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Food Security and Livelihoods Assessment: Central and Northern Jordan

March 2015

Food Security and Livelihoods Assessment: Northern and Central Jordan

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ABBREVIATIONS AND ACRONYMS

ACTED	Agency for Technical Cooperation and Development
CFSME	Comprehensive Food Security Monitoring Exercise
CSI	Coping Strategy Index
DRM	Disaster risk management
DRR	Disaster risk reduction
FAO	Food and Agriculture Organization of the United Nations
FCS	Food Consumption Score
FFS	Farmer Field School
GoJ	Government of Jordan
GDP	Gross domestic product
GIEWS	Global Information and Early Warning System
GIS	Geographic Information Systems
Ha	Hectare
HDDS	Household Dietary Diversity Score
HEIS	Household Expenditure and Income Survey
JD	Jordanian Dinar
MoA	Ministry of Agriculture
NGO	Non-governmental organization
RNE	Regional Office for the Near East and North Africa (of FAO)
RRP	Regional Response Plan (of UN for the Syria crisis)
SHARP	Syria Humanitarian Assistance Response Plan
TAD	Transboundary animal disease
UN	United Nations
UNDP	United Nations Development Programme
USD	United States Dollar
WFP	World Food Programme

GEOGRAPHIC CLASSIFICATIONS

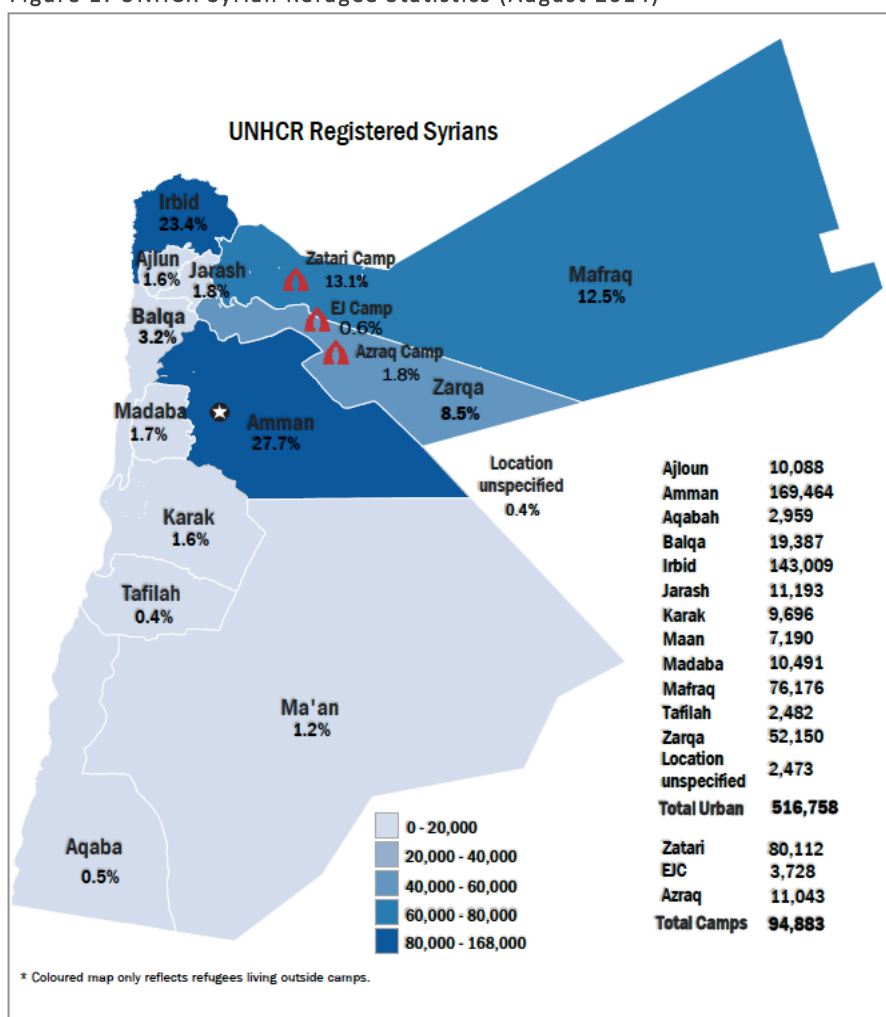
Governorate	The highest administrative boundary below the national level. Jordan has 12 Governorates.
District	Governorates are divided into districts. There are 51 districts in Jordan.
Sub-district	Districts are sub-divided into sub-districts, of which there are 89 in Jordan.

SECTION ONE: OVERVIEW AND METHODOLOGY

1 Background

There are an estimated 620,000¹ registered Syrian refugees residing in Jordan as a result of the on-going conflict in Syria, making it the third highest recipient country of these refugees in the region. Currently, registered refugees from Syria represent an estimated 9 per cent of the total population in Jordan and are largely concentrated in the northern governorates². Approximately 20 per cent are settled in the refugee camps of Al Za'tari and Azraq in Al Mafraq governorate and 80 per cent have established themselves in rural and urban host communities³. The vast majority reside in the seven Governorates covered in the FSLA, the largest proportion reside in Al Mafraq (accounting for a quarter of the total population), followed by Irbid (Figure 1).

Figure 1: UNHCR Syrian Refugee Statistics (August 2014)



Due to the protracted nature of the Syrian crisis, the Syrian refugee population is expected to continue to increase through 2015. The challenge of meeting the needs of Syrian refugees is faced by the Government of Jordan (GoJ) and the humanitarian community alike, in an increasingly complex context. As the crisis continues to deepen and protract, it is expected that there has – and further will be – a direct impact on the food and livelihood security of Jordanian host communities (both at macro and micro levels), particularly if (due to limited funding) aid agencies are forced to scale-down humanitarian support to Syrian refugee households in Jordan. The impact of the Syrian crisis felt in Jordan will

¹ Syrian Regional Refugee Response. Inter-agency Information Sharing Portal. (January, 2015). UNHCR <http://data.unhcr.org/syrianrefugees/country.php?id=107>

² Ibid.

³ Needs Assessment Review Workshop of the Jordan Response Plan (JRP). Presentation made by UNHCR. October 2014.

vary in nature and extent, depending on pre-existing vulnerabilities and levels of resilience to socio-economic and environmental shocks and stresses.

Over three years into the crisis in Syria, however, the availability of comprehensive and reliable quantitative information related to its impact on agriculture, livelihoods, food security and nutrition in Jordan remains sparse. There is limited quantitative evidence, documentation and evaluation of the impact of the Syrian crisis on hosting communities – especially when compared to the information available on refugee households⁴. Most available information sources covering the time period since the outset of the crisis are based on secondary data and a comprehensive picture of household income, food availability and access, land and water use and the livelihood status of Jordanian host communities⁵ has not yet fully emerged. This poses constraints to measuring and mitigating the full spectrum of potential impacts of the Syrian crisis on their livelihood and food security to date, as well as their resilience to cope.

2 Objectives and Methodology

The food security and livelihood assessment was conducted in April 2014 throughout seven Governorates of northern and central Jordan. Both primary and secondary data was collected and analysed to provide insight on important discussion points regarding the impact of the Syrian crisis on the hosting population in Jordan and offer a set of recommendations to inform resilience programming and resource mobilization.

In order to address the information gaps on the food security and livelihoods of the Jordanian population, the Hashemite Kingdom of Jordan Ministry of Agriculture (MoA) together with the Food and Agriculture Organization of the United Nations (FAO) and the REACH Initiative (a partnership of ACTED, Impact Initiative and UNOSAT) conducted a Food Security and Livelihoods Assessment (FSLA), designed around two objectives:

- i. Improve understanding of the implications of the Syria crisis on the food and livelihood security and the needs of vulnerable Jordanian families, particularly in the most affected Governorates of Amman, Irbid, Ajloun, Al Mafraq, Zarqa, Jarash and Al Balqa; and
- ii. Understand the problems and issues that remain to be addressed for food security and livelihood recovery and the implications for future programming.

2.1 Hypotheses

The following three hypotheses were postulated around the estimated impact of the Syrian crisis on the core sectors of food security and livelihoods.

- i. There would be a significant difference in the food security and livelihood status of households residing in communities hosting Syrian refugees and those who were not, whereby households residing in hosting communities would be worse off;
- ii. Poverty pockets⁶ – defined as districts in which more than 25% of the population lives below the poverty line which stands at JD 680 per person per year⁷ – would be worse off in terms of food

⁴ Syrian Refugees in Host Communities. Key Informant Interviews/District Profiling. REACH. January, 2014.

⁵ FAO, 2014

⁶ Established in the 2010 Jordanian Department of Statistics (DoS) Income and Expenditure Survey.

and livelihood security than non-poverty pocket districts, particularly those that have seen the biggest influx and are currently hosting the highest concentration of Syrian refugees;

- iii. Rural populations, where a higher rate of poverty is assumed to exist, would be worse off in terms of food and livelihood security than urban populations.

2.2 Methodology

This assessment used a mixed-method approach, which combined a review of secondary data, and both quantitative and qualitative data collection tools to yield a comprehensive picture of livelihoods, service provision, household socio-economic profiles and food security (all tools can be found in Annexes A - C). A more detailed breakdown of each stage of the methodology follows below.

The first stage of the assessment was focused on a detailed secondary data review of relevant documents produced by the Government of Jordan (including the Ministry of Agriculture and Department of Statistics) and the international community (i.e. UN Agencies and NGOs).

The second stage involved governorate level focus group discussions (FGDs) across all seven governorates with participants from different ministries, as well as key informants involved in agriculture from the private sector. The purpose of these discussions was to provide updated information on agro-ecological zones and assist in identifying potential livelihood groups, as well as identifying common issues faced in the agricultural sector. To assist in the identification of livelihood zones, a participatory mapping exercise was conducted and results can be found in Annex E.

The third stage consisted of a quantitative household survey across all seven governorates using a random stratified cluster sampling methodology. The strata employed were urban and rural (with a heavier weight on rural populations to assist in providing a more detailed profile of rural livelihoods and agriculture), and communities hosting Syrian refugees with a control group of communities not hosting Syrian refugees. Communities were identified using Basic Service Units (BSUs)⁸.

The overall confidence level disaggregated by communities hosting versus non-hosting communities was 95 per cent with a margin of error of 5 per cent. Further information on the sample size is provided in Table 2 with a more detailed breakdown of the confidence level and margin of error by strata in Table 3.

Table 1: Number of households sampled

Areas	Host communities	Non-host communities	Total
Rural	2,033	1,102	3,135
Urban	1,502	242	1,744
Total	3,535	1,344	4,879

⁷ UNDP, MoPIC & DOS, 2012

⁸ Basic Service Units are self-identified service catchment areas the geographic boundaries of which were delineated by community members themselves according to perceptions of service provision and the catchment of these services. They are not an official administrative boundary but were previously used by REACH as a way of identifying clusters of Syrian refugee households. They are also an effective method of overcoming information gaps regarding the location of Syrian refugee households in the field.

Table 2: FSLA survey sample - confidence levels

Confidence Level/Margin of Error		
Overall Governorate	95%/5%	
Area	Hosting	Non-hosting
Rural	95% / 5%	N/A
Urban	95% / 5%	N/A
Governorate	95% / 10%	95% / 10%
District	95% / 10%	

In order to provide comparisons between refugee and host-community households, questions were standardized with those used in the recently completed WFP Comprehensive Food Security and Monitoring Exercise survey report (published in July 2014) (CFSME) on Syrian Refugee households. Other international indicators were also employed, and a final section on agriculture was used in order to provide a more holistic picture of food security that incorporated food production and issues faced by the sector.

The survey teams were comprised of male and female enumerators⁹, and the teams made every effort to conduct the interviews with heads of households. Where this was not possible another adult member of the household would respond.

Data collection was completed using the Open Data Kit (ODK) mobile data collection platform using smart-phones and GPS-enabled technology to reduce the incidence of inaccuracies and inconsistencies in the data collection and cleaning processes. Data analysis of the household level data covered all indicators included in the questionnaire disaggregated by five criteria (Governorate, Urban/Rural, Male-/Female-Headed Households, Hosting Communities/Non-Hosting Communities and Wealth Quintile¹⁰). Tables of these results can be found in the folder for Annex H.

The final stage of data collection consisted of community level FGDs on agriculture. Households engaged in agriculture identified during the household interviews were contacted and requested to participate in FGDs along with other farmers in the area. Questions were designed to build on the results of the household survey and governorate level discussions. Results were mapped from a table to enable analysis of results and can be found in Annex F.

3 Challenges and Constraints

The purpose of the assessment was to create a unique baseline dataset to assess the effects of the crisis on food security and livelihoods, and enable further longitudinal assessments and monitoring exercises. This assessment does not, in and of itself, hope to evaluate the implications of the refugee influx, but rather simply report on the current state of food security and livelihoods Jordanian host communities. Further assessments are required if humanitarian actors are to gauge the evolution of the crisis.

⁹ Teams were set up in this manner in order to mitigate cultural idioms which may have impeded the data collection process.

¹⁰ Wealth quintiles were calculated based on the assets owned, then running a principal component analysis and equally divided into 5 groups (or quintiles). Annex D provides further explanation.

There were a number of limitations regarding the sample size. In such a dynamic and transient environment, it is difficult to identify control groups such as communities not hosting refugees. As such, the identification of non-hosting communities proved challenging and a quasi-experimental method¹¹ was required that considered communities “non-hosting” when ten or less Syrian refugee households resided in the area.

The need to identify a control group led to a location bias focused on targeting non-hosting communities. As a result, communities that had previously been identified as non-hosting, but had recently received refugee households, were not included in the sample. In addition, the focus on rural populations led to a disproportionate sample that did not reflect the fact that the majority of Jordanians reside in urban areas.

The biases described above prevent comparison between the results of this survey and those of national surveys conducted in the past – most notably the DoS 2010 Household Income and Expenditure Survey (HIES), which also incorporated a small food security component assisted by WFP. The resulting Food Situation in Jordan Analytical Report published in 2012 used different methodology for calculating food consumption scores and is thus not comparable to this assessment.¹²

In an effort to ensure comparability across recent assessments, the most frequently used food security indicators were adopted. Unfortunately, these standard indicators were not revised for the Jordan context. As a result a number of issues arose during the analysis phase that highlighted challenges in how these indicators were interpreted and responded to by surveyed households, and how the indexes are traditionally calculated. Qualitative studies will need to be conducted in the future to better formulate indicators for this context.

In addition to challenges arising from a lack of context specific indicators, there was a restriction in the survey design. The agriculture section was designed specifically for households engaged in some form of agriculture, and the question that determined which respondents would be asked those questions was primary, secondary and tertiary sources of income. As the re-call period for income sources was only 30 days (and the assessment was conducted prior to the harvest), it is likely that there were a number of households who were, in fact, engaged in agriculture, but did not consider it one of 3 primary income sources at that time. As such there were very low response rates for the agriculture section, and future studies should include a set of questions that identify agricultural involvement through means that are not limited to income.

SECTION TWO: VULNERABILITY CONTEXT

1 Socio-economic Situation

Jordan has faced long-term chronic unemployment, particularly among educated youth and women. According to the Government of Jordan’s Department of Statistics (DoS), the national unemployment rate in 2013 was 12.6 per cent and has remained relatively stable when compared to previous years – 12.2 and 12.9 per cent in 2012 and 2011, respectively. In contrast, women’s unemployment has shown an increase and remains markedly higher, ranging between 19 and 22 per cent in 2011/13.

¹¹ The experimental method is the only method of research that can truly test hypotheses concerning cause-and-effect relationships.

¹² The thresholds used by the Analytical Report different from the international norm.

Whilst unemployment in the formal labour market has shown quarterly fluctuations between 2010 and 2014¹³, quantitative information regarding if and how this has been influenced by the influx of Syrian refugees into Jordan has not been available. Conversely, several recent assessments and studies have pointed more to an impact on the informal employment market¹⁴, which accounts for about 44 per cent of total employment in Jordan¹⁵. Given the bureaucratic obstacles and expenses involved in obtaining a work permit, and restriction to unregistered refugees, the vast majority of Syrians working in Jordan (currently estimated at 48.5 per cent of registered refugees)¹⁶ are believed to do so in the informal sector. This trend is suggested to have driven down wages and increase competition with Jordanians and other migrant workers, who also depend on employment in the informal sector.

Although the recent assessments and studies on the impact of the crisis in Syria are largely based on the perceptions of the Jordanian population more so than quantitative data, they provide strong insight into the potential nature of the problem and indicate possible underlying reasons for this according to both Jordanians and Syrians. For example, qualitative data collection has provided reports from Jordanians and Syrians throughout northern Jordan and Zarqa of increasing tensions and weakened social cohesion between Syrian refugees and the Jordanian host population. This has been attributed to two perspectives. Firstly, according to the surveyed Jordanian population, increased competition within the informal labour market due to the arrival of Syrian refugees has resulted in reduced employment opportunities and wages in the informal sector, especially in the poorest areas where the prevalence of informal labour is highest. At the same time Syrian refugees have reported they are frustrated by poor working conditions and reduced wages; however, they are compelled to seek informal employment due to the lack of legal authorization to work, and the need to meet household living costs^{17 18}. Other reports provide further information on decreases in remuneration levels for low-skilled, low productivity jobs traditionally occupied by non-Jordanians, especially in the sectors of informal seasonal agriculture, construction, food services and trade, although these are not qualified with quantitative data¹⁹.

Poor Jordanian households are characterised by limited household productivity potential, larger family size and lower education levels. These households may be more vulnerable to the risk of increased competition over informal employment opportunities and jobs requiring unskilled labour. This has been assessed as the main negative impact from the influx of Syrian refugees on local livelihoods²⁰.

2 Agricultural Production Systems

Agriculture contributes less than 4 per cent of Jordan's GDP, but the sector employs a majority of those who reside in rural areas and provides a livelihood for some 15 per cent of the country's overall population²¹. Yet, the agriculture sector accounts for an average share of 58 per cent of all water consumed in the country²². Jordan has one of the lowest levels of water resource availability (per capita)

¹³ DoS, July, 2014

¹⁴ MoPIC, United Nations & Host Community Platform, 2013; IMF, 2013.

¹⁵ MoPIC, Jordan Economic and Social Council & UNDP, 2012.

¹⁶ CARE, 2013.

¹⁷ REACH, 2014.

¹⁸ UNDP, 2014.

¹⁹ Ibid.

²⁰ MoPIC, United Nations & Host Community Platform, 2013.

²¹ FAO, 2014.

²² FAO/EBRD, 2014.

in the world²³. Water scarcity threatens to become a greater issue in coming years, with population pressure and climate change potentially affecting rainfall variability and sufficiency. Jordan has experienced several waves of refugees entering the country over the last few decades, which have placed additional demands on the national water supply.

A considerable part of the country is described as the 'Badia' that accounts for over 80 per cent of Jordan's land area and is characterized by very sparse vegetation coverage, receiving less than 200mm of rainfall annually. The other 20 per cent of the country mainly comprises of the sub-humid area to the west of the Badia that can receive up to 350 and 500 mm of annual rainfall. Most of Jordan's Badia area has faced land degradation reportedly caused by poverty that forces farmers and pastoralists into unsustainable practices such as over-ploughing, cultivation of land for barley, and over-pumping of ground water compounded by increased rates of urbanisation^{24 25}. Over the course of several decades, over-grazing has resulted in the reduction of vegetation suitable for livestock^{26 27}. These practices are then exacerbated by natural environmental factors such as low and erratic rainfall.

Livestock production faces further challenges due to the limited availability of veterinary services in Jordan to control the risk, and stem the spread, of trans boundary animal diseases (TADs) to livestock, including parasites, rabies and foot and mouth disease (which have already broken out in Syria). Current estimates place the total number of veterinary officers in Jordan supported by the Ministry of Agriculture at only 100²⁸. There are additional potential risks from TADs that are associated with the food chain, for example food safety and quality²⁹. These specific issues were not included in the scope of the FSLA, but merit further investigation through a more targeted assessment on livestock.

Land fragmentation has led to land scarcity and degradation and implications for the efficiency of resources used on farms and economic output. It is estimated that there are 72,430 smallholder farmers producing crops and/or rearing livestock on less than 5 ha of land³⁰. Of these, approximately 56,589 smallholder farmers are located in the northern and central Governorates.

Though Jordan's agricultural exports increased between 2008 and 2012, overall annual growth in the sector declined from 2010 to 2012. Although it is not clear which trade routes are normally used for agricultural commodities (traditionally including dairy products, eggs, cereals, vegetables, fruits, nuts and live animals), it has been reported that the crisis has disrupted major routes through Syria that connected Jordan with Turkey, Lebanon and Europe. Market-systems mapping is not included in the scope of the assessment; however, it warrants further study to better understand the impact of the crisis on trade and markets access.

²³ Jordan is facing chronic water shortage with an annual per capita water supply of 846 m³. The per capita share of water is 148 m³, in neighbouring countries such as Iraq and Syria it reaches 2172 m³ and 1028 m³, respectively. If current trends continue, per capita water supply will fall to only 91 cubic meters, putting Jordan in the category of having an absolute water shortage. DoS

²⁴ International Centre for Agricultural Research in the Dry Areas ICARDA, Government of Jordan, USAID (2012) Land Degradation in Jordan – Review of Knowledge Resources

²⁵ United Nations Environment Programme (2000) Global Environmental Outlook Report <http://www.unep.org/geo/GEO2000/english/index.htm>, UNDP, 2000

²⁶ Ministry of Environment Jordan(2001) Jordan Biodiversity Report

²⁷ United Nations Environment Programme (2000) Global Environmental Outlook Report <http://www.unep.org/geo/GEO2000/english/index.htm>

²⁸ FAO, 2014.

²⁹ UNHCR, 2014b.

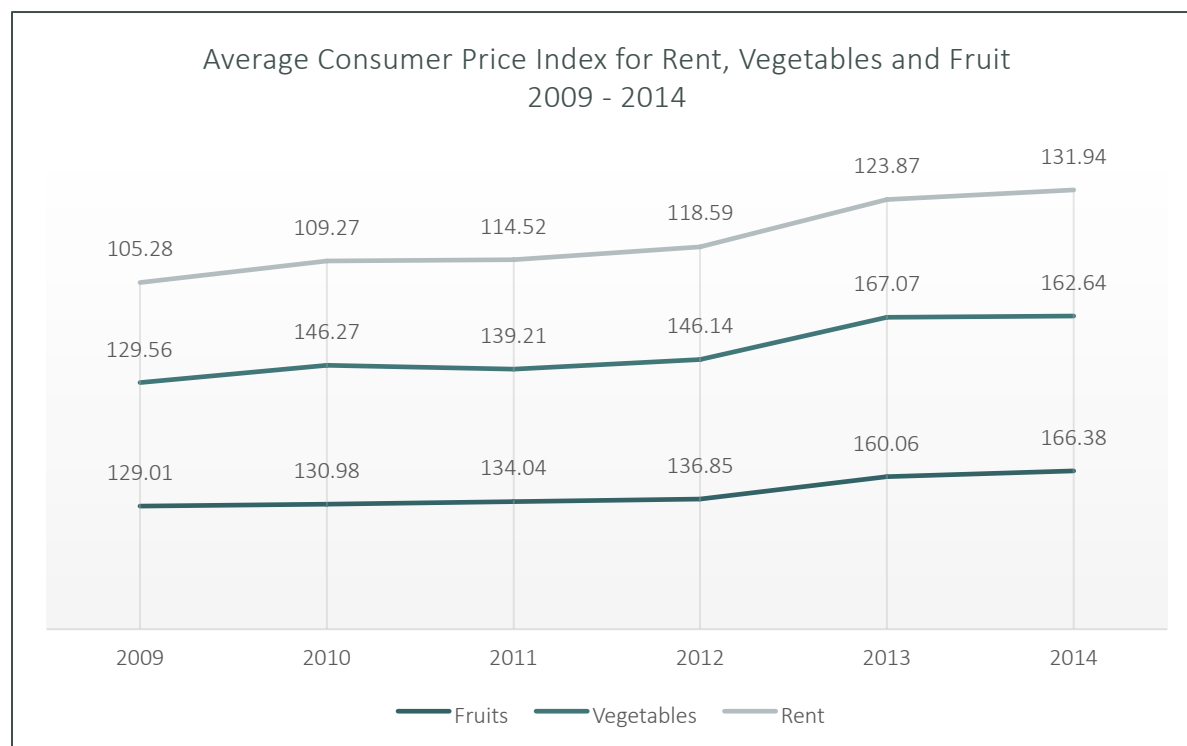
³⁰ FAO, 2014

3 Food and Nutrition Status

The DoS Food Security Analytical Report used a sample size of 13 thousand households, which provided nationwide coverage and statistical significance of results at district-level with a 5 per cent margin of error. The study found that, based on the Food Consumption Score (FCS)³¹, only 0.3 per cent of households were deemed to have “poor” food consumption and 2.1 per cent “borderline” food consumption. The overall use of food related coping strategies was found to be 29.4 per cent of households, with 45 per cent of food insecure households (those deemed “poor” or “borderline”) utilizing consumption based coping strategies with high intensity. The study also found that 64 per cent of food insecure households were under the official poverty line for Jordan.

According to previous studies by ACTED, UNHCR and WFP^{32 33}, food expenditure, on average, constitutes more than one third of household expenditure for Syrian refugees and Jordanians alike. Furthermore, there is an income versus expenditure gap for both groups, resulting from limited livelihood opportunities and relatively high inflation rates for basic necessities, such as fuel and rental accommodation. Evidence from the Consumer Price Index produced by DoS shows that there have been marked increases in price for vegetables, fruits, and rent since the outset of the crisis (Graph 1), further exacerbating the income versus expenditure gap. Consequently, more Syrians and Jordanians may turn to the use of negative coping mechanisms to meet their basic food needs. Although no direct link has been found, to date, between low income and poor FCS, there is evidence to suggest that a poor score is related to low consumption of animal protein, which can be attributed to lack of purchasing power, but could also be the result of poor nutritional practices amongst Syrians and Jordanians

Graph 1: Consumer Price Index 2009 - 2014



³¹ See Annex D for further information on the Food Consumption Score.

³² ACTED, 2013.

³³ UNHCR & WFP, 2013.

SECTION THREE: MAIN FINDINGS

1 Demographics and Household Composition

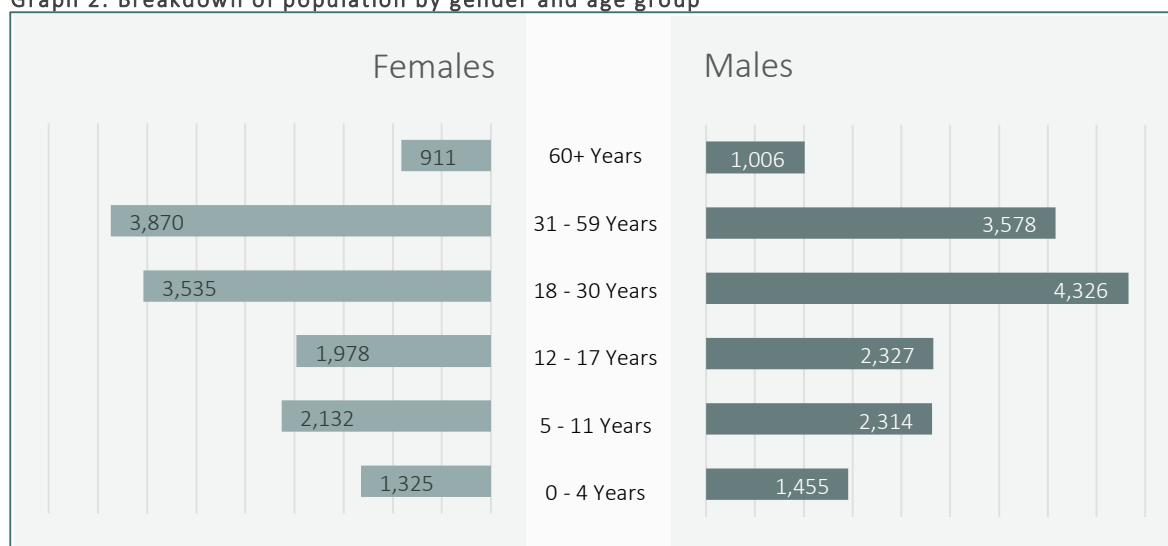
The following section presents information on demographics and composition of households. It is important to note that the figures presented in this section are based on the FSLA surveyed sample and may deviate from national and Governorate figures.

Table 3: Average number of people per household

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Average Number of People in Household	6.0	5.5	7.1	5.8	5.9	6.2	5.5	5.9
# of respondents	412	644	392	996	1,245	413	777	4,879

The majority of surveyed households reported an average household size of six members³⁴, with the largest in Al Mafrq (Table 3).

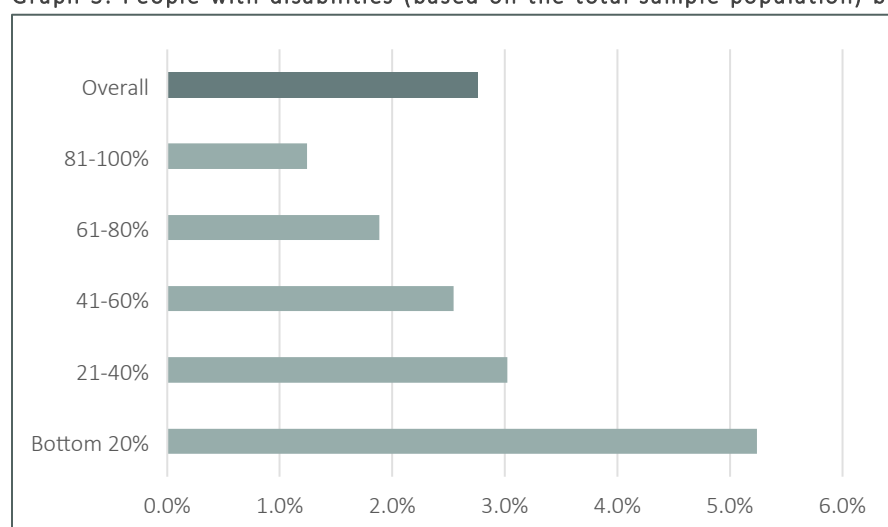
Graph 2: Breakdown of population by gender and age group



Demographic figures indicate that minors under the age of 18 comprise an estimated 40 per cent of the population. On average the household-level dependency ratio³⁵ across all surveyed households is 1.1.

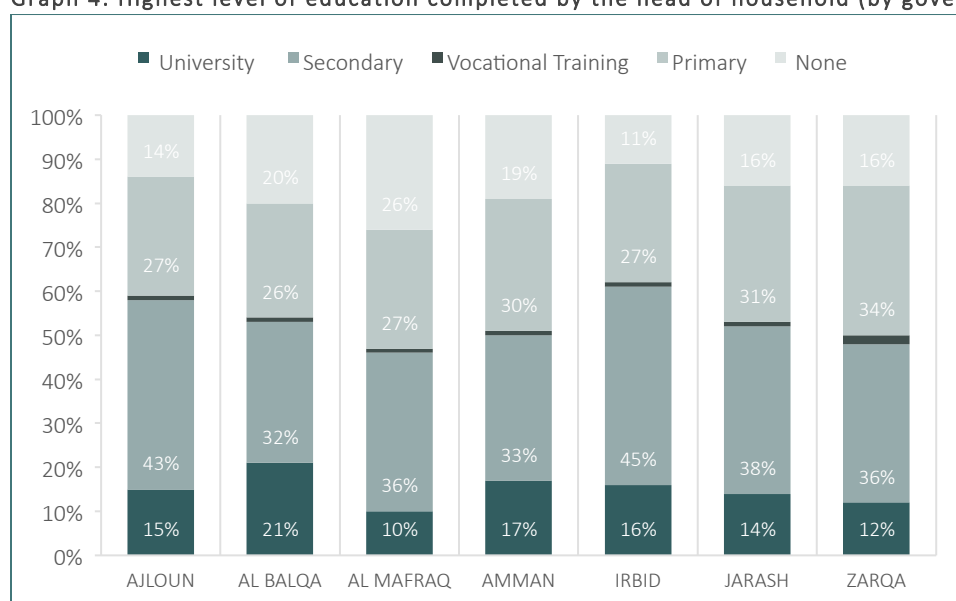
³⁴ This average is slightly higher than the national average of 5.1 as reported the 2009 Jordan Population and Family Health Survey

³⁵ Calculated by dividing the total number of dependents (18 < 60) by the total number of potentially economically active individuals in each household.

Graph 3: People with disabilities (based on the total sample population) by

Overall, nearly 3 per cent of all surveyed households reported at least one member with a disability³⁶. As shown in table 6, households with higher numbers of people with disabilities fell into the lower wealth quintiles. In addition, households headed by women had a higher prevalence of people with disabilities (6 per cent) than their male counterparts (2 per cent).

Overall, female-headed households constituted approximately 12 per cent of households across the sample. This is in line with national statistics where a woman heads approximately 11 per cent of households in Jordan³⁷. Whilst the distribution of this subset of households is relatively uniform across all assessed Governorates, Al Balqa had a higher proportion with 14 per cent of all households headed by women (Graph 4).

Graph 4: Highest level of education completed by the head of household (by governorate)

Overall, individuals who had only attained a primary education headed an estimated 29 per cent of all surveyed households across the assessed Governorates. 38 per cent had completed secondary education,

³⁶ Disabilities included: visual, physical and mental disabilities as well as hearing impairments and an option for 'other' which includes some chronic illnesses such as cancer.

³⁷ DoS, 2009.

whilst 16 per cent completed university. A total 16 per cent had not had any education at all, with the highest proportion in Al Mafrq. Amongst female-headed households, 43 per cent reported having no education, compared to 13% of male-headed households.

2 Socio-economic Profile

2.1 Household Income

Household respondents were asked to report on their three main sources of income in the 30 days prior to the survey. Overall, the vast majority (72.6 per cent) had one source of income, 24.1 per cent had two sources, 2.7 per cent had three, and 0.6 per cent had none at all.

Table 4: Heat map of income sources by governorate^{38 39}

(Darker colours refer to the most ranked issues, “-“ represents 0)

	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Agriculture								
Assistance / Support								
Professional								
Government								
Teacher/Professor								
Mid-Level Salaried Staff								
Low-Level Salaried Staff								
Religious Leader				-				
Rent								
Retired								
Other								
None								
# of respondents	412	644	392	996	1,245	413	777	4,879

As seen in Table 4, the most commonly reported source of income was Government employment (42.8 per cent reported it as their primary source), which includes military, and civil servants. Agriculture, which includes both commercial and subsistence crop cultivation, livestock production and casual labourers, was reported as one of three main sources of income by 4.5 per cent of all surveyed households⁴⁰.

Respondents were also asked whether their income had changed in the 24 months prior to the survey and a large majority of households

(77 per cent) indicated it had not, while 13 per cent noted a decrease (the remaining 10 per cent noted an increase). Jordan's Consumer Price Index (CPI) has shown steady increases over the past five years (5 per cent average) with food items such as fruits and vegetables, as well as rent, showing distinct price

³⁸ Heat maps are calculated on questions where households were asked to provide a ranking out of three (e.g. top three sources of income). Weights are provided for each rank, primary = 3, secondary = 2 and tertiary = 1. The results are added and then divided by the total number of responses providing a final score between 0 and 3. Generally, a colour scale is then applied showing white for no results and shifting to darker shades of green in increments of 0.5. In this case the majority of answers were within the same range so cells were coloured from lowest to highest within the table (darker colours referring to higher scores). This heat map covers a range from 0 – 1.8 (out of a possible score of 3).

³⁹ The high instance of 'None' primarily reflects the high number (75%) of households who only had one source of income. Only 0.5% reported not having any source of income at all.

⁴⁰ As casual labour also included construction work, the per cent of households engaged in agriculture was calculated based on those whose three reported incomes were one of crop cultivation (commercial or subsistence), livestock herding or casual labour (construction or agriculture), and who reported cultivating land or keeping livestock. The per cent of households reporting income in crop cultivation, livestock and/or casual labour in total was 11.9.

increase between 2012 and 2013, suggesting a link to the Syrian crisis. In community-level FGDs, participants perceived the arrival of refugees from Syria as a cause for inflationary pressure. With such a large number of households reporting no increase in income (and some reporting a decrease), Jordanian households may be facing greater economic pressures.

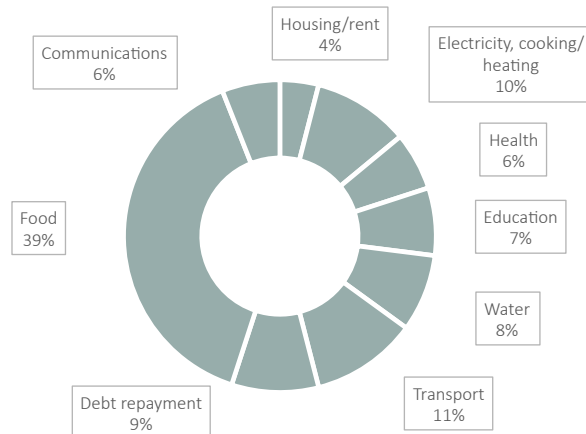
A majority of respondents attributed the decrease in income to increased cost of materials/items required for their livelihood, decreased salaries and fewer employment opportunities. The results are shown in the table below.

Table 5: Heat map of reasons for reported decreases in income by governorate⁴¹
(Darker colours refer to the most ranked issues)

	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Increased cost of materials/items required for livelihood								
Fewer employment opportunities								
Lost Employment								
Decreased customer base								
Decreased Salary								
Decreased value of goods being sold	-		-					
Increased salaries of casual labour/staff								
None								
Other								
# of respondents	43	74	48	178	124	77	109	653

2.2 Household Expenditure

Graph 5: Breakdown of overall expenditures



⁴¹ Please refer to the footnote on heat maps (37) on Page 11. This heat map covers the full range from 0 – 3.

All surveyed households reported that food comprised the bulk of their average monthly expenditure, at nearly 40 per cent of monthly expenses. This was followed by transportation (11 per cent) and utilities (10 per cent). Households allocated an estimated 10 per cent of their monthly expenditure to servicing debt.

2.3 Debt

An estimated 54 per cent of households reported incurring debt in the 24 months prior to the survey, with food the primary reason for over 19 per cent of these households. The largest proportion of households reporting food as a primary reason for their debt were in Al Mafrq and Zarqa (33 per cent and 23 per cent, respectively).

Table 6: Average debt by governorate (in JOD)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Average Debt	7,279	11,670	4,752	5,983	5,486	9,171	4,354	6,596
# of respondents	245	307	240	456	732	266	391	2,637

It is worth highlighting, 34 per cent of all surveyed households incurred debt for the primary reason of purchasing food and paying for utilities. These findings suggest that many households conventionally rely on credit to overcome financial resource constraints to meet some of their basic needs, which often leads to increased debt.

Table 7: Top three reasons provided for accruing debt by governorate⁴²
(Darker colours refer to the most ranked issues)

	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Education Expenses								
Health Expenses								
Livelihood Support Costs								
To Purchase Clothing								
To Purchase Food								
Payment for Accommodation								
Payment for Legal Fees								
Payment for Social Occasions								
Utilities and Water Expenses								
Payment of Existing Debts								
Travel Expenses								
To Purchase a Vehicle		-						
Other		-				-		
None								
# of respondents	202	339	218	536	696	224	422	2,637

⁴² Please refer to the footnote on heat maps (37) on Page 11. This heat map covers the full range from 0 – 1.3. High prevalence of none is primarily in reference to those who only had one or two reasons for accruing debt

Female-headed households were more likely to incur debt for the purpose of purchasing food. They also reported a greater amount of debt incurred in the prior six months – as opposed to 24 months – than male-headed households (33 per cent and 25 per cent respectively).

2.4 Water Access

The primary source of drinking water for surveyed households is equally divided between store-bought water and treated water (29 per cent each), with the municipality providing the main source of household water (non-drinking). The main constraint to water access was availability, followed by cost. At least 30 per cent of households reported days with no access to water during the 30 days prior to the survey. This would explain, at least in part, why private water vendors are also a source of water, used in order to supplement water needs. Compared to other governorates, a more significant proportion of households in Al Mafrq purchase water from private vendors, suggesting more limited access to water.

3 Household Needs and Assistance Received

Households were asked to identify their three primary non-cash needs, and also asked what form of assistance they might have received in the 12 months prior to the survey.

Among the total needs expressed by households, food was mentioned most frequently, followed by drinking water, education, health, cooking fuel, electricity and/or gas. A full breakdown of households needs can be found in the table below.

Table 8: Heat map of the top 3 non-cash needs⁴³
(darker colours show higher ranked needs)

	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Agricultural Inputs								
Food								
Clothes/Shoes								
Cooking Fuel/Electricity/Gas								
Credit								
Drinking Water								
Education/Training								
Household Assets								
Health								
More Security								
Sanitation								
Rent/Shelter								
Transport								
Youth Activities								
None								
# of respondents	412	644	391	996	1,245	413	777	4,879

⁴³ Please refer to the footnote on heat maps (37) on Page 11. This heat map covers the full range from 0 – 2.1.

Twenty-nine per cent of households were provided with some form of assistance, with the majority (20 per cent) receiving cash, followed by food (6 per cent) and health (5 per cent). The Government of Jordan was the primary source of assistance.

4 Agriculture

The survey was structured in such a way that respondents were only asked questions in the agriculture section of the questionnaire, if one of three main sources of income was agriculture related. As a result, respondents comprised only 4.5% of the total sample. However, a significantly larger proportion of all surveyed households reported engaging in horticulture (43 per cent), which would suggest some underrepresentation of those involved in agriculture. Of the respondents to the agriculture section, 41 and 31 per cent were engaged in crop cultivation and livestock production, respectively. Twenty-eight per cent of respondents were engaged in both activities. Though there were very few female-headed households that reported agricultural production as a source of income (6 per cent), 37 per cent were engaged in horticulture.

The following section provides only a general overview of agriculture in central and northern Jordan and does not allow for an in-depth understanding of the situation in the sector. Given the small proportion of respondents to this section, the findings can only be considered trends across the sample and not statistically significant.

4.1 Crop Cultivation

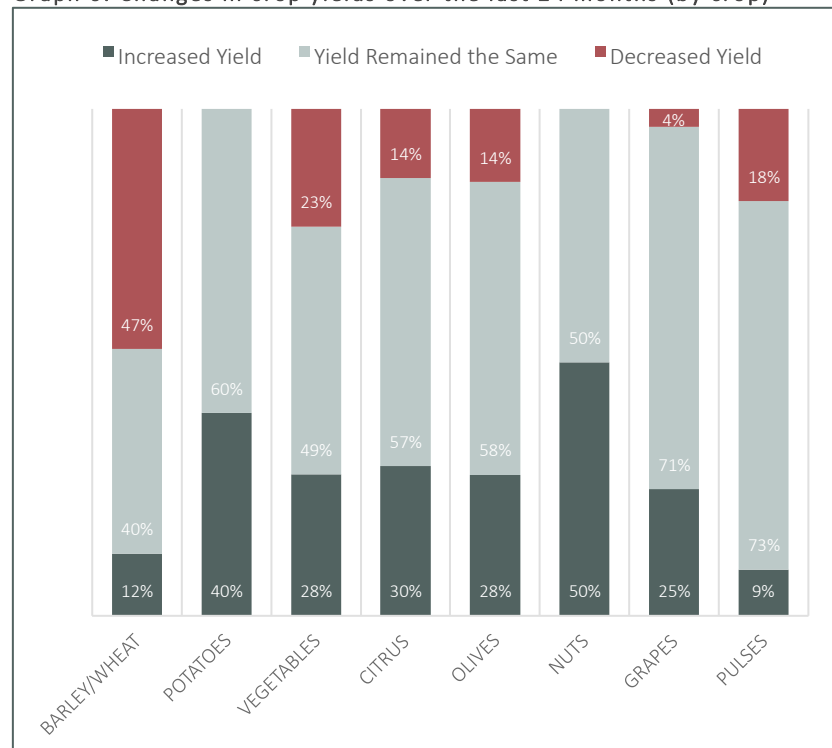
Table 9: Average Land Size in Dunums by Governorate⁴⁴

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Average amount of land in Dunums	8	54	101	83	9	9	13	44
# of respondents	10	24	21	32	33	19	15	154

As shown in the table above there is little variation in the average area of land cultivated in Irbid, Jarash and Ajloun (8 to 9 du). Significantly higher average area of land cultivated was found in Al Mafrq (101 du), Amman (83 du) and Al Balqa (54 du), corresponding with the large commercial farms found in these areas. Though Zarqa is not considered a main area for commercial farming, the average area of land cultivated was slightly larger. Irbid, which has the highest population density in Jordan, also has the largest proportion of households farming five or less dunums of land.

⁴⁴ 1 Dunum = 0.1 Hectars

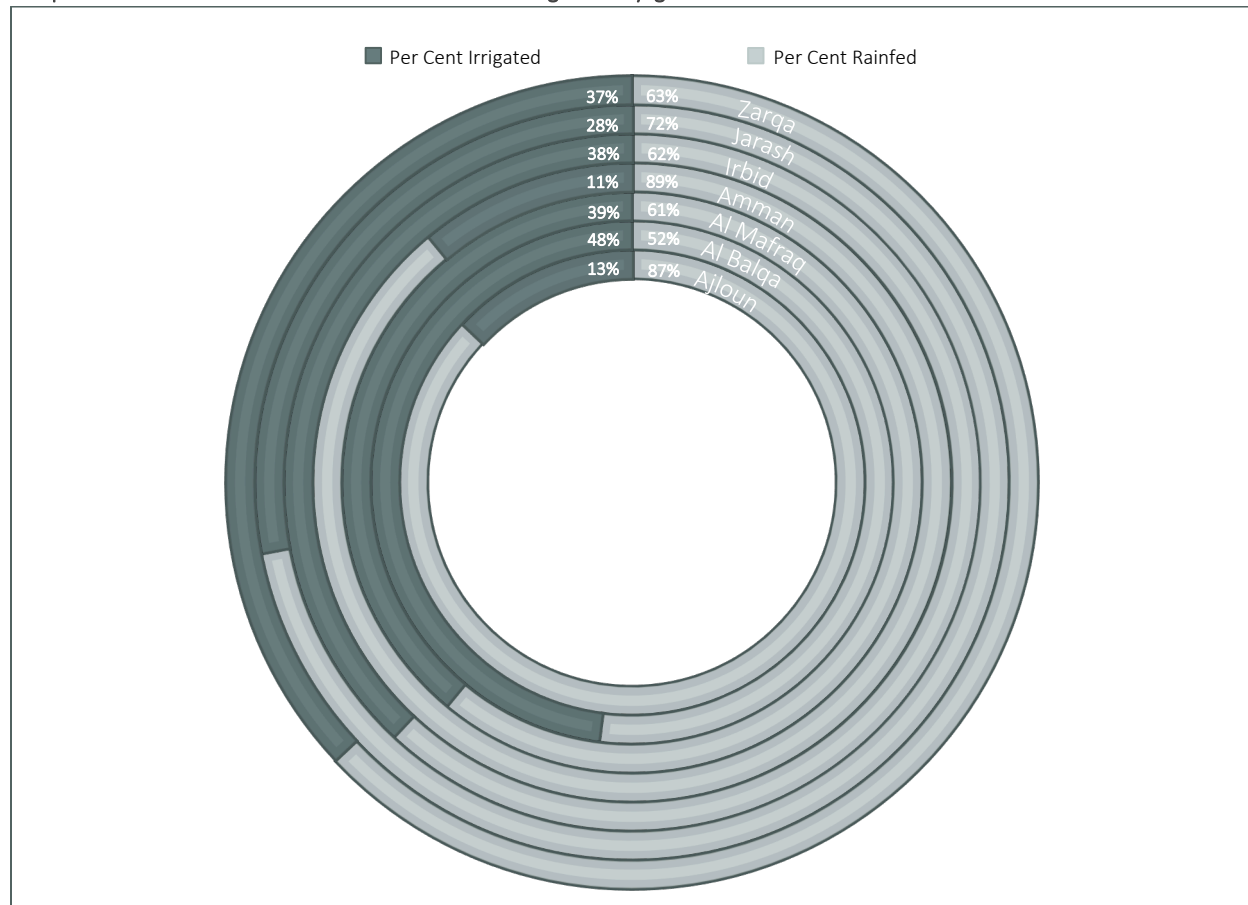
Graph 6: Changes in crop yields over the last 24 months (by crop)



A majority of households engaged in crop production cultivated olive orchards – over half of all respondents across the surveyed governorates. Barley/wheat and vegetables followed as major crops cultivated among households involved agricultural production. Respondents were asked to indicate whether they had experienced any change in yields over the last 24 months for each crop cultivated. A significant proportion of respondents indicated yields had remained relatively stable. However, a larger proportion of respondents engaged in barley/wheat reported a decrease in yield relative to other crops.

For those households that reported a decrease in yield, the primary reason cited was the reduction in the availability of natural resources across all seven governorates – except Al Balqa, where 67 per cent of households indicated an increase in the cost of casual labour. The nature of the reduction of natural resources was largely associated with water, followed by soil erosion. In focus group discussions at community and governorate levels, a combination of factors were perceived to contribute to the challenge of accessing sufficient amounts of water for agricultural production, which included: i) Jordan's water scarcity issues; ii) water loss by leakages in the supply network; and iii) an increasing demand for water as a result of urbanization and the influx of refugees from Syria.

Graph 7: Percent of land that is rainfed vs. irrigated by governorate



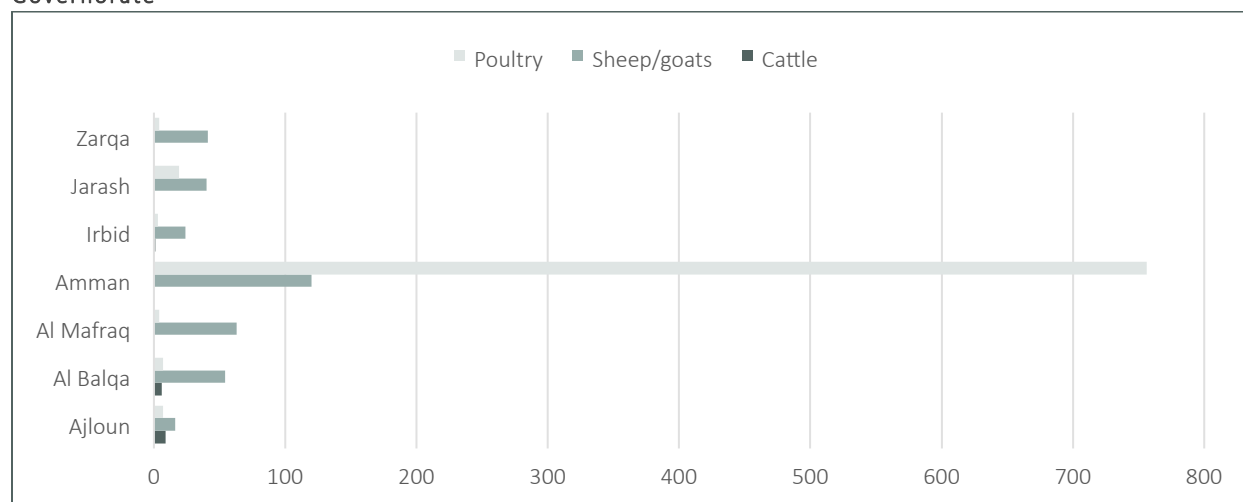
When analysing the condition under which various crops were grown, a large proportion of respondents (44 per cent) reported cultivating rainfed barley/wheat, which corresponds with the general trend of cultivated land for cereal production – about 80 per cent of Jordan’s staple foods are grown in rainfed areas^{45 46}. A general trend was also observed for olive trees, where larger proportion of respondents reported production under irrigation.

4.2 Livestock Production

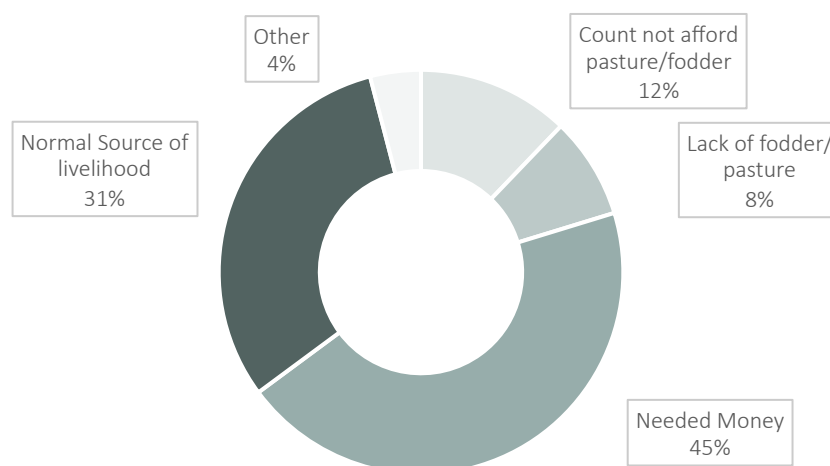
A large majority of respondents engaged in livestock production reported owning poultry and small ruminants (i.e. sheep and goats). Amman had a significantly higher average number of poultry and small ruminants owned, likely attributed to the greater number of large commercial farms in the area (Graph 9).

⁴⁵ Jordan Food Security Strategy. MoA.

⁴⁶ The respondents provided only the percent of their land that was rainfed vs. irrigated and did not differentiate by crop thus the calculation on whether a particular crop is rainfed or irrigated can only serve as a loose guide.

Graph 8: Average number of Cattle, Sheep/goats and Poultry Per Household Reporting Ownership by Governorate

Just over 20 per cent of households engaged in livestock keeping reported a distress sale of animals; and of these households, the sale was related to the need for cash (45 per cent) and their limited capacity to support herd numbers (20 per cent) (Graph 10). The need for cash was reported more significantly across the bottom two wealth quintiles. Among the wealthiest quintile, it was the availability of feed, fodder or pasture rather than its access that appeared to prove challenging to livestock production.

Graph 9: Reasons provided for the sale of livestock over the prior 6 month period

Focus group discussion at community-level indicated varied levels of access to veterinary services across governorates. Communities perceived the provision of veterinary services as irregular and inadequate in meeting their specific needs. While veterinary services were reported to conduct routine vaccination of animals, the perception was other important treatments and vaccinations were only accessible at great (often unaffordable) cost and therefore, affected livestock productivity. Communities perceived no change in access to veterinary services in the 24 months prior to the survey, which would suggest there are more general challenges to the provision of veterinary services in the northern and central Jordan.

The movement of unvaccinated animals across borders was also a perceived risk to livestock owners in Irbid, Mafraq and Jarash.

4.3 Agricultural Inputs

Community-level FGDs reported using a wide variety of inputs (i.e. seeds, fertilizer, pesticides and machinery) that were essential to agricultural production. Most governorates perceived no real change was in the availability of these inputs as a result of the on-going conflict in Syria – except for in Ajloun, Al Mafraq and Zarqa. In these governorates, the perception was a decline in the availability of fertilizer, seeds and medicines. Access to agricultural inputs was reported to have become limited, due to an increase in cost. It was also reported prior to the crisis, communities (particularly in Al Mafraq) benefited greatly from access to better quality (and cheaper) agricultural inputs, such as vaccines and technologies from Syria, which were too costly to purchase when imported from other countries.

4.4 Labour

In Balqa, the influx of Syrian refugees is perceived to have both positive and negative effects on Jordanian communities. In community and governorate-level FGDs, the perception was the influx of refugees had created greater competition over employment opportunities. However, it was reported farmers also benefit from cheaper labour made available by Syrian workers. In Amman, communities considered the provision of work permits to foreign workers as an option for addressing constraints in the availability of casual labour. It should be noted that of the surveyed households, Al Mafraq, Al Balqa and Amman had the largest proportion of those engaged in commercial farming. Al Balqa and Amman, also have larger proportions of the population engaged in agriculture – 4.4 and 4.1 per cent⁴⁷, respectively, when compared to the national average of 1.5 per cent⁴⁸.

4.5 Agricultural Needs

Graph 10: Most ranked needs in the Agricultural sector⁴⁹

(darker colours refer to higher ranked needs)

	Livestock	Cultivate	Both	Overall
Sheep/Goat/Cattle				
Fodder				
Milking Equipment				
Watering Equipment				
Shelter Materials				
Fencing Materials				
Tools				
Machinery				
Fertilizer Equipment for Irrigation				
Fertilizer				
Seeds				
Water				
None				
# of respondents	68	92	62	222

Overall, the most prevalent need reported by respondents in livestock production was fodder; and in crop cultivation, machinery followed by fertilizer. The needs varied more at the governorate level. For example, the primary need in Al Mafraq and Amman was fodder, corresponding to one of the main farming systems in these areas, and reported decrease in yields in barley/wheat production. These governorates, as well as Irbid, have the largest numbers of smallholder livestock producers – approximately 8,080 producers⁵⁰. In Irbid and Al Balqa, which have the largest numbers of smallholder crop producers in northern Jordan, fertilizer and machinery featured in their agricultural needs. There are approximately 27,200 smallholder crop producers located in these governorates alone⁵¹. Fertilizer and machinery also featured as needs across other governorates.

⁴⁷ Statistical Year Book. DoS, 2013.

⁴⁸ Ibid.

⁴⁹ Please refer to the footnote on heat maps (37) on Page 11. This heat map covers the full range from 0 – 1.5.

⁵⁰ Plan of Action: Resilient Livelihoods for Agriculture and Food and Nutrition Security in Areas of Jordan Affected by the Syria Crisis. FAO, 2014.

⁵¹ Ibid.

5 Food Security

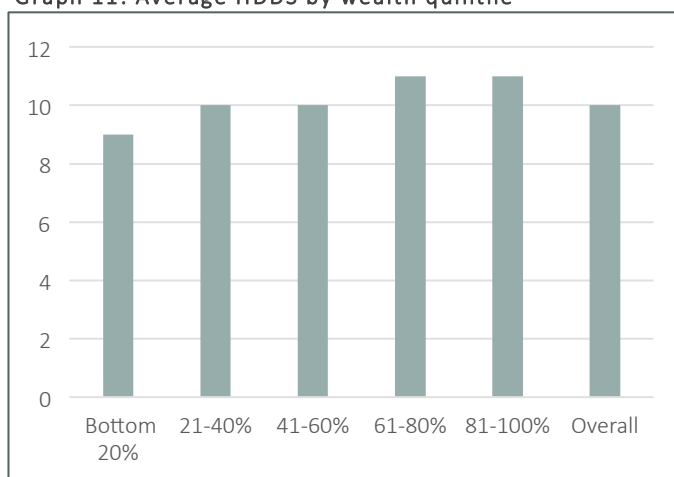
The FSLA used a number of international standard composite household food security indicators to measure the food security status of surveyed households. The first measure was the Household Dietary Diversity Score (HDDS) followed by the Food Consumption Score (FCS). The second indicator measures the percentage of household expenditure on food, while a third indicator looks at food and livelihood-based coping strategies applied by households. This section presents main findings for each of the indicators and how they inter-relate in depicting the overall status of household food security.

5.1 Dietary Diversity

The Household Dietary Diversity Score (HDDS) is a proxy indicator for the nutrient adequacy of households and is defined as the number of unique foods consumed over a recall period of seven days. The standard HDDS is calculated on 12 food groups and has a possible score of 0 – 12 (further information in Annex D).

The average HDDS of the surveyed population was 10, which is relatively high, given the maximum score of 12 that can be obtained. Surveyed households in Al Mafraq had the lowest HDDS with 9. Wealth quintiles were strongly correlated, showing a two-point difference between the bottom and top quintiles (Graph 12). No difference was noted between hosting and non-hosting households, urban or rural households or female- versus male-headed households; however, households that indicated they grew fruits/vegetables had a HDDS one point higher than those who did not.

Graph 11: Average HDDS by wealth quintile



5.2 Food Consumption Score

The Food Consumption Score (FCS) is a composite score based on dietary diversity, frequency of consumption and relative nutritional importance of nine standard food groups consumed by a household within the seven days prior to the survey. It measures the frequency of consumption of each food group, as well as the nutritional value of the consumed food to yield a comprehensive portrait of a household's consumption patterns. Food consumption is classified into one of three categories based on the following thresholds⁵²:

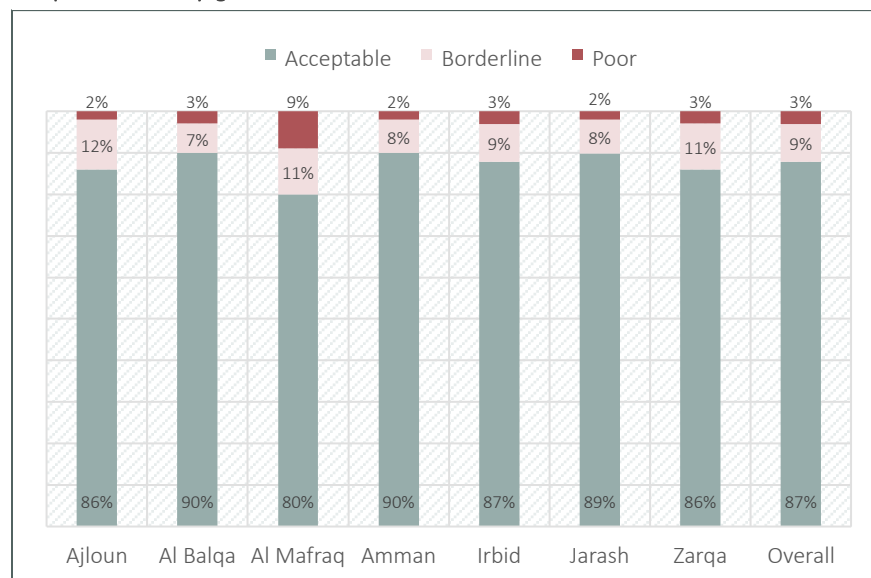
- “Poor” – households with a FCS ≤ 28 , that are considered food insecure
- “Borderline” – households with a FCS > 28 and ≤ 42 , that are considered vulnerable to food insecurity
- “Acceptable” – households with a FCS > 42 , considered to be food secure

It is important to note that the FCS is only based on general consumption and does not account for either the quality or quantity of the food consumed. A full technical explanation on how the food consumption score was calculated is included in Annex D of the report.

⁵² These thresholds are commonly used in Jordan and surrounding countries and account for the local high sugar and oil intake.

The results of the survey indicate over 87 per cent of all participating households were found to have acceptable food consumption, while 13 per cent fell below the acceptable threshold. About 9 per cent of households had a borderline FCS and 3 per cent were classified as having a poor FCS.

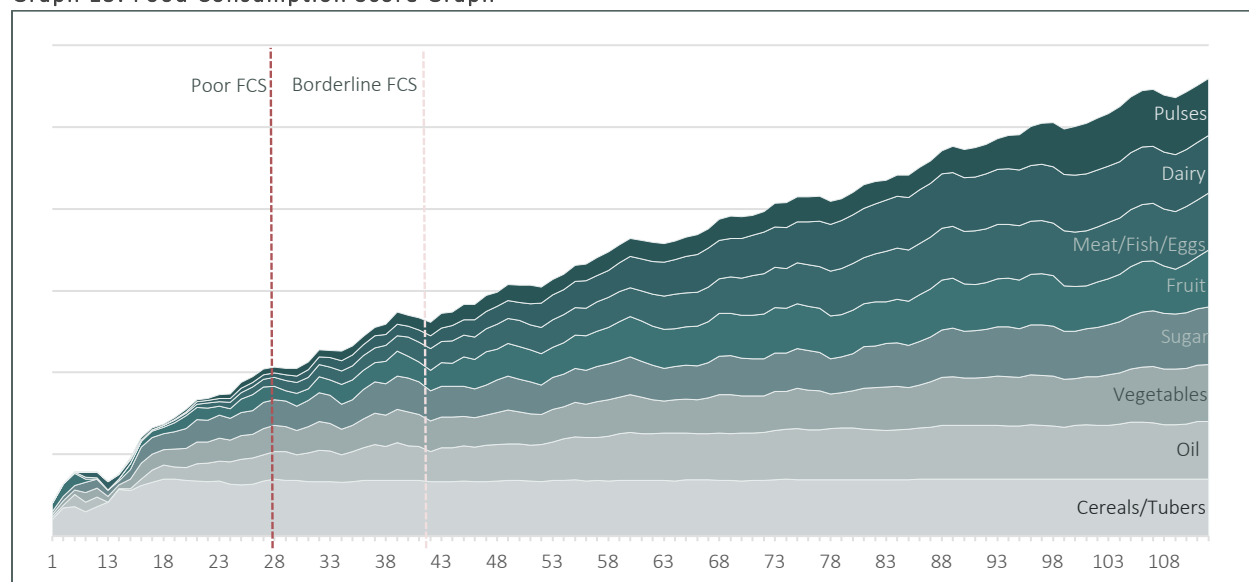
Graph 12: FCS by governorate



Whilst the spatial distribution of food insecure households is relatively uniform across the assessed Governorates, households residing in Al Mafrqa appear to have scored the poorest on food consumption, with just over 20 per cent of households falling below the acceptable threshold. This is likely related to their socio-economic status, as survey results reveal households within the governorate have the largest average family size and highest dependency

ratio. Al Mafrqa also has the lowest proportion of household heads with any level of formal education⁵³. Furthermore, survey results show that households in Al Mafrqa have the most limited access to water and have greater dependence on purchased water from private vendors, placing additional stress on household income⁵⁴.

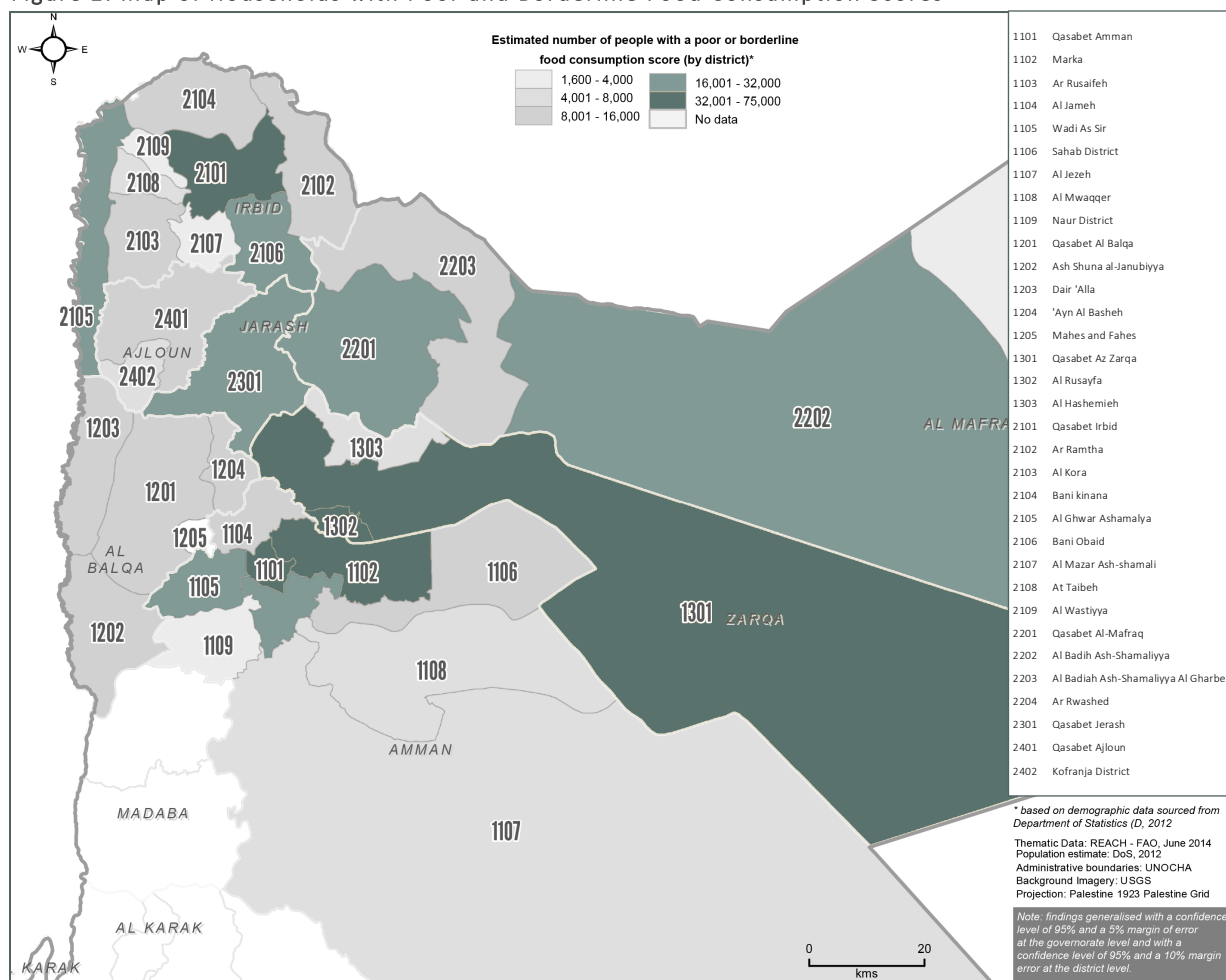
Graph 13: Food Consumption Score Graph



⁵³ According to the findings of the 2013 GoJ Food Security Strategy, vulnerability and food insecurity correlate directly to poverty and indirectly to illiteracy, unemployment, low wages insufficient asset base and large family size.

⁵⁴ Additionally, according to the 2013 GoJ Food Security Strategy, geographical areas where more than 20% of households show “poor” and “vulnerable” food consumption and where the majority fall below the poverty levels, often correspond to places where physical assets such as water resources are limited.

Figure 2: Map of Households with Poor and Borderline Food Consumption Scores

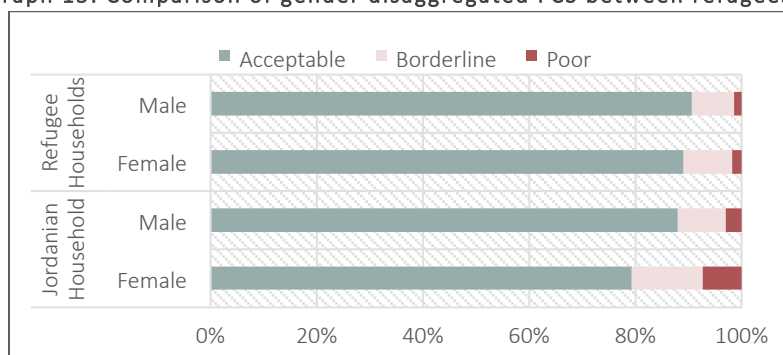


Similarly, no strong correlation was found between FCS and the rural/urban divide of the surveyed population. Overall, male-headed households had a higher rate of acceptable food consumption; and female-headed households had a higher propensity of borderline (13 per cent) and poor (7 per cent) FCS. A small difference was also noted between the FCS of households growing fruits/vegetables and those who were not. Households engaged in horticulture had an acceptable score almost 4 per cent higher than those not engaged in the activity. This could be explained, at least in part, by the vast majority of respondents (98 per cent) that reported the main purpose of horticulture was for household consumption.

Graph 14: FCS disaggregated by: Hosting/Non-; Male-/Female-Headed Households; Urban/Rural; and Horticulture/Non-⁵⁵

When compared to the CFSME data, the food consumption scores of Jordanians in the governorates covered by this assessment were slightly lower than those of refugees in the same governorates (87 per cent acceptable for Jordanians and 90 per cent acceptable for refugees). Though this falls within the margin of error, it is notable that there is a much larger difference in the food consumption scores of female- versus male-headed households in the Jordanian population than compared with that of the refugees (Graph 15). This difference is likely due to the provision of food assistance to refugees that traditionally targets vulnerable groups (female headed households are generally considered within this group).

⁵⁵ Each chart reflects a different sample as follows: Hosting ($n = 3,135$) vs. Non-Hosting ($n = 1,744$); Female-Headed ($n = 561$) vs. Male-Headed ($n = 4,318$); Urban ($n = 1,344$) vs. Rural ($n = 3,535$); and Horticulture ($n = 1,468$) vs. Non-Horticulture ($n = 1,978$)

Graph 15: Comparison of gender disaggregated FCS between refugees and Jordanians

In general, household diets in Jordan are characterized by high intake of energy, largely from cereals, vegetable oils, and some meat, as well as a steady consumption of sugar and sweets. However, the 2010 DoS Food Security Analytical Report showed that there was a clear difference between the food patterns of households that fell above and below the acceptable FCS threshold, whereby the latter consumed less meat, dairy and fruits. The FSLA findings show a similar trend – as can be observed from Table 10. This trend is further exemplified in differences in the average number of meals consumed the previous day (3 for Acceptable and 2 for Borderline and Poor), and the Coping Strategies Index. Households with a poor FCS showed higher use of food related coping strategies (Graph 16).

Table 10: Average number of days each food group was consumed by Food Consumption Score

	Acceptable	Borderline	Poor	Overall
Cereals	6.7	6.6	6.2	6.6
White Tubers and Roots	3.5	2.8	2.1	3.4
Pulses	3.2	1.0	0.4	2.9
Vegetables	5.0	3.6	2.3	4.8
Fruits	2.1	0.7	0.4	1.9
Meat	2.1	0.7	0.2	1.9
Eggs	3.8	0.8	0.3	3.4
Fish	0.7	0.3	0.0	0.6
Milk	5.2	1.2	0.3	4.7
Oil and Fats	5.9	4.0	1.9	5.6
Sweets	5.2	2.1	1.3	4.8
Spices and Condiments	6.0	4.6	2.2	5.7
# of Respondents	4,263	460	155	4,878

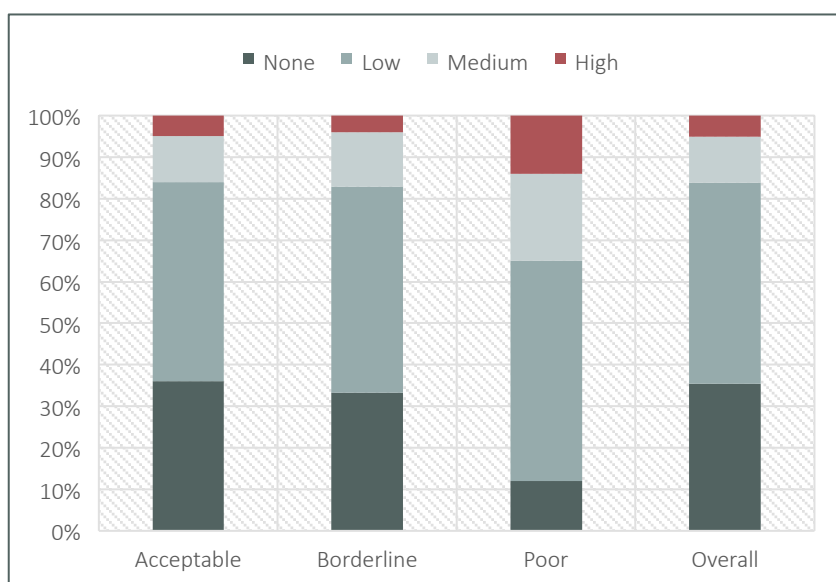
The consumption of animal meat, fish and eggs was the least consumed food group among households classified with poor FCS over the course of the seven days prior to the assessment. For example, 45 and 85 per cent of households with borderline and poor FCS, respectively, did not consume any meat. Similarly, the consumption of pulses and fruit was also very low, as about half of households with borderline FCS and almost three-quarters of those with a poor FCS did not consume these food groups at all during the 7-day recall period. Dairy products were not consumed by more than 70 per cent of the households classified with poor FCS.

In general, there was a strong correlation with fruit consumption and wealth quintile showing an average consumption of 1.1 days per week for the bottom quintile and 3.1 days per week for the top quintile, suggesting price as a primary factor.

5.3 Coping Strategy Index

The Coping Strategies Index (CSI)⁵⁶ measures a given household's behaviour when they do not have sufficient amounts of food. The CSI assesses how many times during a seven-day period a household employed specific coping strategies in response to a shortage of food. There are international weights placed on each coping strategy that are calculated and added to produce an overall score for the coping strategy index. The total possible score is 56 and this is divided into three (equal) possible thresholds of low, medium and high.

Overall, 65 per cent of all surveyed households noted that they used some form of food-related coping strategy in the week prior to the survey. Of the coping strategies used, eating cheaper food, less meals in a day and smaller portions during meals were the three most common. These three coping strategies are internationally weighted lower than the others (i.e. borrowing money/food from friends/relatives and reducing adult intake of food) and thus, considered relatively less severe.



The overall average CSI score was nine. Households in Al Mafraq scored the highest with an average score of 11. Using the recognized thresholds for low, medium and high, almost the entire surveyed population (99%) have a score lower than 19 and just over one per cent a medium score of under 38. The WFP CFSME survey found that refugee households residing in host communities had an average CSI score of 21.⁵⁷

The food consumption score was strongly correlated to CSI (as evidenced in Graph 15) with an average score of 8 for acceptable, 9 for borderline and 14 for poor. Similarly, households growing fruits/vegetables had an average score 5 points lower than those that were not (6 for households growing fruits/vegetables, and 11 for households not growing fruits/vegetables).

⁵⁶ Whilst it is clear that all these types of coping behaviours indicate access problems, not all problems are considered to be of the same severity. In light of this, the CSI measures both the frequency of these coping behaviours (ie. how often the coping strategy is used) and the severity of the strategies (the degree of food insecurity they are indicative of), whereby the frequency of a specific behavior is weighted by the context-specific perceived severity of that behaviour. This is then summed up across all the behaviors included for each of the two types of CSI – reduced and livelihood. These results are then combined in a single score for each CSI, which then serve as proxy indicators of the household's food security status.

⁵⁷ WFP, 2014 (using an average)

Though it is not possible to comprehensively compare the food-related coping strategies from this assessment to those collected in the DoS Analytical Report, due to differences in methodology and in the formulation of the questions, the overall use of strategies *can* be compared. In the Analytical Report, 21 per cent of households used some form of food-related coping strategy, while 65 per cent reported using at least one in this assessment, suggesting a large increase in employment of these strategies over the last four years.

To complement the immediate and short-term food-related coping strategies, a list of longer-term (30 day) livelihood-related coping strategies was utilized. Over 70 per cent of households used some form of livelihood related coping strategy. Of the strategies used, buying food on credit and spending savings were the most commonly reported. The average number of livelihood coping strategies employed by households was 2 overall, showing slightly lower use in urban areas and households growing fruits/vegetables (both having an average use of 1).

Livelihood coping strategies were classified into three groups: stress, crisis and emergency (more detail on the methodology can be found in Annex D). Overall, 65 per cent used stress coping strategies, 34 per cent used crisis with 5 per cent using emergency coping strategies. Use of all livelihood coping strategies was higher in Jarash and Zarqa; and an increase was also observed across wealth quintiles and FCS. Rural households had a higher prevalence of stress strategies, while no difference was noted between hosting and non-hosting communities, or between female- and male- headed households. As observed in previous findings, households engaged in horticulture showed lower use of coping strategies when compared to those that were not.

SECTION FOUR: CONCLUSIONS AND RECOMMENDATIONS

1 Agriculture:

The reduction in the availability of water has worked to constrain the production of local animal feed, as evidenced by the reported decrease in barley/wheat yields. This in turn has worked to increase the cost of local feed (as well as dependence on imported animal feed.) The constraints experienced by livestock owners are further compounded by reported insufficient veterinary, health and extension services, which affect livestock productivity. As a result, livestock owners struggle with the viability of their chosen livelihood, as is also evidenced by the distress sale of livestock by those that depend on this agricultural activity as their normal source of income.

The decline in the natural resource base in terms of water availability and soil fertility are found to be the major constraints to crop production in the surveyed area. The surveyed population engaged in agriculture can be largely characterized as small-scale farming households; and the long-term trends of reduced annual rainfall and challenges in water use efficiency, makes them a much more disadvantaged group. The requested support for access to fertilizer and machinery suggests a desire to improve crop production and productivity. However, these constraints, as well as reported increased costs of agricultural inputs, place real threats on the viability of a livelihood in crop cultivation.

1.1 Recommendations

The recommendations focus on issues that emerged from the assessment and identify areas that warrant more in-depth investigation in agriculture:

Pastoralist and livestock producers depend on Jordan's vulnerable natural resource based for their livelihoods. There is a need for interventions that focus on pasture and rangeland management and the adaption of smallholder farmers to the ecological limitations identified above. As well as interventions that promote a better integration of small ruminants production with field crops to increase overall productivity and household income.

There is also a need for interventions that identify options for optimizing land use and farm production in small-scale farming systems, through the efficient use of agricultural inputs (e.g. fertilizer) and labour. Greater effort should be made to work with smallholder farmers to identify affordable solution to land and water management.

While the uncontrolled movement of animals across geographic borders is a concern identified in governorates such as Irbid, Al Mafraq and Jarash, the risk of disease outbreak and zoonotic potential was not within the scope of the assessment. There is a need for a better understanding of the risk posed by TADs, which may be heightened as result of the crisis in Syria⁵⁸.

Last, but by no means least, there is a need for a comprehensive study on agriculture, with a focus on assessing the viability of smallholder agriculture and its contribution to food security and poverty reduction in Jordan. The study should analyse the vulnerabilities of smallholder farmers to risks faced by the agricultural sector (e.g. effects of climate change and water scarcity).

2 Food Security:

Overall the food security status of Jordanian households appears satisfactory with 87 per cent of households having an acceptable food consumption score, an average HDDS of 10 (out of 12) and generally low use of coping strategies. However, 13 per cent are vulnerable to (or currently experiencing) food insecurity.

At this stage it is not possible to definitively state if the food security status of Jordanians is decreasing, but comparisons with indicators in previous assessments suggests this may be the case. As evidenced in the comparison of the use of food-related coping strategies to the 2010 Analytical Report, the increased use of these strategies is a strong indication of increasing vulnerability to food insecurity.

When food security decreases in a population, it generally affects vulnerable groups first who may face greater difficulties in accessing food due to socio-economic constraints. While the FSLA did not focus on specific vulnerable groups, however, female-headed households can serve as a proxy as they are often found to be more vulnerable. The increased prevalence of poor and borderline food consumption scores amongst female-headed households, particularly when compared to their refugee counterparts, suggests that vulnerable groups are likely worse off.

⁵⁸ In response to this need, FAO and MoA – in close collaboration with the Jordan University of Science and Technology (JUST) – plan to conduct an assessment of the livestock sector. The assessment will identify TADs and its zoonotic potential, as well as provide a comprehensive socio-economic profile of pastoralist in Jordan.

Household food production is an important contributor to food security. A positive correlation was found between the 30 per cent of households engaged in horticulture and increased food security (through increased food consumption scores and dietary diversity along with decreased use of negative coping strategies).

While small-scale food production does appear to positively impact household food security, there are other contributing factors to dietary diversity and food consumption. One of these is a dietary preference for carbohydrates, sugars and proteins and an inadequate micronutrient intake (commonly found in fruits and vegetables).

Another contributing factor affecting adequate micronutrient intake was inflation of fruit and vegetable prices (possibly attributed to the crisis in Syria). When food consumption scores were examined against wealth quintiles a trend emerged, which showed increased average intake of fruits and vegetables for higher wealth quintiles. As fruits and vegetables have shown marked increase in price over the last two years, access is likely to have had an impact on consumption. This is supported by the observed increase in consumption among households engaged in horticulture.

Access to these foods may be constrained by stagnant household incomes. Steady inflation without a correlating increase in salary can place pressure on the purchasing power of households, particularly for goods with marked increases in costs.

2.1 Recommendations

A food security surveillance system is needed to regularly monitor the status of Jordanian households and enable early and appropriate responses to shocks and stress that can threaten food and nutrition security. Furthermore, greater focus should be placed on monitoring the food security of vulnerable groups such as households headed by women and people living with disabilities.

There is also a need for agriculture interventions to make a greater contribution to achieving nutrition outcomes. The promotion of integrated homestead food production, which also includes nutrition education and emphasizes the consumption of micronutrient rich foods and dietary diversity is one such kind of intervention that the findings suggest would have positive impacts on health and nutrition in Jordan.

3 Additional Conclusions

Geographically, some locations stood out as more vulnerable than others. The most notable was Al Mafraq, where households reported lower levels of education amongst household heads and larger family sizes. Al Mafraq also appears to have lower food security, with increased likelihood of incurring debt to meet food needs, increased instances of requesting food as a non-cash need as well as reduced food consumption scores and increased use of food-related coping strategies.

The other group that stood out as more vulnerable was female-headed households. Female-headed households were much more likely to have no education than male-headed households. They reported lower food consumption scores and higher uses of coping strategies, with more debt being incurred in recent months and the primary purpose of incurring it for meeting food needs.

SECTION FIVE: ANNEXES

ANNEX A. HOUSEHOLD QUESTIONNAIRE

Household Profile																						
HP-1	Governorate: _____ HP-2 District: _____																					
HP-3	Rural <input type="checkbox"/> Urban <input type="checkbox"/> HP-4 Gender of Respondent Male <input type="checkbox"/> Female <input type="checkbox"/>																					
HP-5	Gender of Head of Household Male <input type="checkbox"/> Female <input type="checkbox"/>																					
HP-6	What is the marital status of the head of this household? Married <input type="checkbox"/> Single <input type="checkbox"/> Widowed <input type="checkbox"/> Divorced <input type="checkbox"/> Separated <input type="checkbox"/>																					
HP-7	What is the highest level of education obtained by the head of this household? None <input type="checkbox"/> Primary Education <input type="checkbox"/> Secondary Education <input type="checkbox"/> University <input type="checkbox"/> Vocational Training <input type="checkbox"/> Informal Education <input type="checkbox"/>																					
HP-8	Does the head of household have a disability (Any disabilities or chronic illness)? Yes <input type="checkbox"/> No <input type="checkbox"/>																					
HP-9	What is the total number of Families permanently living in this household, excluding guests and refugees? []																					
HP-10	What is the total number of people permanently living in this household, excluding guests and refugees? []																					
HP-11	Please provide the age and sex of each of the permanent household members (should not include any refugees living in the household, must equal the total number of household members)																					
	<table border="1"> <thead> <tr> <th></th> <th>0-4y</th> <th>5-11y</th> <th>12-17y</th> <th>18-30y</th> <th>31-59y</th> <th>60+y</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> </tr> <tr> <td>Female</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> </tr> </tbody> </table>		0-4y	5-11y	12-17y	18-30y	31-59y	60+y	Male	[]	[]	[]	[]	[]	[]	Female	[]	[]	[]	[]	[]	[]
	0-4y	5-11y	12-17y	18-30y	31-59y	60+y																
Male	[]	[]	[]	[]	[]	[]																
Female	[]	[]	[]	[]	[]	[]																
HP-12	How many of members of your household have the following disabilities? (cannot be greater than the value entered for HP-9)																					
	<table border="1"> <tbody> <tr> <td>Visual Disability</td> <td>[]</td> <td>Mental Disability</td> <td>[]</td> <td>Physical Disability</td> <td>[]</td> <td>Hearing Impairment</td> <td>[]</td> <td>Other (specify):</td> <td>[]</td> </tr> </tbody> </table>	Visual Disability	[]	Mental Disability	[]	Physical Disability	[]	Hearing Impairment	[]	Other (specify):	[]											
Visual Disability	[]	Mental Disability	[]	Physical Disability	[]	Hearing Impairment	[]	Other (specify):	[]													
HP-13	Which members of your household have this disability? (skip logic based on positive values entered for each disability, ie. if "Visual Disability" =>1, answer demographic breakdown; number cannot be greater than value entered for each "Disability" field)																					
	<table border="1"> <thead> <tr> <th></th> <th>0-4y</th> <th>5-11y</th> <th>12-17y</th> <th>18-30y</th> <th>31-59y</th> <th>60+y</th> </tr> </thead> <tbody> <tr> <td>Male</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> </tr> <tr> <td>Female</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> <td>[]</td> </tr> </tbody> </table>		0-4y	5-11y	12-17y	18-30y	31-59y	60+y	Male	[]	[]	[]	[]	[]	[]	Female	[]	[]	[]	[]	[]	[]
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Male	[]	[]	[]	[]	[]	[]																
Female	[]	[]	[]	[]	[]	[]																
HP-14	How many pregnant or lactating women are there in your household? (cannot be greater than the value entered for HP-9)																					
HP-15	Do any Syrian refugees live in your household or on your property? (If no skip to section 6)																					
HP-16	If yes, how many individual Syrian refugees live in your household or on your property?																					
HP-17	Do you receive any rent or services from any Syrian refugees, either living on or off your property? (If no skip to next section)																					
HP-18	If yes, what do you receive? Rent <input type="checkbox"/> Services <input type="checkbox"/>																					
HP-19	If you receive rent, how much rent you receive in total per month?																					
	<table border="1"> <tbody> <tr> <td>0 - 50</td> <td><input type="checkbox"/></td> <td>51 - 100</td> <td><input type="checkbox"/></td> <td>101 - 150</td> <td><input type="checkbox"/></td> <td>151 - 200</td> <td><input type="checkbox"/></td> <td>201 - 250</td> <td><input type="checkbox"/></td> </tr> <tr> <td>251 - 300</td> <td><input type="checkbox"/></td> <td>301 - 350</td> <td><input type="checkbox"/></td> <td>351 - 400</td> <td><input type="checkbox"/></td> <td>More than 400 JD per month</td> <td><input type="checkbox"/></td> <td></td> <td></td> </tr> </tbody> </table>	0 - 50	<input type="checkbox"/>	51 - 100	<input type="checkbox"/>	101 - 150	<input type="checkbox"/>	151 - 200	<input type="checkbox"/>	201 - 250	<input type="checkbox"/>	251 - 300	<input type="checkbox"/>	301 - 350	<input type="checkbox"/>	351 - 400	<input type="checkbox"/>	More than 400 JD per month	<input type="checkbox"/>			
0 - 50	<input type="checkbox"/>	51 - 100	<input type="checkbox"/>	101 - 150	<input type="checkbox"/>	151 - 200	<input type="checkbox"/>	201 - 250	<input type="checkbox"/>													
251 - 300	<input type="checkbox"/>	301 - 350	<input type="checkbox"/>	351 - 400	<input type="checkbox"/>	More than 400 JD per month	<input type="checkbox"/>															



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HP-20	If you receive services, what do you receive? (tick all which apply): (tick all applicable options – if "No outdoor space is selected, skip to next question")
Agricultural Labour <input type="checkbox"/> Domestic Help <input type="checkbox"/> Construction Labour <input type="checkbox"/> Other (Specify): 	

Infrastructure			
Do you have access to any of the following outdoor spaces? (tick all applicable options – if "No outdoor space is selected, skip to next question")			
No outdoor space	<input type="checkbox"/>	Roof terrace	<input type="checkbox"/>
Small balcony (<3m x 3m)	<input type="checkbox"/>	Small garden (<5m x 5m)	<input type="checkbox"/>
Large balcony (>3m x 3m)	<input type="checkbox"/>	Large garden (>5m x 5m)	<input type="checkbox"/>
IN-1	IN-1b	Private field <input type="checkbox"/> If Private Field, how far from the house?	Next to house <input type="checkbox"/> >2km from house <input type="checkbox"/> >2km from house <input type="checkbox"/>
IN-1c	IN-1c	Public/governmental land <input type="checkbox"/> If Public/Governmental Land, how far from the house?	Next to house <input type="checkbox"/> >2km from house <input type="checkbox"/> >2km from house <input type="checkbox"/>
IN-1d	IN-1d	Communal land <input type="checkbox"/> If Communal land is selected, please specify the type of communal land	Land rented from the government <input type="checkbox"/> Property which is shared with family, friends or neighbours <input type="checkbox"/> Another type of undivided property <input type="checkbox"/> other <input type="checkbox"/>
IN-2	Does your household currently plant any fruits and/or vegetables on this outdoor space? (not large scale agricultural activities) (if No, skip to question 4c)		
If yes, what do you plant?			
IN-3	Herbs <input type="checkbox"/> Barley <input type="checkbox"/> Wheat <input type="checkbox"/> Tomatoes <input type="checkbox"/> Potatoes <input type="checkbox"/> Cucumber <input type="checkbox"/> Oranges <input type="checkbox"/> Lemons <input type="checkbox"/> Olive Trees <input type="checkbox"/> Other (Specify): 		
IN-4	If yes, what are the uses of these fruits and/or vegetables? (tick all which apply) Selling <input type="checkbox"/> Approx. % Consumption by household <input type="checkbox"/> Approx. % Freely give to other households as gifts or community support <input type="checkbox"/> Approx. % Other (Specify): Approx. % 		
IN-5	If no, would you be interested in planting fruits and/or vegetables if you were provided with the necessary inputs and any needed training?		Yes <input type="checkbox"/> No <input type="checkbox"/>
What is the source of your drinking water?			
IN-6	Store/Market-bought water <input type="checkbox"/> Private vendor (water truck) <input type="checkbox"/> Treated Water <input type="checkbox"/> Other (Specify): 		
What are the top 3 sources of water (non-drinking) for your household? (tick and rank top 3 options) – (If 'None' is selected, skip to IN-9)			
IN-7	Private Vendor (water truck) <input type="checkbox"/> Store/Market-bought water <input type="checkbox"/> Well <input type="checkbox"/> Certified/authorized borehole or spring <input type="checkbox"/> Unauthorised/unprotected water source (eg. river) <input type="checkbox"/> None <input type="checkbox"/>		



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IN-8	Does your households face any constraints about accessing water? <i>(If yes, tick all that apply)</i>	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Water not available to household as often as we need it <input type="checkbox"/> Water is too expensive <input type="checkbox"/> Do not have enough water storage facilities at the household <input type="checkbox"/>	
IN-9	If 'Water not available often', how many days in the last 30 days did you not have any access to water?	[]
IN-10	What kind of sewage system does your household use?	
	The household is connected to a sewage system (piped away from household) <input type="checkbox"/>	
	Waste water from sewage is disposed of into a pit or holding tank (next to the household) <input type="checkbox"/>	
	Waste water from sewage is disposed of into nature/open drainage <input type="checkbox"/>	
	I don't know <input type="checkbox"/>	

Livelihoods

LI-1	Have any members of your household been engaged in any activity to provide for the household in the last 30 days? <i>(if No, then skip to question 11)</i>													
LI-2	What was your household's total combined income for the last month? <i>(do not include loans or any money borrowed)</i>													
LI-3	What were your households three main sources of income over the course of the last 30 days? <i>(tick and rank top 3 options provided in the table below. If "Agriculture/Farming" is not selected, skip entire "Agriculture and Livestock" section. (Use table of income source option, and provide age range and gender of the person providing the income) None = 0</i>													
	1 st Source []	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Male</td> <td style="width: 10%;">5-11y <input type="checkbox"/></td> <td style="width: 10%;">12-17y <input type="checkbox"/></td> <td style="width: 10%;">18-30y <input type="checkbox"/></td> <td style="width: 10%;">31-59y <input type="checkbox"/></td> <td style="width: 10%;">60y + <input type="checkbox"/></td> </tr> <tr> <td>Female</td> <td>5-11y <input type="checkbox"/></td> <td>12-17y <input type="checkbox"/></td> <td>18-30y <input type="checkbox"/></td> <td>31-59y <input type="checkbox"/></td> <td>60y + <input type="checkbox"/></td> </tr> </table>	Male	5-11y <input type="checkbox"/>	12-17y <input type="checkbox"/>	18-30y <input type="checkbox"/>	31-59y <input type="checkbox"/>	60y + <input type="checkbox"/>	Female	5-11y <input type="checkbox"/>	12-17y <input type="checkbox"/>	18-30y <input type="checkbox"/>	31-59y <input type="checkbox"/>	60y + <input type="checkbox"/>
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Income Sources Table:

- | | |
|--|---|
| <p>a) Business owner or business professional, or general administration (not IT)</p> <p>c) Information technology, retail in a shop or market, sales, tourism, finance, marketing, customs clearance, factory worker.</p> <p>e) Medicine – doctor, nurse, other medical profession in medical facility</p> <p>g) Logistics or transport – organising logistics and transport, not a driver</p> <p>i) Agriculture or livestock commercial</p> <p>m) Rent from Syrian refugees</p> <p>q) Military</p> | <p>b) Engineer - civil, mechanical, telecommunication, manufacturing, chemical.</p> <p>d) Community support - includes family donations and support from religious institutions (e.g. Sheikh/imam in local area)</p> <p>f) Daily labour – construction or agriculture related, daily, informal work</p> <p>h) Services - janitor, plumbers electrician, painter, cook, waiter, waitress</p> <p>j) Agriculture or livestock subsistence for the household only</p> <p>n) Civil servant or politician</p> <p>r) Assistance from government, NGO or UN</p> |
| <p>k) Livestock herder</p> <p>o) Employed in an NGO (not a driver)</p> <p>s) Driver in any organisation</p> | <p>l) Teacher – school or university</p> <p>p) Religious leader within a religious institution</p> <p>t) Other (specify)</p> |



Food Security and Livelihoods Assessment Household Questionnaire 05/2014



LI-4	Were these 3 sources of income the same as 24 months ago? (if yes, skip to question 15)			Yes <input type="checkbox"/> No <input type="checkbox"/>
LI-5	If some are not the same, or they have changed, what were your 3 main sources of income 24 months ago? (tick and rank top 3 options of those provided in the table below; constraint on duplicate responses. If "Agriculture/Farming" is not selected, skip entire "Agriculture and Livestock" section. Select "None" if a second/third response is not recorded)			
	1 st Source []	2 nd Source []	3 rd Source []	
LI-6	Has your income increased or decreased in the last 24 months?		Increased a lot (+50%) <input type="checkbox"/> Increased a little bit (+25%) <input type="checkbox"/> Stayed the same <input type="checkbox"/> Decreased a little bit (-25%) <input type="checkbox"/> Decreased a lot (50%) <input type="checkbox"/>	
LI-7	If your income has decreased over the past 24 months, what is the top 3 reason for this?		Less job opportunities <input type="checkbox"/> Salary decreased <input type="checkbox"/> Cost of materials or items needed for livelihood increased <input type="checkbox"/> The salaries of casual labourers or staff have increased <input type="checkbox"/> My customer base has decreased so there are less opportunities for my livelihood <input type="checkbox"/> The prices I used to sell at have decreased, so we do not earn as much money <input type="checkbox"/> Other (specify): []	
LI-8	What percentage (%) of your total expenditure did you spend on the following basic needs over the last 30 days?			
	Housing (rent) []	Utilities []	Health []	Education []
	Water []	Transport []	Debt Repayment []	Food []
LI-9	Have you incurred any debts in the last 24 months? (if no, skip to question LI-14)			Yes <input type="checkbox"/> No <input type="checkbox"/>
LI-10	If yes, then approximately how much debt does your household currently have? (JOD)			[]
LI-11	If yes, when did you take on this debt? (break down into approximate percentage)			
	1 month ago []	During the last six months []		
	During the last 12 months []	During the last 24 months or more []		
LI-12	If yes, what are the main reasons you took this debt? (tick up to three reasons and note which is the main (1), second (2) and third (3)).			
	To buy food <input type="checkbox"/> Travel expenses <input type="checkbox"/> To pay for housing <input type="checkbox"/> Education expenses <input type="checkbox"/> Health expenses <input type="checkbox"/> To pay household bills <input type="checkbox"/> To buy tools/machinery for other livelihoods use <input type="checkbox"/> To buy clothing <input type="checkbox"/> Other (specify): []			
	To buy agricultural inputs: Inputs - feed <input type="checkbox"/> Inputs - fertiliser <input type="checkbox"/> Inputs - seeds <input type="checkbox"/> Inputs - tools/equipment <input type="checkbox"/> Inputs - machinery <input type="checkbox"/> Inputs - livestock <input type="checkbox"/> Inputs - Other (Specify) []			



Food Security and Livelihoods Assessment Household Questionnaire 05/2014



LI-13	Do you own any of the following household assets in useable condition? (Yes = 1, No = 0)			
	Mattresses <input type="checkbox"/>	Beds <input type="checkbox"/>	Winter Clothes <input type="checkbox"/>	Blankets <input type="checkbox"/>
	Refrigerator <input type="checkbox"/>	Stove/Kitchen <input type="checkbox"/>	Kitchen Utensils <input type="checkbox"/>	Water heater <input type="checkbox"/>
	Table/Chairs <input type="checkbox"/>	Sofa set <input type="checkbox"/>	Heating for house <input type="checkbox"/>	Air conditioning <input type="checkbox"/>
	Washing machine <input type="checkbox"/>	TV <input type="checkbox"/>	Computer <input type="checkbox"/>	Motorcycle <input type="checkbox"/>

Food Consumption																	
FC-1	Yesterday, how many meals were eaten by this household? <input type="text"/>																
FC-2	Is this number of meals: <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">More than usual</td> <td style="width: 20%; text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Same as always</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>Less than usual</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	More than usual	<input type="checkbox"/>	Same as always	<input type="checkbox"/>	Less than usual	<input type="checkbox"/>										
More than usual	<input type="checkbox"/>																
Same as always	<input type="checkbox"/>																
Less than usual	<input type="checkbox"/>																
Over the last 7 days, how many days did you consume the following foods? (no value can be greater than 7, ie. 7 = 7 days)																	
FC-3	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Cereals (bread, pasta, wheat flour, bulghur) <input type="text"/></td> <td style="width: 50%;">Eggs <input type="text"/></td> </tr> <tr> <td>White tubers and roots (potato, sweet potato) <input type="text"/></td> <td>Fish and other seafood <input type="text"/></td> </tr> <tr> <td>Pulses, nuts and seeds (beans, chickpeas, etc.) <input type="text"/></td> <td>Milk and dairy products <input type="text"/></td> </tr> <tr> <td>Vegetables <input type="text"/></td> <td>Sweets (sugar, honey, jam, cakes, sweet coffee) <input type="text"/></td> </tr> <tr> <td>Fruits <input type="text"/></td> <td>Oil and fats <input type="text"/></td> </tr> <tr> <td>Meat <input type="text"/></td> <td>Spices and condiments <input type="text"/></td> </tr> </table>	Cereals (bread, pasta, wheat flour, bulghur) <input type="text"/>	Eggs <input type="text"/>	White tubers and roots (potato, sweet potato) <input type="text"/>	Fish and other seafood <input type="text"/>	Pulses, nuts and seeds (beans, chickpeas, etc.) <input type="text"/>	Milk and dairy products <input type="text"/>	Vegetables <input type="text"/>	Sweets (sugar, honey, jam, cakes, sweet coffee) <input type="text"/>	Fruits <input type="text"/>	Oil and fats <input type="text"/>	Meat <input type="text"/>	Spices and condiments <input type="text"/>				
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Fruits <input type="text"/>	Oil and fats <input type="text"/>																
Meat <input type="text"/>	Spices and condiments <input type="text"/>																
FC-4	During the last 7 days, how many times (in days) did your household do any of the following in order to cope with lack of food? <i>(no value can be greater than 7, ie. 7=7 days; 0 = None, 1 = 1 day, 2 = 2 days, 3 = 3 days, 4 = 4 days, 5 = 5 days, 6 = 6 days, 7 = Everyday)</i> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Eat cheaper food that is not as good as normal</td> <td style="width: 20%; text-align: center;"><input type="text"/></td> </tr> <tr> <td>Borrowed food or received help from friends or relatives</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Eaten less meals a day than normal</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Eaten smaller amounts of food than normal at meals</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Adults eat less so younger children can eat</td> <td style="text-align: center;"><input type="text"/></td> </tr> </table>	Eat cheaper food that is not as good as normal	<input type="text"/>	Borrowed food or received help from friends or relatives	<input type="text"/>	Eaten less meals a day than normal	<input type="text"/>	Eaten smaller amounts of food than normal at meals	<input type="text"/>	Adults eat less so younger children can eat	<input type="text"/>						
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Adults eat less so younger children can eat	<input type="text"/>																
FC-5	In the past 30 days, has your household done any of the following to meet basic food needs? <i>(No = 0, Yes = 1, No, because I have already used this up = 2)</i> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Spent savings</td> <td style="width: 20%; text-align: center;"><input type="text"/></td> </tr> <tr> <td>Bought food on credit or borrowed money to buy food</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Spent less money on other needs (eg. Education/health)</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Sold household assets (jewelry, phone, furniture, etc)</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Sold productive assets (sewing machine, tools/machinery, car, livestock, etc)</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Taken jobs that are high risk, illegal and/or socially degrading</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Sent adult household members to beg</td> <td style="text-align: center;"><input type="text"/></td> </tr> <tr> <td>Sent children household members to beg</td> <td style="text-align: center;"><input type="text"/></td> </tr> </table>	Spent savings	<input type="text"/>	Bought food on credit or borrowed money to buy food	<input type="text"/>	Spent less money on other needs (eg. Education/health)	<input type="text"/>	Sold household assets (jewelry, phone, furniture, etc)	<input type="text"/>	Sold productive assets (sewing machine, tools/machinery, car, livestock, etc)	<input type="text"/>	Taken jobs that are high risk, illegal and/or socially degrading	<input type="text"/>	Sent adult household members to beg	<input type="text"/>	Sent children household members to beg	<input type="text"/>
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Sent adult household members to beg	<input type="text"/>																
Sent children household members to beg	<input type="text"/>																



Food Security and Livelihoods Assessment Household Questionnaire 05/2014



Needs and Assistance				
NA-1	During the past 12 months, did you receive any type of assistance? <i>(if no skip to next question)</i>			Yes <input type="checkbox"/> No <input type="checkbox"/>
NA-2		Source: <i>(Government, NGO, Charity, UN, Religious Organization, Local People, Family abroad)</i>	If yes, how do you rate the assistance? <i>(A great help, Some help, Little help, No help, made the situation worse)</i>	If no help or made the situation worse, why? <i>(Arrived too late, Manipulated by others, Insufficient quantity, Wrong type for my livelihood, Other (specify))</i>
	Food	[_____]	[_____]	[_____]
	Cash	[_____]	[_____]	[_____]
	Non-Food Items	[_____]	[_____]	[_____]
	Education	[_____]	[_____]	[_____]
	Health	[_____]	[_____]	[_____]
	Protection	[_____]	[_____]	[_____]
	Shelter	[_____]	[_____]	[_____]
	WASH	[_____]	[_____]	[_____]
	Support to Agricultural Related Livelihoods	[_____]	[_____]	[_____]
Support to Livestock Related Livelihoods	[_____]	[_____]	[_____]	
Training Related to Livelihoods	[_____]	[_____]	[_____]	
NA-3	What are the households top 3 main non-cash needs at this moment in order of importance? <i>(tick and rank top 3 options; constraint on duplicate responses. Select "None" if third option cannot be recorded or if no "need" is required. If "None", skip to question 26) – use the list of needs below</i>			
	1 st Need [_____]	2 nd Need [_____]	3 rd Need [_____]	
<i>List of Needs:</i> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;">a) No unmet need</div> <div style="width: 33%;">b) Psycho-social support</div> <div style="width: 33%;">c) Vocational training</div> <div style="width: 33%;">d) More food</div> <div style="width: 33%;">e) Clothes/shoes</div> <div style="width: 33%;">f) More security</div> <div style="width: 33%;">g) Better quality food</div> <div style="width: 33%;">h) Kitchen assets for cooking</div> <div style="width: 33%;">i) Sanitation/sewage</div> <div style="width: 33%;">j) Support for rent/improved shelter</div> <div style="width: 33%;">k) Other household assets</div> <div style="width: 33%;">l) Drinking Water</div> <div style="width: 33%;">m) Cooking fuel, gas, electricity</div> <div style="width: 33%;">n) Agricultural inputs</div> <div style="width: 33%;">o) Baby food</div> <div style="width: 33%;">p) Medicines/health</div> <div style="width: 33%;">q) Transport</div> <div style="width: 33%;">r) Youth activities</div> <div style="width: 33%;">s) Education/books</div> <div style="width: 33%;">t) Credit</div> <div style="width: 33%;">u) Other (explain in comments)</div> </div>				

Agriculture and Livestock	
<i>(To be asked only if "Agriculture/Livestock" is selected as a livelihood/income option for question 12)</i>	
AL-1	How much land do you cultivate? (Dunums) [_____]
AL-2	What is the type of tenure/ownership of the land that you cultivate, in % of total? <i>(Percentage must add up to 100%)</i>
	<div style="display: flex; justify-content: space-between;"> Owner (mulk) [_____] Sharecropper [_____] Communal/shared land [_____] </div> <div style="display: flex; justify-content: space-between;"> Governmental land [_____] Rented land [_____] Do not know [_____] </div>



Food Security and Livelihoods Assessment Household Questionnaire 05/2014



AL-3	ASK ONLY TENANTS: Do you pay the landowner a portion of your crop/profits from the crop?		Yes <input type="checkbox"/> No <input type="checkbox"/>	
AL-4	If yes, what do you pay (in %)	[] % of crop	[] % of profits	
AL-5	Which share in % of total land is:	[] % rainfed	[] % Irrigated	
AL-6	If irrigated, then which type of irrigation system do you use?			
	Private vendor (trucked in water) <input type="checkbox"/> Municipal supply piped to property <input type="checkbox"/> Canal <input type="checkbox"/> Well (underground pit for water harvesting) <input type="checkbox"/> river, lake, pond <input type="checkbox"/> Bore hole <input type="checkbox"/>			
	What main food and cash crops do you normally grow, and have you noticed any change in yield between now and 24 months ago? (tick all applicable options)			
		Has there been any change in yield between now and 24 months ago? <i>(Increased a lot, Increased a little bit, Stayed the same, Decreased a little bit, Decreased a lot)</i>	If the yield has slightly decreased or significantly decreased, why do you think this is? <i>(Reduced natural resources, Increased cost of agri. Inputs / machinery / casual labour, lower market demand, relying on other income sources, Other (specify))</i>	If 'loss of natural resources is selected' then: What natural resources have been reduced? (tick all which apply) <i>(Water, Soil erosion, Loss of access to land, Tree coverage, Other (specify))</i>
AL-7	Barley / wheat	[]	[]	[]
	Potatoes	[]	[]	[]
	Vegetables	[]	[]	[]
	Citrus	[]	[]	[]
	Olives	[]	[]	[]
	Nuts	[]	[]	[]
	Grapes	[]	[]	[]
	Pulses	[]	[]	[]
AL-8	How many people work your land? (Number)			[]
AL-9	If one or more people work the land, who are they? (tick all that apply)			Family/friends <input type="checkbox"/> Hired <input type="checkbox"/>
AL-10	Do you keep livestock? <i>(if No, skip to question 33)</i>			Yes <input type="checkbox"/> No <input type="checkbox"/>
	If yes, then how many of each of the following?			
		Total number of each animal	How many animals are over one year old?	What is the main use for each type of animal? (tick all that apply) <i>(household consumption, selling of live animal, sale of meat or other product, ploughing or field preparation, other (specify))</i>
AL-11	Horses/donkeys/mules	[]	[]	[]
	Camel	[]	[]	[]
	Cattle	[]	[]	[]
	Sheep/goats	[]	[]	[]
	Poultry	[]	[]	[]



Food Security and Livelihoods Assessment Household Questionnaire 05/2014



AL-12	Have you sold any livestock/animals over the last 6 months?	Yes <input type="checkbox"/> No <input type="checkbox"/>				
AL-13	If yes, then why did you sell them?					
	Lack of fodder/pasture/animal feed <input type="checkbox"/>	Lack of shelter to house animals <input type="checkbox"/> Need for money <input type="checkbox"/>				
	Couldn't afford fodder/pasture/animal feed <input type="checkbox"/>	Normal source of livelihood <input type="checkbox"/> Infertility <input type="checkbox"/>				
	Other (specify): [_____]					
AL-14	36. What inputs do you currently need the most in order to support your livelihood? (Use list below and specify amount needed)					
	1 st Need [_____]	2 nd Need [_____]				
	Amount [_____]	Amount [_____]				
	3 rd Need [_____]	Amount [_____]				
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Agricultural Inputs for Crop Yield: Machinery Seeds Fertilizer Other (specify) </td> <td style="width: 50%; vertical-align: top;"> Livestock: Horses/donkeys/mules Camel Cattle Sheep/goats Poultry Other (Specify) </td> </tr> <tr> <td style="vertical-align: top;"> Equipment for irrigation Tools Materials for barn/shelter </td> <td style="vertical-align: top;"> Fodder Equipment for watering Equipment for milking Materials for fencing Materials for animal shelter </td> </tr> </table>			Agricultural Inputs for Crop Yield: Machinery Seeds Fertilizer Other (specify)	Livestock: Horses/donkeys/mules Camel Cattle Sheep/goats Poultry Other (Specify)	Equipment for irrigation Tools Materials for barn/shelter	Fodder Equipment for watering Equipment for milking Materials for fencing Materials for animal shelter
Agricultural Inputs for Crop Yield: Machinery Seeds Fertilizer Other (specify)	Livestock: Horses/donkeys/mules Camel Cattle Sheep/goats Poultry Other (Specify)					
Equipment for irrigation Tools Materials for barn/shelter	Fodder Equipment for watering Equipment for milking Materials for fencing Materials for animal shelter					

Follow-Up		
FU-1	Please can we contact the head of household for more information in the near future?	Yes <input type="checkbox"/> No <input type="checkbox"/>
FU-2	Name	[_____]
FU-3	Telephone number	[_____]
FU-4	GPS Coordinates	X: [_____] y: [_____] z: [_____]

ANNEX B. GOVERNORATE LEVEL FGD



Food Security and Livelihoods Assessment

Tool for discussions with governorates

Potential attendees per governorate (pending advice from the Ministry of Agriculture):

- Ministry of Agriculture
- Chamber of Commerce
- Agric Department Governorate
- Farmers Associations representatives

Objectives of discussion:

1. To understand the definition of broad livelihood groups per agri-ecological zone and the components of each group (with a focus on rural livelihoods).
2. Perceptions regarding changes to each livelihood group in the timeframe of 24 months.
3. Ranking of the importance of these changes to the livelihood groups.
4. Perceptions regarding the reasons for these changes.
5. To develop an information base, that can be researched further in community level qualitative data collection phase.

Supporting documents:

- Map of agri-eco zones
- Map of rainfall data
- Map of water table
- Need from MoA to support discussion: crop types per governorate (or district if possible), soil type per governorate
- Ranking tool





1. Outcomes section one:

Table of (rural) livelihood groups and the component of each group, overlaid the agri-eco zones per gov.

Questions:

- 1a. What are the physical characteristics of each agri-ecological zone? (refer to map)
- 1b. what are the main rural livelihood types in each agri-ecological zone?
- 1c. For the livelihood groups in each zone, what are the main production systems? (this should be very broad).
- 1d. Confirm, is anything missing from the livelihood groups, physical characteristics, the production systems and the main elements of the production systems?

	Agri-ecological zone 1	Agri-ecological zone 2	Agri-ecological zone 3
Broad geographic info (description of physical landscape – eg: boarder area, arid, plains, water table accessible)			
Rural livelihood types in each agro-eco zone			
Production systems (for example, irrigated crops river, irrigated crops rainfed and			



main crop types, livestock breeding – type and why)			
---	--	--	--

2. Outcomes section two:

- Brief confirmation of the livelihood group by zone.
- More detail on the components which make up each group

Questions:

2a. What are the physical characteristics of each agri-ecological zone? (refer to map)

2b. what are the main rural livelihood types in each agri-ecological zone?

2c. For the livelihood groups in each zone, what are the main production systems? (this should be very broad).

2d. Confirm, is anything missing from the livelihood groups, physical characteristics, the production systems and the main elements of the production systems?

	Agri-ecological zone 1	Agri-ecological zone 2	Agri-ecological zone 3	
Suggested elements to discuss:	Livelihood group 1	Livelihood group 2	Livelihood group 3	Livelihood group 4
Physical geography				



Climatic zones <i>Use climate map, rainfall data</i>				
Production conditions (eg. soil types, rainfall info) <i>Use soil map if available</i>				
Broad seasonal calendar for livelihood activities (eg. sheep graze between June and November, fattening of lambs happens between July and October, crop A planted in month X, crop B planted in month Y)				
Population movement within livelihood group (eg. movement of herds from x to y, decisions made regarding when and where to move livestock)				
Land tenure or context (eg. public land, private land, license needed for				



cultivation, restriction on crop type, managed by state, cultivation not officially permitted)				
Main varying factors between the livelihood groups (eg. anything with differentiates between the groups in a significant way. No animals, irrigated land area, cultivated area, distance to market centres)				
Wealth breakdown per group	<u>Poor</u> (eg. 0-2 ha irrigated area, 0 – 5 sheep) <u>Middle</u> (eg. 5-10 ha, 5 – 20 sheep) <u>Better off:</u> (eg. 10 – 20 ha, 20- 40 sheep, < 5 cows)			
Markets/trade (main commodities sold, sold to which actors, where commodities sold,				
Other income sources (eg. sale of products, casual labour wages for both				



males and females, salaried employment, sharecrop agreements)				
Insert additional element here				
Insert additional element here				
Insert additional element here				
Insert additional element here				



3. Outcomes section three

- Perceptions regarding changes to each livelihood group in the timeframe of 24 months
- Is each change positive or negative
- Ranking of changes in order of importance (separate positive and negative changes)
- Reason for each change
- Which of the changes (both positive and negative changes) can be attributed to the impact of the Syrian crisis
- Of the changes which can be attributed to the impact of the Syrian crisis, how.

Livelihood group 1 (repeat for each livelihood group in the governorate):

3a. Change For example; drought, fuel prices, agri input prices increases, increase in irrigation costs.	3b. Is each change positive or negative?	3d. Likelihood of impact on livelihood group – high, medium, low (use ranking tool to support this discussion)	Impact of each change on livelihood group – both positive and negative	3e. Reason for each change	3f. Of these changes, both positive and negative, which can be attributed to the impact of the Syrian crisis (yes/no)	3g. Of the changes which can be attributed to the impact of the Syrian crisis, how?



4. Outcomes section four

- Strategy to face negative changes
- Suggested solution to each change

Livelihood group 1 (repeat for each livelihood group in the governorate):

4a. Negative change	4b. Strategies to face negative change	4c. Suggestions to overcome change



5. Outcomes section five

5a. What services do production system in each livelihood group potentially have access to? (for example; financial services, subventions, veterinary services both private and/or governmental).

	Agri-ecological zone 1	Agri-ecological zone 2	Agri-ecological zone 3	
	Livelihood group 1	Livelihood group 2	Livelihood group 3	Livelihood group 4
Insert service here (eg. type of service, who provides it, who can access it, how can they access it)				

ANNEX C. COMMUNITY LEVEL FGD



Food Security and Livelihoods Assessment
Community Focus Group Discussion Questionnaire



Introduction

Hello everybody, my name is _____ and this is _____. We work for _____, which is an organization that does _____. Thank you for being here today. We are here to discuss your experience with agriculture-related activities over the last 24 months since the Syrian Crisis. We would like to ask you some questions about how your livelihoods have changed, whether the way you produce and what you actually produce has changed and whether you have experienced any difficulties during this period.

You were selected through the previous, individual, questionnaire that you did for REACH and FAO because you indicated that you are involved in "Agriculture/Farming" as one of your main livelihood activities and we would just like to know more about some of the issues that you highlighted there. These include things such as water access and use, the inputs you use when you produce, land and costs of living.

Given how sensitive some of these questions may be, if there are any questions that you do not want to answer, then that is absolutely fine – just please say that you'd prefer not to answer.

I expect our discussion today to last for around an hour or an hour and a half. _____ will be taking notes to make sure we do not miss what you have to say and he/she will not be writing down your names or who said what.

Is everything clear? Do you have any questions before we begin?

Need definitions for:

Community: less than 5,000 is rural, over is urban

High-tech inputs:

Debt:

Community Profiles

1. 1a. How much land is cultivated in this community?
- 1b. What is the type of tenure/ownership of the land that is cultivated?
 - a) Owner (%) : ☐
 - b) Sharecropper (%): ☐
 - c) Communal/shared land (%): ☐
 - d) Governmental land (%): ☐
 - e) Rented land (%): ☐

REACH
Informing
more effective
humanitarian action

A partnership of:



ACTED

IMPACT Initiatives

 unitar
UNOSAT



Food Security and Livelihoods Assessment
Community Focus Group Discussion Questionnaire



Access to Water

2. Which type of farming is practiced in terms of irrigation: irrigated, rainfed or both?
 - a) Irrigated (% of land in community): ☐
 - b) Rainfed (% of land in community): ☐
 - c) Both irrigated and rainfed (% of land in community): ☐
3. If irrigated, then which type of irrigation systems are used in this community?
 - a) Private vendor (%): ☐
 - b) Canal (%): ☐
 - c) River (%): ☐
 - d) Stream (%): ☐
 - e) Pond (%): ☐
 - f) Well (%): ☐
 - g) Municipal water connection (%): ☐
 - h) Dripping (%): ☐
4. 4a. What are the main changes in water use in this community over the last 24 months?
 - a) Increased a lot: ☐
 - b) Increased a little (up to 25%) : ☐
 - c) Stayed the same: ☐
 - d) Decreased a little (up to 25%): ☐
 - e) Decreased a lot: ☐
- 4b. Why do you think that these changes have occurred over the last 24 months?
 - a) Increased cost of water
 - b) Decreased supply of water
 - c) Drought, which has made rain-fed farming much more difficult
 - d) Poor quality of water provision infrastructure; a lot of water is lost to leaks

**(prompt only if these options are not listed by respondents)*
- 4c. What do you feel are the biggest problems faced by this community in accessing water for use in agriculture or with livestock? **(select all which apply to the community)*
 - a) Increased cost of water
 - b) Decreased supply of water
 - c) Drought, which has made rain-fed farming much more difficult
 - d) Poor quality of water provision infrastructure; a lot of water is lost to leaks

**(prompt only if these options are not listed by respondents. If any of these options are linked to Syrian refugees by any of the respondents, then please note this)*
- 4d. If water prices have risen over the course of the last 24 months for people in this community, then what effect has this had on livelihoods? **(Can prompt with the following: how much you produce, community's ability to expand production)*

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4d 1. why do you think that water prices have risen in this community?

4f. Has water supply decreased over the course of the last 24 months for people in this community?

If yes, what effect has this had on livelihoods in this community in terms of agricultural production and why do you think this has happened?

Access to Inputs

5. 5a. What inputs/techniques do households use in this community for farming/livestock (e.g. improved seed varieties and fertilizers, technology for artificial insemination of animals, etc)?
 - a) Are there any inputs/techniques they used before the crisis that are not available now?
 - b) Are there any new inputs/techniques they have started using since the crisis?
- 5b. What are the main changes you've noticed in the use of agricultural inputs in this community? Are these changes the same for the majority of households in this community?
6. For all in the group who use agricultural inputs (such as improved seeds, fertiliser, machinery, etc.), where do they get the money to buy these inputs?
 - a) With profit from the things that they produce
 - b) They use their produce as collateral and exchange this for inputs
 - c) Borrow money/debt
 - d) Other (explain): _____
7. 7a. Do you know of anyone that has taken on debt (money or goods such as agricultural inputs) in the last 24 months, and can you tell us what they used it for? **(do not prompt initially, allow the discussion to take its course without leading. But if discussion is not forthcoming, prompt on the items below and further discuss each (not just a checklist), but indicate which were prompted).*
 - a) To buy agricultural inputs (ask for which inputs)
 - b) To buy food
 - c) Health expenses
 - d) Education expenses
 - e) To buy clothing
 - f) To pay for housing or accommodation
 - g) To pay for household bills (gas electricity, gas)
 - h) Travel expenses
 - i) To buy tools and machinery for livelihood
 - j) Marriage
 - k) To buy a house or build a house
 - l) To cover livestock expenses (vaccines, treatment, etc.)
 - m) To buy a car
- 7b. Where are households borrowing this money from? What are the terms of these loans? Are there better places to get loans from for farmers?

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7c. If they have taken on debt in the last 24 months, then what do you feel are the main causes of this in order of importance? **(do not prompt, allow the discussion to take its course. If more than 3 causes are listed, then please rank them)*

7d. Do you think that households in this community are taking on more debt now than they were 24 months ago? If yes, then why do you think this is happening?

Livestock

8. Do the livestock owners in this community have access to veterinary services such as vaccinations and veterinary clinics? If so, are these services provided freely by the Government of Jordan?

Access to Food

9. Do you feel that your community's diet has changed over the course of the last 24 months? If so, then how has it changed? **(tick all which apply to the group)*
- a) We consume more meat
 - b) We consume less meat
 - c) We consume more fruit and/or vegetables
 - d) We consume less fruit and/or vegetables
 - e) We consume more staples such as cereals, rice, potatoes
 - f) We consume less staples such as cereals, rice, potatoes
 - g) We consume more food in general
 - h) We consume less food in general
10. Why do you feel that this change in diet has occurred? **(do not prompt, allow the discussion to take its course without leading).*
11. Do you feel that there have been any changes (that have not already been mentioned) in your community since the Crisis in Syria? Please explain how these changes have impacted your community.

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ANNEX D. EXPLANATION OF INDICES AND INDICATORS

1 Wealth Quintiles

Table 11: Assets - Principal Component Analysis

Asset	Component 1
Water Heater	.604
Bed	.603
Washing Machine	.553
Furniture (Tables and Chairs)	.553
Sofa Sets	.539
Refrigerator	.500
Winter Clothing	.495
Stove/Kitchen	.479
Computer	.477
Kitchen Utensils	.454
Television	.440
Blankets	.445
Heating	.394
Air Conditioning	.333
Motorcycle	
Mattress	.314

The wealth quintiles were calculated using principal component analysis (PCA). Households were asked if they owned each of a list of 16 assets. Factor analysis (PCA) was used to identify the interrelationships between the 16 variables. Through this process one variable (the principal component) was calculated out of the 16. This was then used to rank all household respondents into 5 categories – quintiles. The results are higher quintiles for more (and higher ranked) assets. The principal component results are detailed in table 11.

2 Dietary Diversity Score

Some important definitions to consider include:

Dietary diversity: the number of different foods or food groups eaten over a reference time period.

Food frequency: the frequency (in terms of days) that a specific food item or food group is eaten at the household level.

Food group: is defined as a grouping of food items that have similar caloric and nutrient content.

Food item: cannot be further split into separate foods. However, generic terms such as 'fish' or 'poultry' are generally considered to be a food items for the purpose of this analysis.

Condiment: refers to a food that is generally eaten in a very small quantity, often just for flavour. An example would be a 'pinch' of fish powder, a teaspoon of milk in tea, spices, etc.

The household dietary diversity score (HDDS) provides an indication on the quality of food security by measuring the variety of food groups consumed by a household. Using the same question as the food consumption score (described in detail below), results are calculated to show if a food group was or was not consumed in the previous 7 days. These results are then added together to provide an overall HDDS (with a maximum score of 12).

Table 12: Household Dietary Diversity Scale - Example

	Food Group	Example	
		Days Eaten	HDDS Score
1	Cereals (bread, pasta, wheat flour, bulgur)	7	1
2	White tubers and roots (potato, sweet potato)	1	1
3	Pulses, nuts and seeds (beans, chickpeas, etc)	1	1
4	Vegetables, yellow tubers, leaves	7	1
5	Fruits	3	1
6	Eggs	5	1
7	Fish and other seafood	0	0
8	Meat	3	1
9	Milk and dairy products	5	1
10	Oil and fats	6	1
11	Sweets	6	1
12	Spices and condiments	7	1
HDDS Score		= 11	

3 Food Consumption Score

The FCS is a composite score based on dietary diversity, frequency of consumption and relative nutritional importance of different food groups. The score covers both quality (different food groups) and quantity (number of times per week each group is consumed). Enumerators collect information on the food groups listed up to a maximum value of 7. The initial groups are then compiled into a standard list of 9 (outlined below). International weights are applied to each group and calculated to provide an overall food consumption score per household. The maximum score is 112. A standard threshold is provided to classify scores into one of three categories: Poor, Borderline and Acceptable.

Table 13: Food Consumption Score - Example

	Food Group	Weight (a)	Example	
			Days Eaten (b)	Score (a x b)
1	Cereals (bread, pasta, wheat flour, bulgur)	2	7	14
	White tubers and roots (potato, sweet potato)			
2	Pulses, nuts and seeds (beans, chickpeas, etc)	3	1	3
3	Vegetables, yellow tubers, leaves	1	3	3
4	Fruits	1	2	2
5	Eggs	4	4	16
	Fish and other seafood			
	Meat			
6	Milk and dairy products	4	3	12
7	Oil and fats	0.5	5	2.5
8	Sweets	0.5	6	3
9	Spices and condiments	0	6	0
Composite Score		= 55.5		
Threshold		ACCEPTABLE		

Groups are compiled by calculating the score for each group included in the larger category then limiting the maximum score to the highest possible score for that category. The table below provides an example of how groups are compiled

Table 14: Food Consumption Score - Example of Compiling Food Groups

	Food Group	Weight (a)	Example			
			Days Eaten (b)	Score per Item	Initial score	Revised Score (Maximum score of 4 x 7 = 28)
5	Eggs	4	5	20	20 + 8 + 12 = 40	28
	Fish and other seafood	4	2	8		
	Meat	4	3	12		

Once the score has been calculated the thresholds are applied. There are two internationally applied. The initial score is predicated on a 'poor' consumption potentially including 7 days of cereals consumption as well as 7 days of vegetable consumption (total score of 21). A revised threshold is used in contexts where the diet includes high intake of sweets and vegetables, allowing for a poor score if a household only consumes cereals, vegetables, sweets and sugars. The revised threshold was applied in this instance as the diet in the region consists of high sugar and oil consumption.

Table 15: Food Consumption Score Thresholds

Food Consumption Groups	Standard Thresholds	Revised Thresholds
Acceptable	> 35	> 42
Borderline	> 21 to 35	> 28 to 42
Poor	<= 21	<= 28

4 Food Related Coping Strategies Index

The Coping Strategies Index (CSI) is an indicator of household food security that is gauged through a series of questions about how a household manages to cope with a shortfall in food for consumption. The index is used in a variety of contexts and 5 standard indicators have been identified as the reduced coping strategies index which enables comparisons across contexts. Where possible additional indicators are used to enable greater comparison at the micro level. As additional coping strategies have not been consistently identified in this region, the reduced index was utilized to provide a general indication of coping strategies and enable comparison with other assessments. In its simplest form, monitoring changes in the CSI score indicates whether household food security status is declining or improving in the short-term.

Each household is asked how many times over the previous week they utilized each of the 5 coping strategies. Each strategy is then multiplied by the internationally standard severity weight. All 5 are added together to provide an overall score. A threshold is then applied by taking the total possible score (56) and dividing it into 3 equal categories showing low, medium and high usage (each equal to 18.6).

Table 16: Reduced Coping Strategies Index - Example

	During the last 7 days how many days did your household do each of the following in order to cope with a lack of food?	Weight (a)	Example	
			Frequency (b)	Score (a x b)
1	Rely on less preferred and less expensive food	1	6	6
2	Borrow food, or rely on help from friends or relatives	2	3	6
3	Limit portion size at meals	1	2	2
4	Restrict consumption by adults in order for small children to eat	3	0	0
5	Reduce number of meals eaten in a day	1	1	1
Compiled Score		= 15		
Threshold		LOW		

5 Livelihoods Coping Strategies

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

Stress: Strategies that lead to reduced ability to deal with future shocks due to increased debts or reduced resources.

Crisis: Strategies that directly reduce future productivity (e.g. selling off productive assets)

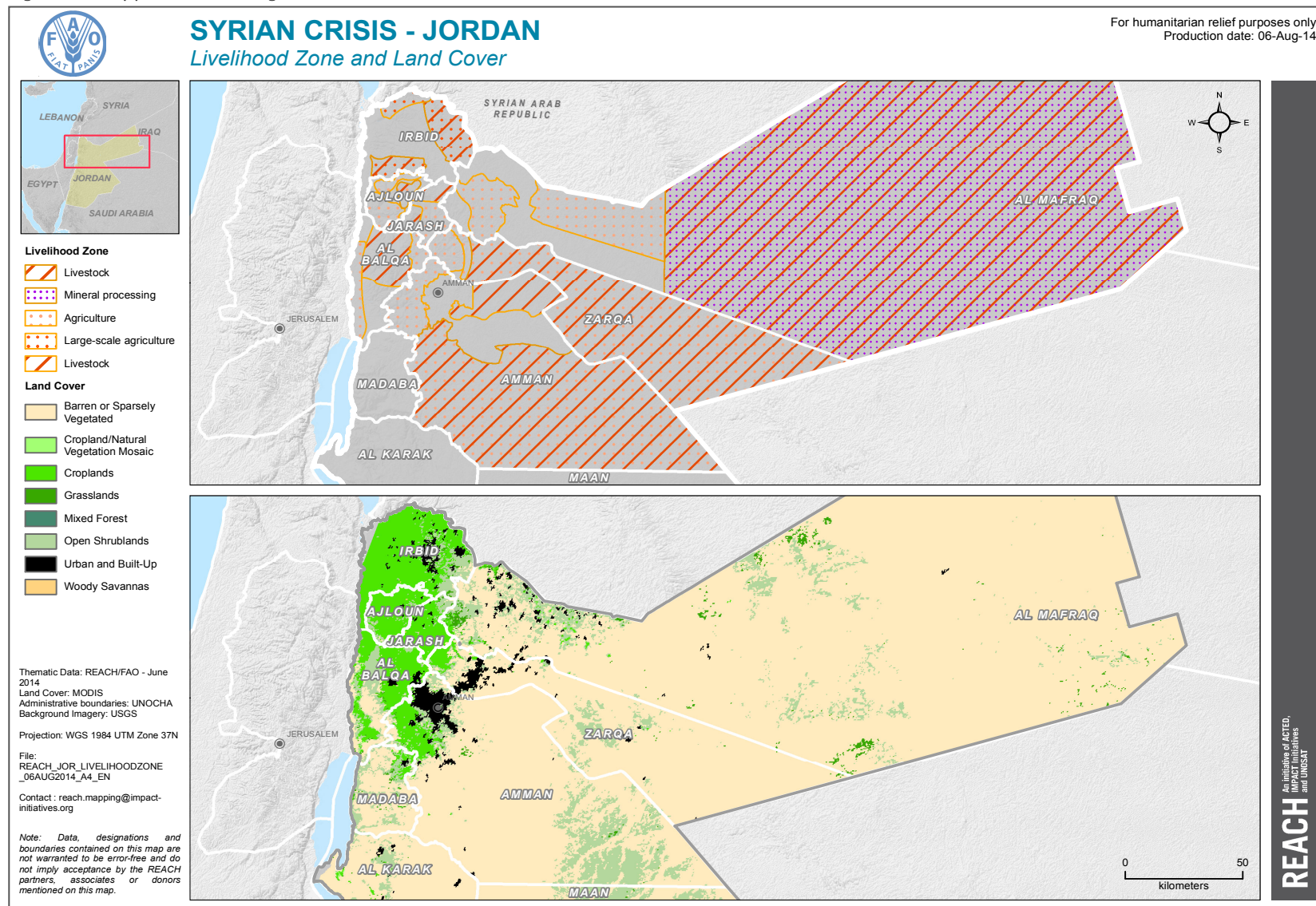
Emergency: Strategies that affect future productivity that are more difficult to reverse or strategies that are more dramatic in nature (e.g. taking high risk/illegal employment).

Table 17: 30-Day Livelihood Coping Strategy Categories

Category	In the past 30 days, has your household done any of the following to meet basic food needs? (No = 0, Yes = 1, No, because I have already used this up = 2)
Stress	Spent savings
	Bought food on credit or borrowed money to buy food
	Sold household assets (jewellery, phone, furniture, etc)
Crisis	Spent less money on other needs (eg. education/health)
	Sold productive assets (sewing machine, tools/machinery, car, livestock, etc)
Emergency	Taken jobs that are high risk, illegal and/or socially degrading
	Sent adult household members to beg
	Sent children household members to beg

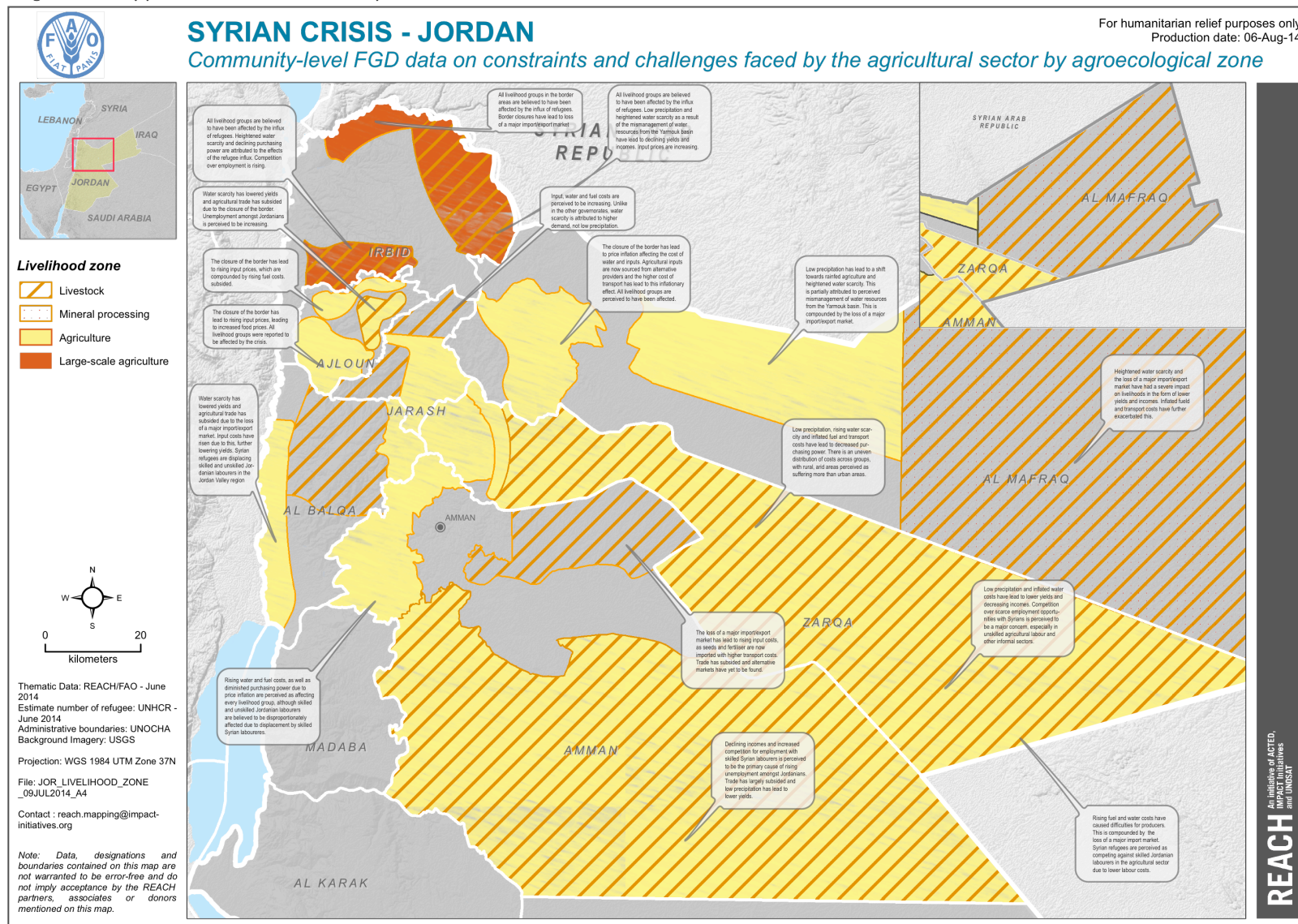
ANNEX E. RESULTS OF GOVERNORATE FGDS

Figure 3: Mapped results of governorate-level FGDS



ANNEX F. RESULTS OF COMMUNITY-LEVEL FDG

Figure 4: Mapped results of community-level FDGs



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ANNEX H. TABLES

1 Household Profile

Table 18: Gender of Head of Household (4,879 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Female-Headed Households	12%	14%	12%	11%	11%	10%	12%	11%
Male-Headed Households	88%	86%	88%	89%	89%	90%	88%	89%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 19: Marital Status of Head of Household (4,879 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Divorced	1%	1%	1%	1%	1%	0%	2%	1%
Married	87%	87%	89%	88%	89%	89%	87%	88%
Seperated	0%	0%	0%	0%	1%	0%	1%	0%
Single	3%	2%	3%	4%	2%	3%	3%	3%
Widowed	9%	9%	6%	7%	7%	8%	7%	7%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 20: Highest Level of Education Completed by the Head of Household (4,879 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
University	15%	21%	10%	17%	16%	14%	12%	16%
Secondary Education	43%	32%	36%	33%	45%	38%	36%	38%
Vocational Training	1%	1%	1%	1%	1%	1%	2%	1%
Primary Education	27%	26%	27%	30%	27%	31%	34%	29%
Informal Education	0%	0%	0%	0%	0%	0%	0%	0%
None	14%	20%	26%	19%	11%	16%	16%	16%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 21: Head of Households with Chronic Disability/Illness? (4,879 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
No	74%	72%	79%	70%	72%	68%	67%	71%
Yes	26%	28%	21%	30%	28%	32%	33%	29%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 22: Average Number of Families Living in a Household (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Average Number of Families Living In Household	1	1	1	1	1	1	1	1
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 23: Average Number of People Living in a Household (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Average Number of People in Household	6	6	7	6	6	6	5	6
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 24: Average Dependency Ratio (Calculated)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Dependency Ratio	1.1	1.1	1.3	1.1	1.0	1.1	1.2	1.1
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 25: Total Number of People (By Gender and Age Range) (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Female 0-4	126	142	134	293	312	114	204	1,325
Female 5-11	193	248	224	450	487	175	355	2,132
Female 12-17	155	237	194	394	510	187	301	1,978
Female 18-30	320	433	349	691	946	338	458	3,535
Female 31-59	302	487	330	762	1,046	351	592	3,870
Female over 60	79	146	67	176	242	66	135	911
Male 0-4	143	188	145	302	335	119	223	1,455
Male 5-11	219	280	271	473	508	197	366	2,314
Male 12-17	216	269	257	445	561	194	385	2,327
Male 18-30	362	526	432	835	1,181	429	561	4,326
Male 31-59	301	449	292	742	961	305	528	3,578
Male over 60	66	145	74	205	272	80	164	1,006
# of respondents	2,482	644	392	996	1,245	413	777	4,879

Table 26: Number of People with each Disability (631 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Visual disability	16%	23%	24%	9%	17%	22%	19%	18%
Mental disability	27%	8%	19%	20%	21%	22%	17%	19%
Physical disability	49%	68%	43%	57%	47%	54%	58%	54%
Hearing impairment	16%	13%	12%	13%	19%	6%	12%	14%
Other	6%	3%	9%	12%	6%	6%	6%	7%
# of respondents	49	62	58	101	172	50	139	631

Table 27: Do Any Syrian Refugees Live in the Household/Property? (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
No	99%	99%	96%	98%	96%	97%	99%	98%
Yes	1%	1%	4%	2%	4%	3%	1%	2%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 28: Does the Household Receive Rent/Services from Syrian Refugees? (4,879 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
No	97%	98%	96%	97%	95%	97%	99%	97%
Yes	3%	2%	4%	3%	5%	3%	1%	3%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 29: Which Does the Household Receive: Rent/Services/Both? (160 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Rent	91%	83%	76%	74%	87%	100%	40%	81%
Services	9%	17%	18%	21%	11%	0%	60%	16%
Both	0%	0%	6%	6%	2%	0%	0%	3%
# of respondents	11	12	17	34	63	13	10	160

2 Infrastructure

Table 30: Access to Outdoor Space (4,879 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Government Land	0%	0%	2%	0%	0%	0%	0%	0%
Private Field	16%	5%	14%	8%	11%	13%	4%	9%
Communal Land	1%	1%	6%	1%	2%	3%	1%	2%
Large Garden Greater than 5m by 5m	8%	10%	21%	8%	12%	9%	6%	10%
Small Garden Less than 5m by 5m	18%	27%	22%	18%	23%	25%	15%	21%
Large Balcony greater than 3m by 3m	12%	13%	12%	13%	10%	15%	10%	12%
Small Balcony greater than 3m by 3m	16%	11%	11%	14%	13%	16%	9%	13%
Roof Terrace	47%	48%	52%	42%	47%	58%	44%	47%
No Outdoor Space	29%	31%	13%	35%	24%	21%	42%	29%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 31: Households Engaged in Horticulture (4,337 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Yes	55%	51%	24%	41%	42%	50%	38%	43%
No	45%	49%	76%	59%	58%	50%	62%	57%
# of respondents	294	442	341	649	942	328	451	3,447

Table 32: Types of Fruits/Vegetables Planted (1,468 Responses) – Multiple Choice

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Herbs	7%	29%	14%	21%	17%	20%	17%	19%
Barley	1%	4%	13%	6%	4%	4%	3%	4%
Wheat	2%	4%	7%	5%	4%	2%	1%	4%
Tomatoes	4%	5%	6%	5%	4%	1%	2%	4%
Potatoes	2%	2%	2%	2%	3%	0%	1%	2%
Cucumber	1%	4%	2%	2%	3%	1%	1%	2%
Oranges	15%	17%	5%	10%	14%	11%	6%	12%
Lemons	37%	40%	14%	25%	33%	32%	24%	31%
Olive trees	92%	83%	86%	84%	85%	90%	92%	87%
Other	15%	13%	22%	26%	12%	18%	20%	17%
# of respondents	163	224	83	266	399	163	170	1,468

Table 33: Uses of Fruits/Vegetables Planted (1,468 Responses) – Multiple Choice*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Consumption By Household	97%	98%	95%	97%	98%	99%	98%	98%
Sold	10%	8%	7%	5%	7%	13%	8%	8%
Freely Given to Other Households	5%	1%	7%	4%	4%	18%	2%	5%
Other	5%	2%	8%	5%	5%	18%	3%	6%
# of respondents	163	224	83	266	399	163	170	1,468

Table 34: Households that are Not Engaged in Horticulture but Would Like To (1,979 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Yes	47%	18%	31%	21%	34%	47%	29%	31%
No	53%	82%	69%	79%	66%	53%	71%	69%
# of respondents	131	218	258	383	543	165	281	1,979

Table 35: Primary Source of Drinking Water (4,879 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Municipal Connection	17%	14%	17%	20%	15%	27%	22%	18%
Private Vendor	10%	8%	34%	9%	12%	6%	6%	11%
Store/Market Bought Water	27%	29%	23%	32%	24%	45%	27%	29%
Treated	34%	36%	20%	31%	22%	15%	40%	29%
Rain Water	3%	4%	1%	1%	6%	0%	0%	3%
Well/ Spring/ River Water	4%	3%	1%	1%	13%	6%	1%	5%
Other/ Unknown	4%	7%	5%	6%	6%	0%	3%	5%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 36: Top 3 Sources of Household Water (4,879 Responses)⁵⁹*(Darker colours refer to higher ranked responses)*

⁵⁹ Heat map calculated by providing a score to each rank (Primary = 3, Secondary = 2, Tertiary = 1). Scores are added and then divided by the number of respondents giving an overall score out of 3. Colours in the map get darker with higher ranked results. Each shade represents 0.5.

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Certified/authorized borehole or spring	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1
Municipal connection	2.4	2.2	2.2	2.1	2.5	2.2	2.3	2.3
Private vendor/water truck	0.7	0.5	1.2	0.6	0.6	0.5	0.5	0.6
Shared municipal connection	0.5	0.7	0.4	0.6	0.3	0.6	0.6	0.5
Store/market bought water	0.1	0.2	0.3	0.2	0.1	0.2	0.1	0.2
Unprotected water source (e.g. river)	0.0	0.0	-	-	0.0	-	-	0.0
Well	0.4	0.2	0.2	0.1	0.6	0.3	0.1	0.3
None	1.4	1.6	1.4	1.6	1.3	1.5	1.7	1.5
# of respondents	412	644	391	996	1,245	413	777	4,879

Table 37: Constraints Faced in Accessing Water (4,879 Responses) – Multiple Choice

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Inadequate water storage capacity	16%	4%	8%	4%	6%	7%	6%	6%
Water is too expensive	11%	6%	18%	12%	10%	20%	8%	11%
Water not available as often as needed	34%	18%	44%	20%	36%	56%	24%	31%
None	60%	78%	49%	75%	60%	39%	72%	65%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 38: Average Number of Days in a 30-Day Period with No Access to Water (1,498 Responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Average number of days water is unavailable	8	7	3	8	5	8	8	6
# of respondents	140	115	171	202	452	231	187	1,498

Table 39: Type of Sewage System (4,879 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
HH connected to sewage system piped away	24%	38%	17%	31%	19%	26%	44%	29%
Waste water from sewage is disposed into pit or holding tank next to HH	74%	54%	82%	65%	80%	70%	46%	67%

Waste water from sewage is disposed of through open drainage	1%	9%	1%	4%	1%	3%	10%	4%
I do not know	0%	0%	0%	1%	0%	0%	0%	0%
# of respondents	412	644	392	996	1,245	413	777	4,879

3 Livelihoods

Table 40: Average Income in the Last 30 Days (JD) (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Average Income (30 Days)	377	472	345	445	393	393	348	402
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 41: Top 3 Sources of Income Over the Last 30 Days (4,879 Responses)⁶⁰

(Darker colours refer to higher ranked responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Agriculture (Commercial)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Agriculture (Subsistence)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Assistance (NGO or Government)	0.1	0.1	0.3	0.1	0.1	0.2	0.2	0.2
Business Owner/Professional	0.3	0.5	0.3	0.5	0.4	0.3	0.6	0.5
Civil Servant	0.4	0.6	0.6	0.6	0.5	0.5	0.6	0.5
Community Support	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Daily Labour (Construction/Agriculture)	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.2
Driver	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1
NGO Staff	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1
Professional	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Assistance from Family/Friends	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Mid-Level Professional	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Livestock Herder	-	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Low Level Professional	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Medical Professional	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Military	1.3	0.7	1.0	0.7	1.2	1.2	0.5	0.9
Religious Leader	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0
Rent from Syrians	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rent	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Retired	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3
Low Level Service Industry	0.0	0.2	0.1	0.2	0.2	0.1	0.3	0.2
Teacher/Professor	0.3	0.2	0.2	0.1	0.2	0.3	0.1	0.2
Other	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1
None	1.8	1.7	1.7	1.7	1.7	1.7	1.8	1.7
# of respondents	412	644	392	996	1,245	413	777	4,879

⁶⁰ Heat map calculated by providing a score to each rank (Primary = 3, Secondary = 2, Tertiary = 1). Scores are added and then divided by the number of respondents giving an overall score out of 3. Colours in the map get darker with higher ranked results. Each shade represents 0.5.

Table 42: Reported Changes in Income Sources - Compared to 24 Months Ago (4,879 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Yes	97%	98%	89%	98%	94%	98%	97%	96%
No	3%	2%	11%	2%	6%	2%	3%	4%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 43: Changes in Amount of Income - Compared to 24 Months Ago (4,879 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Increased a Lot	1%	0%	1%	1%	1%	1%	0%	1%
Increased a Little	14%	12%	8%	11%	7%	6%	7%	9%
Stayed the Same	75%	76%	79%	70%	82%	74%	78%	77%
Decreased a Little	4%	7%	9%	6%	7%	11%	7%	7%
Decreased a Lot	6%	5%	3%	12%	3%	8%	7%	7%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 44: Top 3 Reasons for a Decrease in Income (653 Responses)⁶¹*(Darker colours refer to higher ranked responses)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Increased cost of materials/items required for livelihood	3.0	2.2	2.6	1.7	2.7	1.4	2.1	2.2
Fewer employment opportunities	1.0	1.1	1.0	0.7	1.1	0.9	1.0	0.9
Lost Employment	0.2	0.1	0.3	0.2	0.3	0.1	0.3	0.2
Decreased customer base	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.3
Decreased Salary	0.6	0.8	0.8	0.5	0.8	0.7	0.7	0.7
Decreased value of goods being sold	-	0.1	-	0.0	0.0	0.0	0.0	0.0
Increased salaries of casual labour/staff	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1
None	1.8	1.1	1.0	0.9	1.6	0.8	1.0	1.1
Other	0.4	0.2	0.1	0.2	0.1	0.2	0.3	0.2
# of respondents	43	74	48	178	124	77	109	653

⁶¹ Heat map calculated by providing a score to each rank (Primary = 3, Secondary = 2, Tertiary = 1). Scores are added and then divided by the number of respondents giving an overall score out of 3. Colours in the map get darker with higher ranked results. Each shade represents 0.5.

Table 45: Per Cent of Expenditure on Basic Needs (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Expenditure - housing/rent	2	5	4	5	3	3	6	4
Expenditure - electricity, cooking/heating	10	11	11	10	10	11	10	10
Expenditure - health	5	6	6	6	6	5	6	6
Expenditure - education	6	7	6	7	7	7	5	7
Expenditure - water	8	8	10	8	8	9	8	8
Expenditure - transport	12	12	9	12	10	10	12	11
Expenditure - debt repayment	10	9	8	8	11	13	8	9
Expenditure - food	40	37	39	37	41	37	39	39
Expenditure - communications	6	6	5	6	6	6	6	6
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 46: Debts Incurred in the last 24 Months (4,879 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Yes	59%	48%	61%	46%	59%	64%	50%	54%
No	41%	52%	39%	54%	41%	36%	50%	46%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 47: Average Household Debt (JD) (2,637 Responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Average Debt	7,279	11,670	4,752	5,983	5,486	9,171	4,354	6,596
# of respondents	245	307	240	456	732	266	391	2,637

Table 48: Timeframe of Debt Accumulation (in Per Cent) (2,637 Responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Percentage of debt (1 month)	5	7	9	6	7	4	9	7
Percentage of debt (6 months)	14	20	21	22	17	17	20	19
Percentage of debt (12 months)	26	20	27	30	25	24	32	26
Percentage of debt (24 months or more)	55	53	42	42	51	55	39	48
# of respondents	245	307	240	456	732	266	391	2,637

Table 49: Top 3 Reasons for Incurring Debt (4,879 Responses)⁶²*(Darker colours refer to higher ranked responses)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Education Expenses	0.7	0.5	0.4	0.5	0.6	0.6	0.4	0.5
Health Expenses	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.3
To Purchase Agricultural Inputs	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1
To Purchase Clothing	0.1	0.0	0.2	0.0	0.1	0.0	0.1	0.1
To Purchase Food	0.9	0.7	1.3	0.6	1.0	0.9	1.0	0.9
To Purchase Tools/Machinery for Livelihood (Includes Rent/Mortgage)	0.4	0.3	0.7	0.2	0.5	0.5	0.2	0.4
To Expand Livelihood	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0
Payment for Housing/Accommodation	1.2	0.8	0.8	0.8	0.9	1.2	0.7	0.9
Payment for Legal Fees	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Payment for Social Occasions	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1
Payment for Utilities	0.9	0.8	0.7	0.7	0.9	0.8	1.0	0.8
Payment of Existing Debts	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1
Travel Expenses	0.6	0.4	0.4	0.5	0.5	0.6	0.3	0.5
To Purchase Water	-	-	-	0.0	-	-	-	0.0
To Purchase a Vehicle	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.1	-	0.0	0.0	0.0	-	0.0	0.0
None	1.3	0.9	0.9	0.9	1.0	1.3	0.9	1.0
# of respondents	202	339	218	536	696	224	422	2,637

⁶² Heat map calculated by providing a score to each rank (Primary = 3, Secondary = 2, Tertiary = 1). Scores are added and then divided by the number of respondents giving an overall score out of 3. Colours in the map get darker with higher ranked results. Each shade represents 0.5.

Table 50: Assets Owned (4,879 Responses) – Multiple Choice*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Assets - refrigerator	84%	96%	83%	96%	86%	82%	92%	90%
Assets - furniture (table and chairs)	50%	82%	43%	78%	56%	65%	69%	65%
Assets - beds	55%	71%	51%	68%	68%	49%	59%	63%
Assets - mattress	98%	99%	98%	98%	99%	99%	99%	99%
Assets - blankets	98%	98%	97%	98%	98%	100%	98%	98%
Assets - winter clothing	98%	99%	93%	98%	97%	99%	98%	98%
Assets - stove/kitchen	98%	98%	94%	97%	95%	98%	95%	96%
Assets - washing machine	96%	93%	90%	95%	95%	97%	91%	94%
Assets - sofa set	42%	58%	45%	53%	53%	36%	46%	50%
Assets - heating	64%	60%	71%	61%	68%	64%	55%	63%
Assets - water heater	50%	61%	52%	64%	63%	51%	52%	58%
Assets - motorcycle	4%	5%	3%	1%	4%	5%	2%	3%
Assets - television	98%	98%	94%	98%	98%	98%	97%	98%
Assets - kitchen utensils	96%	97%	91%	97%	96%	99%	95%	96%
Assets - computer	38%	52%	24%	43%	42%	33%	32%	39%
Assets - air conditioning	6%	29%	9%	16%	15%	8%	12%	15%
# of respondents	412	644	392	996	1,245	413	777	4,879

4 Food Security

Table 51: Average Number of Meals Consumed Yesterday (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Average Number of Meals Eaten Yesterday	3	3	3	3	3	3	3	3
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 52: Variation in Number of Meals Eaten Yesterday (4,879 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Same as always	90%	91%	91%	89%	91%	89%	91%	90%
More than usual	0%	3%	1%	2%	1%	1%	1%	1%
Less than usual	10%	7%	8%	9%	8%	10%	8%	9%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 53: Average Number of Days in a Week Each Food Group was Consumed (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Cereals	6.7	6.6	6.5	6.7	6.6	6.8	6.7	6.6
White Tubers and Roots	3.4	3.4	3.9	3.4	3.4	3.1	3.1	3.4
Pulses	2.9	3.2	2.4	2.9	3.0	3.2	2.9	2.9
Vegetables	4.7	5.2	4.4	4.8	4.7	5.3	4.5	4.8
Fruits	1.8	2.4	1.8	1.9	1.9	1.7	1.8	1.9
Meat	1.9	2.3	1.8	2.1	1.9	1.7	1.7	1.9
Eggs	3.3	3.5	3.2	3.5	3.4	3.6	3.1	3.4
Fish	0.7	0.8	0.7	0.6	0.6	0.3	0.5	0.6
Milk	4.6	4.8	4.3	5.0	4.5	4.9	4.6	4.7
Oil and Fats	5.7	6.0	4.7	5.9	5.2	6.3	5.8	5.6
Sweets	4.5	4.9	3.6	4.9	4.7	5.7	4.9	4.8
Spices and Condiments	5.8	6.0	4.9	5.9	5.5	6.4	5.9	5.7
# of respondents	412	644	391	996	1,245	413	777	4,878

Table 54: Food Consumption Score (Calculated)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Acceptable	86%	90%	80%	90%	87%	89%	86%	87%
Borderline	12%	7%	11%	8%	9%	8%	11%	9%
Poor	2%	3%	9%	2%	3%	2%	3%	3%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 55: Average Dietary Diversity Score (Calculated)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Average DDS	10	10	9	10	10	10	10	10
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 56: Use of Food Related (Short-Term) Coping Strategies (4,879 Responses) – Multiple Choice*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Ate cheaper food (7 days)	48%	51%	63%	50%	54%	51%	61%	54%
Borrowed food (7 days)	29%	23%	43%	26%	32%	33%	34%	30%
Ate less meals (7 days)	30%	34%	44%	35%	37%	37%	41%	37%
Ate smaller amount of food (7 days)	32%	32%	40%	35%	35%	34%	40%	35%
Adults ate less (7 days)	20%	18%	28%	20%	22%	17%	25%	21%
None	39%	39%	25%	40%	33%	36%	30%	35%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 57: Reduced Coping Strategies Index (Calculated)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Low	46%	47%	52%	42%	50%	50%	54%	48%
Medium	10%	9%	20%	11%	12%	8%	10%	11%
High	5%	5%	3%	7%	4%	6%	7%	5%
None	39%	39%	25%	40%	33%	36%	30%	35%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 58: Average CSI Score (Calculated)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Average CSI	8	8	11	9	9	8	9	9
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 59: Use of Livelihood (Longer-Term) Coping Strategies (4,879 Responses) – Multiple Choice*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Spent savings	44%	40%	31%	38%	38%	42%	50%	40%
Bought food on credit (30 days)	39%	33%	52%	33%	44%	55%	45%	42%
Spent less money on other needs (30 days)	24%	27%	27%	32%	29%	44%	35%	31%
Sold household assets (30 days)	22%	26%	23%	27%	22%	25%	29%	25%
Sold productive goods (30 days)	7%	8%	10%	9%	8%	8%	8%	8%
Taken high-risk/illegal jobs (30 days)	3%	3%	5%	5%	4%	7%	8%	5%
Sent adult household members to beg (30 days)	0%	0%	0%	1%	0%	0%	1%	0%
Sent children household members to beg (30 days)	0%	0%	0%	1%	0%	1%	0%	0%
None	32%	33%	27%	30%	32%	24%	24%	29%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 60: Average Number of Livelihood Coping Strategies Used (4,879 Responses)

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Average Number of 30 Day Coping Strategies Used	1	1	1	1	1	2	2	2
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 61: Livelihood Coping Strategies by Category (Calculated)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafraq	Amman	Irbid	Jarash	Zarqa	Overall
Stress Coping Strategies Used	63%	61%	69%	61%	64%	71%	71%	65%
Crisis Coping Strategies Used	27%	30%	34%	34%	33%	46%	38%	34%
Emergency Coping Strategies Used	3%	4%	5%	6%	5%	7%	8%	5%
No Livelihood Coping Strategies Used	32%	33%	27%	30%	32%	24%	24%	29%
# of respondents	412	644	392	996	1,245	413	777	4,879

5 Needs & Assistance

Table 62: Assistance Received (4,879 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Yes	25%	25%	22%	34%	21%	39%	38%	29%
No	75%	75%	78%	66%	79%	61%	62%	71%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 63: Type of Assistance Received (4,879 Responses) – Multiple Choice

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Food Assistance	7%	3%	8%	6%	4%	5%	10%	6%
Cash Assistance	19%	19%	9%	25%	13%	30%	29%	20%
NFIs	1%	0%	2%	1%	0%	1%	1%	1%
Education Assistance	2%	5%	2%	4%	3%	8%	4%	4%
Health Assistance	3%	5%	4%	5%	5%	8%	4%	5%
Protection Assistance	0%	0%	1%	0%	0%	0%	0%	0%
Shelter Assistance	0%	0%	1%	0%	0%	0%	1%	0%
WASH Assistance	0%	0%	1%	0%	1%	1%	0%	0%
Agricultural Livelihood Assistance	0%	0%	1%	0%	1%	0%	0%	0%
Livestock Livelihood Assistance	0%	0%	1%	1%	0%	0%	0%	0%
Training Assistance	0%	0%	1%	0%	0%	0%	0%	0%
None	75%	75%	78%	66%	79%	61%	62%	71%
# of respondents	412	644	392	996	1,245	413	777	4,879

Table 64: Top 3 Non-Cash Needs (4,879 Responses)⁶³*(Darker colours refer to higher ranked responses)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Agricultural Inputs	0.03	0.03	0.07	0.04	0.04	0.02	0.04	0.0
Baby Food	0.30	0.22	0.42	0.26	0.21	0.18	0.20	0.2
Better Quality Food	0.46	0.39	0.59	0.30	0.42	0.18	0.31	0.4
Clothes/Shoes	0.07	0.06	0.19	0.09	0.13	0.11	0.07	0.1
Cooking Fuel/Electricity/Gas	0.39	0.46	0.38	0.39	0.39	0.57	0.55	0.4
Credit	0.56	0.51	0.37	0.49	0.38	0.80	0.52	0.5
Drinking Water	0.53	0.55	0.67	0.64	0.47	0.37	0.48	0.5
Education/Books	0.53	0.47	0.41	0.44	0.51	0.53	0.37	0.5
Kitchen Assets for Cooking	0.04	0.02	0.04	0.03	0.07	0.05	0.01	0.0
Medicines health	0.31	0.33	0.30	0.41	0.43	0.39	0.45	0.4
More food	1.09	1.20	1.16	1.02	1.29	1.21	1.19	1.2
More security	0.08	0.05	0.09	0.05	0.08	0.15	0.06	0.1
No unmet need	0.07	0.14	0.12	0.15	0.07	0.09	0.16	0.1
other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
other household assets	0.44	0.25	0.16	0.27	0.32	0.37	0.42	0.3
Psycho social support	0.06	0.08	0.04	0.05	0.07	0.06	0.04	0.1
Sanitation sewage	0.15	0.16	0.17	0.25	0.30	0.10	0.15	0.2
Support for rent improved shelter	0.36	0.38	0.33	0.40	0.30	0.34	0.48	0.4
Transport	0.31	0.20	0.19	0.30	0.17	0.25	0.24	0.2
Vocational training	0.01	0.01	0.04	0.02	0.02	0.03	0.00	0.0
Youth activities	0.12	0.15	0.09	0.08	0.10	0.03	0.06	0.1
None	0.08	0.27	0.16	0.26	0.17	0.13	0.16	0.2
# of respondents	412	644	391	996	1,245	413	777	4,879

⁶³ Heat map calculated by providing a score to each rank (Primary = 3, Secondary = 2, Tertiary = 1). Scores are added and then divided by the number of respondents giving an overall score out of 3. Colours in the map get darker with higher ranked results. Each shade represents 0.5.

6 Agriculture

Table 65: Profiles of Respondents to the Agriculture Section (Calculated)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Both	8%	29%	20%	47%	15%	29%	37%	28%
Cultivate	69%	41%	27%	18%	66%	62%	42%	41%
Livestock	23%	29%	53%	35%	20%	10%	21%	31%
# of respondents	13	34	45	49	41	21	19	222

Table 66: Average Amount of Land Cultivated in Dunums (154 Responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Average amount of land in Dunums	8	54	101	83	9	9	13	44
# of respondents	10	24	21	32	33	19	15	154

Table 67: Per Cent of Land that is Irrigated / Rainfed (153 Responses - 127 Rainfed and 73 Irrigated)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Per Cent Rainfed	87	52	61	89	62	72	63	69
Per Cent Irrigated	13	48	39	11	38	28	37	31
# of respondents	10	24	20	32	33	19	15	153

Table 68: Type of Irrigation System Used (73 Responses)

(Darker colours refer to higher per cent)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Canal	75%	15%	18%	14%	20%	10%	25%	21%
Municipal supply piped to property	0%	46%	18%	29%	20%	10%	25%	23%
Private vendor trucked in water	25%	0%	45%	43%	35%	80%	25%	36%
river lake pond	0%	0%	0%	0%	5%	0%	0%	1%
Well	0%	38%	18%	14%	20%	0%	25%	19%
# of respondents	4	13	11	7	20	10	8	73

Table 69: Primary Crops Cultivated (148 Responses) – Multiple Choice*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrqa	Amman	Irbid	Jarash	Zarqa	Overall
Barley/Wheat	20%	33%	50%	59%	39%	17%	23%	39%
Potatoes	30%	8%	0%	6%	10%	0%	0%	7%
Vegetables	40%	46%	10%	19%	35%	28%	31%	29%
Citrus	60%	29%	15%	22%	42%	28%	23%	30%
Olives	90%	67%	55%	53%	71%	72%	69%	66%
Nuts	20%	0%	10%	0%	10%	6%	0%	5%
Grapes	60%	17%	10%	22%	19%	6%	15%	19%
Pulses	10%	4%	0%	3%	16%	6%	15%	7%
# of respondents	10	24	20	32	31	18	13	148

Table 70: Changes in Barley/Wheat Yield (57 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrqa	Amman	Irbid	Jarash	Zarqa	Overall
Increased a lot	0%	13%	10%	0%	8%	0%	0%	5%
Increased a little bit	50%	0%	20%	0%	8%	0%	0%	7%
Stayed the same	50%	50%	30%	26%	58%	33%	67%	40%
Decreased a little bit	0%	38%	40%	37%	8%	33%	33%	30%
Decreased a lot	0%	0%	0%	37%	17%	33%	0%	18%
# of respondents	2	8	10	19	12	3	3	57

Table 71: Changes in Potato Yield (10 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrqa	Amman	Irbid	Jarash	Zarqa	Overall
Increased a lot	0%	50%	0%	0%	0%	0%	0%	10%
Increased a little bit	0%	0%	0%	50%	67%	0%	0%	30%
Stayed the same	100%	50%	0%	50%	33%	0%	0%	60%
Decreased a little bit	0%	0%	0%	0%	0%	0%	0%	0%
Decreased a lot	0%	0%	0%	0%	0%	0%	0%	0%
# of respondents	3	2	-	2	3	-	-	10

Table 72: Changes in Vegetable Yield (43 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrqa	Amman	Irbid	Jarash	Zarqa	Overall
Increased a lot	0%	9%	0%	0%	0%	0%	0%	2%
Increased a little bit	0%	27%	0%	83%	18%	0%	25%	26%
Stayed the same	75%	45%	0%	17%	55%	80%	50%	49%
Decreased a little bit	25%	9%	100%	0%	9%	20%	25%	16%
Decreased a lot	0%	9%	0%	0%	18%	0%	0%	7%
# of respondents	4	11	2	6	11	5	4	43

Table 73: Changes in Citrus Yield (44 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrqa	Amman	Irbid	Jarash	Zarqa	Overall
Increased a lot	0%	0%	0%	0%	0%	0%	0%	0%
Increased a little bit	17%	29%	0%	71%	31%	20%	0%	30%
Stayed the same	83%	43%	67%	14%	62%	80%	67%	57%
Decreased a little bit	0%	29%	33%	0%	0%	0%	33%	9%
Decreased a lot	0%	0%	0%	14%	8%	0%	0%	5%
# of respondents	6	7	3	7	13	5	3	44

Table 74: Changes in Olive Yield (97 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrqa	Amman	Irbid	Jarash	Zarqa	Overall
Increased a lot	0%	6%	18%	6%	0%	0%	0%	4%
Increased a little bit	22%	25%	18%	24%	36%	8%	22%	24%
Stayed the same	67%	50%	55%	53%	50%	69%	78%	58%
Decreased a little bit	0%	13%	9%	6%	9%	15%	0%	8%
Decreased a lot	11%	6%	0%	12%	5%	8%	0%	6%
# of respondents	9	16	11	17	22	13	9	97

Table 75: Changes in Nut Yield (8 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrqa	Amman	Irbid	Jarash	Zarqa	Overall
Increased a lot	0%	0%	0%	0%	0%	0%	0%	0%
Increased a little bit	100%	0%	0%	0%	67%	0%	0%	50%
Stayed the same	0%	0%	100%	0%	33%	100%	0%	50%
Decreased a little bit	0%	0%	0%	0%	0%	0%	0%	0%
Decreased a lot	0%	0%	0%	0%	0%	0%	0%	0%
# of respondents	2	-	2	-	3	1	-	8

Table 76: Changes in Grape Yield (28 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Increased a lot	0%	25%	0%	0%	0%	0%	0%	4%
Increased a little bit	17%	0%	0%	43%	33%	0%	0%	21%
Stayed the same	83%	75%	100%	57%	67%	100%	50%	71%
Decreased a little bit	0%	0%	0%	0%	0%	0%	50%	4%
Decreased a lot	0%	0%	0%	0%	0%	0%	0%	0%
# of respondents	6	4	2	7	6	1	2	28

Table 77: Changes in Pulses Yield (11 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Increased a lot	0%	0%	0%	0%	0%	0%	0%	0%
Increased a little bit	0%	0%	0%	0%	20%	0%	0%	9%
Stayed the same	100%	100%	0%	0%	60%	100%	100%	73%
Decreased a little bit	0%	0%	0%	0%	20%	0%	0%	9%
Decreased a lot	0%	0%	0%	100%	0%	0%	0%	9%
# of respondents	1	1	-	1	5	1	2	11

Table 78: Reasons for Decreases in Yield - Barley/Wheat (27 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Reduced market demand	0%	0%	0%	0%	0%	0%	0%	0%
Increased cost of agricultural inputs	0%	0%	0%	14%	0%	0%	0%	7%
Increased cost of casual labour	0%	67%	0%	0%	0%	0%	0%	7%
other	0%	0%	0%	0%	0%	0%	0%	0%
Reduction of natural resources	0%	33%	100%	86%	100%	100%	100%	85%
# of respondents	-	3	4	14	3	2	1	27

Table 79: Reasons for Decreases in Yield - Vegetables (10 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Reduced market demand	0%	0%	0%	0%	0%	0%	0%	0%
Increased cost of agricultural inputs	100%	50%	0%	0%	33%	100%	0%	40%
Increased cost of casual labour	0%	0%	50%	0%	0%	0%	0%	10%
other	0%	0%	0%	0%	0%	0%	0%	0%
Reduction of natural resources	0%	0%	50%	0%	67%	0%	0%	30%
# of respondents	1	2	2	-	3	1	1	10

Table 80: Reasons for Decreases in Yield - Citrus (6 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Reduced market demand	0%	0%	0%	0%	0%	0%	0%	0%
Increased cost of agricultural inputs	0%	0%	0%	0%	0%	0%	0%	0%
Increased cost of casual labour	0%	50%	0%	0%	0%	0%	0%	17%
other	0%	0%	0%	0%	0%	0%	0%	0%
Reduction of natural resources	0%	50%	100%	100%	100%	0%	100%	83%
# of respondents	-	2	1	1	1	-	1	6

Table 81: Reasons for Decreases in Yield - Olives (14 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
chose decrease crop yield cause less market demand	0%	0%	0%	0%	33%	0%	0%	7%
Increased cost agricultural inputs	100%	33%	0%	0%	0%	0%	0%	14%
Increased cost casual labour	0%	0%	0%	0%	0%	33%	0%	7%
other	0%	0%	0%	33%	0%	0%	0%	7%
Reduction of natural resources	0%	67%	100%	67%	67%	67%	0%	64%
# of respondents	1	3	1	3	3	3	-	14

Table 82: Average Number of People Working the Land Per Household (153 Responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Average number of people working land	6	9	14	4	2	3	6	6
# of respondents	10	24	20	32	33	19	15	153

Table 83: People Who Work the Land by Category (150 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Family/Friends	70%	50%	85%	91%	81%	89%	73%	78%
Hired	30%	50%	10%	6%	16%	0%	20%	18%
Both	0%	0%	5%	3%	3%	11%	7%	4%
# of respondents	10	24	20	32	31	18	15	150

Table 84: Average Number of Livestock Kept (130 Responses)

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Horses/donkeys/mules	-	1	0	0	1	-	-	0
Camel	-	-	-	0	-	-	-	0
Cattle	9	6	-	-	1	-	-	1
Sheep/goats	16	54	63	120	24	40	41	70
Poultry	7	7	4	756	3	19	4	237
# of respondents	4	20	33	40	14	8	11	130

Table 85: Primary Uses for Cattle (11 Responses) – Multiple Choice*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Consumption	100%	75%	0%	0%	25%	0%	0%	64%
Sale of animal products	67%	0%	0%	0%	50%	0%	0%	36%
Sale of live animal	33%	25%	0%	0%	75%	0%	0%	45%
Ploughing or field preparation	0%	0%	0%	0%	0%	0%	0%	0%
Other	67%	0%	0%	0%	50%	0%	0%	36%
# of respondents	3	4	-	-	4	-	-	11

Table 86: Primary Uses for Sheep/Goats (119 Responses) – Multiple Choice*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Consumption	50%	88%	79%	87%	58%	83%	82%	81%
Sale of animal products	0%	13%	15%	18%	33%	0%	27%	18%
Sale of live animal	0%	38%	42%	59%	42%	50%	55%	48%
Ploughing or field preparation	50%	0%	6%	3%	0%	0%	0%	3%
Other	0%	19%	15%	18%	33%	0%	27%	18%
# of respondents	2	16	33	39	12	6	11	119

Table 87: Primary Uses for Poultry (59 Responses) – Multiple Choice*(Darker colours refer to higher per cent)*

	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Consumption	100%	89%	92%	100%	100%	67%	100%	95%
Sale of animal products	0%	22%	23%	5%	0%	0%	0%	10%
Sale of live animal	0%	22%	0%	16%	0%	33%	0%	10%
Ploughing or field preparation	0%	0%	0%	0%	0%	0%	0%	0%
Other	0%	22%	23%	5%	0%	0%	0%	10%
# of respondents	3	9	13	19	6	3	6	59

Table 88: Sale of Livestock in the Last 6 Months (130 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Yes	25%	40%	55%	78%	29%	38%	82%	57%
No	75%	60%	45%	23%	71%	63%	18%	43%
# of respondents	4	20	33	40	14	8	11	130

Table 89: Primary Reasons for Selling Livestock (74 Responses)*(Darker colours refer to higher per cent)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Could not afford fodder pasture animal feed	0%	13%	0%	13%	25%	33%	22%	12%
Lack of fodder pasture animal feed	0%	13%	6%	10%	0%	0%	11%	8%
Need for money	0%	38%	78%	26%	75%	0%	56%	45%
Normal source of livelihood	100%	38%	6%	52%	0%	33%	11%	31%
other	0%	0%	11%	0%	0%	33%	0%	4%
# of respondents	1	8	18	31	4	3	9	74

Table 90: Top 3 Agriculture Needs (222 Responses)⁶⁴*(Darker colours refer to higher ranked responses)*

Variables	Ajloun	Al Balqa	Al Mafrq	Amman	Irbid	Jarash	Zarqa	Overall
Horses donkeys mules	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Camel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cattle	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Sheep goats	0.0	0.0	0.3	0.4	0.1	0.1	0.3	0.2
Poultry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Veterinary services	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Equipment milking	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Equipment watering	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1
Additional labour	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fertilizer	0.9	0.4	0.3	0.2	0.6	0.4	0.5	0.4
Fertilizer Equipment for irrigation	0.2	0.3	0.1	0.2	0.1	0.3	0.2	0.2
Fodder	0.0	0.6	1.3	1.3	0.4	0.4	0.8	0.8
Machinery	0.7	0.7	0.2	0.2	0.5	0.3	0.3	0.4
Materials animal shelter	0.7	0.0	0.1	0.1	0.1	0.1	0.0	0.1
Materials barn shelter	0.2	0.1	0.1	0.2	0.1	0.0	0.3	0.1
Materials fencing	0.2	0.2	0.1	0.0	0.6	0.4	0.2	0.2
Seeds	0.0	0.4	0.3	0.1	0.2	0.1	0.3	0.2
Tools	0.0	0.1	0.1	0.1	0.1	0.3	0.0	0.1
Water	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
None	0.0	0.3	0.0	0.1	0.1	0.1	0.0	0.1
# of respondents	13	34	45	49	41	21	19	222

⁶⁴ Heat map calculated by providing a score to each rank (Primary = 3, Secondary = 2, Tertiary = 1). Scores are added and then divided by the number of respondents giving an overall score out of 3. Colours in the map get darker with higher ranked results. Each shade represents 0.5.