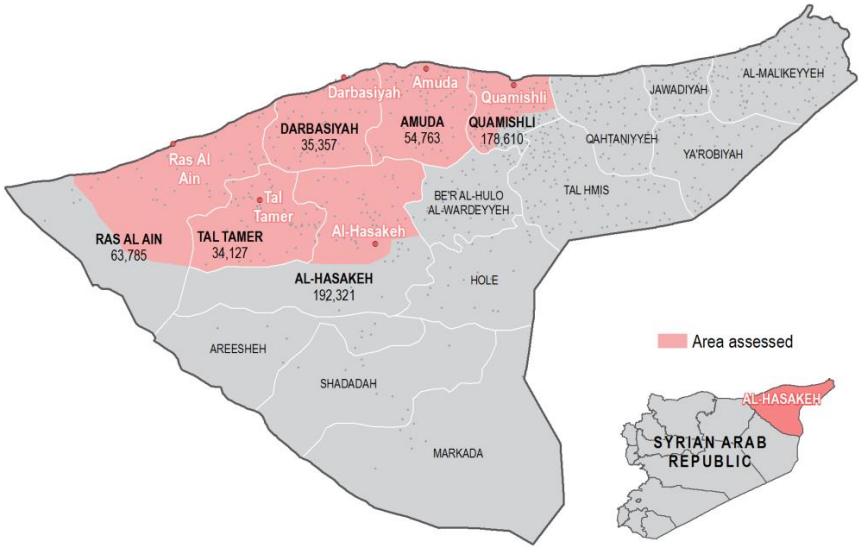
SUMMARY

Since the beginning of the crisis in March 2011, conflict has caused 4.8 million people to flee Syria. Within the country, vulnerable populations include an estimated 13.5 million people in need of humanitarian assistance and 6.6 million internally displaced people (IDPs)[1]. Accessing parts of this population remains challenging due to the ongoing conflict, and there is often little detailed information on the needs and vulnerabilities of people inside the country, which further impedes the response.

Hasakeh governorate, situated in the north-eastern corner of the country, is home to a diverse mixture of ethnic groups, predominantly Arab and Kurdish. The governorate provides an illustration of the challenges mentioned above: the south of the governorate is difficult for international humanitarian actors to access due to the presence of hostile armed opposition groups (AOGs), whilst the north remains affected by sporadic outbreaks of clashes. In addition to these access issues, it is estimated that between January and May 2016, the governorate received 34,950 returnees, the second largest number of returnees in any governorate in Syria after Dar'a. Meanwhile, during the same period, 6,000 people became displaced within the governorate and approximately 11,300 left for other locations in Syria[2]. As in the rest of the country, household-level information on the overall impact of sustained conflict on humanitarian needs in Hasakeh governorate is limited due to the challenges in access, hindering any systematic or regular household level data collection.

Therefore, this Multi Sector Needs Assessment (MSNA) intends to provide an overview of the humanitarian situation in selected areas of Hasakeh governorate, covering the six sub-districts of Ras al Ain, Tal Tamer, Darbasiyah, Amuda, Quamishli and Hasakeh (see map below). It aims to provide an overview of the situation across the aforementioned sub-districts to enable identification of the composition and living conditions of people in these areas as well as allow a comparison between areas in order to assist humanitarian actors with the planning and targeting of assistance. Emphasis has been laid on findings related to food security and livelihoods in order to determine the long-term impact of the crisis on populations that have not left the country. The assessment also covers key indicators related to shelter, non-food items (NFIs), health and education needs. A detailed section on water, sanitation and hygiene (WASH) has also been included as data was collected in alignment with a WASH Cluster-led assessment in the North West, South and North East of Syria.

Map 1: Assessed areas of Hasakeh governorate



Data for this assessment was collected through 1,524 household-level interviews conducted between the end of May and the beginning of June 2016. The sample collected allows results to be a) representative across the whole area covered with a confidence level of at least 95% and margin of error maximum 5%; b) generalizable at the sub-district level with a confidence level of 95% and margin of error of 10%; and c) generalizable across rural and urban

[1] UN OCHA Syria, May 2016, http://www.unocha.org/syria
[2] UN OCHA, Syrian Arab Republic: Internal Displacement (January-May 2016)

areas with a confidence level of at least 95% and margin of error maximum 5% (with urban taken to be the main cities of each sub-district collectively and rural taken to be all other communities in the sub-districts assessed).

The section below highlights some of the key sectoral findings of the assessment across all sub districts assessed, followed by a comparison of WASH, livelihoods and food security findings between sub-districts as well as between urban and rural areas.

Key Findings: Sectoral Breakdown

Demographics and Migration

The assessment found that the average household size was 6.2 people, typically comprising of 3.5 adults and 2.7 children. Rural households were found to be larger (7.1 people compared to 5.9 people) and as such, households in those sub-districts with larger proportional rural populations also tended to be larger on average (for example, in Tal Tamer the average household size was 6.6 people compared to Quamishli with 5.8 people).

Children resided in 82% of households with children under the age of 5 living in approximately half of households, resulting in a high dependency ratio[3] of almost 1 across the area, meaning that for every working age individual in the areas assessed, there is one economically dependent individual of non-working age. This represents a significant difference from the country-wide average of 0.7 from 2014[4].

Internally Displaced Persons (IDPs) comprised 9% of the population assessed[5], whilst returnees[6] made up 11% of the population assessed. The largest proportions of returnees were found in Ras al Ain (24%), Tal Tamer (21%) and Hasakeh (15%), whilst the largest proportions of IDPs were found in Hasakeh (11%), Darbasiyah (10%) and Quamishli (8%). Households in urban areas were more likely to contain both IDPs and returnees when compared to rural areas, potentially indicative of the greater pull towards these locations. Of the 8.9% of IDPs, approximately half were from elsewhere in Hasakeh governorate (49%), with substantial proportions from Aleppo (22%) and Deir ez Zor (11%). In particular, many were from Shadadah (14%) and Hasakeh (14%) sub-districts within Hasakeh governorate, parts of which have seen conflict and takeover by different AOGs since the beginning of the crisis. Further, of the 126 households assessed that were found to host IDPs, just 8 of these households (6%) were shared with members of the pre-conflict populations, indicating that IDPs typically live independently from host populations.

Food Security

Overall, 78% of households had an 'acceptable' Food Consumption Score indicating acceptable short-term food consumption in terms of dietary diversity, and 97% of households reported typically eating three meals per day. Nevertheless, 21% of households were classified as food insecure[7] highlighting presence of a particularly disadvantaged pocket of people. Although the remaining 79% are classified as food secure, this is comprised of 21% food secure and 58% marginally food secure, indicating that the majority of these households are potentially close to becoming food insecure. Indeed, it appears that the majority of households were able to access food sources and maintain a reasonable level of dietary diversity: 97% of households reported that shops and markets were one of their most common sources of food. However, it was reportedly difficult to maintain this level of consumption, as 86% of households reported challenges to accessing food; these were commonly related to a lack of income opportunities and the comparative expense of food, as well as a lack of certain items on markets; the majority of households adopted negative coping strategies as a result.

[3] Comparison of working age individuals to economically-dependent individuals of non-working age.
[4] The World Bank (2015), The World Bank Data, Syrian Arab Republic, accessed 23/06/2016
[5] Since IDP camps were not targeted during this assessment, this population breakdown is only indicative and not a reflection of the situation across the governorate or the assessed sub-districts.
[6] For the purposes of this assessment, returnees were defined as those who had left the community (neighbourhood / village) since the beginning of the crisis but who have since returned
[7] Methodology for calculating Food Consumption Score and overall food security were taken from WFP (2015) VAM Guidance Paper CARI Guidelines. Food Consumption Score measures households' current status of food consumption based on the number of days per week a household is able to consume items from standard food groups. The Food Security Index measures household overall food security status, comprises measures of short-term consumption (Food Consumption Score) and long-term coping capacity (food expenditure share and use of livelihood-based coping strategy). Therefore, households with an acceptable FCS may not be classified as food secure, if they are unable to meet long-term coping capacity criteria; similarly, households with an unacceptable FCS may be classified as food secure if they demonstrate positive long-term coping capacity.

A slightly greater proportion of rural households (15%) were estimated to be food insecure in comparison to urban households (13%). Examining the components of the food security calculations reveals little difference in the short-term ability to maintain dietary diversity, but a greater reliance on coping mechanisms indicating a low long-term coping capacity of households in rural areas. When considered against findings for food expenditure share and challenges to accessing food, different dynamics are evident. Urban households, which are slightly less encumbered by debt and have lower monthly expenditures partially due to lower debt repayments, tend to spend a larger proportion and a larger nominal amount of their income on food. In contrast, rural households are perhaps less able to do so due to their heavy debt burden; as well as a slightly greater reliance on sources of food other than stores/markets compared to urban areas, they tend to resort to coping strategies and in a minority of cases, extreme coping strategies. With the unsustainable debt load and decreasing food production, this could potentially increase in the future.

Livelihoods

Employment opportunities in the sub-districts assessed appear limited: the total reported proportion of adults working was 38%, indicating that 62% of adults are not employed which is higher than the present estimated country-wide average of 53%[8]. Further, there has been a reported decrease in levels of employment-based income sources since before the crisis, such as salaried employment, daily casual labour, farm ownership, and business/trade. In parallel, there has been an increase in reported reliance on non-employment based sources which typically generate less income and are less stable than employment based-source, such as remittances from outside and inside Syria, borrowing from family/ friends, and using savings.

The lack of livelihood opportunities is evident in the high proportion of households reporting facing challenges to maintaining household income in the 30 days prior to assessment (90%), as well as the nature of challenges reported: a lack of employment opportunities, low wages/salaries and high cost of inputs were the most commonly reported challenges (by 42%, 40% and 37% of households respectively). Indeed, this appears to have manifested itself in unsustainable levels of expenditure and debt in comparison to income: average monthly expenditure (106,370 SYP or $168.04) and average debt (172,995 SYP or $273.29) far exceeded average monthly income (64,284 SYP or $101.55). The debt burden appears to inhibit short term ability to sustain livelihoods, as debt repayment is the second largest portion of monthly expenditure (19%), after food expenditure (44%).

The majority of households (64%) resorted to livelihoods-based coping mechanisms to meet their basic needs in the 30 days prior to assessment. The majority of coping mechanisms used fell into the 'stress' category, such as reducing food intake, spending savings, and borrowing money or buying on credit (by respectively 25%, 18% and 19% of all households); these decrease the household's ability to weather future shocks due to a reduction of resources. A high level of 'crisis' strategies was also prevalent: selling goods and assets was reported by 25% of households and selling productive assets or means of transport by 11%. Such strategies negatively affect future productivity, indicating likelihood of further deterioration.

Whilst employment opportunities appeared limited in both urban and rural areas (36% of adults working in rural households compared to 38% in urban households), the type of employment differed, with temporary or daily jobs more common in rural areas (17% compared to 15%), and stable salaried employment less common (19% compared to 23%). Overall rural populations were more reliant on less predictable sources of income which appears to have exacerbated unsustainable income, debt and expenditure patterns in rural households (in rural areas, average monthly income is $100.46, average monthly expenditure is $180.64 and average debt is $299.82).

Shelter / NFIs

The majority of the population lived in independent houses / apartments (97%), with small proportions residing in unfinished buildings/squatting (3%), collective centres such as schools and mosques (0.2%), and informal settlements such as tents and hand-made shelters (0.2%). IDP households were more likely to be in vulnerable shelter types: whilst 87% resided in homes / houses / apartments, the remainder lived in unfinished buildings (9%)

[8] Syrian Centre for Policy Research (2016), Confronting Fragmentation: Impact of Syrian Crisis quarterly based report

collective centres (2%), informal settlements (2) and other miscellaneous accommodation (1%). It was common to own shelters (79%), with smaller proportions of households renting (15%), being hosted (3%) and squatting (2%).

Shelter dynamics appear quite different in urban and rural areas. Those in urban areas are more likely to rent their homes (19% compared to 5% in urban areas), with typically a larger average proportion of their income being spent on rent. Further, rent in urban areas was much more expensive ($13.19 compared to $10.26 in rural areas). In contrast, those in rural areas are more likely to own their homes than those in urban areas, and there is a larger pocket of people living in less secure shelter types (unfinished buildings / squatting, informal tented settlements). Rural households were also more likely to be damaged (46% lightly, moderately, heavily damaged or destroyed) in comparison to urban households (39% damaged).

Although almost all households assessed reported having some access to electricity (99%), access was commonly limited. 95% of households still had some access to the main network; however, 49% of households had fewer than eight hours of access per day and only 50% used the network as their primary source of electricity. The other half (49%) used generator power as their primary sources, with a few households (1%) using small private generators or borrowing electricity from family or friends. Households using generator power as their main source of electricity were less likely to have a constant supply than those relying on the main network: of the 49% households that primarily relied on generator power, just 1% of these had more than 12 hours of access to electricity per day compared to 42% of the 50% of households which relied on the main network.

The main sources of cooking fuel for the majority of the population were gas (73%) and kerosene/kaz (24%) with few households using electricity (1%), wood / charcoal (1%) and diesel (0.3%). Kerosene appears to be most commonly used in households which have limited access to resources, potentially acting as a proxy for vulnerable households. It was the most common fuel used in most households with no source of electricity (63%), whilst gas was most common in households using generator and main network power (74%, 74% respectively). Further, kerosene is the most common fuel source in 46% of households classified as food insecure.

In terms of access to electricity, all households with no electricity source were located in rural areas (1% of households overall); these households with no electricity typically resided in heavily damaged shelters, indicating presence of a small pocket of relatively disadvantaged households. However, households in rural areas were slightly more likely than households in urban areas to use the main network as their primary source of electricity (53% compared to 49%). When taken alongside the finding that rural areas tended to be able to access more hours of electricity through the main network per day (73% of households accessing more than four hours per day compared to 65% in urban households), this indicates that rural households have better access to the main network. However, urban households were more able to supplement the lack of access through generator power; 75% of households had more than 4 hours access per day whilst 47% of rural households did.

WASH

Overall, reliance on the main network as a source of water for both household and drinking purposes was prevalent across the area assessed. The majority of households (85%) used water from the main network as their main drinking water source, with a small number using open wells (6%), closed wells (4%), water trucking (4%) and bottled water (1%). Despite good connection to the main network, water consumption appeared limited for the majority of households, with presence of a number extremely disadvantaged households evident. In terms of sufficiency of water, almost a quarter of households (24%) spent 2 days or more without water in the 30-day period prior to assessment, and 14% of households reported that they did not have sufficient water over the past 30 days to meet their needs. The average water consumption per household was 19.3 barrels in the 30-day period prior to assessment, corresponding to an average usage of 623 litres per person per month. The lack of sufficient water appears to be leading a minority of households to resort to behavioural changes: 14% of households reported having changed their hygiene practices in the 30 days prior to assessment due to a lack of water.

Disparities appear when considering water availability in urban and rural areas. Households in rural areas were found to be much less likely to use the main network as a main source of drinking and household water (respectively 56% and 61% of households in rural areas compared to 96% for both in urban areas), with greater reliance on non-

piped sources such as closed and open wells, and water trucking. It was more common to spend 2 or more days without water in rural areas (31% of households compared to 22% in urban areas); further, the proportion of households reporting to not have had sufficient water to meet needs was higher in rural areas (20% of households compared to 12% in urban areas). When taken alongside the fact that rural households spent 7% of their monthly budget on water compared to 3% in urban households, it appears that rural households were more limited in the amount of water available for consumption. Indeed, this appears to be reflected in hygiene practices: a greater proportion of households in rural areas reported changing their hygiene practices in the past 30 days (21% compared to 11% in urban areas) to cope with the lack of water.

Health

Health questions focused on the number of reported illnesses or symptoms of illnesses commonly related to water sources[9]. A reported 9% of the population suffered from diarrhoea in the two weeks prior to the survey, with reported rates significantly higher for children under 5 (28%) compared to 7% of children 6-17 and 5% of adults. Further, males appeared to have slightly higher rates of diarrhoea than females (10% compared to 8%)[10]. A reported 5% of the population suffered from skin infections[11] in the two weeks prior to the survey. As with diarrhoea, children below 5 were more susceptible (7% compared to 5% of children aged 6-17 and 5% of adults), though there was no notable pattern between males and females.

Overall 53% of households reported being unable to obtain some form of required health assistance, whilst 33% reported being able to obtain assistance and 14% reported not needing any assistance. The most common forms of health assistance required were drugs (43% of all households), followed by treatment for chronic disease (18%) and primary health care services (17%).

Diarrhoea was slightly more prevalent in urban than rural areas, affecting 9% of populations in urban areas and 8% in rural areas. In contrast, skin infections were slightly more prevalent in rural areas when compared to urban areas (7% compared to 5%). Required health services differed slightly between urban and rural areas, with those in urban areas more likely to require but not have access to treatment for chronic disease and drugs, as well as psychiatric care, surgical care, orthopaedics, assistive devices and home visits by health professionals. On the other hand, in rural areas, required health services prioritized were drugs, primary healthcare services, treatment for chronic diseases, maternal/ child health services and immunisation.

Education

In households assessed 8% of children between the ages of 6 and 17 reported to have not attended school (for at least four days per week) during the previous term, and 4% of children were reported to have not attended school for more than one year[12]; this is significantly better than the country-wide estimation that 50% of children are not attending school[13]. When disaggregated by age and sex, rates of non-attendance are higher for those in secondary education (11% of males 13-17 not attending school in the previous term and 8% of females). Further, across both primary and secondary aged children, males were found to be more likely not to be attending school.

The most commonly cited educational needs were related to provision of education materials for both students and teachers, whilst a lack of money for tuition/education materials was the most common reason cited for lack of attendance in schools. Whilst affordability of education and educational materials is relatively easy to respond to, assessment findings highlighted more fundamental challenges to accessing education for a minority of children within the assessed area: of those children not attending school, approximately 10% faced the issue of the curriculum being taught in a different language due to the Arab/ Kurdish split in the region, leaving a small pocket of children completely unable to access education.

[9] These are self-reported by households and not verified by medical reports, therefore findings are indicative only.
[10] Due to the small difference found and the margin of error, this finding is indicative only.
[11] These infections were self-reported by the interviewees and could be based on self-perceptions rather than medical diagnosis.
[12] These rates are self-reported by households and not verified by school attendance records. This could include those who never attended school in the first place, those who were attending school and then dropped out, and those who are registered but are not attending (for example, those who frequently miss school).
[13] Save the Children (2015), The Cost of War

List of Acronyms

AOG	Armed opposition group
CSI	Coping Strategies Index
FCS	Food Consumption Score
FSI	Food Security Index
HNO	Humanitarian Needs Overview
HSOS	Humanitarian Situation Overview in Syria
IDP	Internally displaced person
NFIs	Non-food items
NGO	Non-governmental organisation
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
SYP	Syrian pounds
USD	United States dollars
WASH	Water, sanitation and hygiene

Geographical Classifications

Governorate	Highest form of governance below the national level (admin level 1)
District	Sub-division of a governorate in which government institutions operate (admin level 2)
Sub-district	Sub-division of a district composed of communities (admin level 3)
Community	Bounded clustering of population in the form of a city, town or village (admin level 4)
Neighbourhood	Lowest administrative unit within a city (admin level 5 or 6)

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INTRODUCTION

Since the outbreak of the crisis in Syria in March 2011, 4.8 million Syrians have fled to neighbouring countries and further abroad. Within Syria, 6.6 million people are internally displaced, and an estimated 13.5 million are in need of humanitarian assistance[14]. Both IDPs and host community populations across the country face acute challenges to meeting basic needs, often exacerbated by a lack of humanitarian access to conflict-affected areas.

Hasakeh governorate is located in the north-eastern corner of Syria, bordering Turkey to the north and Iraq to the south and east. It is resource-rich and home to a diverse population, the majority being ethnic Kurds and Arabs, and has been militarily contested since the beginning of the conflict. As of 2015, there is an estimated total of 755,254 people in need and 301,618 internally displaced people in the governorate[15], of a population of 944,504[16]. This does not appear to have changed drastically throughout 2016: since January, 11,300 people are estimated to have left to other governorates in Syria whilst 6,000 people have become displaced within the governorate[17]. However, there has been a significant number of returnees to Hasakeh governorate, estimated at 34,950 people which is the second largest of any governorate (after Dar'a) since January. The high proportion of returns could be linked to the fact that in 2016, the north western part of the governorate (comprising Ras al Ain, Tal Tamer and Hasakeh sub-districts) has been recovering from conflict faced in 2015 during which armed opposition groups (AOGs) took over parts of the area and were subsequently ousted.

Overall, there is a lack of information on humanitarian needs and on the overall impact of sustained conflict in Hasakeh governorate. Accessing parts of this population remains challenging due to the ongoing conflict and there is often little detailed information on their needs and vulnerabilities, which further impedes the humanitarian response. Furthermore, as in the rest of the country, information on needs is largely limited to community-level assessments[18] and there is a general lack of detailed, household-level information across the sectors.

In light of this, this Multi-Sector Needs Assessment (MSNA) was developed to provide a comprehensive overview of the humanitarian situation at the household level in selected areas of Hasakeh governorate, to assist with the planning and targeting of humanitarian assistance. The assessment aims to identify sector-specific needs and characteristics of households across assessed sub-districts as well as between urban and rural areas, assess disparities between areas assessed, understand characteristics of relatively disadvantaged households, and provide sector data on WASH-related needs of populations in assessed areas. Findings from the assessment will feed into a WASH cluster led assessment across the South and North of Syria, ultimately used to inform the Humanitarian Needs Overview (HNO) for 2017.

Findings are based on primary data collected through household-level interviews from a statistically significant sample of 1,524 households in Tal Tamer, Ras al Ain, Darbasiyah, Hasakeh Amuda and Quamishli sub-districts between 25th May and 7th June 2016, and include comparisons between sub-districts as well as between rural and urban areas (urban refers to the main city in each sub-district collectively, and rural refers to other communities in the assessed sub-districts collectively). Findings can be generalised across the area assessed, at the sub-district level with a 95% confidence level and 10% margin of error, and across urban and rural areas.

The following report provides a detailed description of the methodology and why it was chosen, followed by an outline of key assessment findings organised into the following sections: demographics, livelihoods, food security, shelter/NFIs, WASH, health and education. In order to build a picture of the impact of sustained conflict on populations, the emphasis of the findings are on food security and livelihoods, with a detailed section on water, sanitation and hygiene as data was collected in alignment with a WASH Cluster led assessment in the North West, South and North East of Syria.

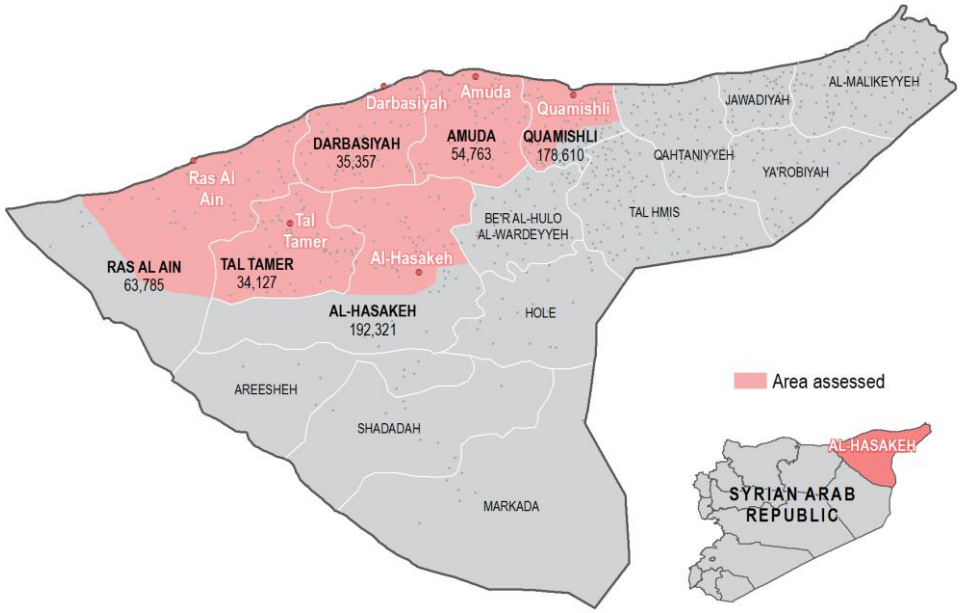
[14] UN OCHA Syria, May 2016, http://www.unocha.org/syria
[15] UN OCHA Syria, Humanitarian Snapshot, April 2016, http://reliefweb.int/report/syrian-arab-republic/syrian-arab-republic-humanitarian-snapshot-30-april-2016-enar
[16] Syria Humanitarian Needs Overview 2016
[17] UN OCHA, Syrian Arab Republic: Internal Displacement (January-May 2016)
[18] Such as Needs and Population Monitoring assessments (NPM), HSOS Monthly Monitoring (REACH), data from the Whole of Syria Assessment 2015 / Humanitarian Needs Overview 2016.

METHODOLOGY

Coverage and sampling

The assessment was conducted through 1,524 household-level interviews in the sub districts of Tal Tamer, Ras al Ain, Darbasiyah, Hasakeh Amuda and Quamishli within Hasakeh governorate, which are home to 59% of the governorate population and include the two largest cities in the governorate, Hasakeh city and Quamishli city[19]. These areas were selected for assessment based on joint criteria of accessibility, humanitarian need, level of intervention, and a lack of detailed information. Although there was a relatively severe need identified by the Whole of Syria Assessment (WoSA) 2015 in the southern part of the governorate (comprising Markada, Shadadah and Areesheh sub-districts), this area has not been covered by the assessment as it remains difficult for humanitarian actors due to ongoing conflict and presence of hostile armed opposition groups (AOGs). Similarly, despite some ongoing humanitarian intervention, Hole, Ber Al Hulo al Wardeyyah and Tal Hmis sub-districts have not been covered because ongoing tensions render operations difficult in these areas. On the other hand, sub-districts in the north-west of the governorate (comprising Malikeyyeh, Qahtaniyyeh, Jawadiyah and Ya'robiyah) were not assessed despite a relatively high level of intervention due to resource constraints inhibiting full coverage of potentially accessible areas.

Map 1: Assessed areas of Hasakeh governorate



The sampling approach used was a statistically significant stratified cluster sample representative to the sub-district level with a confidence level of 95% and a margin of error 10%. The sample was weighted during analysis to allow results to be representative across the six sub-districts assessed to account for the fact that a household in a smaller sub-district was more likely to be selected across the entire area assessed; results across all areas assessed are representative with a confidence level of 99% and margin of error 5%.

Further, the sample also allows for results to be compared across rural and urban areas in order to identify disparities in living conditions. Each sub-district assessed consists of a main city/town which has the same name as the sub-district (as labelled on the map 1), and a large number of surrounding communities which generally contain fewer than 1,000 people (though in each sub-district, there are up to around 4 communities with between 1,000 and 4,000 people)[20]. This allows for a rural-urban distinction between the main city/town in each sub-district

[19] Syria admin levels: Admin 1 = governorate; admin 2 = district; admin 3 = sub-district; admin 4 = village / city; admin 5/6 = neighbourhood [community = village / city neighbourhood]
[20] Needs Population Monitoring data (2016)

collectively (classified as urban) and the other communities in the sub-district collectively (classified as rural), enabling comparison of findings for rural and urban areas across all sub-districts assessed during analysis.

The sampling frame consisted of populations in all accessible communities within the selected sub-districts. Whilst all communities in Tal Tamer, Amuda and Darbasiyah were accessible, certain areas of Ras al Ain, Quamishli and Hasakeh sub-districts were not accessible due to security and logistical constraints at the time of the assessment, as were particular neighbourhoods within Quamishli and Hasakeh cities; accessible areas are shown in the maps in Annex 2. The unit of measurement in the survey was the household, though respondents were also asked to detail the number of household members disaggregated by age and sex, to allow responses to certain questions to be analysed at the individual level or by population group.

Within each sub-district, Probability Proportional to Size cluster sampling methods were used to randomly generate a list of communities to survey within each sub-district, along with a targeted number of surveys for each community. The probability that a community was selected, as well as the number of surveys to conduct per community, were influenced by comparative community population size; this ensures that all households within the sub-district have the same probability of being selected for survey. Using a cluster sampling methodology incurs a greater standard error in comparison to the standard error that would be incurred using the same sample size but using simple random sampling. To mitigate against this, during sample design, sampling targets were adjusted to ensure that a 95% confidence level with 10% margin of error was still achieved for each sub-district.

Within selected communities, the targeted number of surveys to conduct were distributed using randomisation methods to obtain a simple random sample from each. In cities and larger communities for which maps were available, communities were split into neighbourhoods (using existing defined neighbourhood boundaries or participatory mapping), and the number of surveys required divided equally across neighbourhoods. In smaller communities in which fewer surveys were required, enumerators were instructed to spread the surveys across the community and follow randomly generated directions to reach households.

Table 1: Population and sample sizes

Sub-district	Approximate population[21]	Sample size required	Sample collected[22]	Approximate population of main city[23] (comprising urban sample)
Hasakeh[24]	192,321	City: 384[25]	427	
		Elsewhere: 97	116	
Amuda	54,763	97	110	36,670
Darbasiyah	35,357	97	114	24,770
Quamishli[6]	178,610	City: 384	425	
		Elsewhere: 97	104	
Ras Al Ain	63,785	97	117	31,280
Tal Tamer	34,127	97	111	11,950
TOTAL	**558,963**	**1,350**	**1,524**	

[21] Sub-district population figures from the Syria Humanitarian Needs Overview 2016

[22] For a simple random sample to be representative at 95% confidence level and 10% margin of error for the given population sizes, a sample size of 97 is required. The actual sample collected was adjusted to account for the design effect incurred due to the use of cluster sampling, as well as to provide a buffer in case any interviews or responses were invalidated during the cleaning process.

[23] Main city population figures from Area of Origin / Needs and Population Monitoring combined dataset 2016

[24] A September 2015 REACH report estimates the population of Quamishli City to be 200,000, whilst the 2004 Census put the population at 184,231 and NPM 2016 estimates population to be 428,800. Informal estimates of Hasakeh City vary between 200,000 and 300,000, up from the 2004 Census population of 188,160. Ongoing conflict has caused significant changes to the demographic composition of both cities, with many households having left and other having arrived from elsewhere. As such, for sampling purposes infinite population has been assumed.

[25] A larger sample was collected in Hasakeh and Quamishli cities to allow results to be representative to the city level with a confidence level of 95% and margin of error 5%, enabling detailed, city-level comparisons. This extra level of detail has not been utilised in this report, and the sample for these sub-districts was weighted during analysis to allow it to be representative at the sub-district level.

Indicators and Tool Design

The tool was designed to ensure consistency with previous assessments, in particular the REACH 2015 Quamishli City household assessment, as well as other ongoing data collection efforts (see Annex A for full questionnaire).

Data Collection

Data collection was preceded by recruitment and training of enumerators living within the areas to be assessed in Hasakeh governorate. A team of 21 enumerators were trained on the questionnaire and methodology over the course of two days; this included a pilot in the field which generated immediate feedback and allowed the data collection tool to be finalized.

Data collection then took place between the 25th May and 7th June 2016, by mixed-sex teams to enable access to all sampled respondents and ensure gender sensitive contextualization of findings during enumerator de-briefings. Enumerators were instructed to interview heads of households (defined as those in charge of making decisions for the household and managing household resources) or members of the household above the age of 18 who were able to speak on behalf of the household.

Enumerators entered data directly onto smartphones during household interviews using the Kobo Collect platform. This aimed to limit data entry errors through building constraints and relevance expressions into the tool, and also enabled enumerators to geo-reference all interviews conducted. All completed surveys were uploaded to a server at the end of the day following initial data checks. Throughout data collection, assessment teams monitored incoming data on a daily basis, including checking entries for inconsistencies and following up immediately with enumerators, tracking length of time taken per survey and number of surveys per enumerator, and plotting daily interview locations against a satellite base-map to ensure the sampling methodology was adhered to. A final review and cleaning of data was undertaken upon completion of data collection.

Data collection adopted a 'do no harm' approach to avoid causing any unintended consequences to assessment participants, adhering to the guiding principles of informed consent, confidentiality and ethical evidence gathering. The assessment was conducted with respondents aged 18 years or above only, and all respondents were given the option of non-response. Names, addresses and phones numbers were not recorded in the dataset. Finally, only questions appropriate for the setting, and which were deemed to be ethical, moral and responsible, were included in the survey based on verification by Syrian staff from those areas.

The assessment also made use of secondary data and information collected from similar household level assessments conducted in the area such as the Syria Humanitarian Needs Overview 2016, REACH Quamishli City Food Security and Livelihood assessment (September 2015), CARE's Hasakeh Multi-Sector Needs Assessment covering Ras al Ain and Darbasiyah sub-districts (February 2016), REACH Humanitarian Situation Overview in Syria data, and Needs and Population Monitoring (NPM) data, Although methodologies differ, these were useful to triangulate and contextualise findings and compare trends. Finally, prior to finalisation of this report, preliminary findings were shared with humanitarian actors operating inside Hasakeh for feedback and input on further potential analysis, as well as further contextualisation of findings.

Challenges and Limitations

Key challenges and limitations faced during the data collection and analysis process are listed below:

- Inability to access parts of the population within the targeted areas due to security issues at the time of data collection, specifically certain neighbourhoods in Hasakeh and Quamishli cities as well as communities in Hasakeh sub-district. This has resulted in findings being generalizable across assessed accessible areas only (as shown in the coverage maps above) as it cannot be assumed that the humanitarian situation of populations in non-assessed areas is the same as those in assessed areas.
- Findings are not generalisable to elsewhere in Hasakeh governorate and refer only to the sub-districts assessed. Map 1 above gives a representation of the areas that findings do and do not refer to.

- Challenges were faced in obtaining accurate population estimates in Syria at all administrative levels (community, sub-district, district, governorate), hence the population numbers used to design the sample may result in contribution to the design effect due to any unequal selection probability caused. Two primary sources of population estimates were used: the Humanitarian Needs Overview (HNO) 2016 and Needs and Population Monitoring (NPM) data. Data from the HNO 2016 was collected during August 2015, whilst NPM data used was collected between December 2015 and February 2016. However, ongoing conflict causes continuous movement across the country, and the exact numbers of people within each community may have changed since these datasets were compiled; this is particularly problematic for Hasakeh and Quamishli cities in which population estimates vary dramatically. As such, to mitigate against this where necessary, for sampling targets, infinite population has been assumed; further the lack of recent major displacements indicate that proportional community sizes relied upon are still likely to be valid.
- Disabilities, chronic illness and illnesses such as diarrhoea and skin infections were self-reported by households and were not corroborated through professional health reports, therefore any identified cases would require further verification. Similarly, school attendance rates were self-reported and not verified through school attendance records. It is possible that a disparity exists between official enrolment figures and school attendance compared to those reported by households; children may be enrolled but not attending, or parents may be unware that children are not attending. Furthermore, recall bias may have affected the accuracy of responses received for all self-reported questions due to the potential of participants having an unreliable memory of past events, for example, the timeframe of aid distributions.
- The proportion of IDPs/returnees in the final sample collected appears to be lower than the proportion of IDPs in the area. The HNO 2016 estimates that in the six sub-districts assessed, there are 283,822 IDPs or 33% of the population. However, IDPs and returnees comprised 20% of the assessed population (9% IDPs and 11% returnees). Whilst the HNO figures may be an overestimate, IDPs may comprise a lower proportion of the final sample due to IDP households potentially being clustered in certain neighbourhoods rather than being spread evenly across communities, whilst the assessment aimed to access households randomly across communities; further, populations living in camps were not assessed. Assessing the situation of IDPs in both host communities and camps was not incorporated into research design and was beyond the scope of the assessment, but is a potential area for further research.
- Finally, it is also important to note that information based on a sub-set of answers will invariably have a lower confidence level and margin of error than for the entire sample. For example, 'accommodation type' includes the entire sample, whilst a question asked just to households living in rented accommodation (a sub-set of all accommodation types) such as 'rent price' will have a lower confidence level. Where information has been disaggregated from a small sub-set, findings can be only considered indicative and will be referred to as such throughout the report whenever this applies.

FINDINGS

This section of the report outlines the main findings from the assessment. Findings are organised by sector with an initial section detailing demographics and characteristics of the households interviewed. Within the findings for each sector, main findings are presented across the entire area, followed by sub-district specific and urban/rural-specific findings.

Demographics

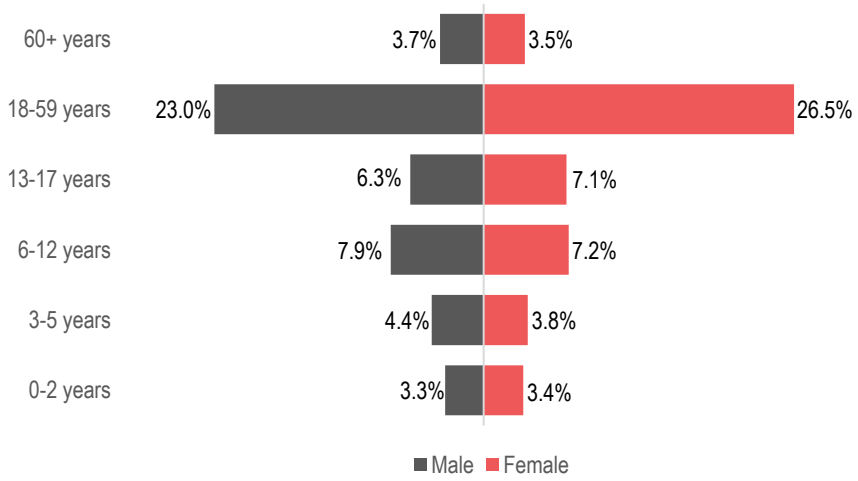
Household Composition

Across the sub-districts assessed, **the average household size was 6.2 people**. When disaggregating this by age groups, on average, households were composed of 3.5 adults and 2.7 children. A large proportion of households (41%) hosted two adults, with a further 49% of households hosting 3-6 adults and 8% hosting greater than six adults, indicating prevalence of households containing more than one nuclear family. In contrast, it was uncommon for households to host just one adult (2%), suggesting that population decrease since the beginning of the conflict has not led to prevalence of single parents or elderly living alone. Further, of the 56% of households hosting more than 2 adults, just under half of these hosted people over the age of 60, whilst in the remainder of households, all adults were between the ages of 18 and 59.

Overall, children resided in 82% of households. It was common for households to host between 1 and 4 children (65% of all households, with 17% of all households hosting 5 or more children). Notably, despite children below the age of 5 comprising 15% of the total population, half of all households (50%) hosted children below the age of 5. Indeed, **households featured a high dependency ratio of approximately 1 implying that for every individual of working age in the sub-districts assessed, there is one economically dependent individual of non-working age.** This ratio represents a significant difference from the 2014 average dependency ratio in Syria of 0.7[26], which may indicate an increase in the number of economically dependent individuals to be supported per working age individual. This is likely explained by the outflux of people from the country and conscription of many working-aged individuals into military service. In the case of some households, it could be indicative of increased difficulty for those employed to generate an income that matches the needs of all household members.

A slightly greater proportion of the population were found to be female (51%, with 49% male). Heads of households were typically male (reportedly in 87% of households assessed), with an average age of 48 years. The majority of heads of households were married (89%), with a few widowed (7%) and small proportions single (3%) or divorced (1%).

Figure 1: Population distribution by age and sex

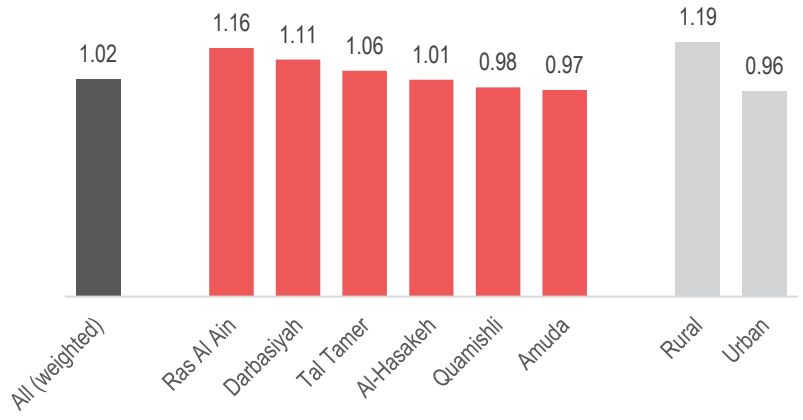


[26] The World Bank (2015), The World Bank Data, Syrian Arab Republic, accessed 23/06/2016

When disaggregating across assessed sub-districts, the number of people per household does not vary significantly, with a slightly lower average in Quamishli (5.8) and slightly higher average in Tal Tamer (6.6) compared to elsewhere (average 6.5 in Hasakeh, 6.3 in Amuda, Darbasiyah and Ras al Ain). However, households in Ras al Ain, Darbasiyah and Tal Tamer sub-districts exhibited particularly high dependency ratios, of 1.16, 1.11 and 1.06 respectively (see Figure 2 below), indicating that these sub-districts contain a greater proportion of children and elderly in comparison to working-age adults available to support them. This is potentially due to a higher prevalence of working-age adults having left these areas, either due to conflict or to find livelihoods opportunities elsewhere.

When comparing urban and rural areas, **rural households were found to be slightly larger, comprising of an average 7.1 people whilst the average urban household size was 5.9 people**. Additional family members in rural households were likely to be children or elderly: rural households had a considerably higher dependency ratio of 1.19 compared to 0.96 in urban areas, as shown in Figure 2 below, and children comprised 43% of the population assessed. Enumerator de-briefings indicated that this is indicative of a combination of the greater pull of urban areas for working-age adults looking for livelihoods opportunities, as well as families in rural areas tending to have more children[27].

Figure 2: Dependency ratio



IDPs and Returnees

IDPs were found to comprise 9% of the population assessed, whilst returnees made up 11%. These proportions are lower than numbers reported in the HNO, which estimates that 33.4% of the population in the 6 sub-districts assessed are IDPs, with the largest proportions found in Hasakeh sub-district. This is potentially due to IDPs being clustered in certain neighbourhoods rather than being spread evenly across communities, whilst the assessment aimed to access households randomly across communities and also did not assess IDP camps and informal settlements.

Of the IDPs surveyed, the average number of times displaced was 1.6, with a majority (61%) displaced once, 21% displaced twice and the remaining 15% displaced between 3 and 5 times. This contrasts to high-conflict locations in Syria such as Aleppo, where the majority of IDPs in Aleppo City (62%) were found to have been displaced multiple times[28]. This reflects differences in pull factors for IDPs: REACH data indicates that the most common reasons for IDPs staying in the sub-districts assessed and elsewhere in the north of the governorate were family ties followed by access to employment, income and shelter, whereas in Aleppo the most commonly reported reason for staying was physical obstacles to leaving[29].

The most common area of origin for IDPs was elsewhere in Hasakeh governorate (49%), followed by neighbouring Aleppo (22%) and Deir ez Zor (11%), with smaller numbers from Ar Raqqa (7%), Damascus (5%), Homs (3%), Rural Damascus (2%) and Hama (1%). Primary sub-districts of origin within Hasakeh governorate

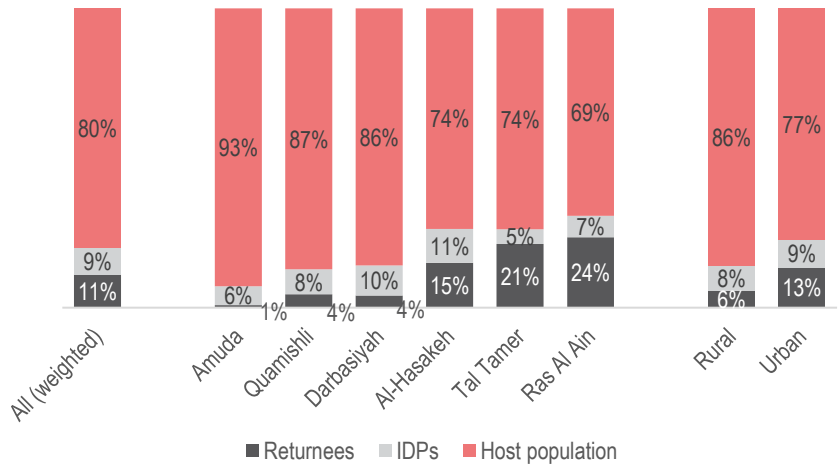
[27] This is based on anecdotal evidence and de-briefings with enumerators from the areas assessed, and not verified by birth records.
[28] REACH (2015), Eastern Aleppo Food Security and Livelihoods Household Assessment
[29] REACH (June 2016), Humanitarian Situation Overview in Syria data

were Shadadah (13% of all IDPs), Hasakeh (13%), Tal Hmis (7%) and Ras al Ain (6%), parts of which have seen significant conflict and takeover by different AOGs since the beginning of the crisis. Large proportions of IDPs also originated from Deir ez Zor sub-district (Deir ez Zor governorate, 10%) As Safira sub-district (Aleppo governorate, 8%), Ar Raqqa sub-district (Ar Raqqa governorate, 6%), Ain al Arab sub-district (Aleppo governorate, 5%) and Damascus (5%).

At the sub-district level, as shown in Figure 3 below, IDPs were most likely to be found in Hasakeh and Darbasiyah, with lower proportions elsewhere. Enumerator de-briefings and community representatives within the area indicated that this is due to their proximity to locations in Hasakeh governorate that have faced significant conflict; Darbasiyah is the closest sub-district to Ras al Ain and Tal Tamer, whilst Hasakeh borders both of these sub-districts as well as the southern parts of the governorate which are difficult to access and from which many people have fled (for example Shadadah). **Prevalence of returnees also varies across sub-districts: as shown in Figure 3 below, almost a quarter of the population of Ras al Ain sub-district are returnees (24%), with large proportions of returnees also found in Tal Tamer, 21% and Hasakeh,15% (see Figure 3). These areas faced significant displacement due to conflict and takeover of certain communities by AOGs in 2015**, which caused people to flee and subsequently return; further, Ras al Ain and Hasakeh have been receiving returnees since conflict initially displaced populations in 2013. There were few returnees to Darbasiyah, Quamishli and Amuda sub-districts; Amuda and Darbasiyah have experienced less conflict, particularly so Amuda in which just 1% of the population assessed were returnees.

IDPs and returnees were slightly more likely to be found in urban rather than rural areas (22% of the urban population assessed compared to 14% of the rural population assessed). Enumerator de-briefings indicated that this is likely due to the existing infrastructure able to absorb them in comparison to rural areas, which can be more difficult to settle in without existing family ties. Further, there is a perception that shelter, livelihoods opportunities and assistance are all more available in urban areas.

Figure 3: Proportion of host population, IDPs and returnees



Food Security

This section aims to depict household food security, firstly considering household access to food including main sources and challenges to access. Access to and availability of bread is examined, followed by analysis of indicators measuring food consumption, dietary diversity, and food-based coping strategies.

Overall, it appears that although the majority of households were able to access food sources and maintain a reasonable level of dietary diversity, it was not easy to do so, as households typically faced challenges to accessing food often related to a lack of income opportunities and the comparative expense of food. Although 78% of households are classified as food secure, this comprises 21% food secure and 58% marginally food secure,

indicating that many are close to becoming food insecure and face challenges to maintaining food security. Further, there is a pocket of particularly vulnerable households (21%) already classified as food insecure.

Across sub-districts, Ras al Ain, followed by Hasakeh and Tal Tamer, appear relatively disadvantaged in terms of food security. They have the highest proportion of people classified as food insecure; further, households in these sub-districts were more likely to have adopted consumption-based coping strategies than elsewhere and have greater proportions of people with 'poor' or 'borderline' Food Consumption Scores indicating more limited dietary diversity. When disaggregating between urban and rural areas, a slightly greater proportion of rural households were estimated to be food insecure in comparison to urban households. These findings reflect results found for the summary indicators, demonstrating little difference in the short-term ability to maintain dietary diversity, but a greater reliance on coping mechanisms indicating poorer long-term coping capacity of households in rural areas.

Access to Food

Household consumption

Overall, households appear to be able to eat regular meals. Across the sub-districts assessed, the average number of meals eaten per day was three; this was the case for 96% of households with a further 1% eating 4-6 meals, 2% eating 2 meals and 0.2% eating 1 meal. Similarly, in the majority of households (93%), household members had equal access to food, though in 4% of households children under the age of 18 were prioritised.

At the sub-district level, **Ras al Ain and Tal Tamer stand out as having slightly lower average household consumption**. Between sub-districts there was little variation in number of meals eaten per day, though the proportion of households in Ras al Ain, Hasakeh and Tal Tamer sub-districts eating fewer than 3 meals per day was slightly higher than elsewhere at 5%, 4% and 3% respectively. In Darbasiyah, Ras al Ain and Tal Tamer, there appears to be a greater need to prioritise access to food (11%, 11% and 9% of households respectively reported prioritising certain groups), indicating that in these sub-districts there is a larger pocket of people facing food shortages.

A slightly larger proportion of households in rural areas also appear to be without sufficient amounts of food**.** Rural households were slightly less likely to eat three meals per day (4% of rural households eating fewer than three meals, compared to 2% of urban households); further, 7% of households reported prioritising access to food for certain groups, compared to 6% of households in urban areas.

Sources of food

Households in the assessed sub-districts were typically reliant on food bought from shops / markets: the most common source of food was overwhelmingly markets or stores, reported in 97% of households followed by own production (1%), gifts from family / friends (1%), humanitarian assistance (0.4%), begging (0.3%) and bartering or trading (0.3%). It was not common to have a second main source of food and extremely uncommon to have three main sources of food (only 19% of households had two sources of food, and just 1% had three sources of food; with the most common alternative source being own production); when considered alongside the fact that the largest household expenditure is on food (44% of the monthly budget), this indicates that households may be susceptible to negative impacts of high or fluctuating food prices.

Sources of food at the sub-district level were similar, although households in Amuda and Darbasiyah were more likely to report stores / markets as the primary source of food (98% and 100% of households respectively). Households in Ras al Ain and Tal Tamer were less likely to do so (95% and 94% respectively), and more likely than elsewhere to report own production as the most common sources of food (2% in both) albeit small proportions of households, as well as gifts from family and friends (2% and 1%), bartering or trading (1% and 2%), humanitarian assistance (1% in both) and begging (0% and 1% respectively). Across the sub-districts assessed, **the majority of people (66%) usually walked to their nearest source of fresh fruit and vegetables**, whilst the remainder drove; for those that walked the average time taken was 14 minutes whilst the average time taken to drive was 18 minutes.

Households in rural and urban areas faced different dynamics to sourcing food. Firstly, main sources of food varied across rural and urban areas. Higher proportions of households in rural areas were much more likely to state own production as one of the top three main sources of food (29% of households in rural areas compared to 4% of

households in urban areas). Secondly, those living in urban areas were much more likely than those living in rural areas to walk rather than drive to the nearest source of fresh fruit and vegetables (78% walking in urban areas compared to 32% in rural areas). Whilst walking time were similar between rural and urban areas (15 and 14 minutes respectively), it took much longer for those in rural areas to drive (21 minutes compared to 15 minutes in urban areas), despite driving being the most common means to reaching the closest source of fruit and vegetables. This is indicative of the additional challenges to access faced by those in rural areas, who typically have to travel further to reach sources of fruit and vegetables.

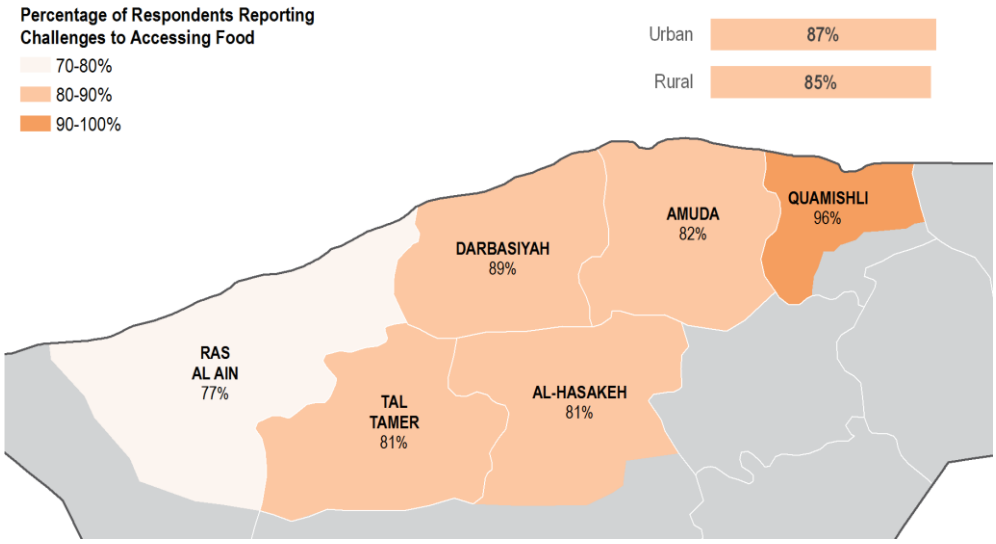
Challenges to accessing food

Households were asked to list the challenges faced, if any, to accessing food during the 30 days prior to the survey. Approximately **86% of households reported facing one or more challenges to accessing food.** The most commonly reported challenge was that food was too expensive to be easily accessible, reported by 83% of all households, followed by a lack of availability of some foods in markets (41%) and a lack of resources to buy food (36%). Other challenges reported were a decrease in local production (15%), lack of resources to buy cooking fuel (10%), lack of cooking fuel in markets (10%) and a lack of access to markets (3%)[30].

As shown in the map 4 below, **the proportions of households reporting to have faced challenges to accessing food varied across sub-districts, with households in Quamishli most likely to report facing challenges (96%)** and households in Ras al Ain slightly less likely to do so (77%). Whilst the major challenges faced were similar, in certain sub-districts particular challenges were more common. **In Quamishli, cooking fuel appeared to be a particular issue when compared to the other sub-districts assessed**, with 24% of households stating a lack of availability of cooking fuel in markets and 22% of households stating a lack of resources to buy available cooking fuel (compared to the area averages of 10% and 10%). Populations in Ras al Ain were most likely to face a lack of access to markets (7% compared to 3%), whilst a larger proportion of populations in Darbasiyah and Amuda noted a drop in local food production (37% and 22% respectively, compared to 15% across all sub-districts).

Populations in rural and urban areas were similarly likely to face challenges to accessing food, **though the type of challenge faced differed slightly, indicative of the different dynamics involved in obtaining and cooking food in urban and rural areas.** The most common issues as discussed above were similar, however, households in rural areas were more likely to report a decrease in local food production (19% compared to 14%), whilst they were less likely to report issues with cooking fuel availability or a lack of resources to buy cooking fuel (9% compared to 23%).

Map 2: Challenges to accessing food across assessed sub-districts



[30] Respondents could select multiple options ('all that apply') for challenges faced when accessing food

Bread

Most common sources of bread

Across the sub-districts assessed, **the most common source of bread was public bakeries (75% of households),** followed by private bakeries (12%) with small numbers of households most commonly accessing bread from shops (6%), homemade (2%) and distribution by other (3%). Very few households were unable to access bread (1%); these households were all located in Hasakeh, Ras al Ain and Quamishli sub-districts.

Households in urban areas were more likely to access public bakeries as their most common source of bread (78% compared to 67% in rural areas), and less likely to make their own bread (1% compared to 5%) or obtain bread through distributions (2% compared to 6%), indicating greater reliance on other sources in rural areas.

Challenges to accessing bread

Households were asked to list the challenges faced to accessing bread, if any, during the 30 days prior to the survey. Across the sub-districts assessed, a total of **15% of households reported one or more challenges to accessing bread.** The most common challenge, affecting 5% of all households, was a lack of sufficient supplies in bakeries and shops. Availability of flour was an issue for 3% of households, whilst flour was expensive or hard to access for 4%. A lack of functioning bakeries and shops affected 3% of households, and wheat was expensive or hard to access for 2% of households and unavailable for 1%.

Households in Hasakeh, Quamishli, Ras al Ain and Tal Tamer were more likely to report facing challenges to accessing bread compared to Amuda and Darbasiyah (19%, 19%, 14% and 10% respectively; compared to 5% and 3% respectively). The type of challenges faced also varied across sub-district, with 5% of households in Ras al Ain reporting a lack of functioning bakeries / shops (compared to the area average of 3%), and 9% of households in Hasakeh reporting a lack of sufficient supplies in bakeries / shops (compared to the area average of 5%). Accessibility of wheat was a particular issue in Quamishli, with 3% of households stating that wheat was commonly unavailable, and a further 7% stating that wheat was expensive or hard to access. Accessibility of flour appeared to be a particular issue in Quamishli and Tal Tamer, both in terms of availability and expense**,** with flour reported as unavailable by 6% for households in Quamishil and 6% in Tal Tamer (compared to 3% across the area), and reported as difficult to access or too expensive by 8% of households in Quamishil and 4% in Tal Tamer.

Households in rural areas more commonly faced challenges to accessing bread (21% of households compared to 13% in urban areas). Challenges faced were related to the most common source of bread: rural areas where populations less commonly used public bakeries as their main source of bread were more likely to report a lack of functioning bakeries / shops (7% of households), indicating decreased access to public bakeries in these areas. They were also more likely to report a lack of availability of flour (8%) which hinders the ability to make bread at home. In urban areas, where public bakeries are commonly functioning, the most common problem faced was a lack of sufficient supplies in bakeries / shops (5%).

Food Security

Food Consumption Score (FCS)

The Food Consumption Score (FCS)[31] is a composite score that measures households' current status of food consumption, and is a proxy of households' food access. It is calculated based on the number of days per week a household is able to eat items from nine standard food groups weighted for relative their nutritional value[32]. The FCS can be used to categorise households into one of three food consumption groups (FCGs): poor, borderline or acceptable, based on a country's standard food consumption group thresholds[33]. It should be noted that whilst the FCS provides a snapshot of dietary diversity and consumption, it does not account for the amount of food a household consumes, nor the quality of food consumed; these are covered in preceding and upcoming sections.

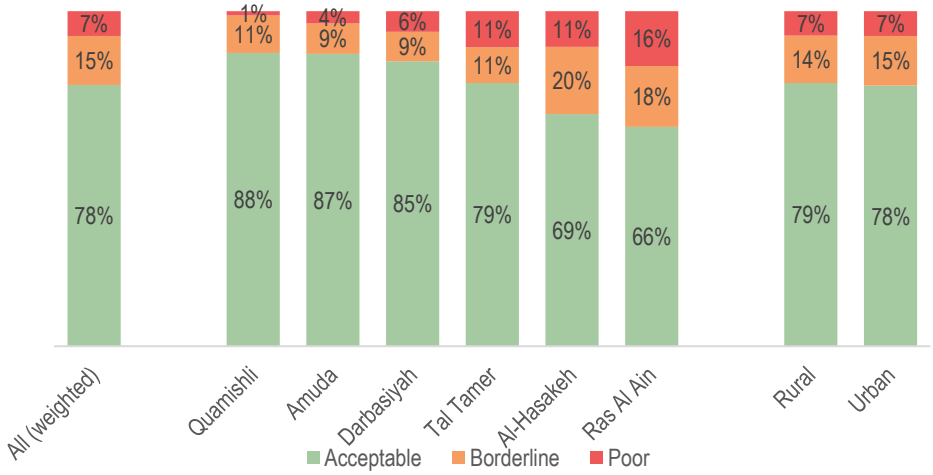
[31] Methodology from WFP (2015); VAM (Vulnerability Analysis and Mapping) Guidance Paper, Consolidated Approach for Reporting Indicators of Food Security (CARI) Guidelines

[32] Standard weighting for food groups was adjusted to account for the fact that in the Syrian context, sugar and oil are commonly consumed on a daily basis; thresholds were increased accordingly.

[33] For Syria, this includes cereals, white tubers and roots, pulses/nuts/seeds, vegetables/yellow tubers/leaves, fruits, meat, eggs, fish and other seafood, milk and dairy products, oil and fats, sweets, spices and condiments

A household with a 'poor' rating is seen as severely food insecure; 'borderline' is moderately food insecure and 'acceptable' is food secure. **Overall across the sub-districts assessed, 78% of households had an 'acceptable' FCS, whilst 15% had a 'borderline' score and 7% had a 'poor' score**. As shown in Figure 9 below, FCS varied across sub-districts: it was much more common for households in Ras Al Ain to have 'poor' or 'borderline' Food Consumption Scores, with large proportions of households also falling into these brackets in Tal Tamer and Hasakeh. There was little difference between those in urban and rural areas.

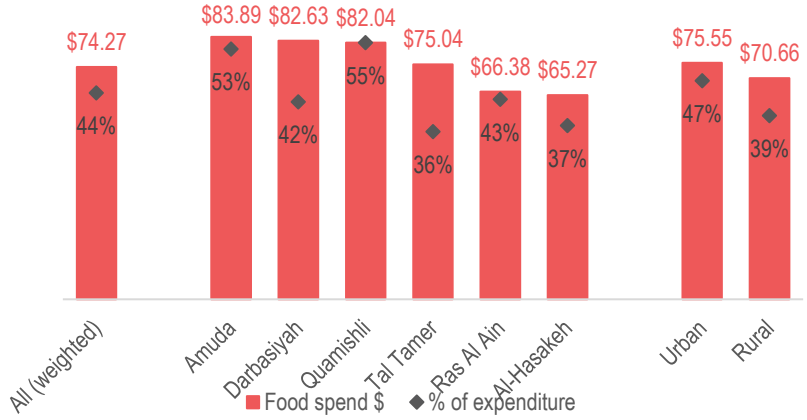
Figure 4: Food Consumption Scores for Households Assessed



Food expenditure share

Food spend accounted for the largest proportion of household expenditure, comprising on average 44% of household spend. Proportion of expenditure spent on food may serve as an indicator for economic vulnerability when poverty line data is not available, based on the premise that a household with a greater share of food expenditure is more economically vulnerable[34], as they may have less to spend on other needs due to prioritising food. The assessment indicates that food spend as a proportion of total expenditure and in nominal amounts is greatest in Quamishli and Amuda sub-districts. Further, food expenditure share is higher in urban areas compared to rural areas; this likely partially reflects the higher prices in these areas[35].

Figure 5: Food expenditure in USD as a % of total expenditure



[34] VAM (Vulnerability Analysis and Mapping) Guidance Paper, Consolidated Approach for Reporting Indicators of Food Security (CARI), World Food Programme
[35] REACH (May 2016), Humanitarian Situation Overview in Syria data

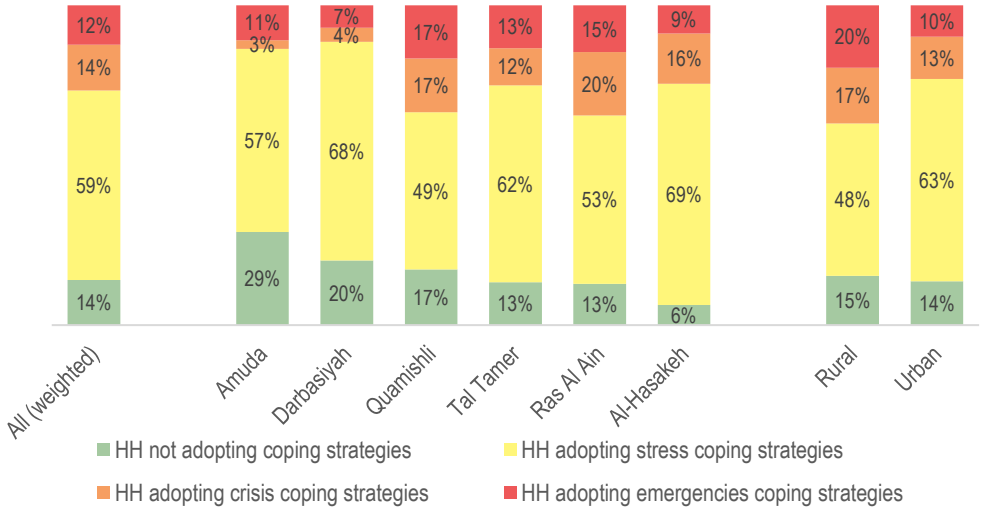
Coping Stragies Index (CSI)

The Coping Strategies Index (CSI)[36] measures household behaviour in response to having insufficient amounts of food. This assessment measured the Reduced CSI (rCSI) which considers the use of consumption-based coping strategies[37], and is useful for comparing food security across different contexts or for geographical targeting and planning of food assistance. The index is based on the number of times a household has resorted to stress, crisis and emergency consumption-based coping strategies over the seven days prior to assessment, weighting the responses to produce an overall score. Specifically, the coping strategies considered were:

- **Stress coping strategies**: eating less-preferred foods, reducing the number of meals per day, limiting portions at mealtimes
- **Crisis coping strategies:** borrowing food / money to buy food
- **Emergency coping strategies:** limiting amount of food consumed by adults, eating weeds or other non-food plants, searching for food in garbage.

Overall, **86% of households resorted to some form of consumption-based coping strategy in the past seven days,** with 59%, 14% and 12% respectively adopting stress, crisis and emergency coping strategies. As shown in Figure 6 below, use of different types of strategy varied between sub-districts and between urban and rural areas.

Figure 6: Consumption based coping strategies used



Coping strategies were most commonly used in Hasakeh (94%), Ras al Ain (87%) and Tal Tamer (87%) sub-districts. Although fewer households in Quamishli reported resorting to coping mechanisms, those that did tended to resort to more extreme strategies compared to other sub-districts (17% resorting to emergency strategies, compared to 12% overall). Emergency strategies were also particularly prevalent in Ras al Ain (15%) and Tal Tamer (13%). When the rCSI is calculated, Ras al Ain and Hasakeh sub-districts appear most vulnerable, with scores of 8.69 and 8.64 respectively. They are followed by Quamishil (7.98), Tal Tamer (7.18), with Darbasiyah and Amuda appearing slightly better off (scores of 5.93 and 5.71 respectively).

It was slightly more common for households in rural areas to resort to consumption-based coping strategies (86% compared to 85%) and strategies used tended to be more extreme: 20% and 17% of households used respectively emergency and crisis strategies compared to 10% and 13% in urban areas. This is apparent in the rCSI, with urban areas having an rCSI score of 7.34 compared to rural areas which have a score of 9.43.

When considered alongside the findings for food expenditure share, which indicated that urban households are spending a larger proportion of their income on food, it appears that **urban and rural households are adopting**

[36] More information on the methodology applied can be found in The Coping Strategies Index: Field Methods Manual, (Tufts University, TANGO International, CARE USA, et al.), January 2008 and VAM Technical Guidance Paper: Consolidated Approach for Reporting Indicators of Food Security (CARI), WFP
[37] The full Coping Strategies Index, which considers the use of livelihoods-based strategies, was also measured; full details are in the Livelihoods section.

different mechanisms when faced with challenges to accessing food. Urban households, which are slightly less encumbered by debt and have lower monthly expenditures partially due to lower debt repayments (see upcoming section on livelihoods), tend to spend a larger proportion and a larger nominal amount of their income on food. In contrast, rural households are perhaps less able to do so due to their heavy debt burden; as well as a slightly greater reliance on sources of food other than stores/markets compared to urban areas, which in a minority of cases leads them to resort to extreme coping strategies. With the unsustainable debt load and decreasing food production, this could potentially increase in the future.

Food Security Index (FSI)

The Food Security Index (FSI)[38] is a global measure commonly used to capture a population's overall food security status. The formula provides a score that combines measures of short-term consumption (current adequacy of household's food consumption) and long-term coping capacity (food expenditure share, use of livelihood-based coping strategies). These are calculated to establish summary indicators, which are then averaged to establish the household's overall food security situation using a four-point scale. Individual household-level responses are then classified according to the categories below[39]:

- **Food secure:** able to meet essential food and non-food needs without engaging in atypical coping strategies
- **Marginally food secure:** has minimally adequate food consumption without engaging in irreversible coping strategies; unable to afford some essential non-food expenditures
- **Moderately food insecure:** has significant food consumption gaps, OR marginally able to meet minimum food needs only with irreversible coping strategies
- **Severely food insecure:** has extreme food consumption gaps, OR extreme loss of livelihood assets will lead to food consumption gaps, or worse.

This assessment found that **approximately 21% of households were estimated to be food insecure**.[40] This comprises 18% moderately food insecure and 3% severely food insecure[41]. **Of the population classified as food secure, the majority (58%) are 'marginally food secure'** rather than fully food secure (21%).

This varied considerably across sub-districts, with 32% of the population of Ras al Ain sub-district estimated to be food insecure. Hasakeh sub-district had the next highest rate of food insecurity, at 27%, followed by Tal Tamer at 19%. The findings that Ras al Ain, Hasakeh and Tal Tamer are relatively disadvantaged in terms of food security, follows a similar pattern identified by other indicators related to food security: households in these sub-districts appear more likely to face food shortages with higher proportions of households eating fewer than three meals per day than elsewhere; they are also more likely to have adopted consumption-based coping strategies and have greater proportions of people with 'poor' or 'borderline' FCS indicating more limited dietary diversity.

A slightly greater proportion of rural households (23%) were estimated to be food insecure in comparison to urban households (20%). These findings reflect results found for the summary indicators, demonstrating little difference in the short-term ability to maintain dietary diversity, but a greater reliance on coping mechanisms indicating a low long-term coping capacity of households in rural areas. Further, these findings also follow the same pattern as those regarding access to food, with rural households slightly more likely to eat fewer than three meals per day and more likely to face challenges to accessing bread.

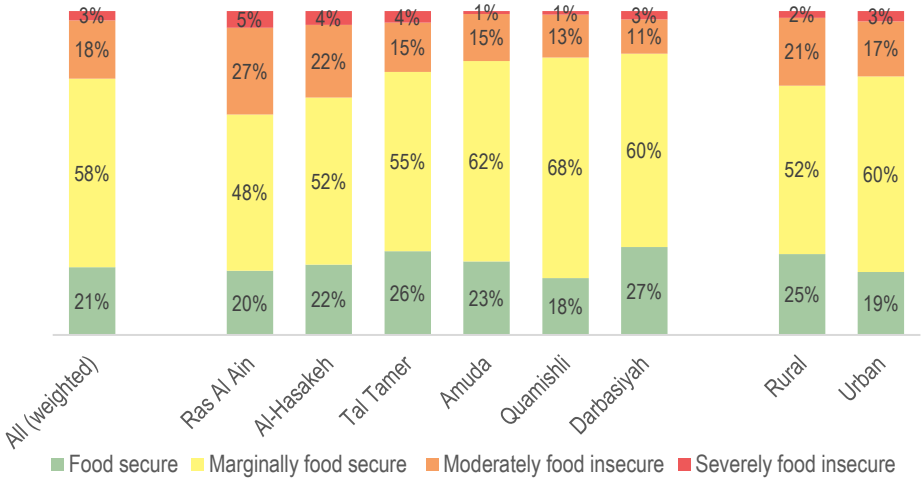
[38] The Food Security Index used in this assessment is from the World Food Programme's food security classification: the Consolidated Approach for Reporting Indicators of Food Security (CARI). More information can be found in the VAM (Vulnerability Analysis and Mapping) Guidance Paper

[39] Definitions from VAM (Vulnerability Analysis and Mapping) Guidance Paper, Consolidated Approach for Reporting Indicators of Food Security (CARI), World Food Programme

[40] Definitions from VAM (Vulnerability Analysis and Mapping) Guidance Paper, Consolidated Approach for Reporting Indicators of Food Security (CARI), World Food Programme

[41] This appears to differ from findings in WFP's Food Security Assessment Syria (October 2015), which estimated that over 45% of Hasakeh governorate were food insecure. The difference in results is likely due to the differing timeframes (WFP data collection occurred in May-June 2015 following significant conflict in the area) and scopes of the two assessments (WFP assessment covered the whole of the governorate including southern sub-districts that are difficult to access and eastern areas which host many IDPs), limiting their comparability.

Figure 7: Food Security Levels for Households Assessed



Livelihoods

This section establishes the livelihood status of households in areas assessed, through focusing on key indicators covering employment rates, primary sources of income, total amount of income, household expenditure and debt, challenges to maintaining livelihoods and coping mechanisms used.

A key area of concern revealed by the livelihood findings is a decrease in reliance on employment based income sources (such as salaried employment, daily casual labour, farm ownership and business/trade) as a primary income source, parallel to an increase in reliance on non-employment based income sources (such as begging, bartering, gifts and remittances). Such non-employment based sources typically generate lower levels of income than employment-based sources; indeed, households have much lower average monthly incomes when compared to average monthly expenditures (which are less likely to fluctuate) and it appears that households fill this gap by resorting to taking on debt. Reflective of this, debt repayment accounted for the second largest proportion of monthly expenditure across households and borrowing or buying on credit were commonly reported coping strategies. As well as resorting to debt to bridge the gap between expenditure and income, use of livelihoods based coping strategies is common, with 64% of households reporting using at least one coping mechanism.

Marginally greater rates of adults in employment were observed in Amuda and Darbasiyah were the highest proportions of adults in employment and the greatest average monthly incomes were reported. Households in Ras al Ain and Tal Tamer were found to have the second and third lowest average incomes, resulting in relatively high income to expenditure ratios, highlighting prevalence of unsustainable spending patterns. When comparing between urban and rural areas, there were only small disparities in proportions of working adults across rural and urban areas and levels of income. However, the type of employment differed, with temporary or daily jobs more common in rural areas, as well as greater reports of non-employment based activities as primary sources of income. The greater reliance of rural households on less predictable main income sources appears to have resulted in a long-term unsustainable accumulation of debt: rural households had much higher average debt burdens, which appears to be contributing to the higher monthly expenditure. These factors reduce the ability of rural households to meet needs in both the short and long term.

Employment

Across the assessed sub-districts, 22% of adults aged 18-59 were reported to have permanent jobs[42], whilst 5% were reported to have temporary jobs and 11% were reported to have casual / daily labour jobs, giving a **total**

[42] For the purposes of this assessment, permanent jobs were defined as those with a contract (formal or informal agreement) for a period of 6 months or more, which pay wages annually, monthly or weekly; or long-term self-employment for which regular income is received. Temporary jobs were defined as those with a contract (formal or informal agreement) for a period of less than 6 months, which pay wages monthly, weekly or daily; or short-term self-employment for which regular income is received. Daily labour / casual jobs were defined as those without a contract or with a short-term contract specifying daily labour conditions, for which wages are paid daily.

reported employment[43] of 38% (see Table 2) and therefore indicating that 62% of working age adults were not employed. In 2010, before the conflict, the unemployment rate across the country stood at just 9%[44]; this was estimated to have risen to 53% by the end of 2015[45].

The proportions of adults employed varied across sub-districts. Amuda, which has remained relatively stable since the beginning of the crisis, had the highest proportion of reported employment, with over half of those employed in the sub-district working in permanent jobs. Hasakeh and Ras al Ain have the highest proportions of adults with permanent jobs, though not significantly so. Quamishli and Hasakeh had the lowest reported employment, with the situation in Quamishli appearing particularly precarious due to daily casual labour being as common as temporary jobs, indicating the short-term nature and potential instability faced by those employed.

Reported proportions of adults employed did not differ largely between urban and rural areas; however, type of employment varied with permanent jobs being more common in urban areas (23% compared to 19% in rural areas), and temporary or daily jobs more common in rural areas (7% and 11% compared to 5% and 11% for temporary and daily jobs respectively).

Table 2: Reported percentage of adults (aged 18 and over) in employment

		TOTAL	Permanent jobs	Temporary jobs	Daily casual labour
	All (weighted)	**38%**	22%	5%	11%
Sub-district	Hasakeh	**37%**	25%	4%	7%
	Amuda	**44%**	23%	9%	11%
	Darbasiyah	**39%**	20%	7%	12%
	Quamishli	**36%**	17%	3%	16%
	Ras Al Ain	**39%**	25%	7%	7%
	Tal Tamer	**39%**	23%	6%	9%
Rural / urban	Rural	**37%**	19%	7%	11%
	Urban	**39%**	23%	5%	11%

Income Sources

Households were asked to state their top three sources of income over the 30 days prior to assessment, as well as their top three sources of income prior to the conflict. The majority of households had one main source of income (61%) whilst 35% had two sources of income and 4% had three sources of income.

Income sources can be divided into two categories: employment-based sources such as salaried employment, daily employment, business/trade and farm-ownership, and non-employment based sources such as remittances, loans, sale of assets, savings and assistance. Overall, **most households relied on some form of employment-based sources for their primary source of income**, and stable salaried employment was a main source of income for 45% of households.

However, as shown in the Figures below, the prevalence of employment-based sources as the top source of income for households has decreased since the beginning of the conflict (Figure 8), whilst reliance on non-employment based sources has increased (Figure 9). Non-employment based sources tended to generate lower amounts of

[43] Employment calculated by: total number of adults reported to have jobs / total number of adults aged 18-59
[44] Syria Central Bureau of Statistics (accessed July 2016)
[45] Syrian Centre for Policy Research (2016), Confronting Fragmentation: Impact of Syrian Crisis quarterly based report,

money than employment-based sources, highlighting the unsustainability of increasing reliance on such methods. Further, although the non-employment based sources were only a *main* source of income for a minority of households, it is likely that other households are also resorting to measures to supplement incomes, as borrowing money and selling household goods were commonly reported as coping mechanisms to meet basic needs. When results are disaggregated to compare female-headed households and male-headed households, **female-headed households were more likely to report non-employment based sources as their main source of income in the past 30 days (32% of female headed households compared to 14% of male headed households).**

Figure 8: Top sources of income reported in the past 30 days vs. top sources of income pre-conflict (employment based sources)

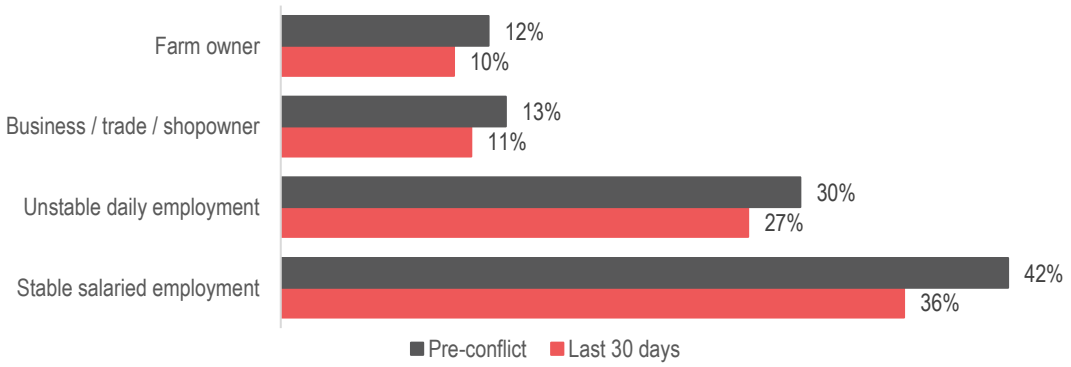
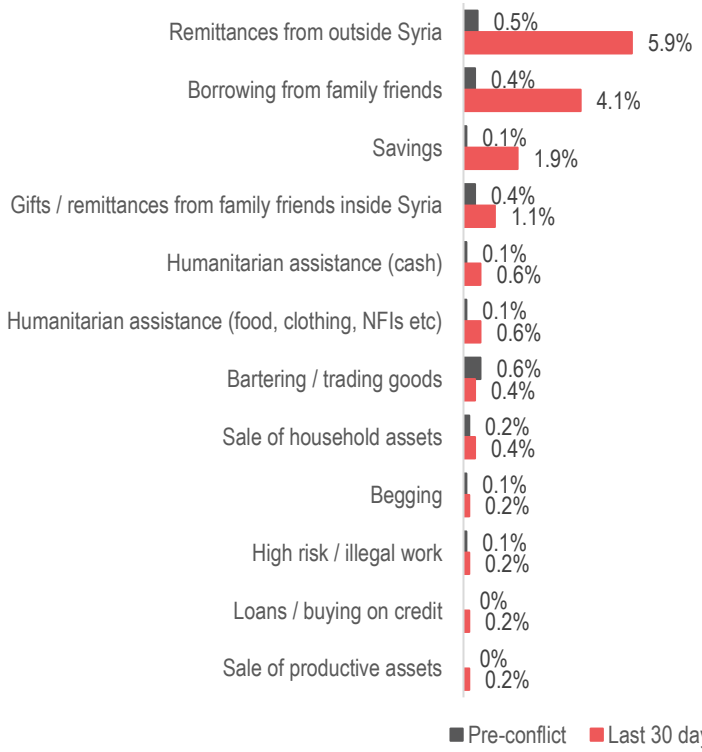


Figure 9: Top sources of income reported in the past 30 days vs. top sources of income pre-conflict (non-employment based sources)



At the sub-district level, in Hasakeh 50% of households relied on stable salaried employment as their first most common source of income, whilst in Darbasiyah just 21% of households did. Unstable daily employment was particularly common in Quamishli where 35% of households reported that it was their first most common source of income (compared to an average of 27% in assessed areas).

Sources of income varied significantly between urban and rural areas. In rural areas, stable salaried employment and unstable daily employment were the most common first source of income (28% and 27%), followed closely by farm ownership (24%), whereas in urban areas, stable salaried employment was much more common than unstable daily employment (38% and 27%), with business/shop owner/trade the third most common income source (12%). Reliance on begging, bartering, humanitarian assistance (cash), remittances from outside Syria and gifts/remittances from inside Syria were more common in rural areas.

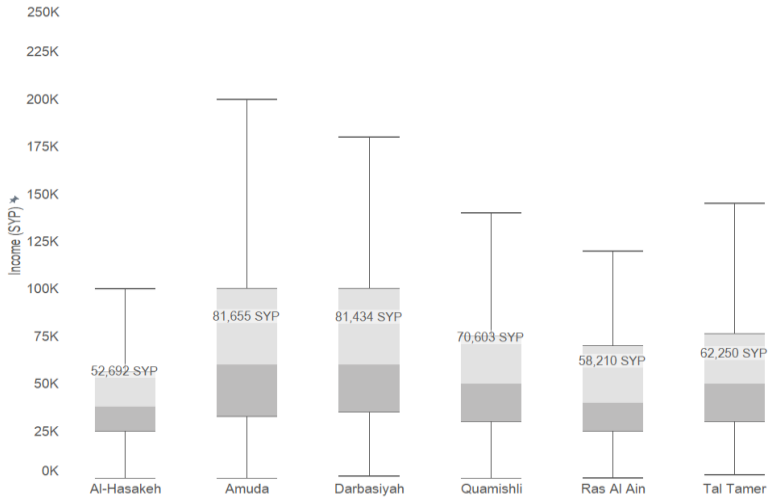
Income

For this assessment, income was defined as earnings from employment as well as the sum of all money, gifts, humanitarian assistance and other items that households had obtained in the previous month. As such, income could include bartering, begging and loans, but not savings.[46] The average monthly income across the area was 64,284 SYP ($101.55)[47]. **Female headed households had lower average income than male headed households (51,851 SYP / $81.91 compared to 66,135 / $104.48), reflective of their income sources, which, as discussed above, are more likely to be non-employment based.**

Figure 10 below shows the variation at the sub-district level; income is highest in Amuda and Darbasiyah (approximately 27% higher than the average income elsewhere). These sub-districts have experienced relatively little conflict in comparison to other areas assessed, and thus had the highest reported proportions of adults working. In contrast, income was lowest in Hasakeh and Ras al Ain (18% and 9% lower respectively); Hasakeh has comparatively low proportions of adults working and both host the largest proportions of IDPs and returnees across all sub-districts assessed. Indeed, across the sub-districts assessed, income of households containing returnees and IDPs was lower: households with returnees had an average income of 57,930 SYP ($91.52) whilst households with IDPs had an average income of just 51,942 SYP ($77.15)[48]; likely contributing to the lower overall average incomes in Hasakeh and Ras al Ain. For urban and rural areas, income was similar across both (63,592 SYP/$100.46 in rural areas and 64,529 SYP/$101.94 in urban areas).

Figure 10: Mean, median, upper and lower quartiles of household income (SYP)

Mean income is stated on the box plot; lines of box plot refer to median, upper and lower quartiles and maximum and minimum income reported



Expenditure

Households were asked to estimate the amount of money they spent in ten categories during the 30 days prior to the assessment. The average total expenditure per household in the past month totalled 106,370 SYP ($168.04), which is 65% greater than average income; this indicates that households are not able to satisfy monthly

[46] Using savings is outflow of money already held by the household, so does not amount to net income.
[47] Exchange rate used throughout: $1 = 633 SYP, calculated based on REACH Market Monitoring data (rate obtained at community markets) for Hasakeh, Quamishli, Amuda and Ras al Ain sub-districts as of May 2016.
[48] These findings are indicative only as the sample of IDP households was not sufficient to generalise across IDP populations with the same level of confidence as for other findings.

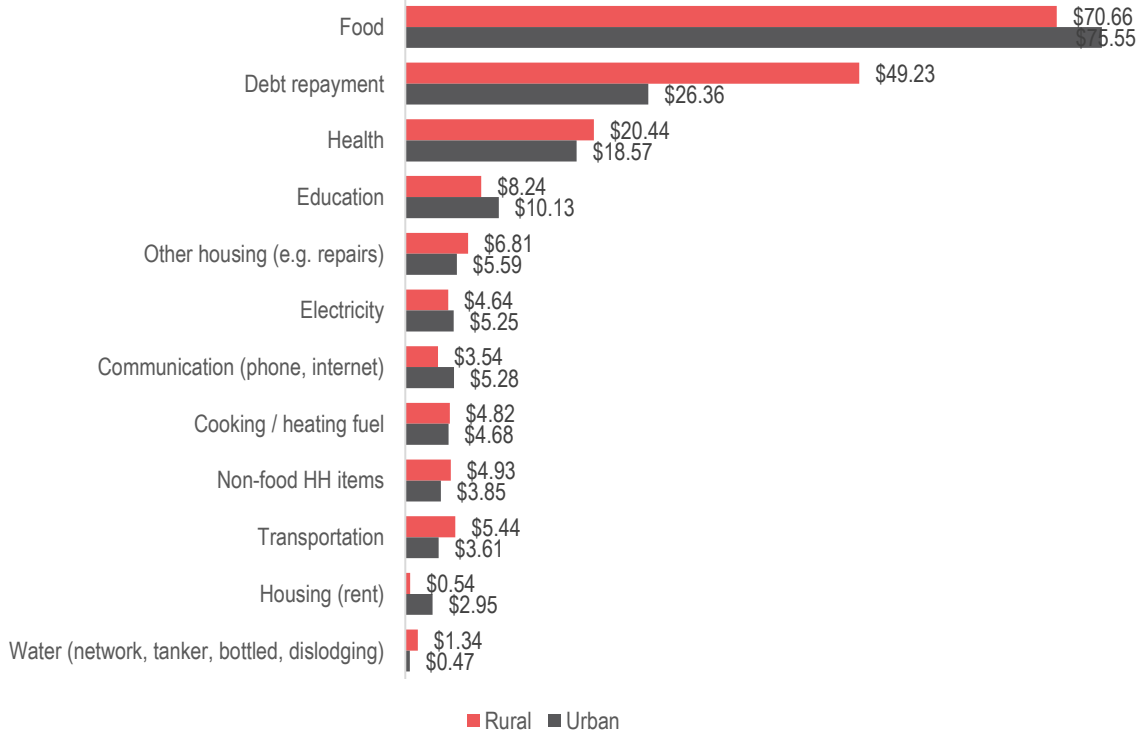
expenditure without resorting to debt or other coping strategies. Notably, **whilst female headed households had lower average incomes, they also had higher average expenditures than male headed households (112,339 SYP / $177.47 compared to 105,481 SYP / $166.64).**

As demonstrated in Figure 11, **food expenditure comprised the largest proportion of household budget (on average, 44% of household expenditure), whilst debt repayment comprised the second largest proportion (19%).** Expenditure was much lower in households with returnees (99,376 SYP / $156.99) and IDPs (78,344 SYP / $123.77), which could be a possible reflection of their lower income and therefore reduced ability to spend[49].

As with income, expenditure varied drastically across sub-districts, being considerably higher in Tal Tamer and Darbasiyah (25% and 17% higher than the average across the area respectively), as shown in Figure 12 (debt section). In Darbasiyah, a greater amount was spent on rent than elsewhere, whilst in Tal Tamer, other housing costs such as repairs were greater likely due to the need to fix damage caused by conflict last year. Households in both sub-districts also tended to spend more on health and transportation, potentially indicative of more expensive services in these areas.

Households in rural areas tended to spend slightly more than those in urban areas, at 114,344 SYP ($180.63) compared to 103,549 SYP ($163.58) in urban areas. When breaking this down by expenditure category, a larger proportion of rural household expenditure was on debt repayment (27% compared to 16% for urban households); this is the main contributor to the overall greater average expenditure of rural households and indicates the negative implications of the debt burden that rural households have had to take on to meet their basic needs. On the other hand, households in urban areas were more likely to spend a larger amount on rent, as compared to rural areas where many live in owned homes; (88% of households compared to 76% in urban areas). However, households in urban areas spend much less on water, transportation and non-food household items.

Figure 11: Average reported expenditure by category (USD)



The income to expenditure ratio can be calculated to demonstrate the ability of households to meet their basic needs in the short-term (see Table 4 in Debt section). This ratio shows household's expenditure in comparison to income i.e. the amount being spent for each dollar of income. The ratio was highest in Tal Tamer and Hasakeh, where for each $1 of income, households were spending $2.1. Ras al Ain and Darbasiyah also had high ratios, of

[49] These findings are indicative only as the sample of IDP households was not sufficient to generalise across IDP populations with the same level of confidence as for other findings.

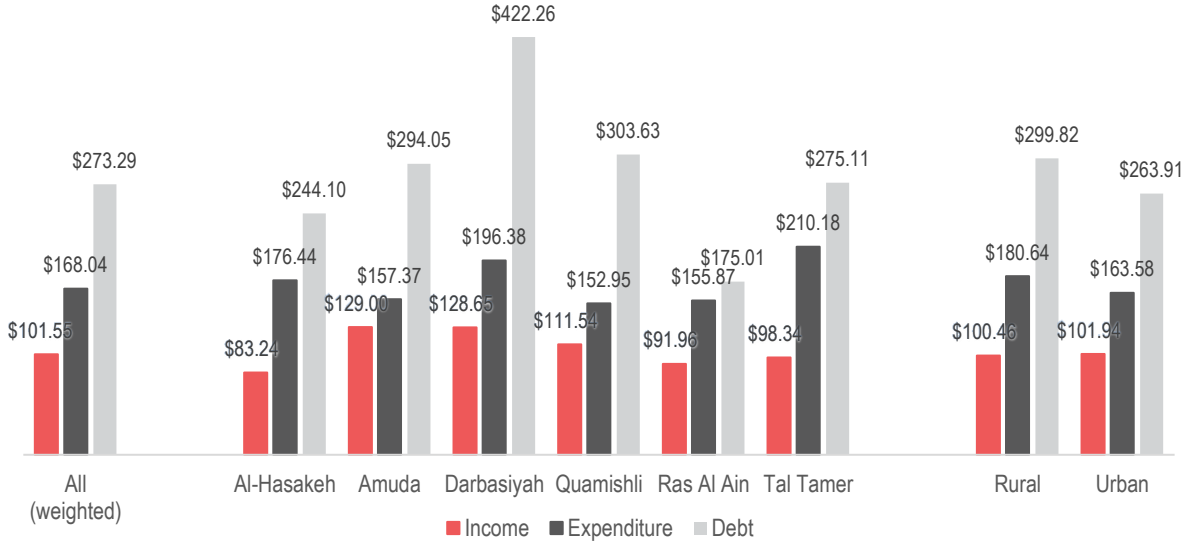
1.7 and 1.5 respectively. When disaggregating to urban and rural areas, households in rural areas appeared relatively disadvantaged, with a ratio of 1.8 compared to 1.6 in urban areas. Since households in urban and rural areas had similar average incomes, this is largely attributable to greater expenditure perhaps partially due to rural households being typically larger (7.1 people compared to 5.9) so needing to support a greater number of people with the same level of income.

Debt

When assessing household ability to meet needs in the short and long term, **household debt burden stands out as a common issue across the area assessed.** As shown in the previous sections, average household income (from all sources) is not sufficient to cover average monthly expenditure. Although taking on new debt was not a main source of income for a majority of households, debt repayment accounted for the second largest proportion of expenditure source overall (19% of total expenditure). This existing household debt burden could be inhibiting household ability to meet needs in both the short and long term: the average household debt far exceeded both income and expenditure, with the average household owing 172,995 SYP ($273.29) across the sub-districts assessed. Despite female-headed households having higher average monthly expenditures, they had a lower total debt burden than male headed households (147,810 SYP / $233.51 compared to 176,746 / $279.22).

In sub-districts with higher average incomes, households appear to take on larger amounts of debt as shown in Figure 12 below. For example, the debt burden was found to be highest in Darbasiyah sub-district which also had one of the highest levels of average income overall. The extent of the debt burden can be calculated with the income to debt ratio which, similar to the income to expenditure ratio, indicates a household's burden of debt in comparison to their income, i.e. the amount of debt owed for each dollar of income. This ratio was highest in Darbasiyah, where for each $1 of income, households owed $3.3. Relative household debt levels were also poor in Hasakeh, Tal Tamer and Quamishili, which had ratios of 2.9, 2.8 and 2.7 respectively.

Figure 12: Average household income, expenditure and debt for assessed households (USD)



Further, the burden of debt was found to be worse in rural areas, where households owed an average of $3 for each $1 of income, compared to $2.6 in urban households. This could be reflective of the fact that rural households are more reliant on loans as a source of income than households in urban areas. Enumerator de-briefings indicated that this is particularly true of farmers, who commonly depend on loans to buy seeds and other inputs.

Overall, both average expenditure and average debt far exceed the average income of households in the area assessed which is reflective of a growing inability of households to meet basic needs both in the short and longer terms. Notably, whilst incomes were similar across urban and rural households, rural households had both a higher average expenditure and larger burden of debt, indicating particularly unsustainable patterns of income, debt and expenditure.

Table 3: Ratio of income to expenditure and income to debt in households assessed

	Income to expenditure	Income to debt
Hasakeh	2.1	2.9
Amuda	1.2	2.3
Darbasiyah	1.5	3.3
Quamishli	1.4	2.7
Ras Al Ain	1.7	1.9
Tal Tamer	2.1	2.8
Rural	1.8	3.0
Urban	1.6	2.6

Challenges and Coping Mechanisms

Across the areas assessed, **90% of households reported that they had faced challenges to maintaining livelihoods in the past 30 days. The most common challenges faced were related to income and employment availability**: a lack of employment opportunities affected 42% of households, followed by low wages / salaries (40%) and a high cost of inputs (37%)[50]. The next most common challenges were escalation of conflict affecting regular employment and a lack of humanitarian aid (both at 20%).

Proportions of households facing challenges differed slightly across sub-districts. The highest proportion of households reporting facing challenges to maintaining livelihoods was found in Quamishli (95%) whilst just 81% in Ras al Ain and 83% in Tal Tamer did. The top 5 most common challenges, stated above, were similar across all sub-districts assessed, with some differences in relative importance. Despite having the highest proportion of adults in employment, households in Amuda were the most likely to report a lack of employment opportunities (55%), perhaps indicative of higher expectations of employment opportunities in this area. Households in Hasakeh were most likely to report escalation of conflict affecting regular employment (26%). Households in Hasakeh and Quamishli were most likely to report low wages / salaries (44% and 46%), again perhaps reflective of expectations in these areas as these sub-districts contain the largest cities in the governorate with the first and third largest proportion of IDPs of the sub-districts assessed.

When comparing between urban and rural areas, 87% of households in rural areas reported facing challenges, whilst 91% of households in urban areas reported facing challenges. Households in urban areas were more likely to report a lack of employment opportunities (44% compared to 36%), low wages / salaries (41% compared to 34%), and decreased salaries and loss of customers (15% compared to 8%), indicating that the nature of challenges faced in urban areas was largely related to maintaining income through employment.

To measure the extent of challenges faced and determine how these have affected household behaviour, households were asked if they had utilised any livelihoods coping strategies in the 30 days prior to the survey, with 12 strategies that can be classified into three groups[51]:

- **Stress:** Strategies that decrease a household's ability to weather future shocks due to a reduction of resources or an increase in debt.
- **Crisis:** Strategies that negatively affect future productivity.
- **Emergency:** Strategies that may pose long-term consequences or are drastic in nature.

Table 5 indicates the percentage of households reporting to have used any coping strategy in the 30 days prior to the survey (row 1), followed by the proportions of households overall reporting to have used the specific strategies listed (subsequent rows). Overall, **64% of households had used at least one of the above categories of coping mechanisms during the 30 days prior to assessment**. The majority of coping mechanisms reported fall into the 'stress' category, with many households reducing food intake, spending savings, and borrowing money or buying

[50] Respondents could select multiple options ('all that apply') for challenges faced when maintaining livelihoods
[51] Based on the Coping Strategies Index, WFP (2008), Field Methods Manual

on credit. This indicates an increase in household vulnerability through the reduced availability of resources, an increase in debt and the prioritization of essential needs over secondary needs. Without further assistance and a lack of improvement in income to meet expenditure, household ability to survive shocks may further diminish.

Households in Quamishli and Hasakeh sub-districts were the most likely to report resorting to coping strategies (80% and 62% respectively compared to 44% in Darbasiyah). In both, reducing food intake, selling household goods / assets and borrowing money or buying on credit were particularly common. The largest proportion of households (though not significantly so) resorting to 'emergency' strategies was in Ras al Ain sub-district, with 2% of households reporting high risk or illegal work, and 2% reporting withdrawing children from school so they can work. This reported higher usage of emergency coping strategies in Ras al Ain could be reflective of the fact the average income in this sub-district was one of the lowest.

Households in urban areas were more likely to report the use of any coping strategy (67% compared to 56% of rural households). In particular, urban households were much more likely to reduce food intake or sell household goods and assets, whilst proportions of households reporting other coping strategies were reasonably similar across urban and rural areas. When taken alongside previous findings, this indicates the different dynamics of coping with livelihoods challenges in urban and rural areas. **Households in urban areas have a greater reliance on stable salaried employment and business / trade than households in rural areas, and were more likely to report facing employment-related livelihoods challenges such as a lack of employment opportunities, low wages / salaries and decreased salaries and a loss of customers; as such, they were more likely to report the short-term coping strategies described above. Whilst employment-related challenges were still an issue for households in rural areas, it was to a lesser extent, and they were more likely than urban households to be reliant on less predictable income sources such as unstable salaried employment and farm ownership**. This appears to have manifested in a build-up of debt over time rather than the use of livelihoods-based coping strategies, as well as a greater reliance on non-employment based income sources such as begging, bartering, humanitarian assistance (cash), remittances from outside Syria and gifts/remittances from inside Syria.

Table 4: Coping strategies employed by households to deal with lack of income/ resources

			Sub-district						Rural / urban	
		All	Hasakeh	Amuda	Darbasiyah	Quamishli	Ras Al Ain	Tal Tamer	Rural	Urban
	Households using any coping strategy	64%	62%	52%	44%	80%	53%	54%	56%	67%
Stress strategies	Reducing food intake	25%	22%	19%	24%	32%	16%	25%	18%	27%
	Spending savings	18%	17%	20%	15%	21%	13%	21%	16%	19%
	Borrowing money / buying on credit	19%	23%	5%	12%	24%	12%	7%	17%	20%
	Reducing non food expenses	7%	3%	5%	8%	10%	6%	8%	7%	6%
	Migration of family	4%	1%	1%	0%	10%	2%	3%	3%	4%
Crisis strategies	Selling household assets /goods	25%	23%	15%	17%	34%	20%	20%	16%	28%
	Selling productive assets / transport	11%	10%	4%	6%	17%	6%	6%	11%	11%
	Selling house or land	2%	2%	1%	0%	3%	3%	0%	3%	2%
Emergency strategies	High risk illegal work	0.2%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.8%	0.0%
	Withdrawing children from school so they can work	1.1%	0.6%	0.9%	0.9%	1.5%	1.7%	0.9%	1.0%	1.1%
	Adults begging	0.1%	0.2%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.2%
	Children under 18 begging	0.2%	0.2%	0.9%	0.0%	0.0%	0.0%	0.9%	0.3%	0.2%

Shelter / NFIs

This section considers the most common shelter and tenancy types, with consideration of differences between host populations and IDPs as well as between urban and rural areas. Typically, populations lived in houses or apartments and most commonly owned their shelters. Just under half of households (41%) were damaged, with the majority of these requiring light repairs.

When disaggregating by sub-district, Amuda and Darbasiyah appeared particularly stable in terms of shelter, with home ownership being more common than elsewhere and higher rental prices, indicative of greater demand. This is perhaps reflective of the lower levels of damage in these sub-districts, as well as greater access to services. Access to the main electricity network was particularly limited in Ras al Ain, Quamishli and Hasakeh sub-districts, where households most likely had fewer than 4 hours access to the main network per day. However, households in Hasakeh and Quamishli were more likely to be able to supplement this with generator power, with the largest proportions of households with more than 4 hours of access to generator power. Shelter dynamics appeared quite different in urban and rural areas. Those in urban areas were more likely to rent their homes than those in rural areas, which typically results in the need to spend a large proportion of their income on rent. In terms of access to electricity, all households with no electricity source were located in rural areas (1% of households overall) and the majority were also heavily damaged[52]; this represents presence of a small pocket of relatively disadvantaged households. However, households in rural areas tended to be able to access more hours of electricity through the main network per day, whilst urban households were more able to supplement the lack of access through generator power.

Shelter Type

The majority of the population lived in homes/houses/apartments (97%), with small proportions of IDPs residing in unfinished buildings/squatting (3%), collective centres such as schools and mosques (0.2%), and informal settlements such as tents and hand-made shelters (0.2%); this corroborates data collected for the HNO 2016 which indicated extremely limited availability of alternative shelter types such as collective centres[53]. Whilst a few IDPs lived in these shelter types, the majority of IDPs are absorbed into existing structures and shelters in the host communities, with 87% residing in homes/houses/apartments. The remainder lived in unfinished buildings (9%) collective centres (2%), informal settlements (2%) and other miscellaneous accommodation types (1%). These findings are consistent with data collected monthly across Hasakeh governorate which indicates that in the majority of communities, both host populations and IDPs live in independent apartments or houses[54]. Of the 126 households assessed that were found to be hosting IDPs, just 8 of these households were shared with members of the pre-conflict population, indicating that IDPs are typically independent from host populations[55].

Within sub-districts, Ras al Ain had the largest proportion of population living in unfinished buildings/squatting (6%), followed by Amuda (5%), Hasakeh (4%) and Tal Tamer (3%). Informal settlements were only used in Darbasiyah (2%) and Tal Tamer (1%). Both of these alternative shelter types, which typically indicate increased vulnerability of those living within them due to a lower likelihood of being connected to services such as water and electricity networks, were more common in rural areas in comparison to urban areas[56].

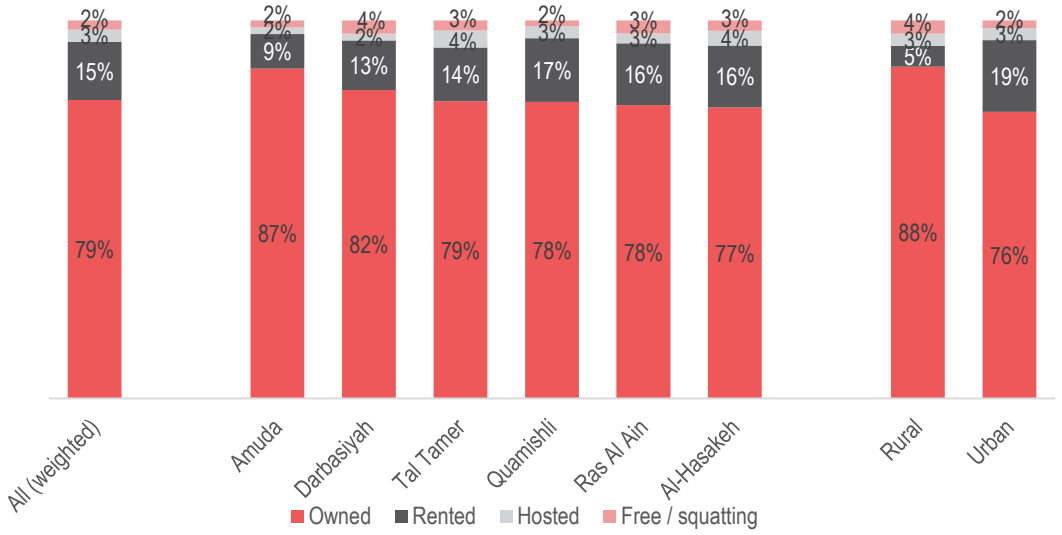
Shelter Ownership / Tenancy

The majority of the population across the sub-districts assessed owned their shelters (79%), whilst 15% rented, 3% were being hosted and 2% were squatting. Home ownership was most common in Amuda (87%) and Darbasiyah (82%) with lower rates in Tal Tamer (79%), Quamishil (78%), Ras al Ain (78%) and Hasakeh (77%). Renting was particularly common in Quamishli (17%), Ras al Ain (16%) and Hasakeh (16%), compared to much lower rates in Amuda (9%). In rural areas, it was very common to own households (88%); in urban areas on the other hand, whilst this was still the most common property status (76%), a larger proportion of the population reported renting their

[52] For the purposes of this assessment, heavy damage is defined as over 30% main structure damaged, moderate fire damage, repair possible)
[53] Syria Humanitarian Needs Overview 2016
[54] REACH (January – May 2016), Humanitarian Situation Overview in Syria data
[55] These findings are indicative only as the sample of IDP households was not sufficient to generalise across IDP populations with the same level of confidence as for other findings.
[56] Informal settlements and collective centres may be located in specific areas within communities and sub-districts; sampling did not aim to stratify shelter type to reflect this and therefore proportions may not be an exact representation.

homes (19% compared to 5% in rural areas). Being hosted was equally likely in rural and urban areas (3% in each), whilst squatting was slightly more common in rural areas (4% compared to 2%).

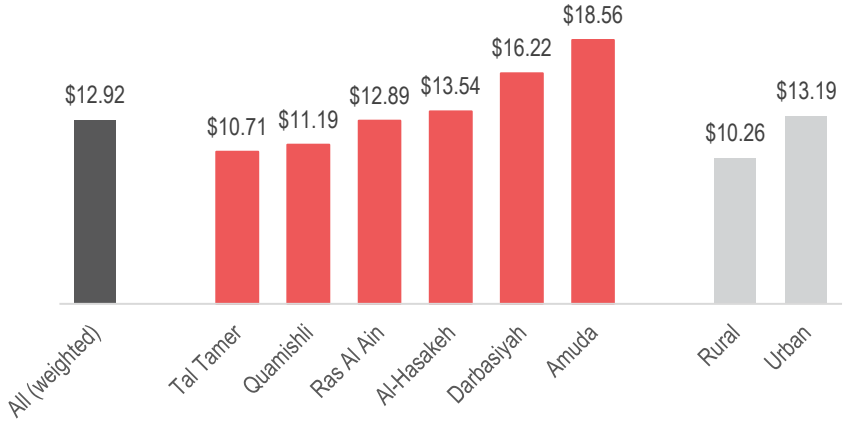
Figure 13: Shelter ownership / tenancy type



Rent

Of the 15% of households that rented their shelters, the average rent cost was 8,179 SYP ($12.92) per month. Following feedback from field teams, it seems that this is low due to many households keeping the same rental price as before the crisis, whereas new rents are typically greater. **Rent varied across sub-districts, with rent being the most expensive in Amuda which is typically more stable than other areas assessed, and the cheapest in Tal Tamer, Quamishli and Ras al Ain which have been affected by conflict.** Rent was much more expensive in urban areas in comparison to rural areas; this explains the finding in the livelihoods section above that indicates a greater proportion of income spent on rent in urban areas in comparison to rural areas.

Figure 14: Average cost of rent for the previous month (USD)

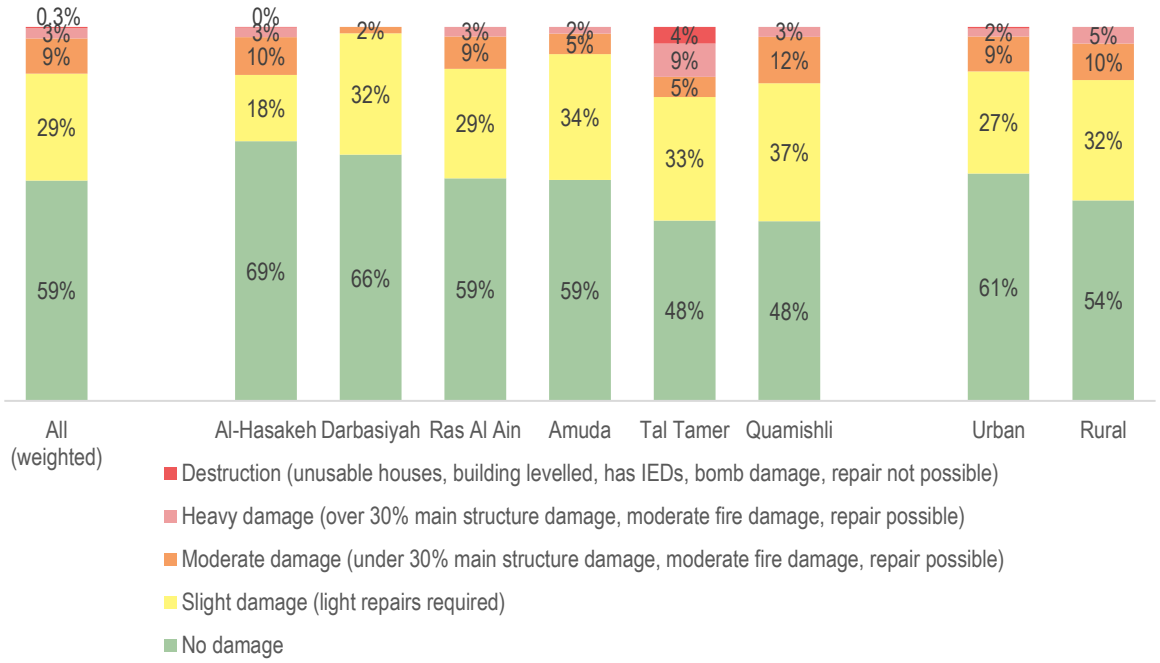


Shelter damage

Just under half of households (41%) reported living in damaged shelters, with varying extent of damage[57]. The majority of damaged shelters required light repairs only (29%), whilst a few shelters were moderately damaged with under 30% damage to main structures and repair possible (9%). A very small proportion of households (3%) were heavily damaged with over 30% damage to main structures, or destroyed with repair not possible (0.3%).

[57] For this survey, the definition of damage was differentiated as follows: slight damage (light repairs required- windows, doors, etc.), moderate damage (under 30% of the main structure damaged, moderate fire damage, repair possible), heavy damage (over 30% main structure damaged, moderate fire damage, repair possible), and destruction (unusable, houses or building levelled, has IEDs/ bomb damage, repair not possible)

Figure 15: Reported Shelter Damage



A larger proportion of households' shelters in Quamishli and Tal Tamer were affected by damage, a possible reflection of the fact that these areas were more affected by conflict and that fighting was more intense here than in other assessed sub-districts. Shelters in Tal Tamer were exhibited particularly high levels of damage, with 9% of them heavily damaged and 5% destroyed); as seen in the expenditure section housing costs such as repairs comprise a much larger proportion of monthly expenditure than elsewhere (7% compared to between 2% and 5% elsewhere). In Amuda and Darbasiyah, which have been relatively stable since the beginning of the crisis, the extent of damage was much lower with just 7% and 2% of shelters respectively being moderately or heavily damaged.

Across the assessed area, households' shelters in rural areas were more likely to be damaged than those in urban areas (46% compared to 39%), with larger proportions of heavily damaged shelters (5% compared to 2%). As such, housing costs such as repairs comprised 4% of rural household monthly expenditure compared to 3% of urban household expenditure.

Electricity

Before the crisis, the main network was the most common source of electricity supply across Hasakeh governorate[58]. Findings from the assessment show that now, although the majority of households still have some access to the main network (95%), approximately half (49%) have less than 8 hours access leaving many to rely on generator power as their main or secondary source to supplement supply. This follows a similar trend seen across the country[59]. **Although the majority of households had some access to electricity, supply was often limited: access to the main network was particularly limited in Ras al Ain, Quamishli and Hasakeh sub-districts.**

Further, households with returnees (also predominantly in Tal Tamer, Ras al Ain and Hasakeh sub-districts) were less likely to have access to the main network and face issues with electricity supply. Findings are consistent with an assessment conducted by CARE in February 2016 covering Ras al Ain and Darbasiyah, which indicated that the majority of households in these areas faced limited electricity supply[60].

[58] REACH (May 2016), Humanitarian Situation Overview in Syria data
[59] REACH (May 2016), Humanitarian Situation Overview in Syria data
[60] CARE (February 2016), Hasakeh Multi-Sector Needs Assessment

Electricity sources

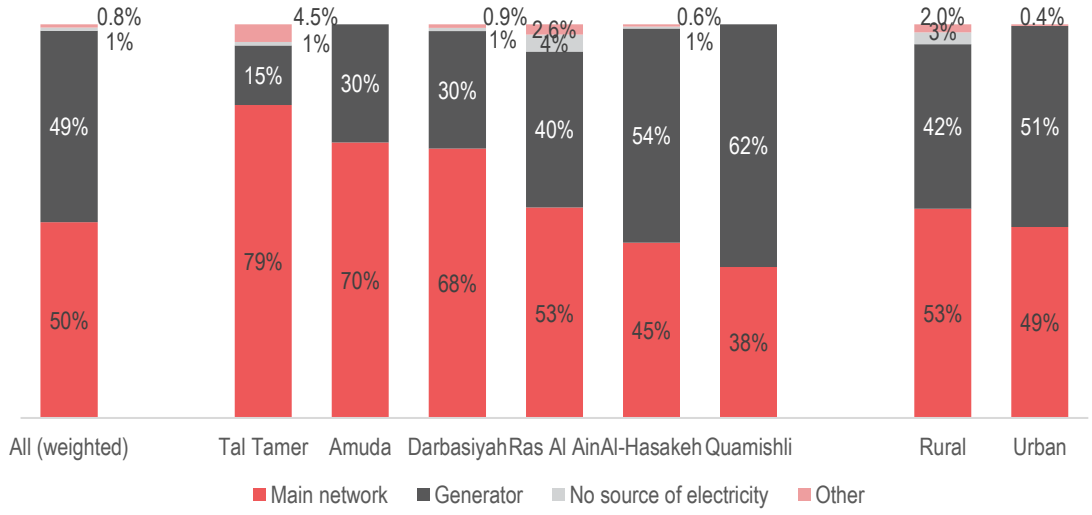
Almost all households had some access to electricity, with just 1% of households having no source of electricity at all. Half of households relied on the main network as their main source of electricity, whilst the other half primarily used generator power (49%) despite typically having some access to the main network. The remaining 1% reported most commonly using small private generators or borrowing electricity from friends or relatives.

Comparing between the sub-districts, households in Ras al Ain were most likely to be without an electricity source (4%), whereas all households in Quamishli and Amuda had some access to electricity. Households in Tal Tamer, Amuda and Darbasiyah were most likely to use the main network as their primary source of electricity (79%, 70% and 68% as shown in the Figure below), whereas in Quamishli and Hasakeh it was more common to rely on generator power (62% and 54% respectively).

All households with no electricity source were located in rural areas and the majority of these shelters were also heavily damaged. Further, a greater proportion of households in rural areas had no access to the main network (11% compared to 3% in urban areas). However, rural households were also slightly more likely than households in urban areas to use the network as their primary source of electricity (53% compared to 49%); this could either be indicative of greater access to the network in rural areas, or a lack of alternative power sources. Indeed, a greater proportion of households in urban areas relied on generator power than in rural areas (51% as opposed to 42% in rural areas).

Households with IDPs appeared particularly vulnerable, as 3% had no source of electricity, and households with returnees were also slightly more likely to be without a source of electricity (1%). Access to the main network was similar between IDP and non-IDP households, though a larger proportion of returnee households had no access to the network (15% compared to 4% of non-returnee households).

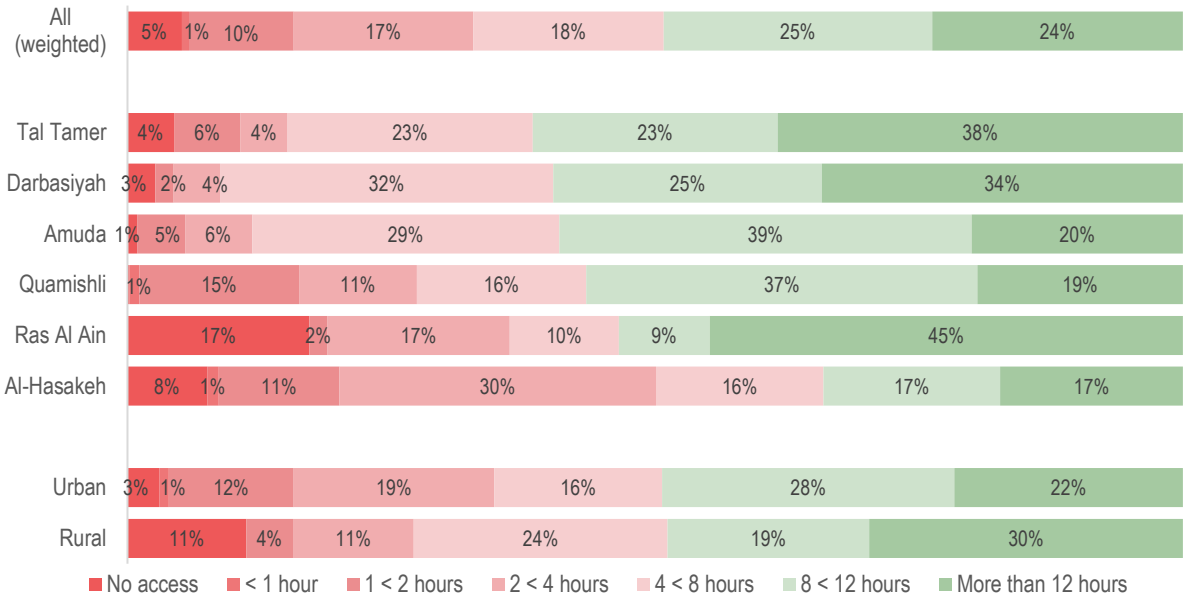
Figure 16: Main Source of Electricity



Access to the main network

Although only 50% of households relied on the main network as their primary source of electricity, almost all households (95%) had some access. This is composed of just under a quarter of households (24%) having more than 12 hours access per day, 43% having 4-12 hours and 28% having fewer than 4 hours access per day. Of the 50% of households who are using the main network as their main source of electricity, access permitted 42% to have more than 12 hours of access to electricity per day, and a further 31% to have between 8 and 12 hours access per day, indicating that for the majority of the households who use the main network as their primary source of electricity, connection and access to the main network is typically greater than 8 hours per day.

Figure 17: Number of hours of electricity per day from the main network



At the sub-district level, the largest proportions of households had no access at all to the main network in Ras al Ain (17%), followed by Hasakeh (8%). Overall, access to the main network is most limited in Hasakeh, Ras al Ain and Quamishli, where households most likely to have fewer than 4 hours access to the main network per day (50%, 36% and 27% of households respectively). Much smaller proportions of households in Tal Tamer, Darbasiyah and Amuda had fewer than 4 hours access to the main network (15%, 9% and 12% respectively). However, although parts of the sub-districts had particularly limited access, the largest proportions of households with more than 12 hours access to the network were in Ras al Ain (45%) and Tal Tamer (38%).

In general, access to the main network appears better in rural areas: a greater proportion of households in rural areas had more than 12 hours access to the network (30% compared to 22%), and a smaller proportion of households in rural areas had fewer than four hours access (27% compared to 35%). In Amuda, Darbasiyah, Ras al Ain and Tal Tamer, a larger proportion of households in urban areas than rural areas had more than 8 hours access to the electricity network per day. However, this pattern reverses for Quamishli and Hasakeh, where larger proportions of households in rural areas have more than 8 hours access per day.

Access to generator power

In terms of availability of generator power, 21% of households did not have any access to generator power. 12% had fewer than four hours access, whilst 49% had 4-8 hours, 18% had 8-12 hours and 1% had more than 12 hours access. Households using generators as their main source of electricity were less likely than those relying on the main network to have consistent power. Of the 49% households that primarily relied on generator power, just 1% of these had more than 12 hours of access to electricity per day compared to 42% of those households which relied on the main network. The majority (61%) of the households using generators had between 4 and 8 hours access, whilst 9% had less than 4 hours access.

The largest proportions of households with more than 8 hours access to generator power were in Hasakeh and Quamishli (20% and 29% respectively). Access was particularly limited in Tal Tamer, where 68% of households had no access to generator power at all. In general, access to generator power was found to be greater in urban areas than rural areas, though this pattern is reversed in Amuda sub-district.

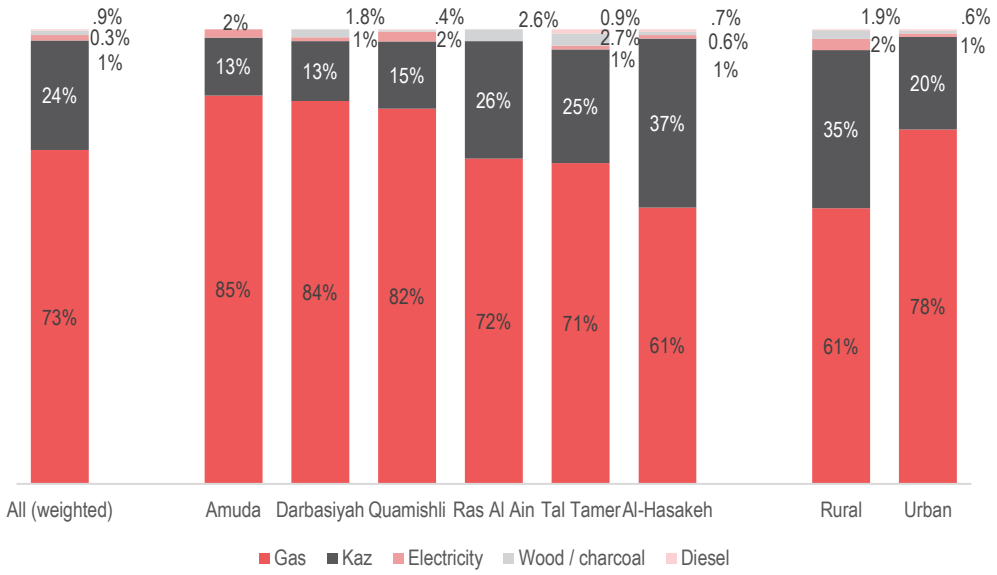
Cooking Fuel

Main sources of cooking fuel

The main sources of cooking fuel for the majority of the population were gas (73%) and kerosene/kaz (24%) with very small minorities using electricity (1%), wood / charcoal (1%) and diesel (0.3%). Use of wood / charcoal was

most common in Ras al Ain and Tal Tamer (3% in each), followed by Darbasiyah (2%), mostly by households living in rural areas.

Figure 18: Main source of cooking fuel



Kerosene/kaz appears to be most commonly used in households which have limited access to resources, potentially acting as a proxy for vulnerable households. It was the most common fuel used in the majority of households with no source of electricity (63%), whilst gas was the most common in households relying on generator and main network power (74% in both). Further, kerosene/kaz is the most common fuel source in 46% of households classified as food insecure.

A larger proportion of households containing IDPs and returnees relied on kerosene/kaz in comparison to households containing host populations only (most common source for 49% of IDP households and 27% of returnee households). Use of kerosene/kaz as a main source of cooking fuel was more prevalent in Hasakeh, Ras al Ain and Tal Tamer, being the most common source used in 37%, 26% and 25% of households respectively. It was also more likely to be used in rural rather than urban households (35 % compared to 20%).

Challenges to accessing cooking fuel

Across the sub-districts assessed, **65% of households reported facing challenges to accessing cooking fuel**. The most common issues were a lack of fuel in markets (faced by 45% of households), and the prohibitive cost of fuel (41%). Households also suffered from a lack of resources to buy available fuel (20%), and a minority (2%) faced a lack of access to markets

Households in Darbasiyah and Quamishli were most likely to report facing problems to accessing fuel (82% and 74% of households respectively), followed by households in Hasakeh (62%) and Amuda (60%). Lower proportions of households reported facing problems in Ras al Ain (49%) and Tal Tamer (49%). Problems faced did not vary significantly between sub-districts, with a lack of fuel in markets and the prohibitive cost of fuel being the most commonly reported issues.

Across the sub-districts, **households in urban areas were more likely to face problems than those in rural areas** (69% and 52% respectively). Households in urban areas were more likely to report a lack of fuel in markets (50% compared to 32% of rural households), as well as fuel being too expensive (45% compared to 28% of rural households) and having a lack of resources to buy fuel (13% compared to 22%). This is potentially due to the fact that rural households more commonly use Kaz/kerosene rather than gas, which is typically cheaper.

WASH

The assessment included a number of questions about water, sanitation and hygiene facilities. Indicators were aligned with a WASH cluster-led assessment in the North West, South and North East of Syria, collectively forming a key source of data for the 2017 HNO[61].

Overall, reliance on the main network as a source of water for both household and drinking purposes is prevalent across all assessed households. However, access to the water network does not appear to imply sufficient water consumption, with 24% of households spending 2 days or more without water in the 30 days prior to assessment, and 14% of households reporting having insufficient water to meet basic needs. When assessing differences across sub-districts, households in Hasakeh, Ras al Ain and Tal Tamer were found to consume less water, with those in Hasakeh, Ras al Ain and Quamishli most likely to face water shortages. Meanwhile, when comparing findings between urban and rural areas, the latter appears to be particularly vulnerable in terms of WASH related needs: the volume of water consumption per household was similar across rural and urban households but rural households typically host more people; further, spending more than two days without water was more common in rural areas. This is reflected in the fact that a greater proportion of rural households reported changing their hygiene practices in the past 30 days to cope with a lack of water.

Water sources

Water sources used for household purposes

The most common source of water used for household purposes (which includes water used for cooking, drinking, hygiene and other purposes) was the main network as cited by 87% of households assessed. Open and closed wells were the most common source in 10% of households, with small numbers relying on water trucking (3%) and bottled water (1%), and even fewer households (0.3%) relying on borrowing water from family and friends.

It was found to be common for some households (16%) to rely on more than one source of water in the 30 days prior to assessment. This could be a possible outcome of the fact that these households are unable to rely exclusively on their primary source of water and need to diversify sources for reasons that potentially include inconsistency and unreliability. For example, approximately a quarter of households using open or closed wells as their main source of water (10% rely on this source overall) also obtained some water from the main network. Similarly, 13% of households using the network as their main source of water also obtained water from other sources, primarily open wells, closed wells and water trucking.

Whilst the main network was the main source of water for all sub-districts, households in Darbasiyah and Amuda were more likely than elsewhere to rely on wells (21% and 25% respectively), whilst households in Ras al Ain and Tal Tamer were more likely to rely on water trucking as a main source of water (12% and 9% respectively). Relying on more than one source of water was more common in Quamishli (24%), Ras al Ain (21%) and Tal Tamer (18%) sub-districts and in rural areas (30% of households in rural areas compared to 11% in urban areas). This is notable as those relying on more than one water source were more likely to report spending two or more days without water (32% compared to 22% of households with one water source only), and slightly more likely to report having insufficient water (18% compared to 14% of households with one water source only).

In terms of the quality of water received from these sources, households relying on non-piped water sources, particularly water trucking, are typically more likely to be at risk of water-borne diseases[62]. Although proportions of people relying on non-piped water sources were lower across the assessed area (13%) than in the rest of Syria (where 69% of the population are estimated to live in areas with dysfunctional water sources[63]), those living in rural areas were likely to be particularly at risk, as in rural areas non-piped sources such as open wells, water trucking and closed wells were more prevalent as main sources for water (respectively for 18%, 10% and 9% of households). Meanwhile, usage of the water network as the main source of water was less common: 61% of households used the network as the main source compared to 96% of households in urban areas.

[61] The indicators were designed to align with common indicators assessed in the North West and South of Syria as part of a WASH cluster-led assessment across these hubs.
[62] Syria Humanitarian Needs Overview 2016
[63] Syria Humanitarian Needs Overview 2016

Table 5: Main water source used for household purposes[64]

	Network	Open well	Closed well	Water trucking	Bottle	% HH using 2+ sources
All (weighted)	87%	6%	4%	3%	1%	16%
Hasakeh	96%	0%	1%	2%	1%	9%
Amuda	75%	14%	11%	0%	0%	10%
Darbasiyah	77%	20%	1%	1%	1%	13%
Quamishli	85%	8%	6%	1%	0%	24%
Ras Al Ain	83%	4%	0%	12%	1%	21%
Tal Tamer	78%	4%	6%	9%	4%	18%
Rural	61%	18%	9%	10%	3%	30%
Urban	96%	2%	2%	0%	0%	11%

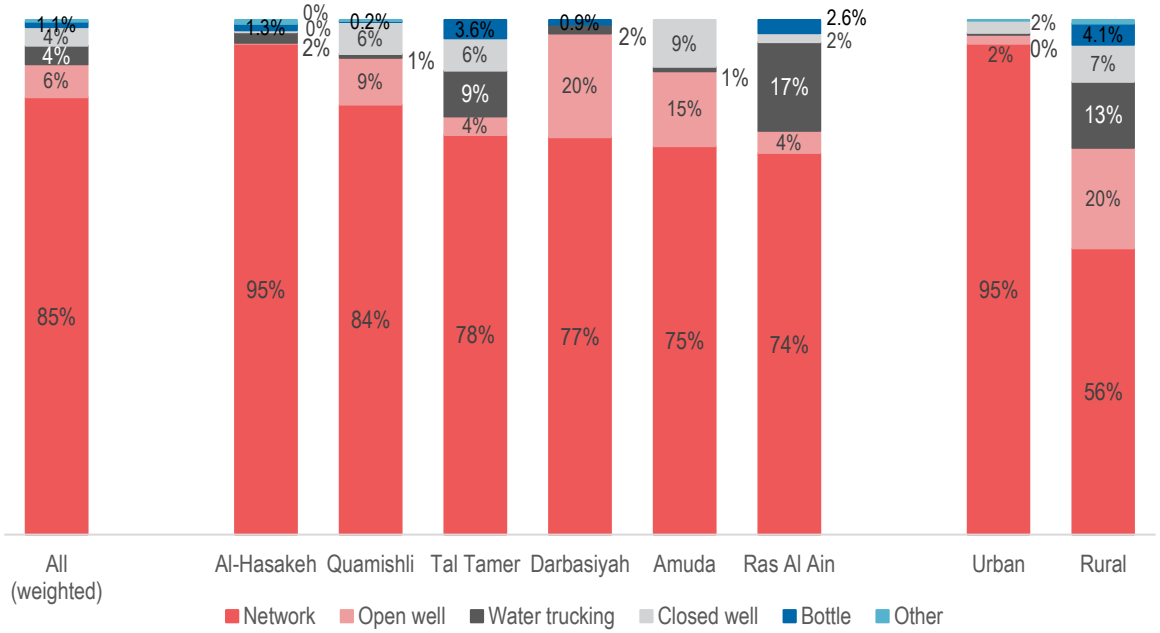
Water sources used for drinking

The majority of households (85%) used water from the main network as their drinking water source. A small number used open wells (6%), closed wells (4%), water trucking (4%) and bottled water (1%). As shown in Table 6, the majority of households (64%) in the area differentiated between their drinking and non-drinking water in some way. Of those, 68% stored their drinking water differently, 28% treated water before drinking (primarily boiling the water, with little use of chlorine tablets /powder /liquid) and 14% used a different source of water.

When considering disparities in drinking water sources between sub-districts, the largest proportions of households using open wells were in Quamishli, Amuda and Darbasiyah, and the largest proportions using closed wells were in Quamishli and Darbasiyah. Households using bottled water were most common in Hasakeh, Ras al Ain and Tal Tamer, and those using water trucking in Ras al Ain. It was more common in Quamishli to treat drinking water, whilst in Ras al Ain, Tal Tamer and Hasakeh, households were more likely to use a different source for drinking than for other household needs. Proportions of households using the water network for drinking water and proportions of households using the water network for general household purposes were similar, except in Ras al Ain where 83% of households used the water network as their main source of water, but only 74% used the network as their main drinking water source. Instead, households commonly used water trucking for drinking.

[64] This includes water used for cooking, drinking, hygiene and other household purposes.

Figure 19: Main source of water used for drinking



It was more common to differentiate between drinking water and non-drinking water in urban areas than rural areas (66% compared to 60%), with households in urban areas more likely to store drinking water differently or treat drinking water. However, households in rural areas were much more likely to use a different source of water for drinking (19% of households compared to 6% in urban areas); there was more use of open wells, closed wells, bottled water and water trucking for the main source of drinking water in comparison to the main source of water for household purposes, and less use of the water network.

Table 6: Steps adopted for water treatment by households differentiating between drinking and non-drinking water

		Type of differentiation (% of all households)			Type of treatment (% of all households)		
	% differentiating drinking water	Storing drinking water differently	Using different source	Treating drinking water	Boil water	Chlorine treatment	Other
All (weighted)	64%	44%	9%	18%	17%	1%	1%
Hasakeh	62%	34%	13%	15%	13%	1%	1%
Amuda	53%	34%	5%	14%	14%	0%	0%
Darbasiyah	56%	46%	1%	11%	11%	0%	0%
Quamishli	73%	61%	5%	26%	25%	1%	0%
Ras Al Ain	67%	39%	20%	17%	14%	6%	1%
Tal Tamer	56%	35%	8%	14%	12%	2%	1%
Rural	60%	34%	19%	13%	12%	1%	0%
Urban	66%	47%	6%	20%	19%	1%	1%

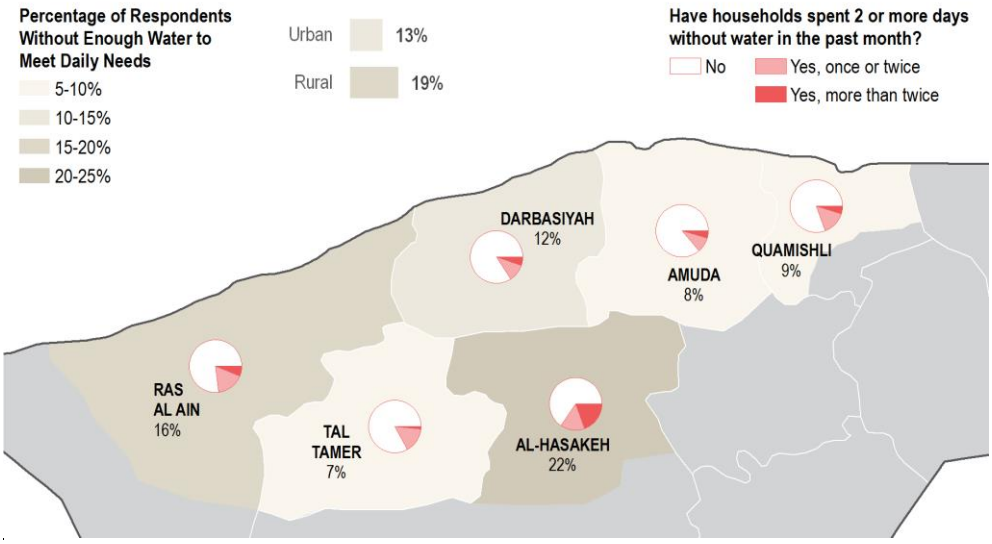
Water consumption

The average number of water barrels consumed per household over the 30-day period prior to assessment was reportedly 19.3 (3860 litres), giving an average usage of 623 litres per person per month; this is higher than the SPHERE standard of 450 litres per person per month.[65] However, it is still low considering the context: whilst before the crisis Syria had a much higher supply of water per person than neighbouring water-scarce Jordan[66], per-capita usage is now significantly lower than the Jordanian monthly average of 2400 litres per person per month[67]. Indeed, **almost a quarter of households (24%) spent 2 days or more without water in the 30-day period prior to assessment. Despite this, only 14% of households reported that they did not have sufficient water over the past 30 days to meet their needs. This potentially indicates the development of strategies to deal with the reduction in available water.**

Households in Hasakeh, Ras al Ain and Tal Tamer consumed slightly less than elsewhere (17, 18 and 19 barrels on average respectively, compared to 21, 21 and 22 in Darbasiyah, Quamishli and Amuda), despite households in Ras al Ain and Tal Tamer spending much larger proportions of their total income on water ($1.65 and $1.99 respectively compared to an average of $0.46 across the other four sub-districts). Households in Hasakeh, Ras al Ain and Quamishli appeared to face particular shortages, with respectively 35%, 23% and 19% of households spending 2 or more days without water (compared to 17%, 16% and 14% in Tal Tamer, Darbasiyah and Amuda); indeed, the proportion of households reporting to be without sufficient water was higher in Hasakeh (22%) and Ras al Ain (16%) compared to elsewhere (12%, 9%, 8% and 7% in Darbasiyah, Quamishli, Amuda and Tal Tamer).

Household consumption was similar in urban and rural areas (respectively 19.1 and 19.9). However, households in rural areas typically hosting more people (7.1 compared to 5.9), indicating that rural households use less water per person Lower consumption may be a reflection of vulnerability rather than demand as households in rural areas typically spent larger proportions of total income on water (7% compared to 3%). and sending 2+ days without water was much more common in rural areas, reported in 31% of households compared to 22% of urban households. Finally, the proportion of households reporting to not have had sufficient water to meet needs was higher in rural areas (20% compared to 12% in urban areas). The fact that consumption was similar but shortages were more likely to be reported in rural areas than in urban areas further reinforces the finding that rural houses may require more water yet face greater barriers to access.

Map 3: Water availability and sufficiency across assessed area



Hygiene practices

Across the sub-districts assessed, **14% of households had changed their hygiene practices in the 30 days prior to assessment.** The most common changes reported were people bathing less than once every two days,

[65] SPHERE Handbook, Water supply standard 1
[66] Department of Sanitation Jordan (2006), Water in Jordan
[67] Water Authority of Jordan (2011), FAQs; OCHR (2014), Statement on the Human Right to Water and Sanitation

and bathing less than once every week, both changes reported by approximately half of households who had changed their hygiene practices, while a third of households who had changed practices reported doing laundry less frequently, less than once every two weeks. Few households reported sometimes not washing hands after going to the toilet (0.5% of households who had changed practices), and sometimes not washing hands before cooking and eating due to a lack of water (2% of households who had changed practices).

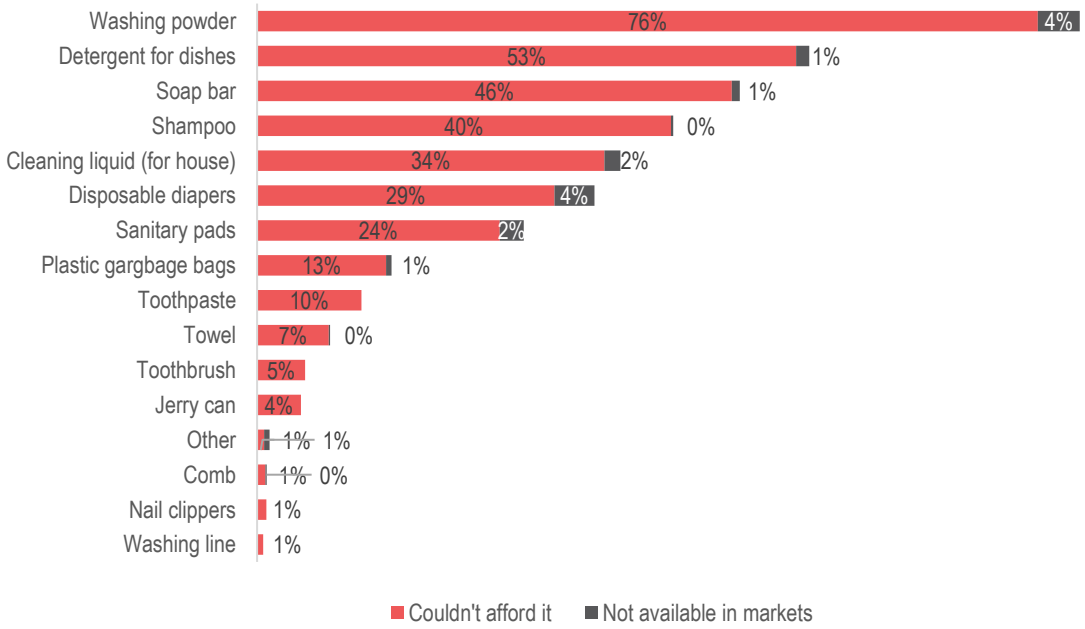
A greater proportion of households in Hasakeh, Ras al Ain and Tal Tamer reported changing their hygiene practices (21%, 19% and 16% respectively), compared to Darbasiyah (12%), Amuda (9%) and Quamishli (6%). With regards to the types of behavioural changes made, the situation appears particularly severe in Ras al Ain, Tal Tamer and Darbasiyah. In Ras al Ain and Darbasiyah 9% and 7% of households that made changes in the previous month reported sometimes not washing their hands before cooking and eating due to a lack of water, whilst households in Tal Tamer and Darbasiyah were more likely to report bathing less than once per week (61% and 64% of households making changes respectively). In Hasakeh, the most common change made was bathing less than once every two days (58% of households making changes), followed by bathing less than once per week (36%).

Disparities in terms of behavioural practices were observed between urban and rural areas. A greater proportion of households in rural areas reported changing their hygiene practices (21% compared to 11% in urban areas), and the type of behaviours reported also differed. Of the households reporting having changed their practices in rural areas, households were more likely to report bathing less than once every week (62%) than bathing less than once every two days (38%). This contrasts to urban areas, where households were more likely to report bathing less than once every two days (60%) than bathing less than once per week (36%). Households in urban areas were more likely to report doing laundry less than once every two weeks (41% compared to 29% in rural areas), whilst households in rural areas were more likely to report sometimes not washing hands before cooking and eating due to the lack of water (6% compared to none). **The greater rates of behavioural change and more extreme nature of strategies adopted in rural areas is understandable when considered alongside findings for water consumption, which showed that rural households spend much larger proportions of monthly expenditure on water, and are more likely to report facing shortages of water than urban households.**

Hygiene items

Just over half of households (53%) were unable to find or afford certain hygiene items in the 30-day period prior to assessment, most commonly washing powder (80% of the 53% households) and detergent for dishes (54%), followed by soap (41%) and shampoo (40%). In general, items were too expensive for households to afford, rather than being unavailable in markets.

Figure 20: Hygiene items reported to be unavailable or unaffordable



Households in Hasakeh sub-district were most likely to face accessibility issues (75%), followed by Quamishli (49%) and Darbasiyah (52%). Households in Tal Tamer, Ras al Ain and Amuda were less likely to report such issues (38%, 27% and 35% respectively). It appeared more challenging for those living in urban areas to access hygiene items, with 56% of households unable to find or afford certain hygiene items, compared to 46% in rural areas.

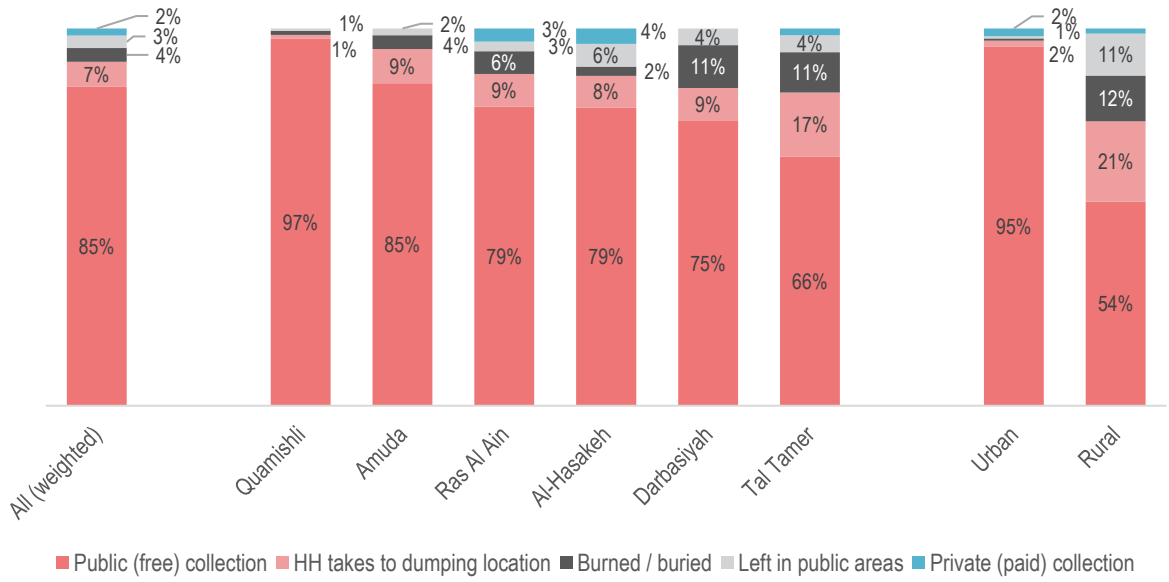
Garbage collection

Overall, free public garbage collection was the most common form of garbage disposal for the majority of households (85%), followed by households taking garbage to dumping locations (7%), burning or burying garbage (4%) and private paid collection (3%). Garbage was typically collected regularly, either once a week or more, and dumped in informal locations rather than formal dumping locations.

Free public garbage collection was less common in Tal Tamer (66%), Darbasiyah (75%), Hasakeh (70%) and Ras al Ain (79%), where households were more likely than elsewhere to dispose of garbage to a designated dumping location. In Darbasiyah and Tal Tamer**,** garbage disposal appeared particularly poor with the largest proportions of households (11%) burning or burying their garbage, with comparatively large proportions most commonly leaving garbage in public areas. Households in Hasakeh were also the most likely to left garbage in public area (6%).

Public garbage collection was much more common in urban areas when compared to rural areas, being the most common form of collection for 95% of households in urban areas and 54% of households in rural areas. In rural areas, 21% of households disposed of garbage in a designated dumping location, 12% burned or buried garbage and 11% left garbage in public areas.

Figure 21: Most common form of garbage disposal



Access to toilets

The majority of households reported having access to functioning toilets (97%), with a small minority of households reported a lack of water to flush, septic tanks being left unemptied, sewage connection blockages and a lack of sufficient facilities. However, a lesson learned from the WASH assessments conducted across the North West, North East and Southern Syria suggest that, due to sensitivity (since a functioning toilet is considered normal) challenges may be under-reported and it may be more useful to enquire directly about potential challenges.

The majority of households did not share their toilet with other households (94%). Shared toilets across fewer than four households were more prevalent in Ras al Ain (9% of households), with smaller proportions in Hasakeh (6%), Quamishli (5%), Tal Tamer (4%) and Amuda (3%), typically in rural areas.

Health

This section considers the number of reported illnesses or symptoms of illness in relation to water source, and compares prevalence of adult/child and male/female illness, as well as reported rates of chronic disease and disability, and availability of healthcare facilities.[68]

Health-related findings reveal the need to support households in accessing specific health related assistance, with just over half of households assessed reporting being unable to obtain some form of required health assistance. In addition to the lack of access to required health assistance, another key area of concern is the susceptibility of children under the age of five to water related diseases such as diarrhoea and skin infections. Certain sub-districts appeared more vulnerable in terms of health: households in Hasakeh, Darbasiyah followed by Quamishli and Ras al Ain were most likely to report cases of diarrhoea, and those in Quamishli and Ras al Ain followed by Hasakeh were most likely to report cases of skin infection. Correspondingly, households in Quamishli, Ras al Ain and Hasakeh had the lowest proportions of households being able to obtain required health assistance. When comparing urban to rural areas, no notable pattern was discernible, with reported diarrhoea slightly more prevalent in urban areas whilst reported skin infections were slightly more prevalent in rural areas, and households similarly likely to report being able to report required health assistance.

Diarrhoea

Approximately 9% of the population suffered from diarrhoea in the two weeks prior to the survey. Diarrhoea was significantly more prevalent for children under 5, affecting 28% of this age group compared to 7% of children 6-17 and 5% of adults. Further, males appeared to have higher rates of diarrhoea than females (10% compared to 8%).

When disaggregated by sub-district, Hasakeh was the most affected, followed by Darbasiyah (respectively 11% and 10% of the total population). Within each sub-district, rates of diarrhoea across age/sex groups followed the same pattern as in the total areas assessed. Similarly, diarrhoea was slightly more prevalent in urban than rural areas, affecting 9% of populations in urban areas and 8% in rural areas.

Table 7: Percentage of population reporting diarrhoea in the past two weeks

		% of population reporting diarrhoea in the past two weeks					
		Total pop.	Adults 18+	Children 6-17	Children under 5	Females	Males
	All (weighted)	9%	5%	7%	28%	8%	10%
Sub-district	Hasakeh	11%	6%	9%	35%	11%	12%
	Amuda	5%	2%	5%	20%	4%	7%
	Darbasiyah	10%	5%	10%	30%	9%	12%
	Quamishli	8%	4%	7%	22%	6%	9%
	Ras Al Ain	8%	3%	4%	27%	7%	8%
	Tal Tamer	7%	4%	4%	23%	5%	9%
Rural / urban	Rural	8%	3%	7%	26%	7%	9%
	Urban	9%	5%	7%	28%	9%	10%

[68] These are self-reported by households and not verified by medical reports, therefore findings are indicative only.

Skin infections

Across the sub-districts assessed, 5% of people suffered from skin infections in the two weeks prior to the survey. As with diarrhoea, children below 5 were more susceptible to skin infections (7% suffered from skin infections compared to 5% of children aged 6-17 and 5 of adults 18+), though there was no notable pattern between males and females (5% for both).

Population in Quamishli and Ras al Ain were slightly more likely than elsewhere to suffer from skin infections (6%), with similar distributions across age / sex groups. In contrast to findings regarding diarrhoea, populations in rural areas are more likely to suffer from skin infections than populations in urban areas (7% compared to 4%).

Table 8: Percentage of population reporting skin infections in the past two weeks

		% of population reporting skin infections in the past two weeks					
		Total pop.	Adults 18+	Children 6-17	Children under 5	Females	Males
	All (weighted)	5%	5%	5%	7%	5%	5%
Sub-district	Hasakeh	5%	5%	4%	9%	5%	5%
	Amuda	3%	2%	6%	4%	4%	3%
	Darbasiyah	3%	3%	4%	4%	4%	3%
	Quamishli	6%	6%	6%	7%	6%	6%
	Ras Al Ain	6%	6%	5%	10%	5%	8%
	Tal Tamer	3%	3%	3%	5%	4%	3%
Rural / urban	Rural	7%	6%	6%	9%	6%	7%
	Urban	5%	4%	4%	7%	5%	4%

Disability and chronic disease

Households were also asked if they hosted people with disabilities and/or suffering from chronic illnesses[69]. Overall, 48% of households reported hosting at least one individual with chronic illness and/or disabilities, with 37% of all households hosting people with chronic illness and 16% of all households hosting people with disabilities (5% hosting both). This corresponds to 7% of total individuals assessed with chronic illness, and 3% with disabilities.

At the sub-district level, there was a greater prevalence of both disabled and chronically ill people in Quamishli and Hasakeh sub-districts, with respectively 9% and 8% chronically ill compared to average of 7% elsewhere and 4% and 3% disabled respectively compared to average of 3% elsewhere. Rates were also higher in urban areas (8% chronically ill and 3% disabled) when compared to rural areas (6% and 3% respectively)[70].

Health assistance

Across the areas assessed, 53% of households reported being unable to obtain some form of required health assistance, whilst 33% reported being able to obtain assistance and 14% reporting not needing any assistance during the previous month. Of those that reported being unable to obtain assistance, the most common forms of health assistance required were drugs (43% of households), followed by treatment for chronic disease (18%) and primary health care services (17%).

[69] People with disabilities were defined as any individual with physical, mental, visual, auditory or speech impediments, whilst chronically ill persons were defined as those with chronic illnesses such as diabetes, heart disease, cancer, blood diseases, etc.

[70] After further follow-up and cross-checking, it was not possible to verify why there was a higher prevalence of disabilities in urban areas. This could potentially be attributed to multiple factors including greater probability of diagnosis of illness due to proximity and easier access to health care centers in urban areas which, in consequence, could lead to higher awareness of health problems.

As shown in Table 9, households in Quamishli, Ras al Ain and Hasakeh sub-districts had the lowest proportions of households being able to obtain all assistance required (29%, 32% and 33% respectively), though those in Ras al Ain were also likely to report not needing assistance (30%). In Darbasiyah and Amuda sub-districts, which have been more stable since the beginning of the crisis, households were more likely to report being able to obtain assistance (43% and 42% respectively), as well as being much less likely to report not needing health assistance (5% and 3% respectively).

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When comparing urban to rural areas, households were similarly likely to report being able to obtain assistance (34% in rural areas compared to 33% in urban areas), though households in rural areas were more likely to report not requiring any health assistance (19% compared to 12% in urban areas), The services required differed slightly between urban and rural areas, with those in urban areas more likely to require but not have access to treatment for chronic disease and drugs, as well as psychiatric care, surgical care, orthopaedics, assistive devices and home visits by health professionals.

Table 9: Percentage of households reporting different types of health assistance required

		Sub-district						Rural / urban	
	All (weighted)	Hasakeh	Amuda	Darbasiyah	Quamishli	Ras Al Ain	Tal Tamer	Rural	Urban
% HH able to obtain assistance	33.3%	32.8%	41.8%	43.0%	29.1%	31.9%	37.5%	34.4%	32.9%
No assistance required	13.6%	16.4%	2.7%	5.3%	10.0%	30.2%	12.5%	19.0%	11.8%
Assistance required (breakdown follows)[71]	53.0%	50.8%	55.5%	51.8%	60.9%	37.9%	50.0%	46.6%	55.3%
Primary health care services	16.6%	12.5%	5.5%	12.3%	27.0%	12.1%	16.1%	15.9%	16.9%
Immunisation	6.3%	4.8%	12.7%	7.0%	6.4%	3.4%	8.9%	5.4%	6.6%
Maternal / child health services	11.3%	9.2%	6.4%	5.3%	17.8%	8.6%	8.0%	10.7%	11.5%
Rehabilitation	0.8%	0.6%	0.0%	0.9%	0.9%	1.7%	0.9%	0.8%	0.8%
Prosthetics and orthotics	1.0%	0.4%	0.0%	0.0%	2.3%	1.7%	0.0%	0.8%	1.2%
Orthopedics	3.2%	3.9%	0.0%	0.0%	5.3%	0.9%	0.9%	0.9%	4.0%
Assistive devices	3.8%	0.9%	0.9%	2.6%	8.9%	1.7%	2.7%	1.7%	4.5%
Treatment for chronic disease	18.1%	15.8%	15.5%	21.1%	28.2%	2.6%	8.9%	11.3%	20.6%
Psychiatric care	2.3%	1.8%	0.0%	1.8%	4.2%	1.7%	0.0%	0.5%	2.9%
Child delivery by skilled provider	0.8%	1.1%	0.9%	0.9%	0.6%	0.9%	0.0%	0.5%	0.9%
Surgical care	5.4%	3.5%	0.9%	0.0%	11.3%	3.4%	0.9%	2.6%	6.3%
Drugs	43.0%	40.3%	44.5%	50.9%	55.0%	19.8%	28.6%	28.9%	48.1%
Home visit by health professional	8.2%	0.7%	2.7%	5.3%	21.2%	2.6%	4.5%	4.5%	9.5%

[71] This row refers to the proportion of households reporting that they required some form of health assistance but did not receive it, with the following rows indicating the proportion of households requiring each form of assistance.

Protection

This section considers the number of children in each household reported to be working, in permanent, temporary or daily casual labour jobs. It should be noted that the survey did not ask the specific work undertaken by children, and therefore cannot determine whether children in employment is tantamount to child labour[72]. This was beyond the scope of the assessment and constitutes an area for potential further research.

Children working

The proportion of children (aged 0-17) with jobs[73] was reported to be 2.1%, which included 0.5% of children reported to have permanent jobs, 0.6% reported to have temporary jobs and 1.0% reported to have daily labour or casual jobs (see Table 10 below). This appears modest when compared to reports that indicate that children in more than three quarters of households in Syria are contributing to family income[74]; however, it is widely believed that vulnerable families may hide the issue due to fear of consequences of disclosure[75], particularly as heads of households were asked to report on the number of children working rather than children being asked themselves.

At the sub-district level, Tal Tamer displayed the highest prevalence of children working (5.8% of children were reportedly working in Tal Tamer in contrast to 1.2% in Hasakeh and 0.3% in Ras al Ain). The majority of child employees in these locations had temporary or daily casual labour jobs, though the type of work, average age of children working and reasons for working were not ascertained as they were beyond the scope of this assessment.

Urban areas reported higher proportions of children working, at 2.3% of children in households assessed compared to 1.6% in rural areas. However, the type of employment was similar for both urban and rural areas, with daily casual labour reported as the most common followed by temporary and permanent jobs. Enumerator de-briefings indicated that the higher prevalence of children working in urban areas may be reflective of the fact that employment for children is more commonly available in urban areas. On the other hand, in rural areas, reports of children working may be lower because it is possible that children are undertaking work not considered by respondents to constitute employment such as working on family farms (given that higher proportion of households in rural areas, 29%, reported self-production as one of their top three main sources of food than urban areas, 3.8%) which respondents may have perceived as provision of domestic support rather than employment.

Table 10: Reported percentage of children (aged 17 and under) in employment

		TOTAL	Permanent jobs	Temporary jobs	Daily casual labour
	All (weighted)	**2.1%**	0.5%	0.6%	1.0%
Sub-district	Hasakeh	**1.2%**	0.3%	0.4%	0.5%
	Amuda	**3.0%**	0.4%	0.9%	1.7%
	Darbasiyah	**2.4%**	0.4%	0.8%	1.2%
	Quamishli	**2.8%**	0.6%	0.7%	1.5%
	Ras Al Ain	**0.3%**	0.0%	0.3%	0.0%
	Tal Tamer	**5.8%**	1.8%	1.1%	2.9%
Rural / urban	Rural	**1.6%**	0.3%	0.3%	0.9%
	Urban	**2.3%**	0.5%	0.8%	1.1%

[72] ILO defines child labour as 'work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development', therefore individual cases of children in employment are not necessarily all classified as child labour; http://www.ilo.org/ipec/facts/lang--en/index.htm

[73] Child labour calculated by: total number of children aged 0-17 reported to have jobs / total number of children aged 0-17

[74] Save the Children / UNICEF (2015); Small Hands, Heavy Burden

[75] Save the Children / UNICEF (2015); Small Hands, Heavy Burden

Education

This section looks at educational needs within the assessed areas, as well as the number of school-aged children not attending school during the most previous term and the reasons behind non-attendance. It should be noted that school attendance rates are based on self-reported school attendance within households assessed, and are not verified by official school attendance reports.

The findings related to education suggest that while the levels of non-attendance in schools were relatively low, overarching needs nevertheless remain to address both the quality of education being provided as well to encourage attendance, particularly for those in secondary education and males of all ages. For instance, while the most commonly cited needs for education were related to provision of education materials for both students and teachers, a lack of money for tuition/education materials was the most common reason cited for lack of attendance in schools. **A key structural challenge revealed is that among those children not attending school, 10% face the issue of the curriculum being taught in a different language due to the** Arab/ Kurdish split in the region, leaving a small pocket of children completely unable to access education.

Attendance

Before the crisis, enrolment across the country was close to 100%, with school attendance estimated to have dropped to 50% since[76]. From this assessment, the situation in Hasakeh governorate does not appear to have deteriorated at the same pace as the rest of the country, with just 8% of children between the ages of 6 and 17 in households assessed reported to have not attended school during the most previous term (for at least four days per week), and 4% of children reported to have not attended school for more than one year (for at least four days per week). Indeed, this is significantly better than the situation in crisis-affected Eastern Aleppo city, for example, in which 72% of children were estimated to have been out of school for more than one year[77].

However, it is worth noting that when disaggregated by age and sex, particular groups appear especially vulnerable. Consistent with findings displayed for the whole country in the HNO 2016, drop-out rates are notably higher for those in secondary education; further, across both primary and secondary aged children, males are more likely to be not attending school. The only exception to this is seen in Darbasiyah sub-district, where primary school children and in particular females are more likely to be out of school than secondary aged children.

Table 11: Percentage of households reporting children not attending school in the previous term, by age and sex

	Non-attendance in previous term				
	Males 6-12	Females 6-12	Males 13-17	Females 13-17	TOTAL
Hasakeh	7%	5%	11%	8%	**7%**
Amuda	3%	2%	10%	5%	**5%**
Darbasiyah	10%	15%	10%	3%	**9%**
Quamishli	9%	7%	12%	12%	**10%**
Ras Al Ain	7%	7%	12%	6%	**8%**
Tal Tamer	4%	0%	7%	7%	**4%**
TOTAL	**7%**	**6%**	**11%**	**8%**	**8%**

Of households reporting that children were not attending school, for each age and sex group, the most common reason for non-attendance was difficulties affording tuition or educational materials[78]. This was slightly more likely

[76] Save the Children (2015), The Cost of War
[77] REACH (2015), Eastern Aleppo Food Security and Livelihoods Household Assessment
[78] Due to the small numbers of households reporting on non-attendance, it is difficult to generalise findings for reasons for non-attendance and no comparisons are made between sub-districts or between urban and rural areas.

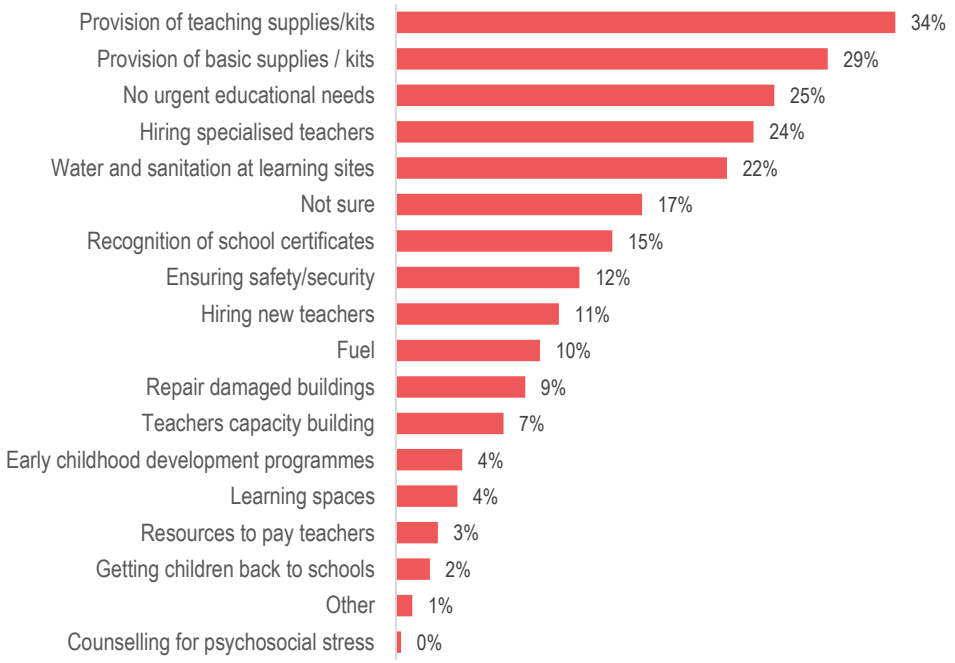
to be an issue for females rather than males; further, the second most common reason for female non-attendance was that they were needed to help at home. For males, the second and third most common reasons reported were the curriculum being taught in an inappropriate language, and the distance from schools being too far.

Whilst affordability of education and educational materials is relatively easy to respond to, assessment findings highlighted more fundamental challenges to accessing education for a minority of children within the assessed area. Of the 7.8% of children not attending school, approximately 10% of these faced challenges due to the curriculum being taught in an unsuitable language; this is an issue across the governorate due to the Arab/Kurdish split[79] and leaves a small pocket of children completely unable to access education. Further, approximately 8.5% of those not attending school reportedly did so due to a lack of staff, another structural issue that could be difficult to address.

Educational Needs

The HNO 2016 estimated that 51-75% of schools were functioning across Quamishli, Hasakeh, Ras al Ain, Darbasiyah and Amuda sub-districts, with only 26-50% of schools in Tal Tamer functioning[80]. In this assessment, as discussed above, 7.8% of children between the ages of 6 and 17 all sub-districts assessed were estimated to not have attended school during the most previous term (for at least 4 days per week). The disparity between functioning schools and attendance rates indicates a likely strain on functioning schools; indeed, when asked about educational needs, the majority of households expressed knowledge of gaps in current service provision.

Figure 22: Reported educational needs



Across the sub-districts assessed**, the most common educational needs were related to provision of educational materials, with 34% of all households indicating that basic supplies for students were necessary and 29% recommending provision of teaching supplies and kits. This corresponds to the most common reason for children not attending school.** Availability and quality of teaching was a second common issue, with 24% of households stating a need to hire specialised teachers, 11% a need to hire new teachers, and households in Amuda and Darbasiyah stating the need to focus on building capacity of existing teachers. This is representative of the main issues faced across the rest of the country, with a minimum of 22% of pre-conflict teaching staff estimated to have fled between 2011 and 2014; presumably more by 2016[81]. WASH facilities at learning sites were an issue for 22% of households, particularly those in Quamishli and Darbasiyah.

[79] REACH (May 2016), Humanitarian Situation Overview in Syria dataset
[80] Syria Humanitarian Needs Overview 2016
[81] Response Plan for the Syrian Humanitarian Operations from Turkey, July 2014 – June 2015, p.19.

In Tal Tamer, where only 26-50% of schools were functioning[82], the need to repair damaged educational buildings was stated as a priority by 22% of households. Availability of learning space was also in issue in Quamishli, where 17% of households stated the need to repair damaged building, and 9% stated a need for additional learning spaces and extra classrooms.

Humanitarian assistance

Reported assistance received

Households were asked whether humanitarian assistance had been received in the 30 days prior to the survey. Across the areas assessed, **6% of households reported receiving some form of humanitarian assistance**. It should be noted that findings may be subject to recall bias on the part of households, or assistance underreported due to a lack of knowledge about sources of assistance received, in particular regarding more informal types of assistance. Households may also have underreported assistance due to the perceived influence of answers on future likelihood of receiving assistance, though enumerators were trained to attempt to dispel this perception.

Within the 6% of households that received assistance (88 households of the 1,524 surveyed), the most common type was food items and in-kind contributions, received by the majority of households, followed by cash, conditional vouchers and NFIs. Other types of assistance were uncommon; in particular, fewer than 4 households reported receiving healthcare, education assistance, water provision and sanitation services, with no one receiving shelter materials. Further, within those that reported receiving assistance, international humanitarian organisations were the most commonly reported source, followed by local humanitarian organisations. Local authorities and organised community groups reportedly provided small amounts of assistance. Notably, one fifth of households receiving assistance were unsure as to the source of assistance, indicative of the lack of knowledge regarding assistance sources; it is possible that other sources were misreported, particularly in cases where international organisations are operating through local partners.

The proportion of households receiving humanitarian assistance varied across sub-districts assessed, with populations in Tal Tamer sub-district most likely to have received assistance (8%), followed by Amuda, Hasakeh and Darbasiyah (7% in each), with populations in Quamishli and Ras al Ain least likely to have received assistance (3% and 5% respectively). Type of assistance also varied: all households receiving assistance in Amuda reported receiving cash, whilst all households receiving assistance in Tal Tamer reported receiving food and in-kind contributions. Food and in-kind contributions were also the most common type of assistance received in Hasakeh and Quamishli, whilst those in Ras al Ain and Darbasiyah most commonly reported conditional vouchers. In terms of source of assistance, international humanitarian organisations appeared to primarily access Amuda and Darbasiyah sub-districts, with some activity in Tal Tamer. Local authorities and local humanitarian organisations reportedly distributed some assistance, primarily in Ras al Ain, Quamishli and Tal Tamer sub-districts. In Hasakeh, two-fifths of households receiving assistance were unsure about the source of assistance; this was higher than elsewhere and is perhaps due to access and security challenges in the area commonly causing actors to opt for low visibility.

When considering differences between rural and urban areas, rural households were slightly less likely to report receiving assistance (5% of the rural households receiving assistance, totalling 18 households, compared to 6% of the urban households, totalling 70 households). Further, the nature of assistance differed: food was the most common type of assistance in both rural and urban areas, though in rural areas cash was the second most common type of assistance whilst conditional vouchers were in urban areas. Sources were also difference, as in urban areas, international humanitarian organisations were the most common source of assistance whilst in rural areas local humanitarian organisations were.

Access to humanitarian assistance

It appears that knowledge of humanitarian assistance is limited, as 28% of all households across the assessed area were unsure if assistance was distributed in the past 30 days. This was most notable in Darbasiyah and Amuda sub-districts, in which 44% and 42% of households respectively reported a lack of knowledge of assistance.

[82] Syria Humanitarian Needs Overview 2016

Notably, 18% of all households assessed stated that assistance was distributed in the last 30 days but they were unable to access it. This varied across sub-districts, with 32% of households in Amuda reporting that assistance was distributed but they were unable to access it, followed by 28% in Ras Al Ain, 22% in Hasakeh 20% in Darbasiyah, 17% in Tal Tamer and just 7% in Quamishli. Those in urban areas were more likely to have knowledge of aid that they were unable to access: 20% of households in urban areas stated that assistance was distributed but they were unable to access it, whilst 14% of households in rural areas stated that this was a problem. Of households that were unable to access assistance, 42% stated that they did not qualify for assistance, whilst 22% had a lack of knowledge about how to access the assistance. There was a perception in many households that access to assistance tended to be linked to personal or political connections; further assessment of the barriers to assistance would be beneficial.

CONCLUSION

Key indicators from each sector highlight the challenges faced across the area assessed. In terms of access to services, similar patterns appear for electricity and water, with **networks still commonly functioning but evident limitations in services**. These limitations affect most households, though to differing extents, with a particularly relatively disadvantaged minority apparent in certain locations assessed.

Food security and livelihoods challenges appear prevalent across the area assessed: whilst 21**% of households were estimated to be food insecure, a further 58% were classified as marginally food secure** and 86% reported facing challenges to accessing food, highlighting the precarious position of the majority of households. Challenges were commonly related to expense of food and comparative lack of resources to purchase food. This is reflected in findings for livelihoods which indicate that opportunities are limited and households have unsustainable expenditure and debt patterns. The total reported proportion of adults in employment was 38%; this indicates that 62% of adults are not employed which is higher than the estimated country-wide average of 53%[83]. Further, a **decrease in reliance on employment-based income sources** (such as salaried employment, daily casual labour, farm ownership and business/trade) and an increase in non-employment based sources which typically generate less income (remittances, borrowing from family and friends, using savings) is evident; these dynamics have manifested **in much lower monthly income ($101.55) in comparison to monthly expenditure ($168.04) and total debt burden ($273.29)**. Therefore, intervention appears crucial to maintain access to income, constituting a safety net to avoid a worsening humanitarian situation.

Access to electricity was commonly limited: almost all households (99%) had some source of electricity with 95% still having some access to the main network; however, 49% of households had fewer than eight hours of access to the main network per day and only 50% used the network as their primary source of electricity. Many households (79%) were able to supplement this with generator power; however, the number of hours provided through this source was considerably lower indicating a reduced supply to much of the population (81% fewer than eight hours access per day). Similarly, the majority of households were able to use the main network as their primary source of water (87%). However, almost a quarter of households (24%) reported spending 2 days or more without water in the 30 days prior to assessment, and 14% reported that they did not have sufficient water to meet needs, leading a minority of households (14%) to modify their behavioural practices. Overall, trends in access to services should be monitored, to ensure early detection of further deterioration.

When disaggregated by sub-district, findings indicate that **sub-districts face slightly different challenges and overall dynamics.** The situation in Ras al Ain, which faced significant conflict last year and has a larger proportion of returnees than elsewhere (24%), appears particularly severe. The highest rates of food insecurity were observed (26% of households compared to area average of 14%), as were the lowest incomes (18% lower than the area average). Access to services was also comparatively poor, with the highest rates of households reporting to be without any source of electricity (4% compared to 1% across the sub-districts), and the second highest prevalence of water shortages (24%). Similarly, parts of Tal Tamer sub-district faced significant conflict last year, which is reflected in the high level of shelter damage compared to elsewhere. The sub-district also hosts a relatively large proportion of returnees (21%).Further, as in Ras al Ain, households tended to consume less water and a larger proportion of households than elsewhere were reliant on water trucking rather than piped sources of water.

Hasakeh and Quamishli sub-districts are home to the largest proportions of population and contain the major cities of the governorate. As such, some common trends can be witnessed: both appeared particularly limited in terms of livelihoods opportunities as they had the lowest proportions of adults reported to be working (37% in Hasakeh and 36% in Quamishli, compared to 39% or more in the other sub-districts) and respondents in both sub-districts were most likely to report resorting to livelihood strategies to cope with a lack of income or resources, in particular stress or crisis strategies (80% in Quamishli and 62% in Hasakeh, compared to 44%-54% in other sub-districts). This appears to have impacted Hasakeh sub-district in particular, which has the second lowest average income and food insecurity rate after Ras al Ain (9% lower income than the area average, 17% of households classified as food insecure). Further, Hasakeh, which along with Ras al Ain and Tal Tamer faced significant conflict in 2015, appears

[83] Syrian Centre for Policy Research (2016), Confronting Fragmentation: Impact of Syrian Crisis quarterly based report,

to be relatively disadvantaged in terms of access to services: water shortages were most prevalent (reported by 35% of households compared to 24% area average), as were modifying hygiene practices to deal with a lack of water (21% of households compared to 14% area average); this is perhaps a contributing factor to Hasakeh having the highest reported rates of diarrhoea (11% compared to 5-10% elsewhere).

In Amuda and Darbasiyah, similar trends as witnessed across the area are evident, though for some indicators to a lesser extent. Lower rates of food insecurity (15% and 13% of households respectively) are perhaps reflective of the greater livelihoods opportunities observed: these sub-districts had the highest reported proportions of adults in employment (44% and 39%), as well as the highest average monthly incomes ($129.00 and $111.54). Challenges were still evident: Amuda had the second highest reported rate of children working (3% compared to area average of 2%), and Darbasiyah had the largest income to debt ratio (3.3 compared to average of 1.9-2.9 elsewhere). However, Amuda and Darbasiyah appeared more stable in terms of shelter, with home ownership being more common than elsewhere and higher rental prices recorded, indicative of greater demand. This is perhaps reflective of the greater access to services, as households were more likely than elsewhere to have more than 4 hours access to the main network (though 12% of households in Amuda and 9% of households in Darbasiyah still had fewer than four hours access), more likely to report being able to obtain all health assistance required (42% and 43% compared to area average of 33%) and less likely to face water shortages (14% and 16% compared to area average of 24%) with households consuming more water than elsewhere (21-22 barrels compared to area average of 19 barrels). However, Amuda and Darbasiyah are by no means relatively advantaged for all indicators, particularly in Darbasiyah, where the second highest rates of diarrhoea were, as were the second highest rates of school non-attendance.

Rural households appeared relatively disadvantaged in terms of access to services: with regards to WASH, public garbage collection was much less common (most common form of disposal for 95% of urban households compared to 54% of rural households) and they were more likely to face water shortages (31% of households compared to 22% in urban areas). As a result, rural households consumed less water per person than urban households and spent a larger proportion of monthly budget on water (8% compared to 3% in urban areas). Rural households were also more likely to be without electricity (all households with no electricity source were located in rural areas) despite appearing to have better access to the main network (73% of households accessing more than four hours per day compared to 65% in urban households), as they were less likely than urban households to be able to supplement power using generators. Despite these differences, when comparing health in urban and rural areas no notable pattern was discernable, with reported diarrhoea slightly more prevalent in urban areas (9% compared to 8% in rural areas), reported skin infections slightly more prevalent in rural areas (7% compared to 4% in urban areas), and households similarly likely to report being able to access required health assistance (34% in rural areas compared to 33% in urban areas).

Livelihoods dynamics also appear to be different in urban and rural areas[84]. Whilst overall reported rates of adults in employment were similar (39% in urban areas and 37% in rural areas), households in urban areas tended to rely more on more predictable sources of income such as stable salaried employment and business/trade whereas in rural areas there was a slightly greater reliance on less predictable income sources such as unstable daily employment and farm ownership as well as non-employment based sources such as begging, bartering, assistance and remittances. Although monthly incomes were similar ($101.94 in urban households, $100.46 in rural households), rural households had larger monthly expenditures ($180.64 compared to $163.58 in urban households) and total average debt ($299.82 compared to $263.91 in urban households).

Overall, given the dynamic nature of the ongoing crisis, humanitarian needs could improve or worsen subject to how the conflict progresses in the coming months. Therefore, targeted response in the assessed area remains essential to ensure that maximum benefit is achieved through intervention. Overall, whilst it appears lifesaving intervention is limited to certain groups, humanitarian intervention is crucial to maintain access to basic services and especially income, to ensure that the humanitarian situation does not deteriorate.

[84] As in the rest of the report, urban areas are taken to be the primary city of each sub-district collectively, and rural areas are taken to be other communities in the sub-districts.

ANNEXES

Annex 1: Household Questionnaire

Section 1: Household Profile

1.1. Location *(Select from list)*
i) District_____ ii) Sub-district _____ iii) Community/neighbourhood _____

1.2. How many individuals does this household consist of? *(Enter number)*
Number: _____

1.3. Of the individuals living in the household, how many fit into the following categories? *(Enter number)*
Pre-conflict / host-population (lived in the community/neighbourhood since before the crisis) _____
Returnees (left the community due to crisis but have since returned) _____
IDPs (relocated to the community/neighbourhood from elsewhere in Syria due to the crisis e.g. due to conflict) _____

(a) **If IDPs are living in the household**, how many times have they been displaced? *(Enter number)*
Number of times displaced: _____
(b) **If IDPs are living in the household**, where are they from in Syria? *(Select from list)*
Governorate _____ Sub-district _____ Community _____

1.4. How many household members do you have in each of the following age groups? *(Enter numbers)*

Male 0-5y ____ 6-12y ____ 13-15y ____ 16-17y ____ 18-59y ____ 60+y ____
Female 0-5y ____ 6-12y ____ 13-15y ____ 16-17y ____ 18-59y ____ 60+y ____

1.5. Are there any household members witha disability (physical, visual, mental, cognitive or auditory) or chronic illness? *(Select one)*
☐ Yes ☐ No

(a) Number of people with chronic illness in the household? *(Enter number)*
Number _____
(b) Number of people with a disability in the household? *(Enter number)*
Number _____

Section 2: Interviewee Information

2.1. Is the interviewee the head of household? *(Select one)*
☐ Yes ☐ No

a) **If no for q2.1**, what is the relationship to the head of household? *(Select one)*
☐ Wife/husband ☐ Daughter/son ☐ Mother/father ☐ Mother/father in law
☐ Other family (nephew/niece, uncle/aunt, cousin etc) ☐ Other non-family

2.2. What is the gender of the interviewee? *(Select one)*
☐ Male ☐ Female

2.3. What is the gender of head of household? *(Select one, only ask if different to interviewee)*
☐ Male ☐ Female

2.4. What is the age of the head of household? *(Enter number)*
Age: _____

2.5. What is the marital status of the head of household? *(Select one)*

☐ Married ☐ Divorced ☐ Single ☐ Widowed

Section 3: Livelihoods

Income / resources to meet basic needs

3.1 How many adults (aged 18 and over) in your household have worked in the past month in the following types of jobs? *(Enter number)*

Permanent job with annual/monthly/weekly wage _____
Temporary job with weekly/daily/monthly wage_____
Daily labour _____

3.2 How many children (aged 17 and under) in your household have worked in the past month in the following types of jobs? *(Enter number)*

Permanent job with annual/monthly/weekly wage _____
Temporary job with weekly/daily/monthly wage_____
Daily labour _____

3.3 What were your household's top 3 sources of meeting basic needs **over the last 30 days**? *(Rank up to 3 options in order of importance; 1 = most common source; 2 = second most common source; 3 = third most common source)*?

Stable employment (salaried) _____
Unstable employment (daily) ____
Business / shop owner / trade _____
Farm owner _____
Savings _____
High risk / illegal work ____
Remittances from outside Syria _____
Gifts / remittances from family / friends inside Syria _____
Borrowing from family / friends _____
Loans / buying on credit _____
Bartering / trading goods _____
Sale of household assets (jewellery, household appliances, furniture etc) _____
Sale of productive assets (tools, machinery, vehicles etc) _____
Sale of humanitarian assistance _____
Humanitarian assistance: cash _____
Humanitarian assistance: food, clothing, NFIs etc _____
Begging _____
Other (specify) _____

3.4 What were your household's income from these sources (excluding savings) over the last 30 days? *(Options chosen in 3.3 to appear, plus 'All other sources', enter number for each)*

Source 1 SYP: _____
Source 2 SYP: _____
Source 3 SYP: _____
All other sources SYP____

3.5 What were your household's top 3 sources of meeting basic needs **before the conflict**? *(Rank up to 3 options in order of importance, 1 being the most important)*

Stable employment (salaried) _____
Unstable employment (daily) ____
Business / shop owner / trade _____
Farm owner _____
Savings _____
High risk / illegal work _____
Remittances from outside Syria _____
Gifts / remittances from family / friends inside Syria _____

Borrowing from family / friends _____
Loans / buying on credit _____
Bartering / trading goods _____
Sale of household assets (jewellery, household appliances, furniture etc) _____
Sale of productive assets (tools, machinery, vehicles etc) _____
Sale of humanitarian assistance _____
Humanitarian assistance: cash _____
Humanitarian assistance: food, clothing, NFIs etc _____
Begging _____
Other (specify) _____

Expenditure

3.6 How much money (in SYP) did your household spend on the following basic needs over the last 30 days? *(Enter number)*

Housing (rent): _____
Housing (other e.g. repairs) _____
Food: _____
Electricity: _____
Cooking / heating fuel: _____
Health: _____
Water (network, tanker, bottled, dislodging water etc): _____
Non-food household items: _____
Transportation: _____
Communication (phone, internet etc) : _____
Education: _____
Debt repayment: _____
Other (specify): _____

3.7 If your household has borrowed money/has debts, what is currently your total amount of debt? (this should not include paying rent etc)? *(Enter number)*

Total debt: _____SYP

Challenges and coping strategies

3.8 What were the primary challenges faced by your household when maintaining livelihoods during the past 30 days? *(Select all that apply)*

☐ No challenges faced (cannot be selected with any other option)
☐ Lack of employment opportunities ☐ Physical access to employment opportunities (e.g. transport, security constraints)
☐ Escalation of conflict affecting regular employment ☐ Low wages / salaries ☐ Salaries/wages not paid or delayed
☐ Decreased sales / loss of customers ☐ High cost of inputs ☐ Inputs not available ☐ Irrigation schemes damaged
☐ Environmental challenges- drought, pollution ☐ Livestock / crop diseases ☐ Banking system not functional
☐ Lack of humanitarian aid ☐ Other (specify) _____

3.9 Did anyone in your household have to resort to any of the following coping strategies due to a lack of income / resources during the past 30 days? *(Select all that apply)*

☐ No coping strategies resorted to (cannot be selected with any other option)
☐ Selling household assets / goods (jewellery, phone, furniture etc) ☐ Selling house or land ☐ Spending savings
☐ Selling productive assets or means of transport (sewing machine, wheelbarrow, bicycle, car, motorbike)
☐ Reducing non-food expenses (e.g. health, education) ☐ Reducing food intake ☐ High risk / illegal work
☐ Borrowing money / buying on credit ☐ Withdrawing children from school so they can work ☐ Adults

begging
☐ Children (under 18) begging ☐ Migration ☐ Other (specify) _____

Humanitarian aid

3.10 Did anyone in your household receive humanitarian assistance in the past 30 days? *(Select one)*

☐ Yes ☐ No

(a) If yes to 3.10, what type of assistance did they receive? *(Select all that apply)*

☐ Cash ☐ Food items and in-kind contributions ☐ Conditional vouchers ☐ Healthcare
☐ Shelter materials provision ☐ NFIs ☐ Education assistance ☐ Water
☐ Sanitation services ☐ Other (specify) _____

(b) If yes to 3.10, who did they receive it from? *(Select all that apply)*

☐ International humanitarian organisations (INGOs) ☐ Local humanitarian organisations ☐ Local authorities
☐ Organised community groups ☐ Not sure ☐ Other (specify) _____

3.11 Was humanitarian assistance distributed in your community in the past 30 days, but your household was unable to access it?

☐ Yes ☐ No ☐ Not sure if assistance was distributed

(a) If yes to 3.11 what were the reasons for not receiving assistance? *(Select all that apply)*

☐ Lack of knowledge about available assistance ☐ Household did not qualify for assistance ☐ Distribution point too far away
☐ Physical access barriers to distribution point (security, roadblocks etc) ☐ Distribution point overcrowded
☐ Other (specify) _____

Section 4: Food Security

Access to food

4.1 How many meals, on average, does your household eat per day? *(Enter number)*

Number: ____

4.2 Among members of the household, who is prioritised access to food? *(Select one)*

☐ All have equal access ☐ Children (under 18) ☐ Elderly ☐ Adult male ☐ Adult female

4.3 Over the last 7 days, how many days did your household consume the following foods? *(Select 0-7)*

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

4.4 What were the most common three sources of food accessed by the household in the past 30 days? *(Rank 1-3 in order of most common: 1 = most common; 2 = second most common; 3 = third most common)*

Store/market bought food ___
Own production ___

Bartering / trading goods for food ___
Gifts from family / friends ___
Humanitarian assistance (from NGO, charities etc) ___
Begging ___
None ___
Other (specify) ___

4.5 Do you travel by walking or driving (car, public transport) to reach your nearest source of fresh fruit and vegetables? *(Select one)*

☐ Walking ☐ Driving

a) How far do you have to travel, in minutes, to reach your nearest source of fresh fruit and vegetables? *(Enter number)*

Minutes _____

Bread

4.6 What is the most common source of bread used by your household? *(Select one)*

☐ Bread is not available (cannot be selected with any other option)
☐ Public bakeries ☐ Private bakeries ☐ Shops ☐ Homemade ☐ Humanitarian aid distribution
☐ Distribution by others ☐ Other (specify)_

4.7 In the past 30 days, what were the main challenges to accessing bread? *(Select all that apply)*

☐ No challenges to accessing bread (cannot be selected with any other option)
☐ Lack of functioning bakeries / shops unavailable ☐ Bakeries / shops have insufficient supplies ☐ Flour
☐ Flour expensive / hard to access expensive / hard to access ☐ Yeast unavailable ☐ Yeast
☐ Wheat unavailable ☐ Wheat expensive / hard to access ☐ Not enough electricity / fuel
☐ Electricity/fuel expensive / hard to access ☐ Other inputs hard to access ☐ Other (specify)_

Challenges and coping strategies

4.8 In the past 30 days, what challenges did your household face to accessing food? *(Select all that apply)*

☐ No challenges faced (cannot be selected with any other option)
☐ Lack of access to markets too expensive ☐ Lack of resources to buy food in markets ☐ Some foods
☐ Some foods not available in markets ☐ Local food production decreased ☐ Lack of availability of cooking fuel in markets
☐ Lack of resources to buy available cooking fuel ☐ Other (specify) _____

4.9 During the last 7 days, how many times (in days) did your household have to employ one of the following strategies to cope with a lack of food or money to buy it? *(0 = not applied, 1 = 1 day, 2 = 2 days, 3 = 3 days, 4 = 4 days, 5 = 5 days, 6 = 6 days, 7 = Everyday)*

Rely on less preferred and less expensive food (i.e. cheaper lower quality food) ____
Borrow food or relied on help from relative(s) or friend(s), or seeking additional humanitarian assistance _____
Reduce number of meals eaten in a day ____
Limit portion size at mealtime (different from above: i.e. less food per meal _____
Restrict consumption by adults in order for small children to eat _____
Eat weeds or other non-food plants _____
Search for food in garbage / other scavenging _____
Other (specify) _____

Section 5: Shelter and NFIs

5.1 What type of shelter does your household live in? *(Select one)*

☐ Non-damaged home (house, apartment) ☐ Damaged home (house, apartment) ☐ Collective shelter (schools, mosques etc)
☐ Vacant / unfinished building ☐ Open space (under trees, fields etc) ☐ Organised structured camp
☐ ITS / Hand-made shelter / self-settled camp ☐ Other (specify) _____

(a) Do you own, rent, are you hosted or are you living for free (not hosted) at this location? *(Select one)*

☐ Owned ☐ Rented ☐ Being hosted ☐ Free / squatting

(ai) If 'Rented accommodation' chosen for q5.1a, how much does your rental property cost per month? _____

5.2 What condition is your shelter in? *(Select one)*

☐ No damage ☐ Slight damage (light repairs required- windows, doors etc) ☐ Moderate damage (under 30% main structure damage, moderate fire damage, repair possible) ☐ Heavy damage (over 30% main structure damage, moderate fire damage, repair possible) ☐ Destruction (unusable, houses or building levelled, has IEDs/bomb damage, repair not possible)

5.3 What is the main source of electricity used by the household? *(Select one)*

☐ **Main network (government grid)** ☐ **Generator** ☐ **No source of electricity** ☐ **Other (specify)** _____

5.4 Approximately how many hours of government grid electricity does your household have access to each day? *(Select one)*

☐ No access 0 hours ☐ Less than 1 hour ☐ 1 < 2 hours ☐ 2 < 4 hours ☐ 4 < 8 hours ☐ 8 < 12 hours
☐ More than 12 hours

5.5 Approximately how many hours of generator electricity does your household have access to each day? *(Select one)*

☐ No access 0 hours ☐ Less than 1 hour ☐ 1 < 2 hours ☐ 2 < 4 hours ☐ 4 < 8 hours ☐ 8 < 12 hours
☐ More than 12 hours

5.6 What is the main type of heat used for cooking in the household? *(Select one)*

☐ Electricity ☐ Gas ☐ Kaz ☐ Diesel ☐ Wood / charcoal ☐ Other (specify) _____

5.7 Over the course of the last 30 days, have there been any problems to accessing cooking fuel been a problem (gas, diesel, wood)? *(Select all that apply)*

☐ No problems (can't select with other option)
☐ Lack of access to markets ☐ Lack of resources to buy available fuel ☐ Lack of fuel in markets ☐ Fuel expensive
☐ Other (specify) ____

Section 6: WASH

6.1 What water source did your household use the most in the last 30 days? *(Select one)*

☐ Network ☐ Water trucking ☐ Closed well ☐ Open well ☐ Springs ☐ River ☐ Bottle ☐ Other (specify) _____

6.2 Did you have to use other sources of water in the last 30 days? *(Select one, answer sub-questions if relevant)*

☐ Yes ☐ No

(a) If yes for 6.2, what water sources did you use? *(Select all that apply)*

☐ Network ☐ Water trucking ☐ Closed well ☐ Open well ☐ Springs ☐ River ☐ Bottle

☐ Other (specify) _____

(b) If yes for 6.2, please estimate the % for each water source used in the last 30 days (including main water source) *(Enter number)*

% for source 1 _____ % for source 2 _____ % for source 3 _____

6.3 Are you differentiating in any way between your drinking water and non-drinking water? *(Select one, answer sub-questions if relevant)*

☐ Yes ☐ No

(a) If yes for 6.3, what are you doing differently?

☐ Treating drinking water ☐ Using different source for drinking than for other household needs

☐ Storing drinking water differently ☐ Other (specify) _____

(a.i) **If 'Treating drinking water'** chosen for 6.3a, how did you treat drinking water? *(Select all that apply)*

☐ Boil the water ☐ Use chlorine tablets, powder or liquid ☐ Other (specify) _____

(a.ii) **If 'Using difference source for drinking than for other household needs'** chosen for 6.3a, which one of the sources named previously is your drinking water source? *(Select from list)*

(b) Have you treated your water in any way in the last week to make it safer to drink?

☐ Yes ☐ No

(b.i) If yes, what do you usually do to the water to make it safer to drink?

☐ No treatment ☐ Chlorination tablets or liquid ☐ Boiling water ☐ Other (specify) ☐ Not sure

6.4 On average, how many barrels of water did your household consume per week over the last 30 days? *(Enter number)*

Barrels per day: ____

6.5 Did your household spend 2 consecutive days or more without water in the last 30 days? *(Select one)*

☐ Yes, once or twice ☐ Yes, more than twice ☐ No

6.6 Did you have enough water in the last 30 days to meet your household needs? *(Select one, answer sub-questions if relevant)*

☐ Yes ☐ No

(a) If no for 6.6, How did you adjust for the lack of water? *(Select all that apply)*

☐ Reduce drinking water consumption ☐ Spend money usually spent on other things to buy water ☐ Modify hygiene practices (bath less, etc) ☐ Receive water on credit / borrow water or money for water ☐ Drink water usually used for cleaning or purposes other than drinking ☐ Other (specify) _____

6.7 Was there one / multiple hygiene item you needed to procure in the last 30 days but could not find or afford? *(Select one, answer sub-questions if relevant)*

☐ Yes ☐ No

(a) If yes for 6.7, what item could you not access or afford? *(Select all that apply)*

☐ Soap (bar) ☐ Sanitary pads (1 pack of 9) ☐ Disposable diapers (1 pack of 24) ☐ Washing powder (1kg)

☐ Jerry can / bucket ☐ Toothbrush ☐ Toothpaste ☐ Shampoo

☐ Cleaning liquid (for house) ☐ Detergent for dishes ☐ Plastic garbage bags ☐ Washing line

☐ Nail clippers ☐ Comb ☐ Towel ☐ Other (specify) _____

(b) If yes for any item in 6.7, was the item unavailable in markets or unaffordable? *(Select all that apply)*

6.8 What is the most common way you disposed of garbage in the last 30 days? *(Select one)*

☐ Public garbage collection (free) ☐ Private garbage collection (paid) ☐ Garbage disposed of by household to a dumping location ☐ Garbage left in public areas ☐ Garbage buried or burned ☐ Other (specify) _____

(a) If 'Public garbage collection (free)', 'private garbage collection (paid)', 'garbage disposed by household in dumping location', or 'garbage left in public areas', where is the garbage dumped? *(Select one)*

☐ Informal dumping location ☐ Formal dumping location ☐ Not sure

(b) If 'Public garbage collection (free)' or 'private garbage collection (paid)', how frequently was garbage collected in the last 30 days? *(Select one)*

☐ More than once a week ☐ Once a week ☐ Once every two weeks ☐ Once every month

6.9 Do your household members have access to a functioning toilet? *(Select one)*

☐ Yes, all members ☐ Yes, but only some members ☐ No

(a) If 'yes, but only some members' or 'no' chosen, what are the problems related to the toilet? *(Select all that apply)*

☐ Not enough facilities / too crowded ☐ No water to flush ☐ Toilets unclean ☐ Lack of privacy / no separation between men and women ☐ Not safe ☐ Septic tanks not emptied ☐ Pipes blocked ☐ Connection to sewage blocked ☐ Other (specify) _____

(b) How many people share this toilet (including the surveyed household? *(Enter number)*

Number _____

(c) How many households share this toilet (including the surveyed household? *(Select one)*

☐ Not shared (1HH) ☐ Shared family (2-3 HH) ☐ Communal toilet (4HH+) ☐ Public toilet (in market, clinic etc) ☐ Don't' know

(d) Who has access to toilets? *(Select one)*

☐ Girls ☐ Boys ☐ Women ☐ Men ☐ Disabled ☐ Elderly

6.10 Do your household members have access to a functioning bathing facility? *(Select one)*

☐ Yes, all members ☐ Yes, only some members ☐ No

6.11 Have your hygiene practices changed in the past 30 days? *(Select one)*

☐ Yes ☐ No

(a) **If 'Yes' selected,** how have your hygiene practices changed? *(Select all that apply)*

☐ I am bathing less than once every two days ☐ I am bathing less than once every week ☐ I am doing laundry less than once every two weeks ☐ I am sometimes not washing hands after going to the toilet because of lack of water ☐ I am sometimes not washing hands before cooking and eating because of lack of water ☐ Other (specify) _____

Health

7.1 How many individuals in the following categories in the household have had diarrhoea in the past two weeks? *(Enter number)*

Children aged 0-5 ____
Children aged 6-17 ____
Adults 18+ ___

7.2 How many individuals in the following categories household have had skin infections in the past two weeks? *(Enter number)*

Children aged 0-5 ____
Children aged 6-17 ____
Adults 18+ ___

7.3 How many individuals in the following categories household have had communicable diseases (e.g. hepatitis, measles, typhoid, cholera, dysentry) in the past two weeks? *(Enter number)*

Children aged 0-5 ____
Children aged 6-17 ____
Adults ___

7.4 Did any of your household members require health assistance in the last 6 months that they were unable to obtain? If yes, what type of services? *(Select all that apply, don't prompt)*

☐ Household was able to obtain required health assistance (cannot select with any other option) ☐ Household did not require any health assistance (cannot select with any other option) ☐ Primary health care services (general practitioner advice, basic curative care, prevention of disease) ☐ Immunisation ☐ Maternal and child health services ☐ Rehabilitation ☐ Prosthetics & orthotics
☐ Orthopedics ☐ Assistive devices ☐ Treatment for chronic diseases (e.g. heart disease, diabetes)
☐ Psychiatric care
☐ Child delivery by skilled provider ☐ Surgical care ☐ Drugs ☐ Home visit by health professionals ☐ Other (specify) _____

Education

8.1 How many children in the household **did not attend school** (for at least 4 days per week) during the most previous term? *(Enter numbers)*

Male 6-12y ____ 13-15y ____ 16-18y ____

Female 6-12y ____ 13-15y ____ 16-18y ____

8.2 If any children aged 6-15 did not attend school (for at least 4 days per week) during the most previous term, did any take lessons or classes in informal learning spaces *(Enter numbers)*

Male 6-12y ____ 13-15y ____

Female 6-12y ____ 13-15y ____

8.3 If male children aged 6-12 did not attend school during the previous term, why not? *(Select all that apply; only ask if at least one male 6-12 did not attend school)*

☐ Schools unavailable due to damage/destruction ☐ Schools unavailable due to lack of staff ☐ Schools unavailable due to lack of resources to pay teacher salaries ☐ Schools unavailable due to a lack of equipment / materials
☐ Schools unavailable to males ☐ Schools closed by authorities ☐ Schools occupied by IDPs

☐ IDPs not allowed to attend local schools ☐ Lack of spaces in available schools ☐ Can't afford tuition / other costs (e.g. textbooks)
☐ Distance to schools is too far ☐ Route to schools unsafe ☐ Schools considered unsafe/ insecure ☐ Parents don't approve of curriculum ☐ Quality of education poor ☐ Lack of WASH / sanitation facilities in school ☐ Schools don't provide certificates ☐ Children denied entry to school due to lack of previous certificates ☐ School certificates not recognised ☐ Children missed too much school to go back ☐ Children / teachers psychologically distressed so can't attend ☐ Children need to help at home ☐ Children need to work ☐ Children dropped out to join armed groups / forces ☐ Children dropped out to get married
☐ School curriculum not in preferred language ☐ Harsh weather ☐ Other (specify) _____

8.4 If male children aged 13-15 did not attend school during the previous term, why not? (Select all that apply; only ask if at least one male 13-15 did not attend school)

☐ Schools unavailable due to damage/destruction ☐ Schools unavailable due to lack of staff ☐ Schools unavailable due to lack of resources to pay teacher salaries ☐ Schools unavailable due to a lack of equipment / materials
☐ Schools unavailable to males ☐ Schools closed by authorities ☐ Schools occupied by IDPs

☐ IDPs not allowed to attend local schools ☐ Lack of spaces in available schools ☐ Can't afford tuition / other costs (e.g. textbooks)
☐ Distance to schools is too far ☐ Route to schools unsafe ☐ Schools considered unsafe/ insecure ☐ Parents don't approve of curriculum ☐ Quality of education poor ☐ Lack of WASH / sanitation facilities in school ☐ Schools don't provide certificates ☐ Children denied entry to school due to lack of previous certificates ☐ School certificates not recognised ☐ Children missed too much school to go back ☐ Children / teachers psychologically distressed so can't attend ☐ Children need to help at home ☐ Children need to work ☐ Children dropped out to join armed groups / forces ☐ Children dropped out to get married
☐ School curriculum not in preferred language ☐ Harsh weather ☐ Other (specify) _____

8.5 If female children aged 6-12 did not attend school during the previous term, why not? (Select all that apply; only ask if at least one female 6-12 did not attend school)

☐ Schools unavailable due to damage/destruction ☐ Schools unavailable due to lack of staff ☐ Schools unavailable due to lack of resources to pay teacher salaries ☐ Schools unavailable due to a lack of equipment / materials
☐ Schools unavailable to females ☐ Schools closed by authorities ☐ Schools occupied by IDPs

☐ IDPs not allowed to attend local schools ☐ Lack of spaces in available schools ☐ Can't afford tuition / other costs (e.g. textbooks)
☐ Distance to schools is too far ☐ Route to schools unsafe ☐ Schools considered unsafe/ insecure ☐ Parents don't approve of curriculum ☐ Quality of education poor ☐ Lack of WASH / sanitation facilities in school ☐ Schools don't provide certificates ☐ Children denied entry to school due to lack of previous certificates ☐ School certificates not recognised ☐ Children missed too much school to go back ☐ Children / teachers psychologically distressed so can't attend ☐ Children need to help at home ☐ Children need to work ☐ Children dropped out to join armed groups / forces ☐ Children dropped out to get married
☐ School curriculum not in preferred language ☐ Harsh weather ☐ Other (specify) _____

8.6 If female children aged 13-15 did not attend school during the previous term, why not? (Select all that apply; only ask if at least one female 13-15 did not attend school)

☐ Schools unavailable due to damage/destruction ☐ Schools unavailable due to lack of staff ☐ Schools unavailable due to lack of resources to pay teacher salaries ☐ Schools unavailable due to a lack of equipment / materials
☐ Schools unavailable to females ☐ Schools closed by authorities ☐ Schools occupied by IDPs

☐ IDPs not allowed to attend local schools ☐ Lack of spaces in available schools ☐ Can't afford tuition / other costs (e.g. textbooks)
☐ Distance to schools is too far ☐ Route to schools unsafe ☐ Schools considered unsafe/ insecure ☐ Parents don't approve of curriculum ☐ Quality of education poor ☐ Lack of WASH / sanitation facilities in school ☐ Schools don't provide certificates ☐ Children denied entry to school due to lack of previous certificates ☐ School certificates not recognised ☐ Children missed too much school to go back ☐ Children / teachers psychologically distressed so can't attend ☐ Children need to help at home ☐ Children need to work ☐ Children dropped out to join armed groups / forces ☐ Children dropped out to get married
☐ School curriculum not in preferred language ☐ Harsh weather ☐ Other (specify) _____

8.7 How many of the children who did not attend school during the previous term have been out of school for one year or more? (Enter number)

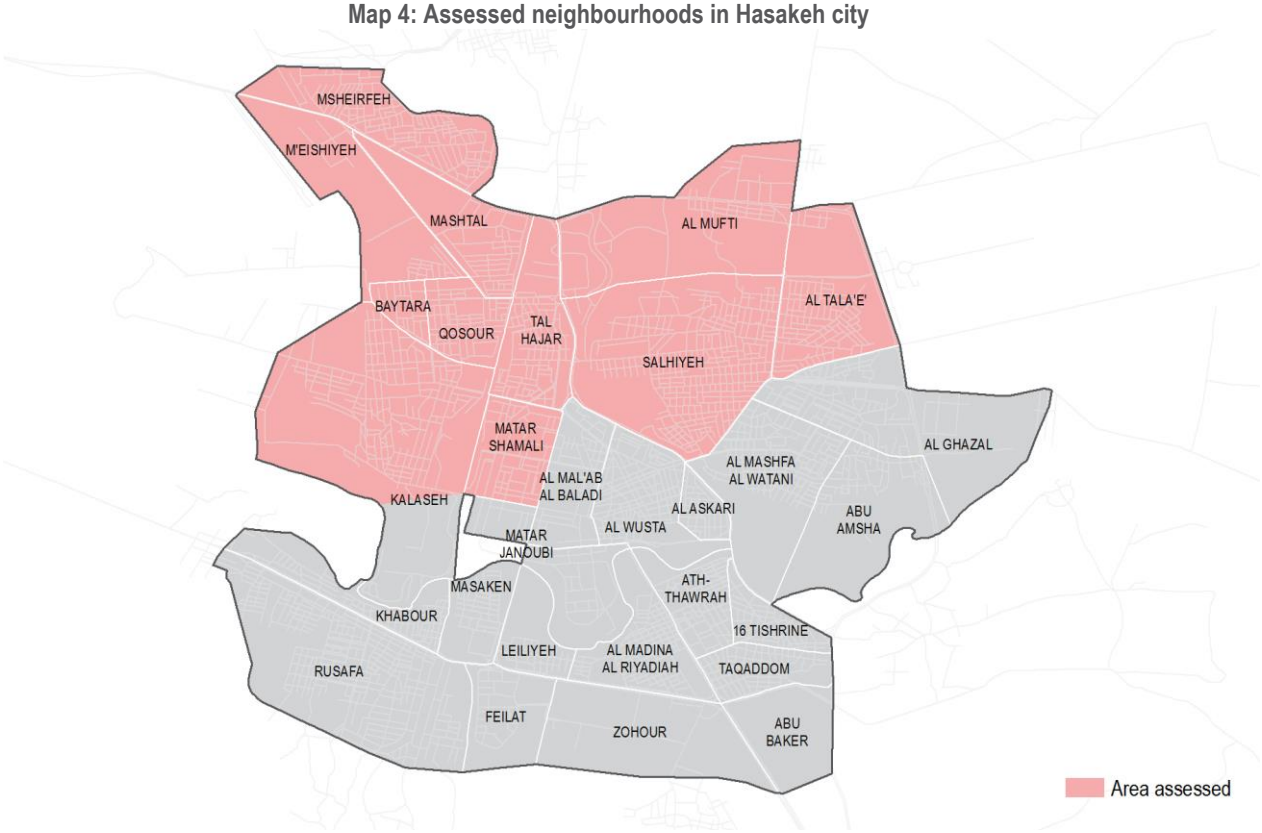
Male 6-12y ____ 13-15y ____
Female 6-12y ____ 13-15y ____

8.8 What are the most urgent educational needs right now in your community? (Select all that apply)

☐ No urgent educational needs (cannot select with any other option) ☐ Not sure (cannot select with any other option)
☐ Learning spaces (extra classrooms, buildings etc) ☐ Repair damaged buildings ☐ Water and sanitation at learning sites
☐ Hiring specialised teachers ☐ Hiring new teachers ☐ Resources to pay teachers ☐ Provision of teaching supplies / kits
☐ Teachers capacity building ☐ Recognition of school certificates ☐ Ensuring safety/security for children and teachers
☐ Counselling for psychosocial stress ☐ Getting children back to schools ☐ Early Childhood Development programs
☐ Provision of student basic supplies / kits ☐ Fuel ☐ Other (specify) _____

Annex 2: Assessed neighbourhoods of Hasakeh and Quamishli cities

Map 4: Assessed neighbourhoods in Hasakeh city



Map 5: Assessed neighbourhoods in Quamishli city