Highlights

- Round 1 of the FSMS in Red Sea was carried out at the peak of the lean season, when households are normally suffering from lack of pastures and low rainfalls, as well as lack of water harvesting methods in many locations in rural Red Sea.
- The food security situation in the urban areas of Red Sea state is good. However, in rural areas the food security situation is worse with 13 percent being severely food insecure.
- The increase in sorghum prices and reduction in livestock prices led to a terms of trade (ToT) in favor of the farmers.
- In the rural areas, 18 percent of the households cannot afford the minimum healthy food basket and 11 percent have to engage in high risk coping strategies.
- Firewood collection and charcoal making is the most important income contributor for households in rural areas, while salaried work is the most important income source in urban areas.
- In urban and rural areas, 21 and 22 percent of the women have a Mid Upper Arm Circumference (MUAC) score below 225 mm.

Food Security Situation

The food security situation in the urban areas is regarded as good with 84 percent of the households in the food secure group and 16 percent in the moderately food insecure group. None of the households in the urban areas are severely food insecure.

In the rural areas, the food security situation is however worse, with 13 percent of the households being severely food insecure and 28 percent moderately food insecure. This adds up to a total of 41 percent of the households in rural areas being food insecure. The reasons for the rural food insecurity are the low rainfalls and low production of the last agricultural season (2009-2010).

When analysing food security by location, the best locations are Port Sudan and Arbaat as both locations are above the upper threshold. This is mainly due to the availability of labour opportunities and the variety of food commodities in these market. The worst locations in terms of food security are Oko and Adarot, who both are falling below the lowest threshold (severe).

METHODOLOGY

⇒ Purposively selected sentinel sites covering urban and rural locations.
Complemented with market price monitoring and seasonal meteorological 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.
**Market Situation**

During June 2010, wheat was the main type of cereal traded in the Port Sudan market followed by local sorghum. This reflects a partial shift in the food consumption pattern of some households from sorghum to wheat and could be attributed to the supply of subsidised wheat in the market by the Strategic Reserve Corporation. However, data on the current stocks of cereal and the turnover rates still reflect the importance of sorghum as the main staple food in the region. According to interviewed traders, scarcity of cash and high prices of cereal are the main constraints that affect the grain market in Port Sudan.

Sorghum prices have increased significantly during the first half of 2010, and are now higher than the 2009 prices as well as higher than the average of the 2007-2008 season. This increase in prices is attributed to the failure of the last two agricultural seasons and thus a lack of surplus from the previous season. Another important factor leading to the increase in sorghum prices is the use of sorghum as animal fodder in the Red Sea state. This is also reflected in the terms of trade (one goat for one bag of sorghum) which favors the farmers.

**Agriculture**

Red Sea state enjoys fertile agricultural land located in the valleys and in the river deltas and it is estimated that the total arable land in the state is 800,000 feddan. Delta Khor Baraka in Toker alone has 405,000 feddan of very fertile land. Most households in the rural areas have indicated that rainfall level is the main factor determining whether to cultivate this season or not and 67 percent of the households in rural areas are planning to cultivate as the rain projections for this season are favorable. Only 13 percent of the urban households have access to land and will cultivate.

When comparing this season to last season, there is a significant increase in the area cultivated, especially for the urban areas. Among those who will cultivate the average area prepared this season is 15 feddan per household in the urban areas and 10 feddan in the rural areas.
**Income Sources**

This section indicates the level of contribution to a household’s income for various income sources. The main income sources for the households in the urban areas are salaried work (36 percent), followed by wage labour and small businesses (both 19 percent).

In the rural areas, the most important income sources are firewood collection and charcoal making (21 percent), followed by other income sources such as fishing and gold mining (17 percent), wage labour (14 percent) and casual labour (13 percent).

**Expenditure (income proxy)**

Among the sampled households, an average of 55 percent of monthly expenditures is allocated to the purchase of food items. The main non-food item is fodder expenditure (8 percent). Additionally, households spend on average 4 percent of their monthly expenditure on education now in the beginning of the school year.

The cost of the minimum healthy food basket in Red Sea is 1.65 SDG/person/day (compared with 1.86 SDG in South Darfur).

Analysis of the minimum healthy food basket by community type show that 73 percent of the urban population can afford more than two minimum healthy food baskets, while in the rural areas 54 percent of the households can. In rural areas, 18 percent of the households cannot afford the minimum healthy food basket.

When analyzing the data by locations, Oko has the highest percentage of households that cannot afford the minimum healthy food basket (68 percent). The better off locations with respect to the basket are Airam and Port Sudan where 80 percent and 77 percent respectively can afford more than two minimum healthy food baskets i.e. enough food for the household to remain healthy and other essential non-food items such as soap.
Food Consumption and Sources

Food consumption by community type show that the situation for the urban areas in the Red Sea state is good as some 97 percent of the households have an acceptable food consumption and only 3 percent have a borderline score. The households in the rural areas are worse off, with 77 percent of the households in the acceptable food consumption category and the remaining 23 percent either in the borderline or in the poor food consumption category. When analysing food consumption score by location, it was found that most locations had a good food consumption score above the upper threshold. Only Oko falls below the upper threshold.

Coping Strategy Index

The coping strategy index shows that as many as 53 percent of the households in the urban areas are not engaged in any coping strategies as they have to faced any shortage of food or lack of money to buy food. Only 1 percent have to engage in high risk coping strategies, while 35 percent are engaging in low risk strategies.

For the rural areas, the situation is worse. Only 30 percent do not have to engage in any coping strategies, while the remaining 70 percent do engage in various forms of coping strategies, and 11 percent have to engage in high coping strategies. This can be expected this time of the year but it will be crucial to monitor this in the next round as we move into the harvest season and food access is supposed to improve.

Mid Upper Arm Circumference (MUAC)

In Red Sea, MUAC was measured on 244 women in child bearing age of 18-45 years. In urban and rural areas some 20 percent of the women have a MUAC below 225 mm (Sudan MOH threshold for malnutrition in adult women).

When analysing MUAC by location, it was found that the highest percentage of women who have a low MUAC was in Adarot, followed by Beeranfi. The locations with the highest percentage of women with a MUAC above 225 mm are Port Sudan and Arbaat.

For further information, please contact Abdelsalam Hassan (salimosly@hotmail.com): STRATEGIC RESERVE CORPORATION or Yvonne Forsen (yvonne.forsen@wfp.org) UNITED NATIONS WORLD FOOD PROGRAMME—SUDAN
## Annex 1 - Profile of Sentinel sites

<table>
<thead>
<tr>
<th>State Name</th>
<th>Location Name</th>
<th>Community Type</th>
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<tbody>
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<tr>
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<tr>
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</table>
Annex 2 – Locations and result of round 1

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

Map Produced by WFP/Sudan
September 2010