# Vam food security analysis



### DARFUR FOOD SECURITY MONITORING

SOUTH DARFUR ROUND 8
NOVEMBER 2010

#### **Highlights**

- Data collection was carried out in November which is the post harvest season.
- Due to the security situation, only 11 out of 21 sentinel sites have been reached in this round. This affects the reporting of mixed and resident households.
- The overall food security situation has improved among IDP households compared to same season last year with a shift of households from moderately food insecure to food secure.
- Food consumption has improved for IDPs and mixed communities compared to last round.
- Sorghum prices in Nyala market have reduced considerably since October, but still remains higher than the five year average. Furthermore, the cost of the minimum healthy food basket has significantly reduced compared to last round and cost 1.27 SDG/person/day.
- The absolute income per capita remains very low for the IDPs in camps due to limited income opportunities. However, the purchasing power for the same category has improved compared to August and the same time last year. This is attributed to the reduction in price of local produced commodities at the peak of the post harvest season.

  278 households surveyed, in this Replacement sites a
- •Mid Upper Arm Circumference (MUAC) on children less than 5 years was introduced in this round and results show that 6 percent of the children were malnourished.

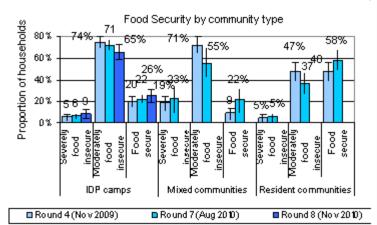
  when insecurity prevents travel to an original site.

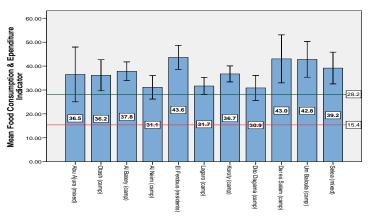
## **Food Security Situation**

Due to the security situation, many sites could not be reached in this round, thus only the results from the IDP household can be presented in this report. The food security situation for the IDP households in round 8 shows stability compared to round 7. However, compared to

November 2009 there is a very slight improvement, with a shift of households from moderately food insecure to food secure. Still, only one in four IDP households are food secure while the vast majority (65 percent are moderately food insecure. The small improvement in the food security situation in round 8 is mainly attributed to reduction in the cost of the minimum healthy food basket and to the availability of food items from own sources during the post harvest season.

When looking at the food security situation by location, a statistically significant improvement was found in Selea and Otash camps while Um Baloula camp has witnessed significant deterioration compared to pervious rounds.





#### **METHODOLOGY**

Purposively selected sentinel sites covering IDPs in camps, residents and mixed communities. Complemented with market price monitoring and seasonal metrological and agricultural information.

278 households were surveyed, in this round. Replacement sites are used when insecurity prevents travel to an original site.

Dietary Diversity and Consumption Score: Using a 7-day recall period, information was collected on the variety and frequency of different foods and to calculate a groups weighted household food consumption score. Weights are based on the nutritional density of the Households are classified as having either 'poor', 'borderline' or consumption based on the analysis of the data.

The Food Security Indicator is a composite score that combines values for food consumption, relative expenditure and absolute expenditure. The lower thresholds is 15.4 while upper one is 28.2.

The Coping Strategy Index is classified into four categories: 0=no coping, 1-5=low coping; 6-10 medium coping; and 11>= high coping.

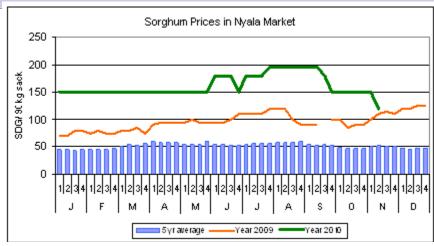
These findings are not representative for the State but only for the selected locations due to

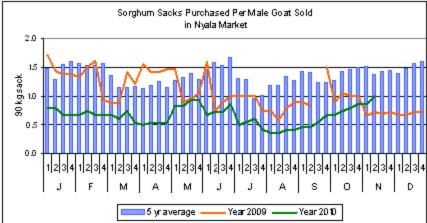
#### **Market Situation**

The cost of the minimum healthy food basket (MHFB) in South Darfur has significantly reduced from 1.86 SDG/person/day in August to 1.27 SDG/person/day in November 2010. Prices of cereal, oil, okra and tomatoes have reeduced due to increased availability in the market during the harvest season and the reduction in demand because these items are also being cultivated by the households. However, prices for commodities such as sugar and meat remain stable due to the increased demand related to Eid Al Adha.

Sorghum prices in the Nyala market reduced by 39 percent compared to last round. However, the current sorghum price is still higher than same time last year. Cereal prices are expected to further reduce in the first quarter of the next year due to the good harvest.

The term of trade (ToT) between one goat and a bag of sorghum in the Nyala market has increased in November 2010 compared to August and is in favor of the livestock owners. Livestock prices still remain high due to the increased demand in relation to the Eid Al Adha holiday. The TOT has for the first time this year reached above that of last year but is still far from that of the 5 year average.





# **Agriculture**

The proportion of IDP households cultivating in round 8 compared to same season last year has increased from 22 percent to 33 percent. They are having better access and capacities to cultivation than before which can be attributed to the slight improvement in the security situation and better access to agricultural inputs in form of donations.

The average cultivated area among the IDPs is 1.1 mukhamas (1.25 feddan) of millet, 0.32 mukhamas of sorghum and 3.1 mukhamas of groundnut which is slightly less than what was reported for last year. The average production per cultivated households is 3.6 bags (90 kg) of millet, 1.17 bag (90 kg) of sorghum and 31 bags (45 kg) of groundnut.

The average cereal production per cultivating household of five members will thus last a household 5 and a half month for the millet and 1.7 months for the sorghum.

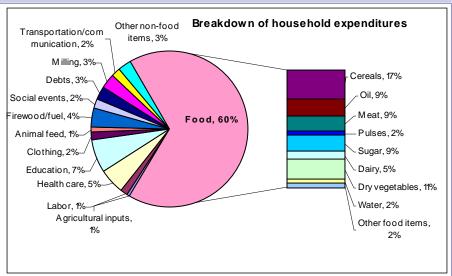
Unfortunately due to security constraints residents and mixed communities could not be visited in this round. It is however reported from Sate Ministry of Agriculture that the harvest this year is good.



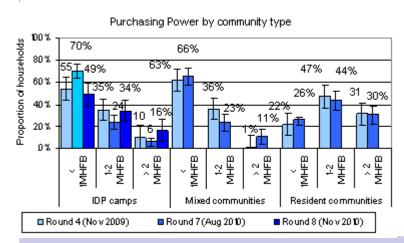
# **Expenditure (income proxy) and Purchasing Power**

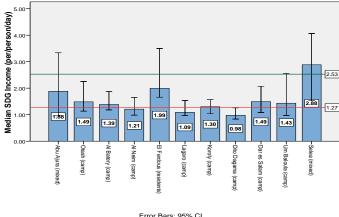
Among the sampled households an average of 60 percent of the monthly expenditures are spent on food. This is similar to the findings from Aug 2010 and from November 2009. Cereal and vegetables remain the biggest food expenditure items. Of the non-food expenditures, the largest percentage is spent on education (7).

Households' purchasing power have improved for the IDPs in round 8 compared to round 7 and November 2009. The improvement is mainly caused by the reduction in the food basket price. However, as many as 49 percent can still not afford the food basket but as mentioned this is an improvement from August when 70 percent of the IDP households could not afford it.



Median income per capita by location is still low, and the majority of the households are situated close to the lower threshold (poor). However, statistical significant improvement has been reported in three locations, Selea, Um Baloula and Dar el salam camps in Gerida.

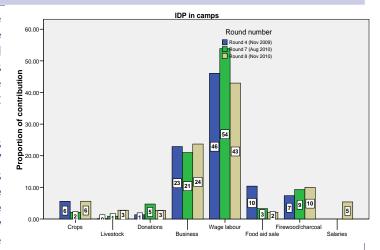




#### Income sources

This section indicates the importance of the various income sources for the households. The most important income sources for the IDP households compared to last round and last year remain the same. Agricultural wage labour is contributing with more than 2/3 of the income . Even if the share of agricultural labour in this round is less than last year, it is still the main income sources for IDP households.

The share of income from small business is similar across rounds for the IDP households. Income from firewood/charcoal has slightly increased now when the dry season is approaching and agriculture labour opportunities are diminishing. Income contributions from crops sale is stable compared to the same period last year and has slightly increased compared last round. Furthermore, the households income contribution from livestock sale is



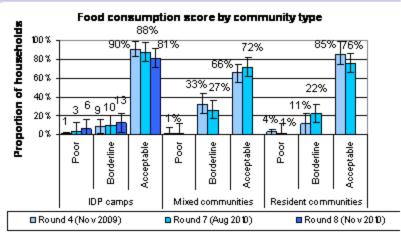
increasing, which means that some of the IDP households livestock holding size has increased compared to previous rounds.

## Food consumption

The food consumption situation for IDPs is good and similar to last round and to November 2009, with as many as 81 percent having an acceptable food consumption.

However, the proportion of IDP households with poor food consumption have increased to 6 percent .

The mean food consumption score by location have improved in this round in most of the locations. Statistical significant improvement have been observed in Seleah compare to previous rounds.

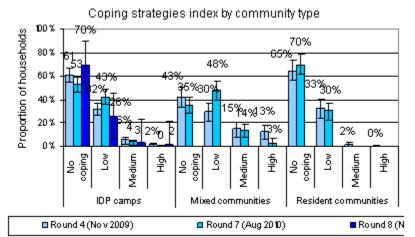


# **Coping Strategy Index**

The proportion of IDP households who did not face any food shortage during November 2010 has increased compared to same time last year and compared to last round, and is now 70 percent.

Analysis show that there is a reduction in the proportions of households using either low or medium coping strategies in this round compared to both last year and last round even though the confidence intervals are overlapping.

The proportion of households using high risk strategies remain stable and low.





# Mid Upper Arm Circumference (MUAC), Health and Dietary Diversity

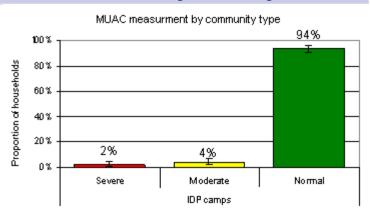
MUAC measurement on children in the age between 6-59 months were introduced in this round instead of on adult females. The proportion of children with a MUAC equivalent to severe malnutrition is 2 percent (<115mm) and thus these children need therapeutic care. Some 4 percent of the measured children are moderately (115-125mm).

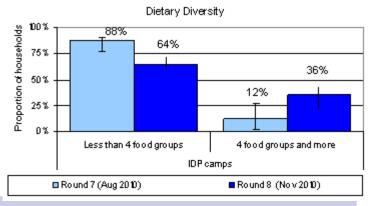
Dietary diversity results among infants and young children (6-23 months of age), have improved in this round compared to August. The proportion of children who consume food from less than four food groups has decreased to 64 percent from 88 percent. The improvement is most likely attributed to seasonality and the availability of various food items during the post harvest period.

The proportion of infants who reported to have had diarrhea in the last two weeks reduced significantly to 1.6 percent compared to 28 percent in August.

However, those who reported to have had respiratory infection increased from 6 percent to 17 percent

Positively, the percentage of children who had not suffered from any illness two weeks prior to the assessment increased from 47 percent in August to 65 percent in this round.

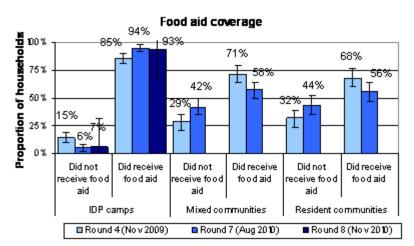




#### **Food Assistance**

Among the sampled IDPs some 93 percent of the households confirmed receiving food aid and this is relatively stable over the rounds. Targeting of households in IDP camps are not attempted, and thus the number receiving food aid remain relatively constant.

Among the food aid recipients some 14 percent reported to have sold or exchanged parts of their cereal, oil and pulses. This is less than in August and the reasons for selling food aid is to buy other food items that are not part of WFP food basket, as well pay for health to services, education milling.



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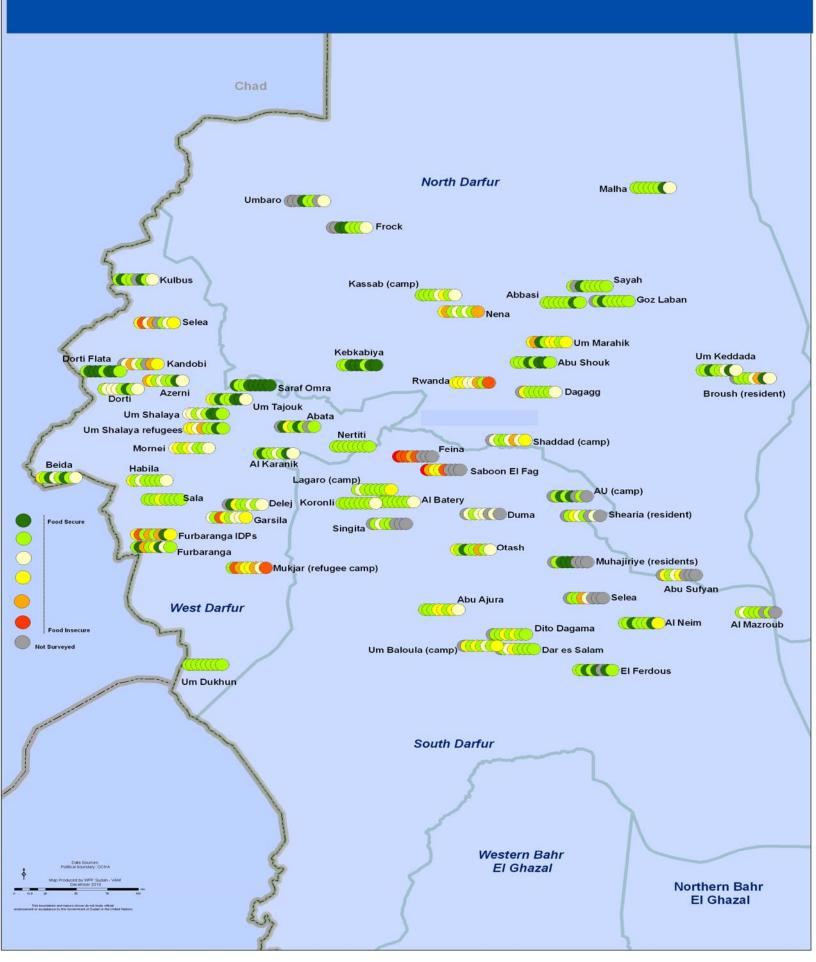
#### Demographics:

- A total 278 households were interviewed.
- 29 % are female headed households.
- Average household size is 7 persons.
- The residential status of the households included in the sample are;
- 74% IDPs in camps
- 10% IDPs outside camps
- 14% residents

# Annex 1 - Profile of Sentinel sites

| Sentinel Site name     | Geographical area | Community       | Livelihood Zones   | Last distribu-<br>tion |
|------------------------|-------------------|-----------------|--|------------------------|
| Abu Ajura              | Rural Nyala       | Mixed Community | Economy Zones ( Rain-fed Agricultural/Millet in North/Sorghum in South/ Groundnut as Cash crop.              | GFD SS Oct<br>2010     |
| Otash (camp)           | Rural Nyala       | Mixed Community | IDPs in Big camps/ Have access to big markets and labour opportunities/ social services available.           | GFD Nov 2010           |
| Feina                  | East Jebel        | Rural residents | Rocky clay soil/ Access to vegetable crops (Potatoes, tomatoes and okra) as cash crops/sorghum & millet zone | No go area             |
| Saboon El Fag          | East Jebel        | Rural residents | Rocky clay soil/ Access to vegetable crops (Potatoes, tomatoes and okar) as cash crops/sorghum & millet zone | No go area             |
| Shearia                | Sharia            | IDPs            | Agro pastoral/ sandy soil, rainfed/groundnuts main cash crops/ volatile security situation                   | GFD SS Oct<br>2010     |
| AU camp                | Sharia            | IDPs            | Agro pastoral/ sandy soil, rainfed/groundnuts main cash crops/ volatile security situation                   | GFD SS Oct<br>2010     |
| Duma camp              | Muhajeria         | Rural residents | Agro pastoral/ sandy soil, rainfed/groundnuts main cash crops/ volatile security situation                   |                        |
| Muhajiriye (residents) | Muhajeria         | Rural residents | Agro pastoral/ sandy soil, rainfed/groundnuts main cash crops/ volatile security situation                   | GFD SS Oct<br>2010     |
| Dibis                  | Kass              | IDPs            | Access to low land/groundnut & tomatoes as cash crops  | No GFD                 |
| Al Batery camp         | Kass              | Rural residents | No access to land/labour opportunity and small business  | GFD Nov 2010           |
| Al Mazroub             | Adilla            | Mixed Community | Sandy soil/ poor cereal prodcution/cash crops is groundnut/ shortage of drinking water                       | GFD SS Oct<br>2010     |
| Abu Sufyan             | Adilla            | IDPs            | Sandy soil/ poor cereal prodcution/cash crops I s groundnut/ shortage of drinking water                      | GFD SS Oct<br>2010     |
| Al Neim Camp           | El Daien          | Rural residents | Sandy soil/ poor cereal prodcution/cash crops is groundnut/ shortage of drinking water                       | GFD Nov 2010           |
| Assalaya               | El Daien          | IDPs            | Sandy soil/ poor cereal prodcution/cash crops is groundnut/ shortage of drinking water                       | GFD SS Oct<br>2010     |
| Lagaro camp            | Kass              | IDPs            | IDPs in Big camps/ labour opprtunities/ social services available.   | GFD Nov 2010           |
| Koroly camp            | Kass              | IDPs            | No access to land/ Labour opportunity and small business   | GFD Nov 2010           |
| Dito Dagama camp       | Gereida           | IDPs            | Limited labour opportunities/limited access to farms due to security   | GFD Oct 2010           |
| Dar es Salam           | Gereida           | Mixed Community | Limited labour opportunities/limited access to farms due to security   | GFD Oct 2010           |
| Um Baloula             | Gereida           | IDP             | Limited labour opportunities/limited access to farms due to security   | GFD Oct 2010           |
| Selea                  | Sharia            | IDP             | Rainfed Agricultural/ Millet in North/Sorghum in South/ Groundnut as Cash crop.                              | GFD SS Oct<br>2010     |





# Annex 3 – Results by Indicator by sentinel site

| Location                  | 2009)           | 2009)     | 2009)      | 2009)     | v Round 5 (Feb<br>2010) | 2010)        | 2010)        | 2010)        |
|---------------------------|-----------------|-----------|------------|-----------|-------------------------|--------------|--------------|--------------|
| Abu Ajura (mixed)         |                 | 30 (-7%)  | 31 (3%)    | 25 (-20%) | 24 (-2%)                | 29 (22%)     | 22 (-25%)    | 37 (66%)     |
| Otash (camp)              | 23              | 36 (58%)  | 42 (17%)   | 30 (-27%) | 33 (9%)                 | 22 (-34%)    | 31 (42%)     | 36 (18%)     |
| Feina (mixed)             | 15              | 16 (11%)  | 17 (8%)    | 21 (21%)  | 15 (-28%)               |              |              |              |
| Saboon el Fag<br>(mixed)  | 15              | 20 (31%)  | 23 (18%)   | 24 (1%)   | 16 (-32%)               |              |              |              |
| Shearia (residents        | 5)              | 33        | 39 (19%)   | 32 (-18%) | 43 (33%)                |              | 34           |              |
| AU camp (camp)            |                 | 32        | 23 (-29%)  | 27 (18%)  | 33 (23%)                |              | 27           |              |
| Duma (camp)               |                 | 28        | 35 (26%)   | 25 (-28%) | 27 (8%)                 |              | 27           |              |
| Muhajiriye<br>(residents) |                 | 34        | 42 (25%)   | 39 (-9%)  | 38 (-1%)                |              |              |              |
| Singita (residents)       | )               | 30        | 27 (-8%)   | 29 (7%)   | 29 (-1%)                |              |              |              |
| Al Batery (camp)          | 37              | 35 (-5%)  | 31 (-12%)  | 34 (11%)  | 32 (-6%)                | 29 (-11%)    | 35 (22%)     | 38 (9%)      |
| Al Mazroub<br>(residents) | 29              | 27 (-6%)  | 28 (6%)    | 29 (1%)   | 31 (9%)                 |              | 37           |              |
| Abu Sufyan<br>(mixed)     |                 | 23        | 29 (26%)   | 26 (-10%) | 23 (-13%)               |              |              |              |
| Al Neim (camp)            | 36              | 35 (0%)   | 38 (7%)    | 36 (-5%)  | 32 (-12%)               | 37 (16%)     | 42 (16%)     | 31 (-27%)    |
| El Ferdous<br>(residents) | 35              | 36 (4%)   | 43 (18%)   | 36 (-18%) | 39 (11%)                |              | 46           | 44 (-6%)     |
| Lagaro (camp)             | 30              | 28 (-7%)  | 31 (12%)   | 35 (12%)  | 30 (-15%)               | 29 (-2%)     | 31 (7%)      | 32 (1%)      |
| Koroly (camp)             | 29              | 33 (12%)  | 35 (5%)    | 31 (-10%) | 33 (6%)                 | 32 (-1%)     | 33 (2%)      | 37 (11%)     |
| Dito Dagama<br>(camp)     |                 | 23        | 35 (54%)   | 25 (-29%) | 29 (15%)                | 25 (-12%)    | 33 (32%)     | 31 (-7%)     |
| Dar es Salam<br>(camp)    |                 | 31        | 28 (-10%)  | 25 (-11%) | 31 (26%)                | 31 (-3%)     | 37 (20%)     | 43 (17%)     |
| Um Baloula (camp          | o)              | 36        | 31 (-14%)  | 24 (-23%) | 32 (36%)                | 23 (-29%)    | 29 (27%)     | 43 (46%)     |
| Selea (mixed)             |                 | 33        | 34 (4%)    | 22 (-37%) | 25 (17%)                | 14 (-44%)    | 29 (108%)    | 39 (33%)     |
| Gur Lumbung               |                 | Food c    | onsumption | score     | 18                      |              |              |              |
| (mixed)                   | Bound 1 (Ech II |           |            |           | Round 5 (Feb            | Dound & (May | Dound 7 (Aug | Bound 9 (Nov |
| Location                  | 2009)           | 2009)     | 2009)      | 2009)     | 2010)                   | 2010)        | 2010)        | 2010)        |
| Abu Ajura<br>(mixed)      | 50              | 59 (18%)  | 52 (-12%)  | 55 (5%)   | 49 (-11%)               | 52 (6%)      | 45 (-13%)    | 54 (21%)     |
| Otash (camp)              | 44              | 63 (45%)  | 65 (2%)    | 60 (-7%)  | 55 (-8%)                | 41 (-26%)    | 50 (22%)     | 61 (23%)     |
| Feina (mixed)             | 26              | 33 (28%)  | 30 (-8%)   | 38 (25%)  | 36 (-4%)                | 11 (2070)    | 00 (2270)    | 01 (2070)    |
| Saboon el Fag<br>(mixed)  | 27              | 37 (37%)  | 34 (-8%)   | 41 (21%)  | 34 (-17%)               |              |              |              |
| Shearia<br>(residents)    |                 | 51        | 47 (-9%)   | 55 (17%)  | 60 (10%)                |              | 46           |              |
| AU camp<br>(camp)         |                 | 43        | 39 (-9%)   | 54 (39%)  | 55 (2%)                 |              | 37           |              |
| Duma (camp)               |                 | 53        | 60 (14%)   | 50 (-17%) | 39 (-21%)               |              | 46           |              |
| Muhajiriye                |                 |           | `          | , ,       |                         |              | 40           |              |
| (residents) Singita       |                 | 51        | 65 (28%)   | 58 (-10%) | 64 (9%)                 |              |              |              |
| (residents)               |                 | 49        | 48 (-2%)   | 51 (6%)   | 46 (-10%)               |              |              |              |
| Al Batery<br>(camp)       | 67              | 60 (-11%) | 60 (0%)    | 64 (7%)   | 62 (-2%)                | 55 (-11%)    | 59 (8%)      | 63 (6%)      |
| Al Mazroub<br>(residents) | 48              | 50 (5%)   | 49 (-2%)   | 54 (9%)   | 55 (3%)                 |              | 58           |              |
| Abu Sufyan<br>(mixed)     |                 | 48        | 52 (9%)    | 51 (-2%)  | 41 (-20%)               |              |              |              |
| Al Neim (camp)            | 59              | 61 (4%)   | 64 (4%)    | 66 (3%)   | 63 (-4%)                | 68 (8%)      | 69 (1%)      | 58 (-17%)    |
| El Ferdous<br>(residents) | 62              | 65 (5%)   | 69 (6%)    | 64 (-6%)  | 68 (5%)                 |              | 68           | 72 (6%)      |
| Lagaro (camp)             | 49              | 49 (0%)   | 60 (22%)   | 66 (11%)  | 60 (-8%)                | 58 (-5%)     | 58 (0%)      | 58 (0%)      |
| Koroly (camp)             | 52              | 57 (10%)  | 58 (3%)    | 63 (8%)   | 59 (-7%)                | 65 (11%)     | 58 (-11%)    | 62 (7%)      |
| Dito Dagama<br>(camp)     |                 | 42        | 54 (28%)   | 48 (-11%) | 41 (-14%)               | 45 (9%)      | 57 (28%)     | 51 (-11%)    |
| Dar es Salam<br>(camp)    |                 | 51        | 45 (-11%)  | 47 (3%)   | 47 (0%)                 | 50 (7%)      | 56 (12%)     | 58 (2%)      |
| Um Baloula<br>(camp)      |                 | 63        | 52 (-17%)  | 43 (-18%) | 54 (27%)                | 41 (-25%)    | 47 (15%)     | 57 (22%)     |
| Selea (mixed)             |                 | 50        | 57 (13%)   | 50 (-12%) | 54 (10%)                | 36 (-33%)    | 52 (44%)     | 60 (14%)     |
|                           |                 |           |            |           |                         |              |              |              |

| Location                  | Round 1 (Feb 2009) | Round 2 (May 2009) | Round 3 (Aug<br>2009) | Round 4 (Nov<br>2009) | Round 5 (Feb<br>2010) | Round 6 (May 2010) | Round 7 (Aug<br>2010) | Round 8 (Nov<br>2010) |
|---------------------------|--------------------|--------------------|-----------------------|-----------------------|-----------------------|--------------------|-----------------------|-----------------------|
| Abu Ajura<br>(mixed)      | 1.8                | 1.9 (3%)           | 2.3 (23%)             | 1.5 (-36%)            | 1.7 (19%)             | 2.2 (30%)          | 1.3 (-44%)            | 3.3 (164%)            |
| Otash (camp)              | 1.2                | 2 (67%)            | 2.7 (35%)             | 1.6 (-38%)            | 1.6 (-2%)             | 1.4 (-10%)         | 1.4 (-1%)             | 1.9 (36%)             |
| Feina (mixed)             | 0.8                | 0.6 (-34%)         | 0.8 (42%)             | 0.7 (-6%)             | 1.1 (49%)             |                    |                       |                       |
| Saboon el Fag<br>(mixed)  | 0.6                | 0.7 (17%)          | 1.3 (91%)             | 0.8 (-38%)            | 1 (27%)               |                    |                       |                       |
| Shearia<br>(residents)    |                    | 1.5                | 5 (241%)              | 2.2 (-56%)            | 4.2 (95%)             |                    | 2.3                   |                       |
| AU camp<br>(camp)         |                    | 2                  | 1.1 (-45%)            | 1.3 (22%)             | 1.6 (21%)             |                    | 1.6                   |                       |
| Duma (camp)               |                    | 1.6                | 2.4 (51%)             | 1.8 (-26%)            | 2.5 (43%)             |                    | 1.5                   |                       |
| Muhajiriye<br>(residents) |                    | 2                  | 3.2 (59%)             | 2.9 (-10%)            | 2.8 (-6%)             |                    |                       |                       |
| Singita<br>(residents)    |                    | 2.1                | 1.8 (-14%)            | 1.9 (4%)              | 1.9 (-1%)             |                    |                       |                       |
| Al Batery<br>(camp)       | 1.7                | 2 (13%)            | 1 (-47%)              | 1.5 (42%)             | 1.4 (-6%)             | 1.1 (-18%)         | 2 (79%)               | 1.6 (-20%)            |
| Al Mazroub<br>(residents) | 2                  | 2.3 (18%)          | 2.3 (-2%)             | 2.3 (0%)              | 2.3 (1%)              |                    | 3.2                   |                       |
| Abu Sufyan<br>(mixed)     |                    | 1.6                | 1.6 (1%)              | 1.9 (20%)             | 1.4 (-28%)            |                    |                       |                       |
| Al Neim (camp)            | 1.3                | 1.9 (49%)          | 2.4 (26%)             | 2.2 (-6%)             | 1.7 (-23%)            | 1.7 (-4%)          | 2.4 (43%)             | 1.4 (-40%)            |
| El Ferdous<br>(residents) | 2.7                | 2.9 (9%)           | 4.8 (61%)             | 2.5 (-47%)            | 3.3 (34%)             |                    | 4                     | 2.5 (-38%)            |
| Lagaro (camp)             | 1.3                | 1.3 (1%)           | 1.1 (-14%)            | 1.6 (40%)             | 1.1 (-29%)            | 1.3 (17%)          | 1.4 (4%)              | 1.3 (-2%)             |
| Koroly (camp)             | 1.5                | 1.7 (21%)          | 1.7 (-6%)             | 1.7 (5%)              | 1.2 (-33%)            | 1.3 (13%)          | 1.9 (44%)             | 1.4 (-28%)            |
| Dito Dagama<br>(camp)     |                    | 0.7                | 1.2 (79%)             | 0.7 (-43%)            | 1 (55%)               | 0.8 (-19%)         | 1.1 (28%)             | 1.2 (14%)             |
| Dar es Salam<br>(camp)    |                    | 1.3                | 1 (-23%)              | 0.7 (-27%)            | 1.3 (83%)             | 0.8 (-40%)         | 1.3 (57%)             | 2.8 (125%)            |
| Um Baloula<br>(camp)      |                    | 1.4                | 0.9 (-32%)            | 0.7 (-30%)            | 1.1 (69%)             | 0.6 (-46%)         | 1 (64%)               | 2.4 (148%)            |
| Selea (mixed)             |                    | 2.5                | 2.8 (11%)             | 1.3 (-55%)            | 2.4 (92%)             | 1.5 (-41%)         | 2.2 (51%)             | 3.1 (41%)             |
| Gur Lumbung<br>(mixed)    |                    |                    |                       |                       | 1.3                   |                    |                       |                       |