**Highlights**

- The second round of the food security monitoring system in Red Sea State was conducted during the rainy season (November 2010) and in the beginning of the harvest season 2010/2011.
- The food security situation in the state was found to be good in urban areas. However, similar to the first round, as many as 42 percent of the rural households are food insecure.
- There was a general improvement in the food consumption score, and as many as 99 percent and 83 percent of urban and rural households have an acceptable food consumption score. 
- Decrease in sorghum prices and increase in livestock prices contributed to an improvement of the terms of trade (ToT) for livestock herders. 
- The cost of the minimum healthy food basket (MHFB) decreased to SDG 1.49/person/day. Nevertheless, 9 percent of rural households could not even afford one MHFB. 
- Analysis found that 15 percent of rural households are forced to engage in high risk coping strategies. 
- Salaried labor is the main income source for households in both rural and urban areas. 
- In urban and rural areas, 11 and 5 percent of the children have a Mid Upper Arm Circumference (MUAC) score equivalent to acute malnutrition.

**Food Security Situation**

The food security situation in urban and rural areas in the state has improved in this round (November) compared to the first round (June). As in round 1, no households in urban areas are severely food insecure. Furthermore, 92 percent of the urban households are food secure compared to 84 percent in the first round, which is attributed to the good rainy season and the arrival of the summer harvesting season (2010/2011). Furthermore, the food security situation has improved in rural areas where the proportion of severely food insecure households has decreased from 13 percent in the first round to 5 percent in this round. Despite this improvement the percentage of households who are food insecure remains stable at 41 percent.

When analyzing the food security situation by location, it was found that Port Sudan is the most food secure area with the highest scores, as was the case in the first round. This is attributed to the availability of work opportunities and the diversification of food commodities. Port Sudan is followed by Talegreeb, an area with high scores due to the improvement of the agricultural condition. The majority of the locations fall between the upper and lower threshold, with only Marfit below the lowest threshold.

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**METHODOLOGY**

⇒ Purposively selected sentinel sites covering urban and rural locations. Complemented with market price monitoring and seasonal metrological and agricultural information.

⇒ 327 households were surveyed. Replacement sites are used when inaccessibility prevents visits to 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 food groups to calculate a weighted household food consumption score. Weights are based on the nutritional density of the foods. Households are classified as having either ‘poor’, ‘borderline’ or good 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 targeted locations due to the sampling method.
The share of local sorghum in the wholesale business of grain went up from 26 percent in round one to 64 percent in round two, while the share of wheat went down from 63 percent to 27 percent. The good prospect of the current harvest and the rising prices of wheat were the main reasons for this change. Wholesale traders maintained relatively low levels of cereal stock in both round one and two. Although sorghum prices has declined in the nearby markets, the relatively high cost of transportation during the Hajj period limited the capacity of wholesale traders for building up their current inventory of sorghum. According to interviewed traders, high transportation costs and scarcity of cash were the main constraints on the grain market in round two.

Sorghum prices continued to rise in September 2010, exceeding the prices of the same period last year and the average prices of 2007/2008, but declined afterwards due to increase in sorghum supplies. This decline is expected to continue as market supply from the production of the new season increases. In this round, the terms of trade (ToT) between sorghum and goat favor pastoralists and livestock herders against grain farmers (drop in sorghum prices and increase in goat prices).

Red Sea State has good areas of highly fertile agricultural land located on stream banks, in valleys and in deltas across the state. The total arable land in the state is some 800,000 feddans, the delta Khor Baraka in Tokar province being the largest with an area of 405,000 feddans of highly fertile land. The second round was conducted in the rainy season. It was found that 36 percent of households in rural areas have cultivated compared to 67 percent in the first round who were planning to cultivate in case of a favorable rainy season. It is important to note that farming in Red Sea State continues until winter due to winter rains. Household reasons for not cultivating varied; 86 percent did not cultivate out of fear of poor and irregular rains, and 14 percent due to lack of access to agricultural land, lack of agricultural inputs, floods and instability. In urban areas, 55 percent of the households did not cultivate due to fear of poor and irregular rains and 45 percent due to household lack of interest in agricultural activities. Cultivated areas were larger this season when compared to last season, both for urban and rural households.
**Income Sources**

When comparing the main income sources in urban and rural areas in this round (November) it was found that salaried labor was the main income source for 29 percent of the urban households and 22 percent of the rural households.

**Expenditure (income proxy)**

Among the sampled households, an average of 53 percent of monthly expenditure is allocated to the purchase of food items. This is a slight decrease from last round (55 percent). The highest percentages are spent on cereals (15 percent), dairy (9 percent) and sugar (8 percent).

The cost of the minimum healthy food basket (MHFB) in Red Sea State has decreased and was estimated at SDG 1.49/person/day in this round compared to SDG 1.65 in the first round. Analysis shows an improvement of household conditions in urban areas, where the percentage of households who can afford more than two MHFBs increased from 73 percent to 90 percent. Fewer households in rural areas can afford 2 baskets, but the situation improved slightly with an increase from 54 percent to 56 percent compared to the last round.

When analyzing the situation by location, the majority of the locations are situated between the upper and lower threshold, with the two urban areas of Port Sudan and Sinkat above the upper threshold. Marafit falls below the lowest threshold and has experienced a deteriorating situation from last round.
Food Consumption

To establish the food consumption score, the households were asked about their consumption from different food groups during the last 7 days prior to the assessment. The various food groups are then given different weights based on the nutritional value of the food source, and based on that the food consumption score is calculated.

Urban areas have a very good food consumption situation with 99 percent of the households in the acceptable food consumption category. This is a slight improvement from last round. Food consumption has also improved in rural areas as the percentage of households in the acceptable food consumption category increased from 77 percent to 83 percent in this round. However, 13 percent of the households are in the borderline food consumption category, and 4 percent in the poor food consumption category.

When analyzing the food consumption situation by location, it was found that the majority of the locations are situated above the upper threshold. The exception is Merafit, which falls below the lowest threshold. This is because the 2009/2010 agricultural season was destroyed by floods which were aggravated by the lack of dikes to retain the rainwater. It was also found that Port Sudan has the highest food consumption scores due to the availability of opportunities for food diversification similar to the first round.

Coping Strategy Index

Households were asked if they faced any shortages of food or shortages in money to buy food in the last 7 days prior to the assessment in November 2010. It was found that the percentage of households facing shortages of food or insufficient money to buy food in urban areas has increased from 47 percent to 59 percent in this round, with 5 percent engaging in high risk coping strategies.

In rural areas, it was found that the situation has improved compared to the first round as the percentage of households who did not have to engage in any coping strategy increased from 30 percent to 35 percent in this round. Nevertheless, the percentage of households who were forced to engage in high risk coping strategies increased to 15 percent.
To identify food diversification among children, households were asked if infants and young children of age 6 to 23 months have eaten specific types of food on the previous day, essential for the child’s health. It was found that as many as 84 percent of children in rural areas and 65 percent of children in urban areas consume food from less than 4 food groups. This indicates that the majority of the children are not consuming enough nutrients required for growth.

A two week recall morbidity history was taken for children between 6 and 23 months of age. Infections were mainly diarrhea, respiratory infection and fever. The most common disease in urban areas is fever (34 percent), while in rural areas it is diarrhea (28.6 percent).

In this round, Mid Upper Arm Circumference (MUAC) was measured on 142 children in rural areas and 27 in urban areas in the ages between 6 and 59 months. Acute malnutrition cases (MUAC of less than 11.5 cm) represent 5 percent of the children in rural areas compared to 11 percent of the children in urban areas. Furthermore, 7 percent of the children in the urban areas and 9 percent of the children in rural areas are moderately malnourished.

Food Assistance

Of the total sample, 41 percent of the households had received food assistance during the previous three months, with 100 percent of the nomads and the IDPs reporting to have received assistance. The main reason for selling of food assistance received by beneficiaries is to be able to buy other food commodities for the household.

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UNITED NATIONS WORLD FOOD PROGRAMME—SUDAN
## Annex 1 - Profile of Sentinel sites

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<th>Location Name</th>
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Annex 2 – Locations and result of round 2

East Sudan Food Security Monitoring system 2010 (FSMS)
Results for the February-July-November of 2010

Map showing locations and results of round 2 in East Sudan.