The findings from FNSMS for the last three years indicate that food security situation in Rwanda show similar trends. Households are more food secure in March (74%, 77% and 76% in 2011, 2012 and 2013 respectively) compared to September (63%, 69% and 69% in 2011, 2012 and 2013 respectively).\(^1\) Based on the 2012 CFSA, a lower percentage of households have food stocks from their harvest, and main food commodities tend to be more expensive in September when comparing to March.

In September 2013, the percentage of households with unacceptable food consumption remained the same as in September 2012 (31%). This shows that the overall food security situation remained the same as one year ago.

The South and the Western provinces, especially along the Congo Nile Crest are the parts of the country with the highest percentages of food insecure households. (44% and 29% respectively).

As in previous rounds of FNSMS, food insecure households remain mainly poor and vulnerable households without diversified livelihood activities and cultivating no or only small plots of land (<0.5 ha). Those households are often headed by women, elderly, single, divorced/separated people, those with precarious livelihood activities and those who did not attend school. Also, the more households are affected by shocks the more they are vulnerable to food insecurity. Shocks more reported by households are meteorological related shocks (45%) and human diseases (31%).

Food insecure households eat starches 6 days per week and rarely pulses, vegetables and oils (1 to 3 days/week). Fruits, milk and meat are not part of their weekly diet.

The level of chronic malnutrition (stunting) remains high’ (45%). Underweight is still at ‘poor’ level (11%) and wasting within ‘acceptable’ limits (2%).

\(^1\)excluding households in Kigali city.

**Main findings**

**Food security** exists when all people, at all times, have physical and economic access to sufficient food in both quantity and quality. In the FNSMS a household is considered to be food insecure if it has poor or borderline food consumption. Household food consumption is estimated with the food consumption score, a WFP corporate indicator that measures the frequency of household level consumption of the main food groups.

The Food Consumption Score (FCS) is a score calculated using the frequency of consumption of different food groups consumed by a household during the 7 days before the survey. It is used to measure household food security. If the household FCS is below a certain threshold value (21) the household has poor food consumption and is qualified as food insecure. Above another threshold value (35) the household has acceptable food consumption and is food secure. Between 21 and 35 consumption is borderline and households are either food insecure or at risk of becoming food insecure.

The Coping Strategy Index (CSI) is an indicator of household food security behavior that reveals how households manage or cope with shortage of food. The CSI measures the frequency and severity of actions taken by households in response to a perceived food shortage. A high CSI means more stress and potential declining food security in a household.

**Key definitions**

**Food security**

**Stable food security situation**

**Persistence of the high level of chronic malnutrition**

**Food insecurity found in poor and vulnerable households**

**The diet of food insecure households**

**Conclusion and recommendations**

**Background and methodology**
Stable food security situation

Compared with September 2012, food security in Rwanda rural area remained stable with 69% of households having acceptable food consumption. However this situation is follows season patterns (see Fig. 1). The 2012 CFSVA found that a higher percentage of households having better food consumption in March compared to September is due to the fact that fewer households have food from their own production in September than in March, and they are likely to face higher food prices when purchasing food in the market. In March, households have still food stocks from the harvest of season A that takes place from December to February. With the depletion of food stocks from the season A, the percentage of food insecure households could increase and exceed 31% until the harvest from the season A in December 2013.

The low percentage of food insecure households is found in the Eastern province (21%) while the South and the Western provinces, especially along the Congo Nile Crest are the parts of the country with the highest percentages of food insecure households (44% and 29% respectively) (see fig. 2).

The situation of food security in provinces kept the similar trends as in previous rounds of FNSMS and the 2012 CFSVA. However, the Southern province was coming at the second place in the order of food insecurity after the Western province. Based on FNSMS round 7, the Southern province comes at the first place for reasons which need to be further looked into.

Compared to other provinces, the level of CSI in the Western and the Eastern provinces confirms the food security ranking across provinces (See Fig. 3).

Among FEWS NET livelihood zones, the West Congo-Nile tea zone, the lake Kivu and East Congo-Nile Highland Subsistence Farming Zones reported the highest percentage of food insecure households (4 out of 10 households are food insecure, see fig. 8). According to the 2012 CFSVA , the high percentage of food insecure households in these areas is linked to lower level of household crop diversity, smaller household food stocks that tend to last less, relative isolation from markets, land with steep slopes and soil less fertile compared to other areas of the country.

Regarding food sources for households in September 2013, market came at the first place (58%) followed by own production with 32%.

Persistence of high level of chronic malnutrition among children under 5

Results from FNSMS round 7 showed that the stunting prevalence remained 'very high' (45%; CI 95%: 39%-52%) while underweight and wasting kept to be within 'poor' and 'acceptable' limits respectively.

The underweight prevalence was 14%; CI 95%: 8%-15% while acute malnutrition was at 3% CI 95%: 1%-4%.

Compared to the FNSMS round 6, stunting prevalence seems to be slightly increased and wasting decreased but these changes are not statistically significant (fig. 5).
Food insecurity found in poor and vulnerable households

Like in previous rounds, finding of FNSMS round 7 showed that food insecure households are mainly vulnerable and poor households with precarious livelihoods.

Considering the status of the head of households, the level of unacceptable food consumption is found more pronounced in one group than other as follows:

- Households headed by women: 39% compared to only 28% of those headed by men;
- Households headed by widow/widowers: 37% ; those headed by married couple 28%
- Households headed by elderly: 37% compared to only 20% among those headed by middle age people (18 to 60 years old).
- The less the head of household is educated, the more the household report unacceptable food consumption: 43% of those who did not attend school compared to 28% of those who attended primary school or vocational training and to only 9% who attended secondary school or university.

Based on the level of expenditure and livelihoods:

- 77% of households spending less than 1000 RWF per month had unacceptable food consumption compared to 24% of households spending more than 1,000 RWF;
- Households cultivating more than 0.5 ha of land have better food consumption compared to landless and households with less than 0.5 ha (see fig. 6). Also, the more the household has land, the less it is stressed by lack of food as shown by the CSI (see fig.7);
- 71% of households with more than one livelihood activity had acceptable food consumption compared to 64% of those with only one activity;
- 90% and 88% of households relying on salaries/pensions and livestock respectively had acceptable food consumption compared to only 42% relying on fishing, gathering, gifts and aid.

When it comes to shocks, 39% of households affected by shocks were food insecure compared to 25% of those which were not affected reported unacceptable food consumption. (*)

The diet of food insecure households

As shown by previous rounds of FNSMS, the round 7 found that starches and pulses are the main staple in Rwanda. (*) Also, it showed that the diet of food insecure households remains of poor nutritional quality. They eat starches 6 days per week and rarely pulses, vegetables and oils (1 to 3 days/week). Fruits, milk and meat are consumed are not part of their weekly diet. (see fig. 8).

(*) Shocks more reported by households are meteorological related hocks (45%) and human diseases (31%).

(§) Starches include cereal and tubers

Fig. 8: Type of food consumed by hh food consumption groups

Fig. 6: Food security situation of households compared to land ownership.
Conclusion and recommendations

In September 2013, 31% of households living in Rwanda (excluding Kigali province) could be considered to be food insecure based on their food consumption. With the depletion of food stocks from the season A, the percentage of food insecure households could increase and exceed 31% until the harvest from the season A in December. In fact, food security in Rwanda is still affected by seasonal patterns where food consumption of households is better in March than in September due to the availability of food stocks from the season A harvest compared to September.

Compared to other areas of the country, the Eastern and Western Provinces reported a higher percentage of food insecure households. However, the Southern province that was coming at the second place in the order of food insecurity after the Western province previous rounds of FNSMS was the first one in September 2013. This needs to be further looked into.

Food insecure households remain poor and ‘vulnerable’ households (headed by women, widows, single, elderly or those who did not attend school), having little land, and living off precarious livelihoods.

The level of stunting is 45% putting it the ‘very high’ category. Underweight and wasting remain within ‘poor’ and ‘acceptable’ limits respectively.

Based on the findings of this FNSMS, the following recommendations can be formulated:

- Strengthen existing government, ONE UN and other development partners in designing and implementation of specific interventions to reduce the high level of chronic malnutrition in the country.
- Put more efforts in strengthening and increase coverage of timely safety nets for the most vulnerable households during lean seasons;
- Strengthen livelihoods for poor vulnerable households.
- The southern and Western provinces, especially along Lake Kivu zone and the Congo Nile Crest (see Fig. 8), need still a special focus to address food security.

Background and Methodology

The FNSMS was set up in 2010 by the Ministry of Agriculture and Animal Resources (MINAGRI) and the World Food Programme. This round was coordinated through a Technical Committee composed of MINAGRI (chair), WFP (co-Chair), the National Institute of Statistics (NISR), FEWSNET, the Swiss Agency for Development and Cooperation (SDC) and World Vision.

Since September 2010, the FNSMS is conducted in March and September of every year.

For the 7th round of the FNSMS, data was collected in September 2013. 1344 households were interviewed with a closed questionnaire. The households were selected for interview through a 2 stage sampling approach within 16 strata (groups of districts): 96 enumeration zones (see Fig. 9) were randomly selected (cells at the administrative level). Within each cell 14 households were interviewed. Anthropometric measurements were taken for 740 children under 5 (weight and height, and MUAC for those older than 6 months) and 1124 women aged 15 to 49 (only MUAC).

Data analysis was done using SPSS for food security and ENA (using 2006 WHO standards) for nutrition indicator calculations. Data is representative at the national level. When comparisons were made between groups (either demographic, geographical or otherwise) statistical significance of the differences were tested using SPSS statistical tests.

Food security information and nutrition indicators calculated by the FNSMS largely concur with previous reports on food security and nutrition (e.g.: 2012 CFSVVA and 2010 RDHS) and demographics of the sampled households are in line with population demographics as reported by the 2012 census.

Households living in Kigali province were excluded from the sample and no micronutrient deficiencies were tested.

The methodology remained the same as FNSMS rounds 3, 5 and 6. The use of PDAs allowed to collect data using electronic questionnaires. GPS was used to locate villages where interviews were conducted.