RWANDA

FOOD AND NUTRITION SECURITY MONITORING SYSTEM (FNSMS)

ROUND 6 - March. 2013

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Main findings

Based on the findings of last three years, households are more food secure in March (77% and 76% in 2012 and 2013 respectively) compared to September (63% and 69% in 2011 and 2012 respectively).[1] . In line with the 2012 CFSVA , 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 March 2013, 24% of households had either poor or borderline food consumption compared to March 2012 when these categories of households were representing 23%. This insignificance difference shows that **the overall food security situation is comparable to one year ago.**

Like in previous rounds of the FNSMS**, the Western Province** remains the province with the highest percentage of food insecure households, especially along Lake Kivu and the Congo Nile Crest where 37% and 32% of households respectively reported unacceptable food consumption in March 2013.

Food insecure households are 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 or those who did not attend school. The main shocks affecting their access to food are high food prices, human diseases and the loss or reduced household income.

Food insecure households eat starches 5 days per week and rarely pulses, vegetables and oils (1 to 4 days/ week). They do not consume fruits, milk and meat at all.

The level of chronic malnutrition (stunting) is still 'very high' (44%). Underweight is still at 'poor' level (11%) and wasting in within 'acceptable' limits (3%).

[1]*excluding households in Kigali city.*

Key definitions

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.

Seasonal and stable food security situation

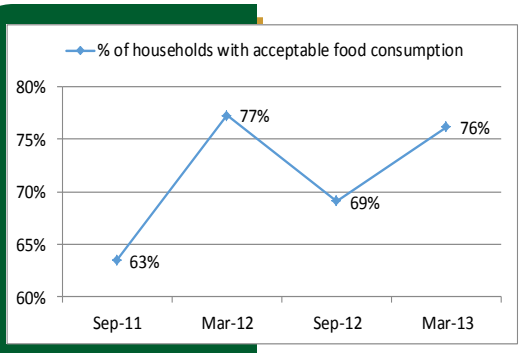


Fig. 1: Households with acceptable food consumption in 2011, 2012 and 2013

Food security in Rwanda remains affected by seasonal patterns (see Fig. 1). According to the 2012 CFSVA, 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 season A harvest which takes place from December to February.

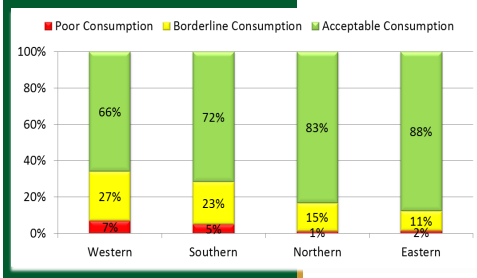


Fig. 2: Food insecurity by province in Mars 2013

In March 2013, 24% of households in Rwanda (the sample excludes the households residing in Kigali city) had unacceptable food consumption compared to 31% estimated in September 2012.

With the depletion of food stocks from the season A, the percentage of food insecure households could increase and exceed 24% until the harvest from the season B in June.

Although the percentage of food insecure households seems to have increased in March 2013 compared to March 2012 (24% compared to 23% in March.2012), food security situation in Rwanda remains stable. This slight difference is due to the difference in samples used (see * on page 1).

The Western Province remains the province with the highest percentage of households with unacceptable food consumption (34%) followed by the Southern province (28%) while the lower percentage is found in the Eastern province (13%) (see fig. 2). This is in line with findings of the 2012 CFSVA. Among FEWS NET livelihood zones, the lake Kivu and East Congo-Nile Highland Subsistence Farming Zones remain with the highest percentage of food insecure households (4 out of 10 households are food insecure, see fig. 8). The 2012 CFSVA links these high levels of food insecurity in these areas 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.

The level of CSI in the Western and the Eastern provinces (7 and 6 respectively) compared to other provinces (4 and 3 in the Northern and Eastern provinces respectively) confirms also the food security ranking across provinces.

The Southern province comes at the second place in the order of food insecurity since FNSMS round 1. However, FNSMS round 5 found that food security situation of households improved significantly only in the Southern province between September 2011 and September 2012 for reason which need to be further looked into.

In March 2013, 48% of the food consumed by households in Rwanda (excluding Kigali city) was sourced from the market while 47% was from households own production (see fig. 3). This shows that the portion of own production has increased compared to the findings in 2012 CFSVA (30%) and the September 2012 FNSMS (38%).

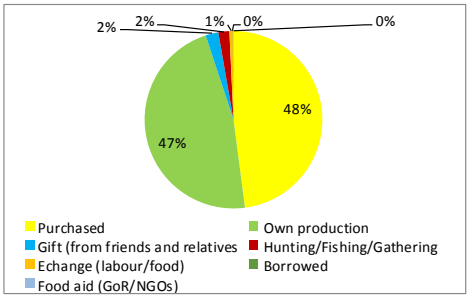
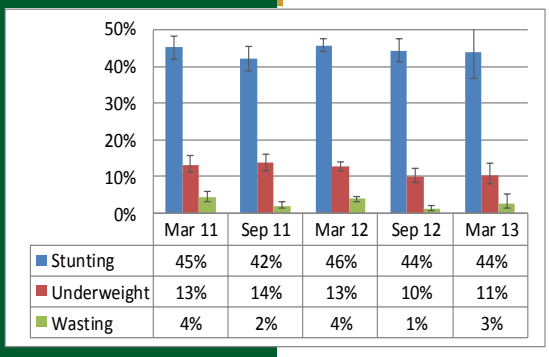


Fig. 3: Food sources in March 2013



	Mar 11	Sep 11	Mar 12	Sep 12	Mar 13
Stunting	45%	42%	46%	44%	44%
Underweight	13%	14%	13%	10%	11%
Wasting	4%	2%	4%	1%	3%

Fig. 4 Prevalence of malnutrition in FNSMS rounds 2,3,4, 5 and 6

Among children under 5, the level of chronic malnutrition remains too high

Compared to the FNSMS round 6, the stunting prevalence did not change and remained 'very high' (44%; CI 95%: 37%-51%) while underweight and wasting prevalence slightly increased but the differences are not statistically significant (fig. 4). The underweight prevalence is in 'poor' limits (11%; CI 95%: 8%-14%) while acute malnutrition remains within 'acceptable' limits at 3% (CI 95%: 1%-5%).

Poverty is the main cause of food insecurity

As in the previous FNSMS, round 6 found that food insecure households are mainly vulnerable and poor households with precarious livelihoods.

A high percentage of food insecure households were found among households headed by women, by people over 60 years old, by widows or by those who did not attend school. A high percentage of households reporting unacceptable food consumption were also those cultivating little land, having less diverse or sustainable livelihood activities, spending less, and those recently affected by shocks. The level of unacceptable food consumption is found more pronounced in one group than other as follows:

- Households headed by women: 30% compared to only 21% of those headed by men;
- Households headed by widow/ widowers: 32% ;
- Households headed by elderly: 39% compared to only 21% 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: 32% of those who di not attend school compared to only 9% who attended secondary school or university.

Based on the level of expenditure and livelihoods:

- 62% of households spending less than 1000 RWF per month had unacceptable food consumption compared to only 26% 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. 5). Also, the more the household has land, the less it is stressed by lack of food as shown by the CSI (see fig.6);
- 77% of households with more than one livelihood activity had acceptable food consumption compared to 74% of those with only one activity;
- 97% and 88% of households relying on salaries/pensions or petty trade respectively had acceptable food consumption compared to only 56% relying on fishing, gathering, gifts and aid

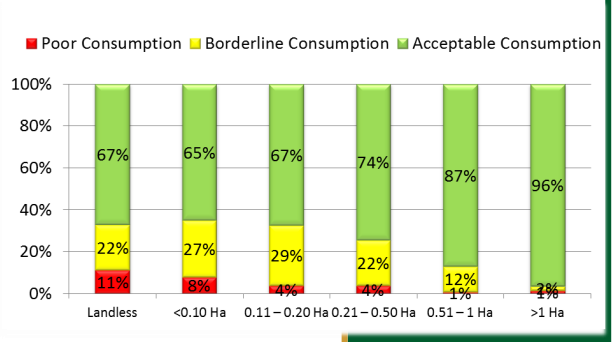


Fig. 5: Food security situation of households compared to land ownership

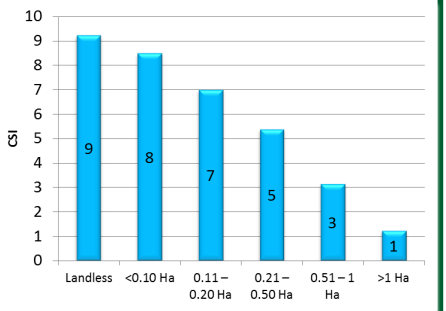


Fig. 6: CSI compared to land ownership.

When it comes to shocks, what significantly affected households food security are unusual high prices of food and human illness (54% and 31% of households who were affected by these shocks respectively reported unacceptable food consumption).*

(*)The most reported shocks were weather related shocks such as drought, floods, landslides or hailstorms (47%), followed by serious illness or accidents of household members (28%)

The diet of food insecure households

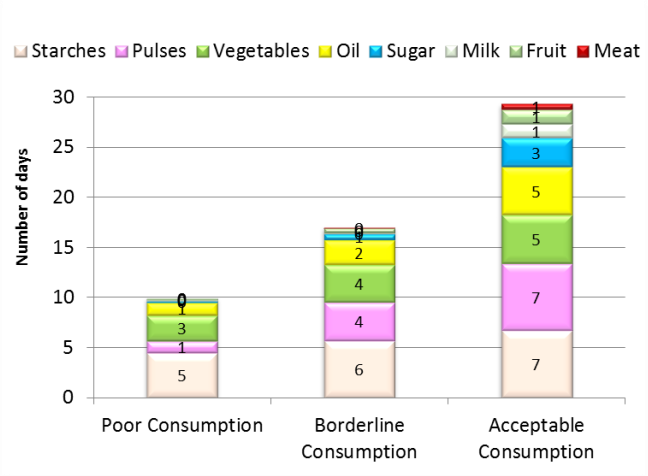


Fig. 7: Type of food consumed by hh food consumption groups

The frequency of various food consumption by household food consumption groups is quite similar to one shown in the previous rounds. Starches and pulses remain the main staple in Rwanda.* However, food insecure households consume mainly starches (6 and 5 days per week for borderline and poor food consumption households respectively), pulses (4 and 1 days per week) and rarely vegetables and oil (see fig. 7).

During a week, food insecure households never consumed sugar, milk, fruit and meat which were consumed by households with acceptable food consumption only. This shows that the diet of food insecure households is of poor nutritional quality.

(*) Starches include cereal and tubers

Conclusion and recommendations

Food insecurity 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. In March 2013, 24% 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 24% until the harvest from the season B in June.

Compared to other areas of the country, the Western Province, especially along Lake Kivu and the Congo Nile Crest, reported a higher percentage of food insecure households. Food insecure households are also 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 remains at 44% like in the previous FNSMS and qualified 'very high'. Underweight and wasting remain within 'poor' and 'acceptable' limits respectively.

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

- Strengthen and increase coverage of timely safety nets for the most vulnerable households during lean seasons;
- Design and implement specific interventions to reduce the high level of chronic malnutrition in the country;
- Strengthen livelihoods for vulnerable households and those cultivating little land and depending on precarious livelihoods;
- Focus on the southern province and the western part of the country to address food security, especially along Lake Kivu zone and the Congo Nile Crest (see Fig. 8).
- Continue efforts for integration of FNSMS into the Government's M&E system to monitor the impact of efforts to eradicate malnutrition and food insecurity in Rwanda.

Nr	Livelihood zone
0	Kigali city
1	Lake Kivu Coffee and food crop
2	West Congo-Nile Crest Tea and food crop
3	Northwest Volcanic Irish Potato
4	East Congo-Nile Highland Subsistance Farm.
5	Central Plateau Cassava and Coffee
6	Northern Highland Beans and Wheat
7	Cent-North High Irish Potato, Bean and Veg
8	Bugesera Cassava
9	Eastern Plateau Mixed Agriculture
10	Southeastern Plateau Banana
11	Eastern Agropastoral
12	Eastern Semi-Arid Agropastoral

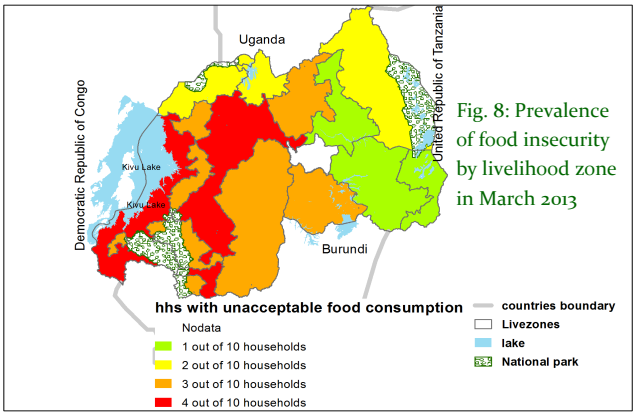


Fig. 8: Prevalence of food insecurity by livelihood zone in March 2013

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), FAO, 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 6th round of the FNSMS, data was collected in March 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 694 children under 5 (weight and height, and MUAC for those older than 6 months) and 1083 women aged 15 to 49 (only MUAC).

A total of 1017 of the same households were visited between rounds 2 and 6.

Ten teams composed of 3 enumerators and 1 team leader collected data for the survey. All team had participated in previous FNSMS rounds. They underwent two days of refresher training on food security and data collection tools and the use of Personal Digital Assistants (PDAs).

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 other) 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 CFSVA and 2010 RDHS) and demographics of the sampled households are in line with population demographics as reported by the 2002 census.

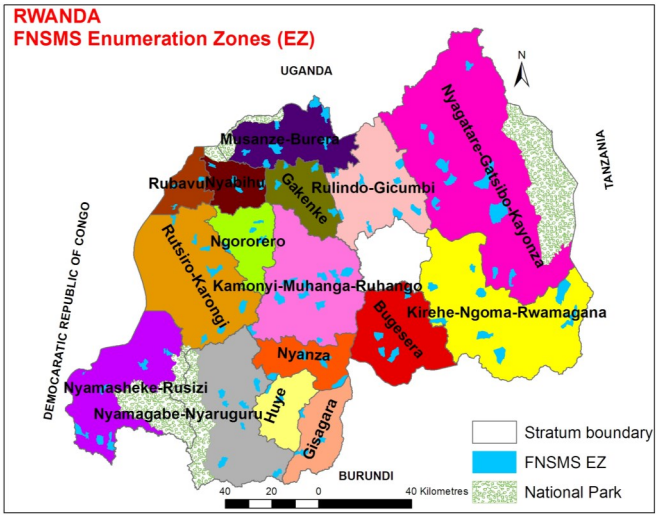


Fig. 9: Distribution of the sampled FNSMS enumeration zones in Rwanda

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

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