Food Security Assessment in Vulnerable Outreach Communities in Northern Jordan

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Executive Summary
ACTED has had a significant presence in Vulnerable Outreach Communities (VOCs) since 2011, initially focusing efforts on meeting basic needs in these communities such as water, sanitation and hygiene (WASH). In 2014, ACTED conducted a WASH intervention in 40 VOC sites in the north of Jordan, including the installation of water tanks, tank stands, hand washing stations and latrines. In April 2016, ACTED expanded its activities in 30 VOC sites to implement a UNICEF-funded project, establishing child-friendly spaces and implementing informal education, psychosocial support and life skills activities for children residing in ITS locations. ACTED has also established a referral mechanism for the protection needs of these populations, and has put other mechanisms in place to ensure access to beneficiaries including a GPS tracking system of the site locations. Lastly, from December 2016 – March 2017, ACTED implemented a cash for winterization intervention in 30 VOC locations.

Prior to the UNICEF-funded intervention, ACTED conducted a baseline assessment for 30 VOC sites, which aimed to assess the needs of these communities in WASH, protection, and education. ACTED also identified a need for a harsh weather and shelter assessment in VOC sites and mobilized resources to conduct this assessment in 2017 following the winter months. As all ACTED assessments to date have been conducted to inform interventions in VOC locations in WASH, protection, education and winterization, ACTED identified a gap in the needs assessments on food security.

This following assessment aimed at measuring the Food Security and Nutrition situation in VOCs, also referred to as Informal Tented Settlements (ITS) settled in Mafraq governorate. It was conducted in 15 VOC locations using household surveys of 60 individuals, 38% of which were female. Based on the main findings of the assessment, the primary recommendations included: Providing unconditional cash assistance to enable VOC households to access a more diversified diet and improve their food consumption; Establishing small saving and loan schemes to enable VOC to save part of the income achieved during the agricultural season to be used during the winter season; Training households on food processing and marketing (with priority on women) in order to allow them to conserve food and; Conducting awareness-raising sessions on nutrition, especially infant nutritional needs, dietary diversity, and identifying signs of malnutrition.

Background
Since the start of the Syrian crisis and the influx of 638,000 Syrian registered refugees into Jordan, increased demand for goods and services has affected the cost of food, housing and utilities. In the north of Jordan, both Syrian refugees and Jordanian households have been adversely affected. Whilst Syrian refugees have been heavily reliant on food distributions funded by the international donor community, recent food distribution funding cuts have forced a high number of Syrian refugees and vulnerable Jordanians to employ negative coping mechanisms in order to meet their basic needs. According to an assessment conducted by REACH in May 2015, 61% of both Syrians and Jordanians households have adopted negative coping mechanisms; including borrowing money from family, friends and relatives, taking a loan, eating less and consuming a less diverse diet.

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Mafraq and Irbid Governorates have been identified as two of the northern governorates that show the highest rates of food insecurity among the Syrian refugee and Jordanian population. The most recent Food Security and Livelihoods Assessment (FSLA)\(^3\) indicated that Mafraq and Irbid had the highest rates of poor food consumption scores amongst the Jordanian population. Among the Syrian refugee population, from 2014 to 2016, both in Mafraq and Irbid governorate the rates of those identified as being food insecure or vulnerable to food insecurity according to their food consumption scores increased from a range of 33.5 – 47.9% to 66 to 80%\(^4\). Jordanians and Syrian refugee households that show poor food consumption scores have low meat intake, very limited fruit intake and limited consumption of vegetables (average consumption of vegetables in a week was 2.2 for Jordanian households and 1.4 for Syrian refugee households) in both governorates.


Objectives

This assessment aims at measuring the Food Security and Nutrition situation in Vulnerable Outreach Communities (VOC), also called Informal Tented Settlements (ITS) settled in Mafraq governorate, so as to understand the needs of these population and inform better programming for these vulnerable and isolated population.

Methodology

The participants of the assessment were selected in a two steps process:

1. Identification of the Informal Tented Settlements to include in the assessment: 15 ITS have been identified out of the 30 with which ACTED is working in Mafraq governorate in order to have a representative sample.
2. Identification of participants: as the ITS communities are quite small, the maximum number of households that was possible to include in the assessment was 5. The selected households have been selected randomly and only one person per household has been interviewed in the assessment, based on the availability of the households’ members.

It is worth mentioning here that ACTED conducted the assessment in sites, which are served by ACTED and thus have received minimal or continuous WASH, Shelter, NFI, Education and Protection Assistance. Therefore, it can be assumed that the assessment could have had more negative results in sites which are not receiving humanitarian assistance.
Main Findings

Based on a total of 60 household surveys, including 23 women, ACTED concluded main findings regarding the food security, nutrition, access to water and land, and main income expenditures in 15 VOC sites. Main findings show that the majority of the respondents surveyed have an acceptable Food Consumption Score (FCS). However, 18% of respondents have a borderline FCS. In addition regarding the Household Dietary Diversity Score (HDDS), the average HDDS is 6.7 out of 12, which demonstrates a low level of dietary diversity. The majority of households reported they had never eaten 7 out of the 12 food groups, 75% could not name any food group, and 60% could not name any sign of malnutrition, indicating a low dietary diversity and low nutritional knowledge. Regarding access to land and water, only 12% of respondents had access to land for cultivation, and 4% owned livestock. 93% reported they are not charged for their water usage, and 4% reported to be without water for 4-7 days per month. Lastly, regarding income and expenditure, the maximum income for the majority of respondents was 21-50 JD per week. The majority of respondents reported to utilize coping mechanisms such as eating fewer meals, or borrowing food or money 3 to 10 times per month when dealing with issues such as lack of food, water, or very low income.

Demographics

A total of 60 respondents were interviewed of which 97% were Syrian, none were Jordanian and 3% had another – non-specified – nationality. Men are over-represented in this assessment with 62% against 38% female. The age break-down was relatively evenly spread with three-fourth between the ages of 26 and 55. More than half (58%) of the households had between five to eight family members; followed by one to four family members (22%), nine to 12 (15%) and 13 or more (3%).

Age Broken Down by Gender

Figure 1 - Age broken down by gender

Food Security – Household Dietary Diversity Score and Food Consumption Score
Almost half of the respondents reported to eat three meals per day, followed by 43% reporting to eat two meals per day. Only 5% reported to only eat one meal per day; only one respondent reported to eat no meal at all and one other respondent reported to eat more than three meals a day.

![Figure 2 - # of meals per day](image)

ACTED Food Security department in Mafraq measured the Food Consumption Score (FCS) of the respondents. Although there is no single method to measure food security, the food consumption score is often used as an entry point to measure food security, as food consumption is considered the gold standard for food security. The score is calculated using the frequency of consumption of different food groups consumed by a household during the seven days preceding the survey.

The majority of the respondents has an acceptable FCS, which means that they have a FCS of above 35 points. However, 18% have a borderline FCS, meaning they have a score between 21 and 35. While analysing these 18%, the 11 respondents further show that their eating behaviour is quite alarming, notably in terms of protein consumption for example. Indeed, only one respondent reports to have eaten meat once in the last seven days; one reported to have eaten eggs twice in the last seven days; seafood and pulses were consumed by two respondents only once in the last seven days; tubers and roots were consumed by two respondents only once in the last week and fruit was eaten by no-one. Consumption of vegetables was quite high, with all respondents reporting to eat it ranging from once to seven times per week; while dairy products were eaten by half of the respondents mostly once a week. The food groups eaten by all respondents all days of the week are cereals, sugar and coffee/condiments; the second-last food group having a very low nutritional value and coffee/condiments do not have any nutritional value at all. The causes of this borderline FCS can be seen in a combination of several factors, such as lack of access to the products, and poor nutritional knowledge, as shown below.

Along the FCS, the Household Dietary Diversity Score (HDDS) was measured. Dietary diversity is a qualitative measure of food consumption that reflects household access to a variety of foods, and is also a proxy for nutrient adequacy of the diet of individuals. The food intake of the respondents does not seem to be highly nutritional, as most respondents regularly eat food within the three food groups with the least nutritious value: sugar, coffee/condiments, and oil, butter and fat. The staple food that is consumed by many is cereals (97%) and vegetables are eaten by 92% of the respondents. However, seven out of the 12 food groups are eaten by only less than half of the respondents, which indicates
a low diversity in the diet. This is confirmed by the individual household level of dietary diversity of which the most common score is 5, the minimum score being 0 and the highest being 12. Indeed, the average score of the sample is of 6.7, which clearly shows a very low level of diversity.

The respondents who reported to have access to the 12 food groups where asked how they afford to access these groups. The figure below shows that when having access to a food group, the majority of the respondents afford this food using vouchers or cash; especially eggs, seafood, pulses and dairy products are purchased with e-vouchers from WFP. Cereals, tubers and roots, vegetables and fruits are mainly purchased with cash. There are extremely few respondents reporting to access foods via home-grown production: only 3% of the respondents reporting to have access to eggs, produce their own eggs at home and only 2% of the respondents reporting to have access to vegetables, home-grow their vegetables.
FOOD ACCESS

- Cereals
- Tubers and roots
- Vegetables
- Fruits
- Meat
- Eggs
- Seafood
- Pulses
- Dairy products
- Oil, butter, fat
- Sugar, honey
- Condiments, coffee

Figure 4 - Food access
Nutritional knowledge

The knowledge on food groups is extremely low amongst the respondents: three quarters was not able to name any of the food groups. The food groups that were known by most respondents were vegetables and fruits, respectively 23% and 22% of the respondents mentioned these groups. However, these findings do not directly indicate an unhealthy food intake, as it might be that the term ‘food group’ is just unfamiliar to the respondents.

![Knowledge on Food Groups](image)

*Figure 5 - Knowledge on food groups*

![Food Groups Known by Respondents](image)

*Figure 6 - Food groups known by respondents*

The five-point Likert scale on nutritional knowledge gives specific insight in the knowledge of the beneficiaries interviewed. A few points stand out and are therefore worth mentioning. The greatest knowledge gap is on what causes a vitamin A deficiency and on the consequences of a vitamin A deficiency. This corresponds to the findings on the question “Which foods are rich in Vitamin A?” to which 93% of the respondents were unable to name any foods.
The greatest point of concern is that the majority of the respondents answered ‘neither agree nor disagree’ or ‘disagree’ to the statement *No single food contains all the nutrients that our body needs* – lack of knowledge on this statement could have a direct effect on their diet intake, as they might not be aware that having little variety in their diet has a negative influence on their health.

Overall, as can be seen in Figure 7, the knowledge on nutritional foods is acceptable, but could be improved. Of the maximum of 60 points, all the respondents scored at least 34 points, the average score being 43.4 and the mode score being 43.

![Nutritional Knowledge](image)

As for signs of malnutrition, one third of the respondents could mention two signs; 18% could mention one sign and 7% three signs – nobody was able to mention more than three sign and 60% reported not knowing any sign. This indicates that the knowledge on recognizing signs of malnutrition is extremely low amongst the VOC communities; which could equally have negative consequences on health. The most mentioned signs of malnutrition are lack of energy, weakness and underweight/thinness, mentioned by 42% and 35% of the respondents respectively.
Access to land

Only 12% of the 60 respondents reported to have access to land for cultivation. Of these seven respondents, four reported to have used the land for cultivation the previous summer. They cultivated mint, parsley, spinach, onions, tomatoes and rucola. None of them used the land to cultivate in the winter. However, slightly more than half (53%) of the respondents reported to have experience in agricultural production of which 80% gained experience through household level farming and 20% gained agricultural experience by working on a farm. Therefore, it could be deducted that the main cause of the lack of cultivation is the lack of access to the land, rather than the lack of skills or knowledge.

The reasons for the lack of access to land given by most respondents was that the landlord did not allow cultivation on his land (45%), the respondents lack money to cultivate (32%), their lifestyles are too unstable to cultivate (13%) and 11% reported that the water is scarce.
The seven respondents who had access to land reported to be willing to plant seeds in their land. Due to a mistake in the skip logic of the questionnaire, only 51 respondents were asked the question if they have access to irrigation, to which 88% responded they do not. The reason for all of these respondents was that they cannot afford the cost of water irrigation.

Of all 60 respondents only four (6%) reported to own livestock: one livestock owner had three chickens, one had two chickens, one had two goats and one respondent did not disclose the type of animal. The main use of these animals for all owners is household consumption. None of the 60 respondents reports to own bees, which means there is no honey production in the VOC communities.

Seven respondents have access to outdoor spaces of which four use communal land (any type of undivided land), two have access to a small garden (less than 25m²) and one respondent has access to a private field. The distance to these outdoor spaces was minimal.

These findings that only four respondents cultivate and only four have their own livestock corresponds with the earlier finding that very few respondents access food through home-production.

Access to water

VOC members face a severe lack of access to safe water and water storage facilities. An ACTED baseline assessment in April 2016 indicated that 96% of respondents have their primary source of water for their VOC coming from either wells or farm irrigation water sources. 68% of the VOC respondents recalled running out of water during the month prior to the data collection. 82% said that they stayed without water for 1-3 days and 18% said that they were without water for 4-6 days.

Of the 60 respondents assessed in December 2016, 93% reported not to be charged by the farm landowner for water usage. The four respondents who reported to be charged for their water did not know if they were charged a fixed rate or according to their use.
Although most of the respondents did not have land to cultivate, they were hypothetically asked what their main source of water would be if they would undertake farming, to which 34 respondents answered. As can be seen in the figure below slightly more than half of the respondents think they would use the water from private vendors. Buying water from private vendors means they have to pay for the water, presenting a cost barrier. Used by 15% of the beneficiaries is a private well; again this means they have to pay for water, but it might be cheaper than water from a private vendor. Another 17% uses water from springs, which is a free source of water. Lastly, 12% access water via the site owner, which could mean that they get it for free as a sort of “benefit” from working on the land.

For 50% of these 34 respondents the distance between these water sources and the land that could potentially be used for farming was more than 500 meters. The source of water being very far creates an obstacle to water access, which in turn creates strong barriers to cultivation.

Eight out of 20 respondents did not want to pay anything for trucked water from a private vendor and the other 12 respondents were willing to pay between 1 JD and 20 JD for trucked water from a private vendor, which they would potentially use for farming. Five respondents were willing to pay between 15 and 25 JD for trucked water from a well.

These same 34 respondents were asked how many days per month water is unavailable for them. Findings to this question present a dire situation: 41% states to be without access to water for four to seven days per month; which shows a dramatic lack of access to water posing clear health and nutrition threats. Based on a prior baseline assessment conducted in April 2016, almost all the respondents (92%) report to buy drinking water when they run out of it, the other 8% state that they will wait for the farm owner to get the water.
Regarding water storage, 88% of the 34 respondents used a bulk plastic tank, followed by 9% using the bulk metal tanks and 2% using a well and 1% using a small jerry can. According to all 34 respondents the water storage was in a safe place.

**Income and Expenditure**

All respondents spend money on basic household items (100%), followed by the greater majority spending money on utilities (97%), food (97%) and medical treatment (92%). It could be considered alarming that only 18% spends money on education and books and only 57% reports to purchase infant needs like diapers and infant food. The latter could mean that infants are not fed nutritious meals or food that is intended especially for infants, which could have negative and long lasting effects on children’s health. This spending pattern possibly indicates that the VOC households’ main priority is meeting their immediate basic needs such as water, food or medicine, and that education or other future investments are not a priority.
Figure 12 - Percentage of respondents that have the following spending’s

The below two figures provide an overview of the expenses made by percentages of respondents on different items or services; one figure represents smaller spending’s up to 50 JD and one figure represents spending’s up to 300 JD. Regarding the small expenses, the majority of respondents spend 16-30JD on transport, infant needs and basic HH items (69%, 53% and 58% of respondents respectively). However, a relatively high percentage of respondents reported to spend more than 50 JD on transport and infant needs (10% and 9% of respondents respectively). This could indicate that infant needs and transportation are much higher for some of the sites interviewed than for others.
Regarding the larger spending’s respondents have the highest expenses on food. Although many respondents purchase medical supplies or treatment, these expenses are relatively low for 64% of the respondents. The highest expenses, by a small group of respondents, are seen in debt repayment, where 12% spends between 201 and 300 JD per month.

Based on the below findings, it is clear that VOC communities lack sustainable sources of income. The majority of the respondents (73%) generate an income via daily work, followed by 38% who reported to earn money via charitable donations or income from aid organisations. When asked about the average income per week 77% reported to have between 20 and 60 JD per week and 23% reported to earn between 60 and 100 JD per week. The majority had a minimum income of up to 20 JD per week and a maximum income of up to 50JD per week. None of the respondents reported to earn an income via sale of agricultural products, livestock, trading, marketing, business, employment (non-daily wage), pension or income from assets or businesses back in Syria. Interestingly two respondents reported to send their children to work in order to generate an income for their family. This
The assessment did not include more questions on child labour, as this was outside of the scope of the assessment.

![Income Channels](image)

*Figure 15 - Income channels*

![Minimum and Maximum Income per Week](image)

*Figure 16 - Minimum and maximum income per week*

The majority of respondents reported that they have an income between May and October, as can be seen in the figure below. The months where most respondents have an income are July and August with 67% and 63% of the respondents generating an income. The two months in which the least money is made are February and December with 13% and 15% of the respondents reporting to generate an income in those months. This finding reflects their dependency on daily work on the farms, where there is more work in the summer growing season than in the winter season.
The majority of 70% stated that their income had stayed the same over the past 24 months, followed by 20% stating their income had decreased a little bit, 5% reporting it had decreased a lot and 5% stated their income had increased a little bit. The reason for the decrease in income given by the respondents, was a decrease in job opportunities available. More specially, at the time of the assessment, this can demonstrate that these VOCs have not felt the impact of the policy changes, especially in terms of work permits.

All except four respondents reported to have a debt with 45% reporting to have a debt less than 500 JD, 43% a debt between 500 and 1000 JD and 7% have a debt of up to 4000 JD.

All, but four, respondents face a few months per year without any income. Of these 56 respondents 47% report to go without any income for four to six months per year. This is alarming and the negative effects are reflected in the food shortages faced by the community.
Of all 60 respondents 80% faced food shortage during the month prior to the survey. Slightly more than half of the respondents who faced food shortage reported they were stuck without food for more than 10 times in one month.

Food Shortage per Month

![Pie chart showing food shortage per month: 55% one or two times, 28% three to 10 times, 17% more than 10 times.]

*Figure 19 - Food shortage per month*

To cover the periods of food shortage the respondents applied different coping mechanisms. The mechanism used by most respondents were borrowing cash (78%) and eating fewer meals (68%) – these two mechanisms both fall within the moderate coping mechanisms. Other coping mechanisms were cited but are used substantially less than these two. They include, but are not limited to, eating less food, eating less expensive food, eating less diversified food (see table below).
These two coping mechanisms were used quite often: borrowing cash and eating fewer meals were applied respectively for 85% and 90% of the respondents between three and 10 times per month.
Social Cohesion

The Syrian respondents were asked if there are Jordanians living in their community to which 60% answered there are none. Of the 24 respondents (40%) who reported that there are Jordanians living in their community, 80% reported to have spoken to them. The five respondents who reported to never have spoken with a Jordanian before gave as reasons that there is no interaction between them (3), they do not live close to them (1) and one respondents mentioned she only stays within her house and therefore never mingles with other people. Of the respondents who do talk with them, 59% does so about once a week, 23% every other day and 18% says to talk with them every day.

The reasons behind the interaction with Jordanians is mostly because they work together (37%), followed by 12% reporting they meet each other at gathering places like the supermarket or during Ramadan, 9% are neighbours with Jordanians and 42% did not want to answer this question. As can be seen in Figure 22 below, 42% reports to find the interaction with Jordanians neutral, 38% of the respondents who interact with each other reports to be satisfied with this interaction, 10% reports to be somehow unsatisfied and 10% to be somehow satisfied. It would be interesting to assess the reasons behind their slight dissatisfaction.

![Figure 22 - Perception of interaction with Jordanians](image)

When asked if they wanted to add any additional comments about the relationship between Jordanians and Syrians, 17 respondents gave comments which were all extremely positive. However, none of the other respondents wanted to comment and none of the comments were distinctly different from any of the information already reported upon.
Conclusions

The overall food security of the VOC community members remains in majority low and sometimes alarming. Although the majority of the respondents had an acceptable Food Consumption Score, 18% had a borderline FCS. This differs from refugees from Syrian living in non-VOC locations, as a higher percentage of non-VOC Syrian refugees demonstrate an acceptable Food Consumption Score and are not forced to adopt negative coping mechanisms. The only three food groups eaten on a regular basis by the majority was cereals, vegetables and dairy products. Even more alarming is the food group eaten by all respondents on a daily basis: sugar and coffee/condiments, the two least nutritional food groups. These two food groups plus oil, butter and fat were also eaten by all respondents who did have an acceptable FCS. This indicates a low variety in food consumption, which is supported by the low average Household Dietary Diversity Score (HDDS) of 6.7 out of 12 points. The knowledge on food groups is equally extremely low amongst the community members. However, this rather urges ACTED to use a different terminology than that it directly relates to their eating behaviour. Nevertheless, other findings relate directly to their diet intake. The respondents are for example not sufficiently aware that one single food does not contain all the nutrients the human body needs; and a large part of the respondents were unable to name any sign of malnutrition.

Most food was purchased with vouchers, followed by cash. 86% of respondents had used WFP food assistance to purchase some kind of food, the most commonly purchased being oil. Very few respondents access food through home-grown production; which can be explained by the lack of access to land for cultivation. Indeed, only seven respondents reported to have access to land for cultivation and only four actually cultivated small amounts of food, mainly herbs and vegetables like mint, parsley, tomatoes and onions. Similarity, only four respondents reported to own livestock used for household consumption.

In addition, the above has demonstrated that a large part of the community is left without water for as long as four to seven days a month; which is without doubt alarming and should be further assessed to understand the consequences of this lack of access to water and the coping mechanisms used by the community to access water.

Respondents spend most money on basic household items, utilities, food and medical treatment and supplies and spend least on, amongst other services, education and infant needs. This spending pattern possibly indicates that the VOC households’ main concern is still meeting basic needs on a daily basis, instead of investing in the future and by paying for education. The lack of knowledge and information around nutritional needs, due to the isolation of the population and the difficulty to access education services, can explain some spending choices, such the non-prioritisation of expensive infant food. Income is seen as mainly generated via daily labour and charitable donations. The income

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5 REACH Comprehensive Food Security Monitoring Exercise, 2017
differs from one month to another: more is earned in the summer months than in the winter months, which is clearly an indicator of the dependency on daily labour at farms. Further, half of the respondents are without any income for four to six months; which is directly at the source of food shortages, which half of the respondent’s experience more than 10 times per month, requiring them to employ negative coping mechanisms. The most used coping mechanisms are borrowing cash and eating fewer meals, which are both applied about three to 10 times per month by the majority of the respondents.

**Recommendations**

Based on the conclusions and the combination of the fact that 1) more than half of the respondents have agricultural experience; 2) almost none of the respondents undertakes cultivation for household consumption; 3) the lack of access to sufficient water and the access to land for cultivation being jeopardized by landlords, ACTED recommends the following actions to be taken:

- Provide unconditional cash assistance to enable VOC HHs to access a more diversified diet and improve their food consumption.

- Establish and facilitate small saving and loan schemes in order to enable VOC to save part of the income achieved during the agricultural season when they access more cash to be used during the winter season when livelihoods opportunities are at the lowest and needs at the highest (warm clothes, blankets, heating etc...).

- Provide basic business skills and life skills trainings to improve the HH-level cash management, avoid the adoption of negative livelihoods coping strategies and identify possible opportunities for more sustainable income generation activities.

- Train VOC HHs on food processing, transformation and marketing (with priority on women) in order to allow them to conserve food (in particular agricultural products) for a longer time as well as establishing small income generation activities to complement HHs income.

- Promote and facilitate the use of hydroponic agricultural systems which uses 90% less water than regular agriculture and do not take require access to land as the system is built vertically.

- Distribute the necessary inputs and train VOC HHs on poultry keeping, this would support the improvement of their nutritional situation and become a potential income generating activity

- Awareness raising and information sessions on nutrition focused on infant nutritional needs, dietary diversity, the nutritional value of different food groups and identifying signs of malnutrition.