Community and Household Surveillance in North Western Tanzania:
Programme Outcome Monitoring in Nyarugusu Refugee Camp

Undertaken Jointly by WFP and UNHCR

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Acknowledgment

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Executive Summary

Community and Household Surveillance monitoring system (CHS) is a recognized and a credible outcomes and food security monitoring tool. The primary objective of CHS is to determine the impact of food assistance on targeted households and to monitor food insecurity and livelihood trends of vulnerable groups. The first two rounds of CHS took place in December 2008 and May 2010 respectively. This is the third round, which took place in June 2011 and covered only Nyarugusu camp as other camps are already closed. A total of 343 household interviews were conducted.

Some highlights of the survey include:

- There was an improvement in school attendance among boys and girls. Drop out level was low although slightly increased from 2010.
- Over 75% of the households access drinking water from improved water sources. Average time spent to fetch water increased from 17 minutes to 33 minutes due to reportedly shortage in the vicinity.
- Almost half of the sampled households have access to land for cultivation. Female and male headed households have equal access to land. Majority of households (77%) have access to less than 0.5 acres.
- Support from outside the camp, in terms of money, clothing, food and agricultural input was found to be insignificant and decreasing compared to 2008 and 2010.
- Household food security, as measured by the food consumption score, was relatively good with most households (86%) having acceptable consumption. However, this was a decrease compared to 2010 (98%). Food assistance was the most common source of food (69%).
- The sampled households mainly relied on food assistance (83%), salaries (5%) petty trade (4%), food crop production and sale (3%) and casual labour (2%) as means for their livelihoods.
- Household food security, as measured by the food consumption score, was relatively good with most households (86%) having acceptable consumption. However, this was a decrease compared to 2010 (98%). Food assistance was the most common source of food (69%).
- Half of the sampled households fell in the asset medium category, which was an improvement compared to 2010.
- There is a deceased availability of food at the market compared to 2010, as the government closed the main market in camp. The most common food items available include vegetables, dagaa (sardine), maize, oil and sweet potatoes.
- The most commonly relied on coping strategies include reducing number of meals eaten per day (62%), limiting portion sizes at meal times (62%) and borrowing food or money (56%).
- Half of the sampled households reported to encounter difficulties in meals preparations, main problems being insufficient food amounts (29%), scarcity of firewood (26%), and lack of kitchen utensils (16%).
- On average, the 14 days food ration distributed to refugees last 10 days. Maize and beans last 10 days, vegetable oil lasts 8 days and CSB and salt last 5 days. Further investigations to understand why are recommended.
- More than half of the sampled households (53%) were aware of the food distribution committees in the camp.
- The main problems encountered during distribution were underweight bags (32.9%), cheating by group leaders (21.1%), uneven distribution and absence of ration information (16.3%) and inaccurate weighing scales (15.4%).
- Only 7% of the sampled households indicated that they were planning to repatriate. Majority of the households not planning to repatriate cited security related problems (72%) while 40% had protection concerns.
- There was an overall improvement in food security compared to 2010 CHS results. However most households are highly dependent on food and other assistance and although they are far from being self-reliant. The recommendation is to continue the food assistance at the current levels while also enabling them to access more livelihood activities.
**1.0 Background**

In 1993, approximately 250,000 Burundian refugees fled to Kigoma and Kagera regions in Tanzania following an attempted coup in Burundi. Another significant influx of refugees from Rwanda and Burundi followed in 1994 after the Rwandan and Burundian Presidents were killed in an airplane crash. In 1996 large numbers of Congolese refugees arrived in Kigoma following civil strife in the DRC, formerly known as Zaire.

In June 2006, the Governments of Tanzania and Burundi and the Office of the United Nations High Commissioner for Refugees (UNHCR) launched the promotion phase ofBurundian repatriation following improved security to enable safe and dignified return. The Government was planning to officially close several camps in 2008. Although, the repatriation activity was not as per Government and UNHCR estimates most of the camps have been closed leaving only Nyarugusu camps that hosts about 60,000 refugees.

The camp consolidation exercise implemented between 2007 and 2009 saw six camps (Lugufu, Muyovozi, Kanembwa, Mkugwa Mtabila II and Lukole camps closed down. Mtabila I and Mtabila II camps in Kasulu were merged into Mtabila camp while Lugufu camp was consolidated into Nyarugusu camp. Mtabila camp, although physically existing, was declared officially closed by the government in June 2009; as such this survey only took place in Nyarugusu camp. However, basic services including food, water and health services continue to be provided on humanitarian grounds in Mtabila camp.

The WFP Community and Household Surveillance monitoring system (CHS), was developed for use in several southern African countries in 2003. It has also been implemented as an outcome monitoring system for programmes providing a household ration through targeted food assistance interventions. The CHS approach has also been applied to enhance Joint Assessment Missions (JAMs) in several countries and was then introduced in North Western Tanzania in 2008 after consultation with the WFP Tanzania CO and partners.

The main objectives of the CHS is to monitor food aid outcomes, determine the impact of food aid on targeted households and to monitor food insecurity and livelihood trends of vulnerable groups. CHS has value as a management tool and has proved to be a useful tool in informing operational decisions with respect to the food aid interventions by addressing the following questions:

- Are intended outcomes being achieved?
- Is food assistance reaching intended beneficiaries?
- What is the contribution of food assistance to the households’ diet, food security and livelihoods?
- Is food assistance preventing depletion of human and productive assets?

The CHS, is also supposed to provide baseline information for subsequent rounds and allow the analysis of trends for key food security indicators in the future with the results feeding into the annual JAM and incorporating aspects of any other data collection activities.

As stated earlier the first round of CHS took place in December 2008 and covered four camps. The second round in 2010 and this third round only cover one camp of Nyarugusu following closure of the other three camps. The majority of the refugees in Nyarugusu camp are Congolese.

**1.1 Methodology, Training and Data Collection**

A two stage sample design was adopted for the survey. The first stage was the selection of villages (Primary sampling units). And this was done using Simple random sampling. The second stage involved the selection of household from the selected villages. The household were the ultimate sampling units. The Frame from which
both the villages and the household were selected was provided by UNHCR from their camp population database.

The CHS questionnaire (household) was used to collect information for food security indicators such as, household demographics, livelihood strategies, agriculture production, cereal stocks and sources, income and expenditure, asset wealth, food consumption, and coping strategies. This was done through household interviews with household heads. Data was collected electronically using Personal Digital Assistants which are hand-held devices used to save time and reduce errors during data collection and analysis.

A total of 17 enumerators were trained for two days as most of them had received prior training on the use of PDAs. The second day was used for field testing from which minor changes were made to the tool. Data collection took place over a period of three days and a total of 343 household questionnaires were collected.

1.2 Limitations of the Study

All possible steps were taken to ensure that the results accurately represent the food security context and situation in the camps. However, some limitations must be acknowledged.

- Inaccurate recall and quantitative estimates may affect the validity of the findings. The enumerators were trained to facilitate such recall and to collect accurate data.

- It is also possible that expectations for ulterior benefits influenced the results. However, it was explained to respondents that no ulterior benefits were to be expected and that the questionnaires were anonymous.

- The questionnaires were developed in English and administered in Swahili. Careful training was conducted to reduce individual variations on how enumerators interpreted the questionnaire and understood the questions.
2.0 Household Characteristics

Nyarugusu camp hosts 62,442 Congolese refugees. For this study covering a sample of 343 households, the average household size of the sample was 6 persons, which is similar to the last round in 2010 although slightly lower than previous survey round of 2008 which was 7 persons. Most households had an adult male and adult female, plus children 6-17 years of age. In addition, around three-quarters of the households also had young children while only around 12% of households had elderly members (60+ years).

Demography

Of the sampled households, about 55% were headed by women, higher than 44% reported in 2010 and 36% in 2008. None of the interviewed households was headed by an elderly or a child. About 13% of the household heads were widowed while 61% were married. Only 2% of households interviewed indicated that they were living apart from their spouses although not divorced and this is lower than 7% reported in 2010 and 3% reported in 2008. As shown in the graph to the right, percentage households with divorced household heads doubled in 2011. This may be linked with increase in female headed households as shown above. Literacy was high among male heads of households compared to the female heads. More than 85% of the male heads were literate (can read) compared to 84% in 2008. About 59% of female head indicated they were literate in 2011 compared to 49% reported in 2010.

Chronically ill, Disabled or Orphaned Members

The assessment explored different vulnerable groups in the sampled households. In total, 12% of the sampled households reported having a chronically ill member (ill for 3+ months), compared to 7% reported in 2008 but similar to 2010. Female headed households were more likely to have a chronically ill member (16%) than those headed by men (7%). In addition, 9% of the households had a physically disabled member similar to 2010 and 2008. The assessment found that female headed households had more disabled members than male headed households. In total, 20% of the sampled households were hosting orphans similar to reports of 2010 but higher than 10% reported in 2008.

Dependency

The overall dependency ratio was at 58%, similar to 2008 and 2010. The percentage of dependents\(^2\) was higher in households headed by women (63%) compared to male headed households (56%).

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\(^1\) UNHCR /WFP May 2011

\(^2\) Percentage of effective dependents is the number of persons < 18 years or 60 or more years plus those of working age (18-59) who are chronically ill, divided by the total number of household members.
Economically Active Persons

The assessment found out that 67% of the adults (18-59 years) were engaged in some kind of economic activities, while 10% of children aged 6-17 years were economically active and only 5% of elderly (60 years and above). In 2008, Nyarugusu had the highest percentage of economically active children aged 6-17 years (11%) compared to other camps, denoting child labour. The situation appears similar in 2011 with no major changes.

School Enrolment and Attendance

In 2011, 76% of the boys and 83% of the girls aged 6-13 years were reported to be enrolled in primary school. As shown in the graph, enrolment has gone down in Nyarugusu as compared to 2010 and 2008 especially for boys.

Regarding attendance, the level of boys and girls attending school regularly was at 85% and 84% respectively; and this is not very different from 2008 and 2010.

Level of drop out has gone up to 9% slightly higher than 7% in 2010 but similar to reports of 2008.

Source of Drinking Water

According to CHS results, over 75% of the households have access to drinking water from improved water sources (piped into dwelling yard or plot, public tap/neighbouring house, borehole with pump). This is similar to 2008 and 2010 results. However, average time spent on fetching water increased from 17 minutes in 2010 to 33 minutes in 2011. Discussions with the respondents indicated that this was due to shortage in their areas and households had to walk further to collect water from other nearby villages. Further discussions with TWESA (the partner responsible for providing water in the camps) also revealed that a lot of construction is going on in the camp hence increasing demand for water.

Sanitation

Most households (75%) used traditional family pit latrine for their sanitation purposes. However, this has reduced compared to 90% reported in 2008 but improved from 71% reported in 2010. Similarly, the percentage of households using shared traditional pit latrine decreased from 25% in 2010 to 14% in 2011. This could be attributed to households from Lugufu that did not have their latrines already in place at the time of the 2010 survey but have managed to get settled in the community since then. In addition, agencies have been running aggressive campaigns to promote improved sanitation in the camp.
Source of Lighting

Majority of the sampled households (85%) use kerosene lamp and Torches/Burda\(^1\) as the main source of lightings. 5% of the households cited firewood while 5% reported no lighting at all. Female headed households were less likely to use an oil lamp (6% vs. 3%) and more likely to use firewood (7% vs. 2%) than households headed by men. This pattern is similar to what was reported in 2008 although percentages have reduced for both groups.

Source of cooking fuel

Firewood remains the major source of cooking fuel in the camp. Of the sampled households, wood was mentioned as the main source of cooking fuel by 93% of the households. Only 5% of the households mentioned charcoal as a cooking source while other sources such as kerosene, and gas were hardly used at all. The use of charcoal as a source of cooking fuel has not changed much from 2010.

\(^1\) Burda is a local term used in the camp to describe batteries joined together with a wire extended to the ceiling and a small bulb at the end.
3.0 Household Circumstances

Country of Origin
As Nyarugusu is a Congolese refugee camp, 96% of the sampled households originated from DRC, with the rest from Burundi (3%) with only 0.6 households coming from Rwanda. This is not very different from what was reported in 2008.

<table>
<thead>
<tr>
<th></th>
<th>Burundi</th>
<th>Rwanda</th>
<th>Ethiopia</th>
<th>DRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 2008</td>
<td>4.1%</td>
<td>.3%</td>
<td>-</td>
<td>95.6%</td>
</tr>
<tr>
<td>Round 2010</td>
<td>1.3%</td>
<td>.6%</td>
<td>-</td>
<td>98.1%</td>
</tr>
<tr>
<td>Round 2011</td>
<td>3.5%</td>
<td>-</td>
<td>0.3%</td>
<td>96.2%</td>
</tr>
</tbody>
</table>

Change of Camp
Over the last 15 years, 60% percent indicated having changed camps once, and about 35% have changed camps twice. Only 4% of the sampled households indicated having changed the camps three times.

Main reasons for moving to current camp were:
- Protection/security reasons, cited by 40% of the households, much lower than the 68% reported in 2008 and 57% in 2010;
- Last camp being closed by 56% of the households compared to 43% in 2010 and 20% in 2008. With increased repatriation over the years, several camps have been closed or merged with others. The increase in percentage of Burundian refugees shown above may be due to these activities.

Plans to repatriate to Country of Origin
The assessment explored refugees’ readiness to repatriate to their country of origin. Only 7% of the sampled households indicated they planned to repatriate. Over 92% are not planning to repatriate, which is higher than what was reported in 2008 and 2010. Of the households planning to repatriate, 45% indicated they would do so in 2011 and 35% in 2012.

Of the households not planning to repatriate, 72% cited security related problems while 40% reported protection problems as shown in the table below. Others reported land problems at home (33%) and never been to country of origin (13%)

<table>
<thead>
<tr>
<th>Reasons for not Repatriating</th>
<th>Land Problem at home</th>
<th>Security Related problems</th>
<th>Protection Related problems</th>
<th>Never been to country of origin</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 2008</td>
<td>19.2%</td>
<td>80.8%</td>
<td>34.2%</td>
<td>11.2%</td>
<td>23.6%</td>
</tr>
<tr>
<td>Round 2010</td>
<td>20.8%</td>
<td>80.8%</td>
<td>39.2%</td>
<td>4.9%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Round 2011</td>
<td>32.7%</td>
<td>72.1%</td>
<td>39.7%</td>
<td>12.7%</td>
<td>11.4%</td>
</tr>
</tbody>
</table>
4.0 Livelihood Activities

In order to better understand the relative importance of different livelihood sources, households were asked to estimate the contribution of each source to the total household income. The table below shows mean change in relative contribution of different livelihoods to households’ income between 2008, 2010 and 2011. It shows that the mean contribution of food assistance and salaries/wages increased between 2010 and 2011 but average contribution from petty trade, crop/vegetable production, skilled labour and food aid sales decreased in the same period though by small percentages. Note that all households reported that food assistance contributes to their livelihood and the other activities shown below are in addition to food assistance and a combination of others.

<table>
<thead>
<tr>
<th>Livelihood Activity</th>
<th>Description</th>
<th>Round 2008</th>
<th>Round 2010</th>
<th>Round 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Assistance</td>
<td>Majority of the interviewed households are in this category. The biggest proportion of their livelihood is from food assistance (83%). This has increased from what was reported in 2008 and 2010. This could be attributed to decreased contribution from other activities such as increased labour opportunities, food crop production. Government of Tanzania has intensified enforcement of movement restrictions on the refugees and thus may be a major contributing factor to this increased contribution of food assistance.</td>
<td>78%</td>
<td>67%</td>
<td>83%</td>
</tr>
<tr>
<td>Salaries/Wages</td>
<td>There has been an increase in mean contribution of salaries to household livelihoods. There is possibility that the households from Lugufu who had just moved to Nyarugusu last year may now have access to salary/wage opportunities hence the increased contribution</td>
<td>3%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Petty Trade</td>
<td>There is a very small shift in the contribution of petty trade between the three reporting periods. The market in the camp was closed and thus may have affected petty trade activities that were being carried out by the refugees.</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Crop/Veg Production</td>
<td>Contribution of food crop production has decreased by about 3% between the two reporting period. This could be associated with increased contribution of food assistance which as shown above has increased hence reduction in crop production. With restricted movements as reported above, the refugees may be unable to access land for crop and vegetable production and possibly be limited to a small area. In addition, a 2007 qualitative study indicated that refugees in Nyarugusu camp were less reliant on agricultural activities in comparison to the other camps surveyed at the time. As such, the refugees that moved from Lugufu may have adapted accordingly.</td>
<td>4%</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Casual Labour</td>
<td>Reliance on casual labour has decreased by 3% between 2008/2011 reporting periods. This may be due to increased enforcement of restrictions to refugee movement by the government of Tanzania.</td>
<td>5%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Food Aid Sales</td>
<td>Contribution of food aid sales has decrease between 2010 and 2011. This could be associated with settling in of households that were moved from Lugufu to Nyarugusu and have thus been able to adjust to their new camp and identify other livelihoods. The situation is now closer to what was reported in 2008.</td>
<td>2%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>Skilled Labour</td>
<td>Contribution of skilled labour has also decreased between the two reporting periods 2010/2011 and is also lower than 3% reported in 2008.</td>
<td>3%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Fishing/Livestock</td>
<td>The contribution of fishing and livestock production (mainly poultry) has reduced between 2010 and 2011 but is similar to 2008.</td>
<td>1%</td>
<td>3%</td>
<td>1%</td>
</tr>
</tbody>
</table>

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4 This is not a comprehensive livelihood analysis, which includes, but it is not limited to, economic activities. The main goal is to identify and group households based on a common set of economic activities, their relative importance for risk analysis and how this has changed over the different reporting periods.

5 Note that these percentage changes are not statistically significant.
External Support and Debt

External support is an important mechanism that allows households to meet non food as well as additional food needs. The sampled households were asked if they had received any support in form of money, clothes, food, agricultural input from friends and relatives outside the camp for the last 6 months. Only 18% indicated they had received money support which is much lower than 40% reported in both 2008 and 2010. About 38% had received support in form of food which increased from 20% reported in 2010. There is a decrease in households that received support in form of clothing from 40% in 2010 to 37% in 2011. However, most households reported that this support was not regular.

The assessment explored if refugees have access to credit within the camp. Overall, 18% of the sampled households indicated they had borrowed money, mostly from money lenders, which is similar to 2010 and less compared to 36% that was reported in 2008. According to the refugees they borrowed money mainly to purchase food and pay for healthcare. In addition, 60% of the respondents confirmed to have borrowed food before their last distribution. The majority (82%) indicated that they had borrowed cereals, 56% borrowed pulses and 30% borrowed oil. This indicates that over 50% of the population rely on borrowing food to meet the following food distribution cycle. Some refugees remain a vicious cycle of borrowing as they have to repay after every food distribution and borrow before every food distribution. It was gathered during the assessment that churches also play an important role in lending from the stocks they gather after refugee’s food contribution during each food distribution week.
5.0 Agriculture

Access to agricultural land

Overall, 45% of the sampled households reported having access to land for cultivation, an increase from 27% reported in 2008 but similar to what was reported in 2010. Female and male headed households had equal access to agricultural land. It should be noted that refugees are only allowed to access land within a 4km radius of the camp. The majority of households (77%) had access to less than 0.5 acres and 15% accessed 0.5-1 acre. As shown under livelihood activities, contribution of crop production to households’ livelihoods has decreased and this may also be linked to less access to land for cultivation. In 2010, households that had access to land but were not cultivating reported that lack of seeds (47%) and illness in the household were the main reasons for not cultivating. This is however, different from 2008 where the major reason for not cultivating was planned fallow (64%).

Mostly, the land accessed by the farming households was free (not rented) as indicated by 62% of the households. This is because majority of the refugees utilise buffer areas within the camp for farming activities as opposed to farming outside the camp. For the farming households, the main crops cultivated were sweet potatoes by 49% of the households, Maize by 66% (up from 44% in 2010), beans by 55% (an increase from 37%), vegetables by 11% (reduced from 57%), and cassava (18%) up from 13% in 2010. On average, households obtained approximately TZ shs 21,000 from the sale of their crops, which is three times higher than TZ sh 7,000 and TZ sh 5,000 that was reported in 2010 and 2008. This increase may be attributed to several households getting a good harvest from rice production. Households growing rice and beans increased and on average reported the highest revenue from their sales.

Availability of Food Commodities in the Market

The graph below shows the availability of different food items in the market, as reported by the households during the interview. Vegetables, Dagaa (sardines), maize, oil, sweet potatoes were the most common food items found in the markets. As shown below, there is a decreased availability of most commodities compared to 2010 especially. The 2008 survey took place at the peak of the high food prices crisis hence could explain low availability of rice at that time. As the government closed the main market within the camp, this availability reported may be limited to specific locations within the communities and need to be further investigated. It was necessary to separate fish and dagaa (sardine) to capture the relative contribution of each as many refugees reported to eat dagaa, which is cheaper compared to fish. Only dry fish is available at the market as opposed to fresh fish.
6.0 Asset Wealth and Livestock Ownership

Asset wealth

Assessment teams asked households to indicate whether or not they owned selected types of assets\(^6\) common to the refugee set up. Asset wealth was then determined by asking households whether they owned or didn’t own different type of assets, totalling these and then creating categories of: ‘very poor’ (0-2 assets), ‘poor’ (3-4 assets), ‘medium’ (5-9 assets), and ‘rich’ (10 or more assets). In total, for 2011, 20% of the households were ‘asset very poor’ - owning 0-2 different types of assets. Another 26% were ‘asset poor’, 50% were ‘asset medium’ and only 4% were ‘asset rich’. As the chart below shows, there has been an increase in households that are ‘medium’ and consequently a decline in the other asset wealth groups. In 2010, increase in ‘asset very poor’ was significantly higher among households that were relocated to Nyarugusu from Lugufu camp. This group has shown an improvement with increase in the ‘asset medium’ category.

For 2010, female headed households were more likely to be ‘asset very poor’ (28% vs 10%) compared to households headed by men. The majority of male-headed households were asset ‘medium’ (67%) which is higher than 38% reported in 2008 and 2010.

Comparing livelihood groups by asset wealth showed that asset rich households were only found in households relying on skilled labour (25%) and crop/vegetable production (18%). Households relying on casual labour, petty trade and food assistance are the only groups with households in the asset very poor category. In addition, proportion of households in the asset ‘very poor’ category decreased across all livelihoods between 2010 and 2011.

Livestock Ownership

More than half of the households owned livestock—59% which is higher compared to 51% reported in 2010 and 57% in 2008. Only about 2% of the households owned cattle similar to 2008. In addition, 20% owned sheep or goats up from 16% in 2010 and 18% in 2008, and largest percentage 50% owning poultry.

Sampled households were also asked if they had sold any assets or animals in the last three months, and only 10% indicated that they had. Of those that sold, the majority reported that the reason they sold was to buy food and pay for other daily expenditure with in the household and social events.

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\(^6\) Assets include Chair, Table, Bed, TV/satellite dish, Radio, Mobile phone, Axe, Sickle, Panga/Machete, Mortar, Hoe, Ox Cart, Milling machine, Bicycle, Hammer, Saw, Sewing machine, Musical Instruments

\(^7\) It is assumed this is to diversify their diet
7.0 Household Food Consumption

Number of Meals

On average refugees ate two meals per day, with no significant differences by age group (children-6-17 years, and adults). There were also no major differences when compared with 2008 and 2010 findings.

Dietary Diversity and Food Frequency

Research has shown that dietary diversity and frequency are a good proxy measure of food consumption and food security at household level. Food consumption data was collected and analyzed using food consumption score. Using a 7-day recall period, assessment teams collected information on the variety and frequency of different foods and food groups to calculate a weighted food consumption score. Weights were based on the nutritional density of the foods.

Households were then classified as having either ‘poor’, ‘borderline’ or ‘acceptable’ consumption based on the analysis of the data. Over 86% of the sampled households had acceptable consumption, which is lower than 98% reported in 2008 but similar to what was reported in 2010. Households showing borderline consumption also increased from 8% to 12% in 2010 and those with poor diet at 2% down from 6% in 2010. In 2010, the increase in poor consumption was mainly linked to households that were relocated to Nyarugusu from Lugufu camp, however, with this households settling in, the consumption patterns have improved. This could imply that the newly relocated households may have stabilized in their new environment.

Households with ‘borderline’ consumption reported eating the equivalent of cereals 6 days a week pulses three days a week plus about 4 days of oil a week. Those with ‘poor’ consumption managed to eat the equivalent of only cereals three days, pulses once a week and oil four days in a week. Households with ‘acceptable’ consumption ate cereals seven days a week, meat/fish two days, pulses and oil six days a week. The chart below shows the average number of days key food groups were consumed in a week. Number of days each of the foods is consumed has increased between 2010 and 2011 for all food items especially for the poor consumption category. However, consumption patterns for all groups are still lower than what was reported in 2008.

Consumption of milk is almost nonexistent and compares well with the limited ownership of cattle reported by only 2% of the respondents. In addition, Based on a 24 hour recall period reported in the 2010 Nutrition Survey in the camps, consumption of proteins was also low with only 26%(n=1038) having consumed protein rich foods.

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8 Dietary diversity is defined as the number of individual foods or food groups consumed over a given period of time

9 A Joint Nutrition Survey Conducted in Nyarugusu and Mtabila Camps by WFP, UNICEF and UNHCR 2010
Analysis by livelihood groups shows that there is no household relying on fishing/livestock production in the acceptable consumption category. In addition, households relying mainly on food assistance also reported a decline. Major improvements are seen in households relying on salaries/wages, and casual labour.

**Food Sources**

Households were also asked to name the main source of the foods consumed in the previous week, by food item. The most common source was food assistance (69%) down from 81% in 2008, followed by purchase (16%) and own production (6%). Although 45% of the households reported growing crops on land they are able to access, as seen in the table below, it doesn’t necessarily translate into consumption by the same households. In addition, there is a small increase in households relying on borrowing and gifts which also linked to what was earlier reported under external support with borrowing of food on the increase.

<table>
<thead>
<tr>
<th>CHS Round</th>
<th>Own Production</th>
<th>Labour</th>
<th>Borrowing</th>
<th>Gifts</th>
<th>Purchase</th>
<th>Food Aid</th>
<th>Exchange</th>
<th>Gathering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round 2008</td>
<td>4%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
<td>17%</td>
<td>74%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Round 2010</td>
<td>6%</td>
<td>1%</td>
<td>0%</td>
<td>2%</td>
<td>10%</td>
<td>81%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Round 2011</td>
<td>6%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>16%</td>
<td>69%</td>
<td>3%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Difficulties with Meal Preparation**

About 50% of the sampled households reported to encounter difficulties in meals preparations, down from 51% in 2008 and 70% in 2010. As indicated in the chart, the three main difficulties encountered in 2011 included fuel wood (26%), insufficient amount of food (29%) and lack of kitchen utensils/cooking pots (16%). More households reported difficulties of insufficient amount of food between 2010 and 2011 probably because they have increased their reliance on food aid as their source of food. Earlier in the report, households reported increased borrowing of food. There is a noticeable improvement in the type of stove with fewer households reporting this as a difficulty. During the JAM\(^\text{10}\) that took place in November 2010, CARE indicated that they had distributed at least 5000 fuel efficient stoves as part of their campaign to reduce environment degradation and thus may have contributed to reducing this particular cooking problem within the camp.

*Figure 6: Problems encountered during Meal Preparation*

\(^{10}\) WFP/UNHCR Joint Assessment Mission 2010
8.0 Household Expenditure Patterns

Household expenditure used as a proxy indicator for household income, was calculated by adding the monetary value of all the food and non-food items acquired in cash over the period of one or six months (depending on the type of expenditure) preceding this assessment. Overall the average household total monthly expenditure amounted to TZS 16,000 up from 14,000 reported in 2010 and average per-capita of TZS 3,100 up from 2,400 reported last year. Of the total expenditure, households used TZS 7,900, (50%) as shown in the graph to the right, to purchase food items that are inclusive of those provided in the food basket. Although percentage food expenditure has reduced, the actual expenditure in absolute terms has increased by TZS 100 from TZS 7,800. As shown in the graph below, highest food expenditure is on Cereals (14%) and meats/fish (12%). However, expenditure on cereals has reduced from 20% reported in 2010. Health expenditure increased by 2% between 2010 and 2011 and discussions with respondents revealed that they spend on traditional healers as well as referrals. In addition, borrowing to pay for healthcare also increased as reported earlier.

Comparing expenditure patterns by asset wealth groups, the assessment found that the asset medium had the highest percentage food expenditure at 49% followed by the ‘asset very poor at 55% and then the ‘asset poor at 46%. All groups reported a decrease in percentage food expenditure with the exception of asset medium which increased. The ‘asset rich’ wealth group was found to have higher non food expenditure (56%). Worth noting that food expenditure for the asset very poor reduced between 2010 and 2011.

Figure 7: Percentage Household Expenditure

Analyzing expenditure patterns by livelihood groups showed that households relying on food aid sales had the highest percentage food expenditure at 79% while those relying on fishing and livestock production had the least at 31%. As reported above under food consumption, no household relying on fishing/livestock production fell within acceptable consumption for the 2011 reporting period. All other groups had similar expenditure patterns. As shown in the chart above, highest non-food expenditure for the refugees was on clothing (13%), soap (6%) and fuel (9%). Under the ‘other’ category, most households reported that this was mainly to buy batteries for lighting torches/burda which is the most common source of lighting reported.
9.0 Coping Strategies Index

Coping Strategies Index (CSI) measures the frequency and severity of a number of common household coping strategies for addressing perceived shortfalls in food supply and combines the information into a single CSI score. With the CSI, a lower score implies reduced stress on the household ability to meet its food needs and thus, relatively better food security. Overall, households reported an improvement in stress levels with a decrease in their comparative coping strategies index from 17 in 2008 to 10 in 2010 and 8 in 2011. The Reduced/Comparative Coping strategies are a specific set of behaviours with a universal set of severity weights for each behaviour. Thus, the reduced CSI uses a standard set of five individual coping behaviours that can be employed by any household, anywhere. Looking at other indicators shows that household food access is improving with better consumption, reduced percentage food expenditure, improved asset wealth and some diversity in their food sources which possibly explains the lower stress levels reflected in a lower CSI.

The most commonly reported strategy was reducing number of meals eaten in a day reported by 62% of the respondents. This has however, reduced from 85% that reported in 2008 and 77% in 2010. Other frequently reported strategies that have shown an improvement from 2008 are limit portion sizes from 78% to 62% to and restrict adult consumption from 61% in 2008 to 27% in 2011. As shown in the chart below, an increase was reported in borrowing food/money from 54% to 56% in 2011; and this was reflected earlier in household food sources and external support. Migration of household members, exchange labour for food (work for food), Skip entire days without eating, and selling household assets also showed an increase in percentage households reporting them between 2010 and 2011. Analysis by livelihood groups shows reducing levels of stress across all groups.

<table>
<thead>
<tr>
<th>Coping Strategy</th>
<th>Round 2008</th>
<th>Round 2010</th>
<th>Round 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce number of meals eaten in a day?</td>
<td>85.2%</td>
<td>76.5%</td>
<td>62.2%</td>
</tr>
<tr>
<td>Limit portion size at mealtimes?</td>
<td>77.8%</td>
<td>62.6%</td>
<td>61.6%</td>
</tr>
<tr>
<td>Borrow food or money from neighbours, friends, or relatives?</td>
<td>49.9%</td>
<td>54.3%</td>
<td>56.6%</td>
</tr>
<tr>
<td>Purchase food on credit?</td>
<td>41.1%</td>
<td>25.6%</td>
<td>32.3%</td>
</tr>
<tr>
<td>Restrict consumption of adults in order for small children to eat?</td>
<td>61.4%</td>
<td>23.2%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Exchange your labour for food (work for food)</td>
<td>30.7%</td>
<td>17.6%</td>
<td>23.1%</td>
</tr>
<tr>
<td>Skip entire days without eating?</td>
<td>31.5%</td>
<td>18.0%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Send household members to eat elsewhere?</td>
<td>14.8%</td>
<td>10.0%</td>
<td>11.2%</td>
</tr>
<tr>
<td>Send household members to beg?</td>
<td>9.6%</td>
<td>8.3%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Sell high value, preferred foods to purchase larger quantity of less expensive foods</td>
<td>22.7%</td>
<td>6.9%</td>
<td>7.5%</td>
</tr>
<tr>
<td>Sell Household Assets or the NFI's the household owns</td>
<td>8.2%</td>
<td>5.2%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Have some members of the household migrate elsewhere or repatriate</td>
<td>5.2%</td>
<td>1.4%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Engage in prostitution or theft of food (illegal activities)</td>
<td>5.5%</td>
<td>1.7%</td>
<td>1.4%</td>
</tr>
</tbody>
</table>
10.0 Post Distribution Monitoring

Post Distribution Monitoring is a systematic investigation that monitors the perception that both beneficiaries and non-beneficiaries have of a WFP operation. Information is collected at the household level after a food distribution to assess access to use and satisfaction with the food aid. It provides information on leading indicators, i.e. gives an indication as to whether food assistance is likely to lead to the desired outcomes. Feedback on beneficiary perceptions informs management decisions on design of rations, distribution modalities and targeting of beneficiaries. CHS included post distribution indicators to understand beneficiaries’ perception on WFP food assistance.

Sale of Food Assistance

Only 23% of the sampled households reported having sold their ration, which is similar to what was reported in 2010. For those that sold food, the main reason for selling the ration follows the 2008 and 2010 trend and reasons were given as: need other food items (20%) need other non-food items (10%) and no other source of money by 11% of the households. As indicated in the chart to the right, reasons for households selling food aid reduced between 2008 and 2010 as well as 2011. However, need for diversity in their diet as a reason for selling food aid increased albeit by a small percentage. This compares well with increase in purchase as a food source reported earlier.

Duration of Ration

The ration provided is designed to last for 14 days, as food is distributed on 14 days cycles. However, according to the findings, average days the rations last have reduced this year compared to what was reported in 2008. The maize and beans ration given lasted for 10 days, down from 11 days reported in 2008 and up from 9 in 2010. Vegetables oil lasted 8 days (9 days in 2008), while salt lasted for only 5 days in 2010 and 2011 compared to 9 days reported in 2008. CSB lasted only 5 days in 2010 and 2011 compared to 7 days reported in the previous survey. Salt ration was reduced from 10mg to 5mg in January 2010 based on revised PRRO 200029 ration scales. It’s still not clear why a 14 day ration provided to refugees only lasts an average of 9 days hence further investigations are needed to understand this. However this may also be linked to increased borrowing of food reported earlier, contribution to churches as well as insufficient amounts of food raised as a cooking problem by the households. In addition, food aid plays an important role as a source of income for refugees to meet other food and non-food items needs, and some social activities.
Distance to the Food Distribution Point

On average majority of the beneficiary households took less than half an hour to arrive at the distribution point (22 minutes) which is close to what was reported in 2008 at 25 minutes but slightly less that 2010 at 36 minutes. However, this was in contrast to the amount of time spent to actually receive food at the distribution point, which according to most of the households, took an average of about five hours, with the recipient leaving the house in the morning and only getting the ration late in the evening. Only 3% of the respondents reported paying to transport food back to their homes.

Gender of the Ration Recipient/Women involvement

Agencies carry out different gender awareness campaigns in the camp, including encouraging women to collect food from distribution centres. This ensures that food reaches home and will most likely be used properly. According to the 2011 CHS results, most of the women (79%) were more likely to be the recipients of the ration, which is not different from what was reported in 2008 and 2010. Proportion of male and female child receiving food was very low, on average at only seven percent, although it has increased from five percent reported in 2010.

The assessment sought refugees opinion on who should collect family ration to understand how much they support women involvement. 22% of the sampled households said that both women and men should collect the ration, which has gone down from 44% reported in 2008 and 22% in 2010. About 68% felt that only the woman should collect the ration, while 10% felt that the men should be the one to collect. Preference for women to collect the ration has generally decreased. However, 65% of the respondents said decision making on the use of food at household level rests with women (60% in 2010, 45.2% in 2008).

When asked whether issuing ration cards in the name of the woman would have an impact on improving their decision-making power at the household level, 65% of the households felt that this would not make any significant impact. Over 60% reported that this was not culturally acceptable while 15% said this would lead to loss of respect for the men. Other reasons given for preference of men to be ration card holders were increased domestic violence. These reports are similar to what was indicated in 2008 and 2010.

Satisfaction with the Distribution Process

Overall, 42% of the sampled households indicated having had received information regarding the ration size, which is a decline from 53% reported in 2008 but similar to 2010. The source of information showed a decline in all sources except from food committee (64%) and neighbours (37%). As shown in the chart on the right, refugees receive information mainly from food committee (64%) neighbours (37%) and Notice boards (43%).

Only 73% of the sampled households indicated having had received information regarding the ration size, which is a decline from 53% reported in 2008 but similar to 2010. The source of information showed a decline in all sources except from food committee (64%) and neighbours (37%). As shown in the chart on the right, refugees receive information mainly from food committee (64%) neighbours (37%) and Notice boards (43%).

Only 73% of the sampled
households were aware of their entitlements and 42% confirmed they had received ration information before the last distribution. It should be noted that majority of the refugees know their ration entitlements by scoops.

**Food Distribution Committees**

A total of 53% of the households knew about the existence of food distribution committee in the camp and this is not very different from 2008 and 2010. As shown in the table, assisting with ration calculation was the main assistance provided by the food distribution committees (81%). Other assistance provided were cited as: solving distribution problems (45%), that has seen a decline since 2008, assisting with ration information dissemination (52%), solving ration cards problems (36%), and controlling ration thefts (44%). Nineteen percent of the sampled households thought that the food distribution committees did not offer any assistance during food distributions showing an improvement from what was reported in 2008 but decline in comparison to 2010.

**Perception of Problems Encountered During the Food Distribution**

Overall there have been improvements in food distribution with fewer households reporting problems. Main problems cited were; underweight bags by 33% of the households, uneven distribution and absence of ration information (16%), inadequate notice (12%), cheating by group leaders (21%), uneven distribution and absence of ration information (16%) and inaccurate weighing scales (15%). As shown in the table below, households reporting problems encountered have reduced compared to the previous surveys in both 2008 and 2010. Distance of food distribution sites from houses also compares well with what was reported earlier with households taking less time than last year, and as seen in the table below, this has improved. With the exception of uneven distribution/absence of ration information which was already reflected in less assistance provided by the food committees.

<table>
<thead>
<tr>
<th>How Committee Assists</th>
<th>Round 2008</th>
<th>Round 2010</th>
<th>Round 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ration calculation</td>
<td>82.8%</td>
<td>80.9%</td>
<td>80.4%</td>
</tr>
<tr>
<td>Ration information dissemination</td>
<td>58.6%</td>
<td>47.1%</td>
<td>51.8%</td>
</tr>
<tr>
<td>Solves distribution disputes/problems</td>
<td>82.8%</td>
<td>55.9%</td>
<td>46.4%</td>
</tr>
<tr>
<td>Control ration thefts</td>
<td>33.1%</td>
<td>33.1%</td>
<td>43.5%</td>
</tr>
<tr>
<td>Solve ration card problems</td>
<td>53.8%</td>
<td>34.6%</td>
<td>36.3%</td>
</tr>
<tr>
<td>No assistance by committee</td>
<td>16.0%</td>
<td>13.2%</td>
<td>19.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Problems encountered with the Distribution Process</th>
<th>Round 2008</th>
<th>Round 2010</th>
<th>Round 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Problem</td>
<td>16.7%</td>
<td>36.7%</td>
<td>55.2%</td>
</tr>
<tr>
<td>Underweight bags</td>
<td>54.8%</td>
<td>40.3%</td>
<td>32.9%</td>
</tr>
<tr>
<td>Cheating by group leaders</td>
<td>32.8%</td>
<td>28.6%</td>
<td>21.1%</td>
</tr>
<tr>
<td>Uneven distribution and absence of ration info</td>
<td>30.5%</td>
<td>34.7%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Inaccurate weighing scales</td>
<td>37.6%</td>
<td>29.9%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Lack of or inadequate scoops/Notice</td>
<td>28.5%</td>
<td>26.6%</td>
<td>11.9%</td>
</tr>
<tr>
<td>Taxation by group leaders</td>
<td>20.3%</td>
<td>13.0%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Security/lack of crowd control measures</td>
<td>27.7%</td>
<td>18.5%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Distribution group size</td>
<td>37.9%</td>
<td>17.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Congestion at sharing sheds or shelters</td>
<td>45.8%</td>
<td>25.0%</td>
<td>4.5%</td>
</tr>
<tr>
<td>Others</td>
<td>22.3%</td>
<td>8.8%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Distance of Food distribution sites from houses</td>
<td>20.6%</td>
<td>15.3%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Quality of sharing shelters</td>
<td>40.4%</td>
<td>16.9%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Overburdening of women, esp. pregnant and lactating</td>
<td>26.6%</td>
<td>18.5%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Food packaging too big/heavy</td>
<td>17.2%</td>
<td>10.7%</td>
<td>1.8%</td>
</tr>
</tbody>
</table>
Use of Food Assistance

CHS explored how households used each of their food items in the last distribution cycle. For all items, (maize, beans, oil, CSB, and salt), respondents used over 80% for consumption which is lower than 90% reported last year but similar to reports for 2008. For most food items, only about 3% was sold and another 3% exchanged. However, about 7% oil was exchanged, which increased from 5% reported last year. Further discussions with respondents revealed that most of them prefer palm oil and thus exchange oil provided in order to acquire it.
11.0 Conclusions and Recommendations

This section provides summary conclusions and recommendations

Conclusions

Food Security

- Overall findings from this assessment indicate an improvement in food security from what was reported in 2010. Consumption has improved with fewer households reporting poor consumption; percentage food expenditure has reduced; and coping mechanisms adapted have reduced showing lower stress levels.
- It is also evident from the findings that the sampled households are relying mostly on food assistance as their main source of food with very little from purchase and own production. Between 2008 and 2011, reliance on food assistance, purchase and gifts increased.
- The results from this assessment also show more contribution from food assistance to livelihoods of the refugees and less from the other activities such as crop/vegetable production. A lot of this may be attributed to the increased enforcement on movement restriction of refugees by the government. While this is government policy, it may impact other areas such as diversity of their diet.
- The results indicate that food assistance is having a positive impact in improving household food consumption and improving households’ ability to cope with the deteriorating situation, thus the consistency of food distributions to the beneficiary households needs to be maintained for this objective to be achieved. This therefore calls for a well secured pipeline to ensure consistency of receipt of food assistance.

Post distribution Monitoring

- Problems encountered in the distribution process have been reported less and thus requires continued efforts to keep these to a minimum.
- The high level of women receiving food assistance has continued to increase since 2008 and should be maintained, however, the results also indicated an increase in households headed by females.
- There are continuous indications of borrowing and use of food to pay debts, which is a major concern and needs further investigation.
- Households reported that the provided 14-day ration lasts an average of only 9 days which is a decline from 2008. This is more critical for CSB and salt. In addition, households continue to identify ‘insufficient amount of food’ as a problem.

Recommendations

- Female Headed Households – The results show an increase in female headed households by about 10% and this may require further discussions with the communities to get a better understanding of what is happening.
- Food committees should be strengthened through training and supported with necessary tools to carry out their work. In addition, agencies should raise awareness in the camp on the role and existence of food committees to the community.
- Underweight bags – While WFP and partners endeavour to avoid distribution of underweight bags, the beneficiaries should be sensitized on how to handle underweight bags if they identify them.
- Duration of Ration – Refugees reported that food provided usually lasts about 10 days and this needs further investigations. In the meantime, WFP, UNHCR and camp management should conduct awareness raising to community on proper usage of food aid.

WFP and UNHCR should consider the possibility of training distribution committee on their responsibilities, and explore possibility of token incentives.