Market Analysis

<u>Haiti</u>



April 2016

Data collected in December 2015





Haiti Market Assessment

Authors: Lucia Latino and Ilaria Musumeci

Published in April 2016 - Data collected in December 2015

For additional information, please contact:

WFP Haiti

Kokou Amouzou, VAM Officer/ Vulnerability Targeting Technical Coordinator kokou.amouzou@wfp.org

WFP Regional Bureau

Byron Ponce Segura, *Regional Advisor VAM* byron.poncesegura@wfp.org

WFP Headquarters

Lucia Latino, *Economist* lucia.latino@wfp.org

Ilaria Musumeci, Market Analyst ilaria.musumeci@wfp.org

Tobias Flämig, *Head of Economic and Market Analysis Unit* tobias.flaemig@wfp.org

All rights reserved. The reproduction and dissemination of material in this information product for educational or other non-commercial uses is authorized without any prior written permission from the copyright holders, provided the source is fully acknowledged. Reproduction of material in this information product for resale or other commercial purposes is prohibited without written permission. Applications for such permission should be addressed to the Director, Communications Division, e-mail: wfp.org

© WFP 2015

World Food Programme

Via Cesare Giulio Viola, 68/70 - 00148 Rome - Italy

http://vam.wfp.org; wfp.economicanalysis@wfp.org



Contents

List of Figures	iii
List of Tables	iv
List of Maps	iv
List of Boxes	iv
Acknowledgements	v
Executive Summary	v
Introduction	1
1. Impact of the drought on the national and local food availability	2
1.1 Drought-induced fall in domestic production increased import requirements	2
1.2 Major deficit and surplus zones	5
2. Demand-driven decrease in sales	7
3. Currency and commodities price trends	
3.1 The struggle of the gourde	8
3.2 The surge of food inflation	
4. CBT intervention and market response capacity	
5. Concluding remarks and outlook for next 6 months	
Annex	
List of Figures	
Figure 1 - Maize availability vs. estimated demand	3
Figure 2 - Beans availability vs. estimated demand	
Figure 3 - Rice availability vs. estimated demand	
Figure 4 - Supply chain for rice	
Figure 5- Supply chain for local commodities	
Figure 7 - Gourde exchange rate against the US dollar and the Dominican peso	
Figure 8 - Year-on-year inflation and food inflation vs. change in price of imported products	
Figure 9 - Year-on-year inflation and food inflation vs. change in price of local products	
Figure 10 - Monthly cost of the food basket (current gourde)	
Figure 11 - Main constraints to trade activities by department	
Figure 12 - Year-on-year price change of imported rice (tchako) by market	16
Figure 13 - Year-on-year price change of local black beans by market	16
Figure 14 - Year-on-year price change of local maize by market	10

List of Tables

Table 1 - Outlook of 2015/16 production (thousands Mt) vs. 2014/15 production	
Table 2 - Contribution to production in 2015/16 and surplus/deficit areas by main food groups	š5
List of Maps	
Map 1 - Food security in January-March 2016 and Livelihood zone in Haiti	2
Map 2 - Travel time to key markets	13
List of Boxes	
Box 1 - Supply chain and trade flows for main staples	6
Roy 2 - Two "wild cards of the political game"	۵

Acknowledgements

This report was prepared jointly by Ilaria Musumeci and Lucia Latino under the overall guidance of Arif Husain, Chief Economist and Deputy Director, Policy and Programme Division (WFP).

The report hugely benefited from discussion with and comments by Oscar Maria Caccavale and Tobias Flämig.

The authors greatly acknowledge the contribution of Sarah Muir from HQ for the geospatial analysis, and Ana Gomez and Valerie Moreyra from the Regional Bureau LAC for the support on the price analysis. The authors also wish to thank Byron Ponce-Segura, Kokou Amouzou, Jean Carrel Norceide and Cedric Charpentier for their comments and prompt support.

Finally, a special thanks goes to the WFP Country Office staff and enumerators for their contributions to the assessment and for collecting the valuable information without which this report would have not been possible.

Executive Summary

- El Niño's dry spells had a double negative impact on food availability and food access. Drought reduced domestic production and the country more and more depends on imports to meet its domestic requirements. At the same time, crop losses and increasing costs of inputs compromised the livelihoods of households who rely on agriculture either as waged workers or to get food through own-farm activities. Reduced availability of local produce also weighed on those who rely on trade of locally produced food (e.g. Madame Sara). Income losses and the increase in food prices ultimately stressed the purchasing power of the households, who reduced purchases of both local and imported foods.
- The gourde depreciation against the currencies of major trade partners about 30 percent compared to March 2015 may put stress on the Haitian trade bill and increment an inflationist vicious circle. With Haiti importing 70 percent of its food requirements and half of the households using 65 percent of their expenditure on food, a year-on-year food inflation of 16.1 percent is a serious threat to Haitians' food security. Nevertheless, the major drivers of food inflation are local products, in particular black beans, rather than imported products.
- The two sides of political uncertainty. The electoral crisis is delaying the implementation of structural reforms and investments and is creating a favourable ground for the currency depreciation. In addition, tension with the Dominican Republic, fed by the Haitian ban of cross-border trade and the Dominican Supreme Court's decision to strip the citizenship of people born in the country from undocumented immigrants, might trigger upward pressure on the price of the imported products affected by the ban (including wheat, maize and oil) and put further stress on the already fragile job market due to the increasing number of repatriates (over 70 thousands as of February 2016).
- The next 6 months should see the first signs of a reprise in food production thanks to an increase in rainfall during the planting season for the 2016 main harvest (June-September). Nevertheless, full recovery of the agricultural sector will be a slow process as the majority of farmers have not prepared the season adequately due to lack of financial resources. Thus, labour demand will remain weak in drought-affected areas.
- Response strategies. Immediate support to households through a cash-based transfers (CBTs) programme would help sustain the demand in the market. WFP is planning to scale up its activities in 2016 reaching 1 million of food insecure people. From the market assessment conducted in December 2015, the majority of traders interviewed are confident in their ability to respond to a significant increase in demand. However, concerns arise for the dry costal zones of Nippes, Artibonite and Centre department because of a lack of supply and financial constraints. Furthermore, support to farmers could accelerate the recovery of agriculture and have a positive cascade effect on the livelihoods of poor and very poor households.

Introduction

Haiti is the poorest country in the Latin-American and Caribbean (LAC) region with a Gross Domestic Product (GDP) per capita almost 12 times lower than the average GDP per capita in LAC.¹ Since 1998, GDP per capita followed a negative trend reaching its low in 2010 and then quickly recovering after the 2010 earthquake. Nevertheless, its level (in constant gourde) is still lower than in 1998 and 59 percent of the population lives below the national poverty line.²

After the service sector, the agricultural sector represents the main contributor to Haiti's economy, making one fifth of total GDP.³ In 2015, it was the only component of GDP that recorded a negative growth (-3.5%), largely contributing to the overall slowdown of the economy. In fact, the GDP grew by 1.7 percent compared to 2.8 percent in 2014 and to 4.2 percent in 2013⁴. After all, a persistent El Niñodriven drought has affected different agro-ecological zone since the beginning of 2015. The consequent considerable crop losses made the year 2015 the worst agricultural production year in the last 35 years.⁵

The agricultural sector plays an important role in the livelihood of Haitian poor households. Own production accounts for 5-15 percent of their income only, while wage from farm labour represents up to 60 percent⁶ of their annual income. In fact, wage labour is the main source of income for poor households along with petty trade and charcoal production.⁷

Own food production covers only approximately 15-20 percent of poor households' consumption needs. This percentage goes up to 28 percent for the middle-income households and to 40 percent for the better-off households. Overall, Haiti is food import dependent and more than half of the food purchased in the market is imported. As a consequence, four out of the top five imported products are food commodities: rice⁹, palm oil, raw sugar and poultry meat.

The Emergency Food Security Assessment (EFSA) conducted by WFP and the Haitian National Coordination for Food Security (CNSA) Office in December 2015 highlighted that 3.6 million people are food insecure among which 1.5 million persons are severely food insecure. The possibility of recovery is considered limited even if the effects of El Niño will be vanishing later in 2016, as the beginning (February-April) of the main agriculture season (spring) will be likely compromised.

WFP is already operates in Haiti delivering supplementary food rations to 5,000 children under the age of five as well as complementary feeding for 40,000 children under two and for 31,000 among pregnant women and nursing mothers. 'Food Assistance for Assets' activities currently target additional 225,000 people across the country. Furthermore, WFP is planning to scale up its food assistance programmes during March-September 2016, providing unconditional cash and food rations to one million people affected by the drought.

In this context, the purpose of this study is to investigate the capacity of markets to respond to the

 $^{^{\}rm 1}$ Only developing countries of the region are taken into account.

² World Bank and authors' elaboration on World Bank data.

³ Haitian National Statistical Agency, *Les comptes economiques en* 2015, December 2015.

⁴ *Ibid*. Growth rates based on the value of GDP in constant gourde.

⁵ OCHA, Humanitarian Bulletin Haiti, Issue 57, January 2016. OCHA cites the *Coordination Nationale de la Sécurité Aliminetaire* (CNSA).

⁶ In the North, Central Plateau, West departments and the southern peninsula.

⁷ FEWS NET, Haiti Food Security Outlook, October 2015 through March 2016.

⁸ Ibid.

⁹ Rice is the main component of the Haitian diet, accounting for 23% of the average total calories consumed each day. It is followed by vegetable oil and maize, each contributing by 14%. Consumption of roots and tubers makes 10% of calorie daily intake, while wheat and pulses account for 6% and 5% respectively (USAID, Haiti's U.S. Rice Imports, February 2016).

introduction of a Cash-Based Transfer (CBT) intervention, thus informing program design. The report is based on the analysis of both secondary and primary data. The latter were collected in December 2015 through a joint survey conducted by WFP and CNSA in vulnerable areas classified as in Acute Food Security Crisis (Phase 3) according to the Integrated Phase Classification (IPC). The survey¹⁰ included both a key informant and a trader questionnaire, and involved 74 key informants across the country and 77 traders operating in 16 markets.¹¹

HAITI-LIVELIHOOD ZONES

THATTI-LIVELIHOOD ZONE

Map 1 - Food security in January-March 2016 and Livelihood zone in Haiti

Source: WFP, FEWS NET, CNSA

The study is organized in five sections. The first and the second section describe, respectively, the impact of the drought on food availability and demand. Section three analyses price trends of main food products. The fourth section explores the market response capacity in view of a possible CBT intervention, while section five provides concluding remarks.

1. Impact of the drought on the national and local food availability

1.1 Drought-induced fall in domestic production increased import requirements

The existing variety of agro-ecological zones in Haiti allows for cultivation of different crops: cereal production of maize, sorghum and rice in coastal and central plains; pulses, mostly haricot beans, in southern and central mountains and in coastal areas; tubers in northern, western and southern highlands.

Crops are harvested twice a year. The first growing season (February to April) prepares for the main harvest (June to September), which provides nearly 60 percent of the total agricultural production. The second growing season starts during summer and prepares for the second harvest (November to February), which provides nearly 30 percent of total produce.

As most of production is rain-fed, regularity of rainfall patterns is the main success factor across all producing areas. The continued dry spell associated with El Niño led to 50 percent reduction of cropped land¹² with adverse impact on yields across all 2015/16 cropping seasons.

USAID

¹⁰ Disclaimer: the distribution of trader by type across livelihood zones (used to stratify the sample) and departments is not uniform. The distortion could potentially introduce some bias in the analysis of the survey data.

¹¹ Sampled markets belong to Departments covering three livelihood zones, namely: HT01: North West, dry coastal zone in Artibonite, dry coastal zone South East, dry coastal zone Nippes, and Gonave Island; HT03: Centre, central plateau of Aritibonite, central plateau of North and central plateau of North East; HT07: South-East.

¹² FEWS NET, Haiti Food Security Outlook, April 2015 through October 2015. CNSA, Haiti Alerte à l'insécurité alimentaire, October 2015.

Rainfall anomalies particularly hindered the spring growing season (February-April 2015) in South East, Nippes and North West.¹³ Only crops planted in February and early March produced partial yields while crops planted thereafter (March-April 2015) mostly failed.¹⁴ Rainfall deficits persisted but were less severe during the second growing season. Thus, fall/winter production was more favourable.

Table 1 - Outlook of 2015/16 production (thousands Mt) vs. 2014/15 production

	Production 2015/16	Production 2014/15	Percentage change in production/16 vs. 2014/15					
Production by food group								
Cereals	195.28	366.36	-46.7%					
Pulses	112.77	164.77	-31.6%					
Tubers	343.16	701.21	-51.1%					
Production of main staples								
Maize	107.59	159.61	-32.6%					
Rice (paddy)	61.57	124.83	-50.7%					
Beans	56.60	100.61	-43.7%					

Source: CNSA, Evaluation année agricole 2015

Estimates for the 2015/16 agricultural year report that cereals yields were down by 47 percent compared with 2014/15 production; tubers production in 2015 was 51 percent lower than in the previous year; pulses production was 32 percent below what produced in 2014/15 (Table 1).¹⁵

Figure 1 - Maize availability vs. estimated demand



Source: FAO, Food Balance Sheets; CNSA - *Evaluation année agricole* 2015; WFP Food Aid information system (FAIS)

Turning to key staples, national **maize** production fell from 159 thousand Mt in 2014/15 to 107 thousand Mt in 2015/16.

The 2015 yield could cover only 40 percent of the demand (i.e. 250 thousand Mt). With stocks pointing downward since 2013 and food aid being limited, mport requirements jumped from 84 thousand Mt in 2014 to 143 thousand Mt in 2015.

 $^{^{13} \, \}text{Based on estimates from GIEWS' Precipitation Indicators, rainfall was from 40\% to 60\% below in southern and the West departments from March to April. Available at: <math display="block">\frac{\text{http://www.fao.org/giews/earthobservation/country/index.jsp?type=31\&code=HTI.}}{\text{http://www.fao.org/giews/earthobservation/country/index.jsp?type=31\&code=HTI.}}$

 $^{^{14}}$ CNSA, *Evaluation année agricole* 2015, February 2016, preliminary results.

¹⁵ FEWS NET, Haiti Food Security Outlook, October 2015 through March 2016; CNSA, *Evaluation année agricole* 2015, February 2016, preliminary results.

¹⁶ Between 2002 and 2013, demand corresponds to the quantities of maize used for human consumption as reported on FAO's Food Balance Sheets. Due to data unavailability, demand from 2014 and 2016 was estimated based on past consumption trends and projected population figures. Population data is from UNDESA, World Population Prospects.

 $^{^{}m 17}$ This conclusion is based on the analysis of FAO's Food Balance Sheets.

¹⁸ Food aid estimates are tentative and triangulate diverse data sources: annual food aid data from the WFP Food Aid Information System database (http://www.wfp.org/fais/); WFP project documents for information about committed tonnage of maize for in-kind distributions; data on in-country stocks from WFP OPWeb (http://opweb.wfp.org).

Figure 2 - Beans availability vs. estimated demand



Source: FAO, Food Balance Sheets; CNSA -Evaluation année agricole 2015; WFP FAiS; OPweh

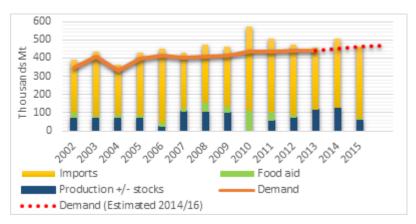
Domestic production is the main supply source of beans. The drought has severely affected their availability.

The share of local production over national supplies increased from 76 percent in 2010 to nearly 100 percent in 2014 in response to the shift of consumers' preferences towards local varieties. 19

Availability is still highly vulnerable to rainfall during planting (March-April; July-August), although investments

in irrigation and subsidized farm inputs have increased productivity.²⁰ In fact, dryness in southern and northern regions triggered a 44 percent fall in 2015/16 production compared to the previous agricultural year. With carry-over stocks being generally negligible due to poor storage capacity,²¹ 2015 domestic supply could meet only 50 percent of national demand and import requirements were approximately 49 thousand Mt.

Figure 3 - Rice availability vs. estimated demand



Source: FAO, Food Balance Sheets; CNSA - Evaluation année agricole 2015, USDA; WFP FAIS

The total demand for **rice**, **a** key component of the local diet, was 459 thousand Mt in 2015.

National production of rice is not sufficient to meet this requirement as it was limited to 125 thousand Mt in 2014 and to 61 thousand Mt in 2015. Furthermore, the expansion of the national rice production faces severe constraints²².

However, rice is expected to

be widely available in the country because imports continue to largely cover production gaps.

¹⁹ Information about the share of beans domestic production over imports was estimated using FAO's Food Balance Sheets. Additional information was considered from the following sources: USAID (2010). Haiti Market Analysis, August 2010; Emergency Market Analysis and Mapping, The Market System for Beans in Haiti, February 2010.

²⁰ USAID (2010), Haiti market analysis.

²¹ *Ibid.* The study from USAID (2010) indicates that 80 percent of crops are consumed immediately after harvest; 20% percent are stocked for seeds or animal feed.

²² Constraints to the development of rice production include lack of skilled labour, financial resources to invest in mechanization and the purchase of quality seeds. Farm size is limited in the producing areas of Artibonite and Nippes, reducing efficiency in food production (USDA, Haiti's US imports).

1.2 Major deficit and surplus zones

Table 2 compares 2015/16 production by department and by food groups to the estimated demand for 2015/16.²³ The aim is to broadly detect marketable surpluses or where current local production would not be able to meet demand without external supplies – internal/external trade or food aid.

Table 2 - Contribution to production in 2015/16 and surplus/deficit areas by main food groups

	Cerea	ls			Pulse	5			Tubers			
Dept.	Prod. ('000 Mt)	Demand ('000 Mt)	Surplus/ Deficit ('000 Mt)	% demand covered by production	Prod. ('000 Mt)	Demand ('000 Mt)	Surplus/ Deficit ('000 Mt)	% demand covered by production	Prod. ('000 Mt)	Demand ('000 Mt)	Surplus /Deficit ('000 Mt)	% demand covered by production
Artibonite	89.0	141.1	-52.1	63%	15.3	39.1	-23.8	39%	21.8	226.5	-204.8	10%
Centre	19.2	61.0	-41.8	31%	36.5	16.9	19.6	216%	21.9	97.9	-76.0	22%
Grand Anse	6.7	38.3	-31.5	18%	11.6	10.6	1.0	109%	87.1	61.4	25.7	142%
Nippes	7.5	28.0	-20.5	27%	5.0	7.8	-2.8	64%	8.3	44.9	-36.6	18%
North	5.6	87.2	-81.6	6%	8.9	24.2	-15.3	37%	86.2	139.9	-53.7	62%
North West	5.9	32.2	-26.3	18%	11.1	8.9	2.2	125%	41.1	51.7	-10.5	80%
North East	6.6	59.5	-53.0	11%	8.8	16.5	-7.7	53%	24.4	95.6	-71.2	26%
West	20.5	329.2	-308.7	6%	25.6	91.2	-65.6	28%	35.3	528.4	-493.1	7%
South	27.1	63.3	-36.3	43%	12.8	17.5	-4.8	73%	34.0	101.6	-67.7	33%
South East	7.1	51.7	-44.6	14%	8.6	14.3	-5.7	60%	7.0	83.0	-75.9	8%
Total	195.3	891.5	-696.3	22%	144.1	247.0	-102.9	58%	367.2	1430.9	-1063.7	26%

Source: authors' elaboration based on CNSA - Evaluation année agricole 2015

Despite most of the departments being far from production self-sufficiency for pulses, **limited surpluses exist in the producing areas in Grand Anse, Centre and North West departments.** Specifically, a recent mapping exercise from the CNSA²⁴ shows that the 2015 beans production in Bassin Bleu (North West) and Gros Morne area (Artibonite) resumed readily as weather improved during the summer planting season.

No department would be able to meet the local demand for cereals without external supplies. Artibonite and South departments were the main contributors to national cereal production in 2015/16,²⁵ but the amounts produced would only be sufficient to meet 40 to 60 percent of local demand. In the Centre department, production could only account for 30 percent of local demand: this deficit has potential impact on availability of nationally-grown cereals in surrounding regions. In fact, the Centre is a key producing area for maize and the source for major trade flows to the north and west.²⁶

Overall, North West, North and South East departments are major deficit zones and production remained poor despite most favourable weather conditions. Key informants interviewed during data collection in these regions agreed that supplies were low both during the lean season (March-June) and the main harvest period (June-October) in 2015. The CSNA²⁷ confirms that performance of cereal production in North and North West coastal plains as well as in South East's border areas was particularly poor across all cropping seasons despite rains increased at the end of the year.

²³ Demand by department was estimated by multiplying individual requirements (expressed in KG per year) by department's population.

²⁴ CSNA, *Evaluation année agricole*, 2015. The mapping compared the performance of 2015/16 spring and summer crops to the performance of production in 2009/10. As a slight improvement in rains supported summer planting activities from July to October, this comparison can be considered as a starting point to assess the capacity of production to reprise thanks to more favourable weather.

²⁵ According to the CNSA's "Evaluation année agricole" for 2015, the Artibonite and South departments contributed to highest share of national cereal production in 2015, respectively 46 percent and 14 percent of total cereal produce.

 $^{^{26}}$ Conclusions are made with reference of mapping of trade flows for local maize and rice, source: FEWS NET, February 2010.

 $^{^{27}}$ For details about CNSA's comparative mapping of performance of cereal production please refer to footnote 24.

Projected national cereals imports for 2015/16 have the potential to cover national production gaps. Specifically, projections²⁸ for 2015/16 indicate that 698 thousand Mt of cereals (mostly rice and wheat) will be imported in Haiti against an estimated demand of 696 thousand Mt. Yet, infrastructural bottlenecks may constrain the flow of imported products from the neuralgic centre of trade, Portau-Prince, to peripheral locations along the supply chain (Box 1). Noteworthy, while imported rice was highly available in most departments, traders in the South East were going through a shortage of this product at the time of data collection: 80 percent of traders interviewed in Jacmel and Kafou Georges markets reported that rice availability was low, and ten percent added that local rice brands (e.g. Schella) were no more available.

Box 1 - Supply chain and trade flows for main staples

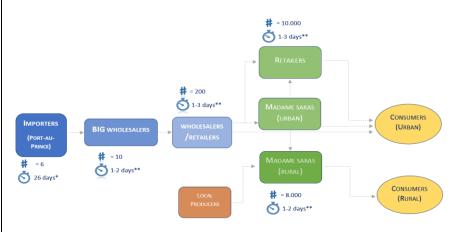
The Haitian market system involves market actors with diverse profiles, which allow for the granular distribution of supplies in both rural and urban areas:

- Retailers (itinerant vendors and Madame Sara) Specialized in small quantities of several local, imported and processed food items, they usually refurbish their stocks from suppliers in the same department by public transports. In particular, Madame Sara play a pivotal role in the market system by redistributing local produce from farmers to consumers and traders in the same municipality.
- Wholesalers-Retailers Specialized in several food items, with the exception of perishable local products, they are the main source of food for local consumers, but also key suppliers of imported food commodities both to consumers and retailers of other departments.
- Wholesalers Source of national supply for imported foods bulk redistributors of local cereals and pulses to local traders as well as traders of other departments.

Market actors move along distinct supply chains for imported goods (e.g. rice, wheat flour and oil) and local produce (e.g. maize and beans).

Supply chains move imported goods mainly from Port-au-Prince to wholesaler/retailer distributors in urban

Figure 4 - Supply chain for rice



centres and to a granular network of market actors in southern and northern rural areas.

As an example, Error! eference source not found. sketches the supply chain for rice. Based on the trader survey, it specifies the days usually needed to replenish stocks by trader type.

Local production is

minor: *Madame Sara*, mostly distribute produce from surplus areas in Nippes and Artibonite to nearby rural consumers.

Trade of locally produced commodities flows in the opposite direction along a shorter supply chain. As roughly sketched in Figure 5, rural *Madame Sara* collect local crops from producers: *i)* for sale to local retailers and consumers in rural areas; *ii)* for distribution to urban *Madame Sara* and wholesaler/retailers in urban centres.

²⁸ Source for estimated quantities of cereal imports for 2015/16 is <u>GIEWS Country Briefs – Haiti</u>, December 2015.

FULLTIME MARKETS

FULLTIME MARKETS

FULLTIME MARKETS

SHOPS/SUPERMARKETS
(URBAN)

MADAME SARAS
(URBAN)

FETAILERS (URBAN)

CONSUMERS
(URBAN)

MADAME SARAS
(RURAL)

RETAILERS (RURAL)

RETAILERS
(RURAL)

INTERNAL ROTATING MARKET SYSTEM

(RURAL)

This system excludes the national wholesale network and mostly builds on local systems of rotating markets centred on major assembly points in producing areas.

Jacmel is a key market in the South East and receives large flows of beans and small flows of maize supplies from surplus areas in the same department.

Port-de-Paix and Cap-Haitien are main retail centres in the North West and North department, where small flows of maize and beans converge from northern

producing areas. Hinche and Gonaives represent key redistribution points for local maize from northern and central producing lands to Port-au-Prince.²⁹

2. Demand-driven decrease in sales

The majority of the interviewed traders³⁰ reported that **sales decreased between October and December 2015 for local and imported products**. Specifically, sales went down by 50-70 percent in the North, North West and Artibonite departments. A moderate decrease of around 30 percent was also highlighted in the South East.

Only nine percent of traders (i.e. 6 respondents) pointed out that this decrease in sales was due to the lack of product availability; instead, more than 60 percent (i.e. 45 respondents) specified that a decrease in demand was the main driving factor. In fact, nearly 3 in 4 traders reported that sale losses coincided with a decrease in number of consumers they used to serve over a regular year. Traders stated that a visible decrease in buyers' purchasing power was the main demand constraint. The majority of them (80%) associated it to the twofold impact that drought exerted on weakening households' income opportunities and driving food prices up.

Drought-related unemployment generated significant income losses for agricultural workers. Before the drought, agriculture accounted for 50 to 60 percent of the total income of nearly half of the poor and very poor population. Yet, more than 20 percent of agricultural workers lost their job in 2015 on account of several consecutive seasons of poor production and more expensive farm inputs that led farmers to reduce cropped land and labour demand.³¹

The decline in food production also increased market dependency of poor and very poor households: two thirds of the vulnerable population relied on markets as their main source of food before the drought. Now, the share of market-dependent households is nearly 90 percent.³²

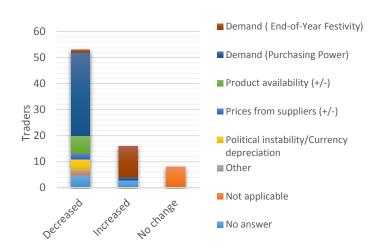
²⁹ Description is based on mapping of trade flows from FEWS NET. Supply chain flowcharts are elaborations of the author based on: USAID (2010). Haiti Market Analysis, August 2010; Emergency Market Analysis and Mapping, The Market System for Beans in Haiti, February 2010.

³⁰ Type of traders interviewed: 37 retailers (48.1 % of the sample), including *Madame Sara*, shop and itinerant vendors; 31 wholesaler-retailers (41.5% of respondents); and 8 wholesalers (10.4% of the sample).

³¹ Emergency Food Security Assessment, Haiti, February 2016; FEWS NET, Food Security Outlook, Haiti, October 2015 through March 2016; ³² *Ibid.*

Despite the food expenditure share being over 65 percent for half of the households, increasing

Figure 6 - Reasons for changes in sales in the past 3 months



Source: EFSA, December 2015, trader survey

food prices forced them to reduce purchased quantities and food consumption. According to the 2015 EFSA, households resorted on negative consumption-based coping strategies: reducing meal portions (81%), reducing the number of meals (78%) and preferring cheaper food items (83%). In addition, interviewed traders in Centre, North West and South East departments mentioned that food buyers prefer either closer shops to reduce transport costs or shops in government's voucher the programmes.33

3. Currency and commodities price trends

3.1 The struggle of the gourde

Since 2014, the Haitian gourde (HTG) has been depreciating against the American Dollar (USD), showing a huge spike in July 2015. In March 2016, the local currency lost 33 percent of its value compared to March 2015 and it stood at 61.8 for 1 USD.³⁴ The depreciation has been exacerbated by the country's political instability (see Figure 7), the scaling back of the United Nation Stabilization Mission (Minustah),³⁵ and the fear that production losses and the agricultural slowdown could lead to further price inflation. These events have boosted the demand for the US dollar, thus pushing the dollarization index over 50 percent since June 2015.³⁶

The depreciation will likely put a large burden on the country's trade bill, which has been historically negative, and in particular its food bill. In fact, two out of the top five imports (rice and poultry meat) originate from the USA.

In 2013, according to the Observatory of Economic Complexity (OEC), in 2013, some 195m USD out of the 233m USD for imported rice went to the USA along with 62.2m USD (out of 66.7m USD) spent on poultry meat. This makes the USA the second Haitian trading partner, with almost half of the American imports being food products (OEC, 2013).

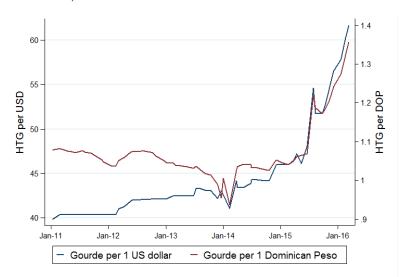
³³ Interviewed traders particularly referred to the voucher-based "Kore Levi" programme. In 2013, WFP jointly with USAID, CARE and *Action Contre la Faim* launched "Kore Levi" – meaning "Supporting Life" in Haitian Creole – with the aim to sustain the Haitian's government social assistance, reduce the economic impact of disasters and tackle malnutrition of vulnerable populations. Once enrolled, targeted households receive a two-year cash or voucher-based transfers to buy food locally. Nutrition and health support is also provided to lactating women and children. As of October 2015, the Kore Levi project reached out more than 130 thousands vulnerable Haitian households.

³⁴ As at March 29th, source: http://vam.wfp.org.

³⁵ It is the UN Peacekeeping operation established in June 2004 in the aftermath of the 2004 coup d'état occurred after an armed conflict had spread to several cities across the country. MINUSTAH was scaled up in 2010 to support the recovery, reconstruction and stability efforts in the country after the devastating earthquake.

 $^{^{36}}$ Haiti Central Bank, "Bulletin Statistique 96", July-September 2015.

Figure 7 - Gourde exchange rate against the US dollar and the Dominican peso



Source: http://vam.wfp.org; Exchange Rates, http://www.exchangerates.org.uk

The gourde is also losing ground against the Dominican peso (DOP). In March 2016, 1 peso was exchanged at 1.36 HTG, with the Haitian currency losing 29 percent of its value compared to March 2015. The depreciation against Dominican peso will likely put further stress on the food import bill. In fact, the Dominican Republic is the main Haitian trading partner and about 25 percent of imports from the neighbour country is food stuff.

The gourde struggles also against the main Haitian trade

partner in Asia, namely China (OEC, 2013). From March 2015, the Haitian currency depreciated by 27 percent against the Chinese yuan.

Box 2 - Two "wild cards of the political game"

The socio-political instability in 2015 played a role in the country's economic struggle feeding both the depreciation of the gourde and the inflationist spiral, as confirmed by key informants from the Centre department.

In February 2016, the parliament elected a new interim president for 120 days in the wake of new presidential elections scheduled for April 2016. There is no guarantee of success for the already twice-delayed elections, while another failure would keep Haiti in a limbo and further delay important structural reforms needed for economic recovery.

The other wild card is the relation with the Dominican Republic in two fields: trade and immigration.

The Haitian government banned the importation by road of 23 Dominican products, starting in October 2015. The import ban has already produced fear among traders in Artibonite and the Centre departments. Trade restrictions could potentially facilitate both the monitoring of import flows and the collection of import duties. However, the ban could also hurt Haitian citizens through price increases on banned products and incomes losses for cross-border traders. The current price increase of vegetable oil and wheat flour - two of the 23 banned products - could be partially explained by the ban.

On the other side, there are serious concerns about the economic implications of the 2013 Dominican Court decision to revise citizenship of about 200,000 people born to undocumented immigrants, mostly of Haitian descent. After the citizenship application deadline expired in June 2015 and by mid-August, more than 16,000 people were repatriated in compliance to the new regulations. Furthermore, by February 2016, some 45,000 returned spontaneously to Haiti and more than 12,000 claims to have been deported.³⁷

The Haitian economic system may not be able to deal effectively with the influx of returnees. The majority of volunteer arrivals reached Haiti with no resources (EFSA, 2015) and settled in the South East department, adding further stress to the fragile job market. In fact, the two main income sources for poor households in the South East, trade and wage labour, have already been threatened by both the interruption of cross-border trade with the Dominican Republic and cuts in farming activities by middle-income and better-off households.

³⁷ Source: IOM Haiti, Border Monitoring SitRep, March 3 2016.

3.2 The surge of food inflation

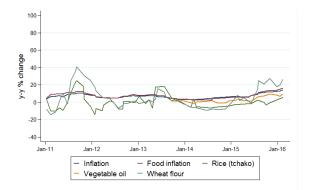
The fear of inflationary consequences of the currency depreciation is spread across the country. After all, long-grain rice is at the same time the top imported commodity and the main component of the Haitian diet.³⁸ Thus, a surge in prices could further threaten the already fragile food security situation. According to the key informants interviewed during the market assessment, depreciation has played a major role in the increase of food price levels, above all in the southern areas (Nippes, South and South East departments). However, this seems to be linked to the price increase of some imported goods only, such as wheat flour and vegetable oil (respectively +50% and +21% compared to January 2015, and +16% and +38% compared to February 2015 in the South East). In fact, a closer look at the price movements of the main import from the United States suggests that the depreciation against the USD may have played a more marginal role in the surge of food inflation than what expected. In fact, the price in gourde of imported rice from the USA has remained quite stable across all markets³⁹ in the past months (Figure 12 in the annex) thanks to a favourable international environment that see the value in US dollar of imported rice downward trending for several years.

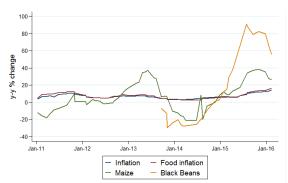
The price level of imported products in Haitian markets is anyway too high if compared with the level of international market prices. In fact, international food prices have been trending downward since 2012⁴⁰ thanks to abundant global supplies combined with very low oil prices, while the price of imported food products in Haiti have been remaining quite stable (e.g. American rice) or slightly increasing (e.g. wheat flour). The internal situation of Haiti (i.e. low production, political instability and currency depreciation) is preventing the country to benefit from the international decrease of food commodity prices, nevertheless the favourable international environment is certainly mitigating the negative effects of the internal situation.

Certainly, with food being 50 percent of the consumer price index and the imported food representing 70 percent of total food basket, depreciation played a role in the erosion of the Haitian purchasing power. However, the skyrocketing movement that pushed the year-on-year (y/y) inflation and food inflation respectively to 14.4 percent and 16.1 percent in February 2016 (the highest values since the implementation of the 2006 Poverty Reduction and Growth Facility supported program) finds its major explanation in the price increase of local products. The comparison between Figure 8 and Figure 9 clearly highlighted the different magnitude of price changes for local and imported products in 2015.

Figure 8 - Year-on-year inflation and food inflation vs. change in price of imported products

Figure 9 - Year-on-year inflation and food inflation vs. change in price of local products





Source: VAM Food and Commodity Prices Data Store, http://vam.wfp.org

³⁸ See footnote 9.

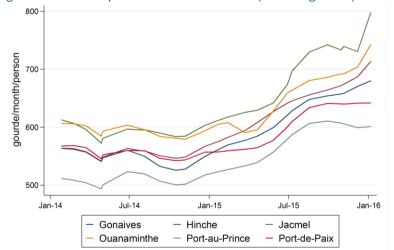
 $^{^{}m 39}$ The market in Les Cayes is the only exception.

⁴⁰ FAO Food Price Index.

Black beans in particular experienced a price surge from the second quarter of 2015, recording 50-100 percent y/y increase in all monitored markets (Figure 13 in the annex). As expected, there has been a slowdown in the monthly price increase in the last quarter in correspondence to the second harvest, but the price level remains significantly high if compared with the previous years. Trends were similar across regions. However, the surge of price for black beans was particularly high in the markets of Jacmel, Ouanaminthe and Hinche. Despite being the cheapest markets at the beginning of 2014, they are now among the most expensive, reaching the price level of Cap-Haitien.

The change in the price of local maize also plays a key role in the surge of food inflation (Figure 14 in the annex). Its price experienced large fluctuations over the past few months. Starting in the third quarter of the year, it recorded a y/y-inflation higher than 30 percent in the majority of monitored markets. Once again, it is the market of Jacmel that is experiencing one of the worst price increases. Only Jeremie and Port-au-Prince suffered from higher y/y price increase. However, inflation is slowing down in the Grand Anse market as price went down by 33 percent in January and remained stable in February compared to the month before. In February 2016, a marmite of local maize was sold for 120 HTG in Jacmel and 110 HTG in Port-au-Price, making them the most expensive markets for the purchase of local maize together with Gonaives market.

Figure 10 - Monthly cost of the food basket (current gourde)



Source: authors' elaboration on monthly prices data from VAM/WFP and FEWS NET database and percentage caloric contribution of each item of the food basket from FAO

The surge of food inflation inevitably translated into an increase of the cost of the food basket⁴⁴ consumed by the Haitian households in all markets (Figure 10). The first signs were observed already at the end of 2014 and the total cost of the food basket kept raising almost steadily till the third quarter of 2015. Thereafter, the cost stabilized in Port-au-Prince and Port-de-Paix, but in January 2016 it experienced a new spike in Jacmel, the

border town of Ouanaminthe and Hinche. The cost of the food basket is now the highest in Jacmel, which saw a 30 percent increase compared to January 2015.

4. CBT intervention and market response capacity

Based on the results of EFSA conducted in December 2015 that classified 1.5 million people as severe food insecure, WFP planned to scale up its food assistance programmes in March-September 2016 to reach one million people, thus complementing the Government's and NGOs' interventions estimated

 $^{^{41}}$ Price change: +60% in December 2015 and +50% in January 2016 compared to the year before.

⁴² In December 2015 price for maize went up by 103% in Jeremie and 67% in Port-au-Prince compared to the previous year.

⁴³ One marmite is equivalent to 2.78 kg.

⁴⁴ The composition of the food basket is such that covers 70% of the monthly caloric need of one person (2100 kcal/day/person). In particular, it includes: imported rice (23%), local maize meal (9%), imported wheat flour (12%), imported vegetable oil (7%), local sorghum (2%), imported refined sugar (11%) and local black beans (5%). Source: FAO.

to assist 0.5 million people.

The large majority of traders interviewed (77%) have never taken part in a cash-based transfer programme, but 83 percent of them expressed willingness to be involved. Few objections were only raised by wholesalers/retailers concerned with the payment modality in the South East department and lack of knowledge of the programme in the North West department.

In line with the households' preferences,⁴⁵ 79 percent of interviewed traders prefer the use of cash over vouchers and food distributions. After all, Haiti is a fragile state with a weak financial system, and many traders do not even hold a relation with a bank, while less than eight percent allows payment with mobile money.

The increase of purchasing power through cash/vouchers could sustain and boost the demand. Overall, 68 percent of traders are confident in their ability to respond to a significant increase in demand. However, major concerns arise from the Centre department, Artibonite as well as the dry costal zones of Nippes. In these areas between 56 percent and 80 percent of traders would not be able to face an increase in demand. Thus, it would be important to investigate and monitor the supply condition of these areas.

As a consequence of a lack of supply as well as financial constraints, 57 percent of open-air retailers in the South East, Nippes and the coastal area of Artibonite would not be able to meet a substantial increase in demand. This result does not come as a surprise for different reasons. First, among these traders, *Madame Sara* deal only with local production; the drought has certainly undermined their supply source. In fact, in the South East and Nippes, 75 percent of all traders recognize the low production level as a main constraint for their own activity. In addition, even the availability of imported food (namely rice) is low. Second, the likely loss of revenues due to the stress in the supply sources over the past months and the concurrent lack of access to credit⁴⁶ put a limit on the activity of open-air retailers. After all, 78 percent of them do not hold any bank relation, compared to only half of the other traders.

The time response of traders to an increase in demand could be potentially long. Among all traders interviewed, only 21 percent are confident that re-stocking will take less than one week; while, for another 20 percent, it may take up to one month, in particular in the South East, Nippes and the North East. The excessive length of time may also be explained by road accessibility. In fact, infrastructure and access to roads is considered a main limitation to trade activities across the country. Specifically, the majority of traders in earthquake-affected areas and the southern peninsula rank transportation and poor road conditions as their two major constraints.

Answers blaming on poor infrastructure as major hindrance to business were checked and confirmed through analysis of travel-time distance to key markets.⁴⁷ shows that inner areas in the North West and Centre as well as border regions in North East and South East face market accessibility issues as it takes traders around one day or more to reach the nearest key market.

 $^{^{45}}$ According to the EFSA (December 2015), 76% of the households prefer cash distribution as food assistance modality.

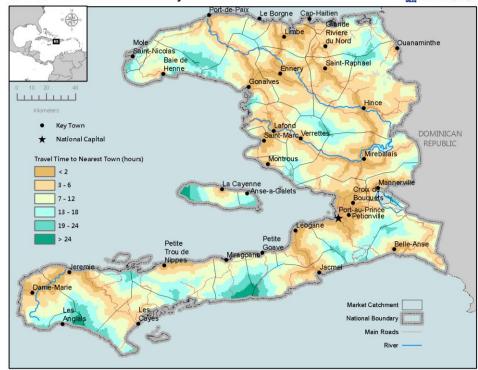
 $^{^{46}}$ 83% of *Madame Sara* and 52% of open-air retailer do not have access to credit.

⁴⁷ Travel-time distance refers to the time it takes to reach the nearest location of interest taking into account topography, road network and other restrictions to movement (e.g. road blockades). In the case of Haiti, the analysis considered the distance to main urban centres for an approximate estimation of traders' physical access to key markets and the time needed for stock replenishment.

Map 2 - Travel time to key markets

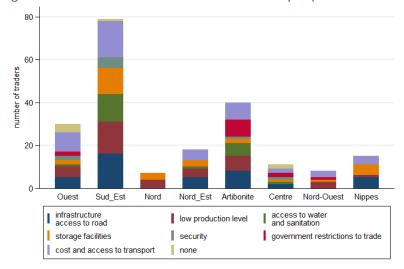
HAITI - Market Accessibility in 2016





Finally, the internal political situation and tense relation with the Dominican Republic are significant risk factors potentially undermining the market response capacity. The uncertainty could further reduce the market capacity response as already 89 percent of traders in Artibonite and 40 percent of traders in the Centre department look at restrictions on free-movement of people and goods as a main constraint to their trade activities (Figure 11)⁴⁸. In particular, from September 2015, road blocks in Montrouis, Arcahaie and Cabaret due to political turmoil slowed down north-to-south trade flows and led to shortages of fresh perishable products in the Central Plateau.⁴⁹

Figure 11 - Main constraints to trade activities by department



Source: EFSA, December 2015, traders survey

⁴⁸ Multiple answers by traders were allowed for this question.

⁴⁹ FEWS NET, Haiti Food security outlook, October 2015 through March 2016. Available at: http://www.fews.net/sites/default/files/documents/reports/HT OL 2015 10 final en.pdf

5. Concluding remarks and outlook for next 6 months

The study analysed market functioning in Haiti drought-prone areas with focus on food production, demand and drivers of recent price trends. In view of WFP's commitment to scale-up food assistance, the report also explored market capacity to meet increased demand generated by a possible CBT intervention.

El Niño's dry spells had a double negative impact on food availability and food access. Drought reduced domestic production and the country more and more depends on imports to fulfil its food requirements. North, North West and South East faced major deficits both during the lean and the harvest season. At the same time, crop losses and increasing cost of inputs compromised the livelihoods of households who rely on agriculture either to produce their own food or as waged workers. Ninety percent of households now depend on food markets; 50 however, families' incomes are not enough to buy increasingly expensive products and households resorted to reduce purchases of both local and imported foods.

Majority of wholesalers and bigger retailers state that they could meet increased demand in case of a CBT intervention. Small retailers – e.g. itinerant vendors and *Madame Sara* – express concerns about their response capacity as lack of financial resources (loss of revenues and poor access to credit) and higher producer prices limit their possibility to replenish stocks. Poor infrastructure and restrictions to movements due to political instability also appear as key constraints to trade.

Looking ahead, analysis of both demand and supply drivers of Haiti's food insecurity suggests that chances of recovery within the next semester are limited. Despite rainfall being in slight reprise and attempts to stabilize the currency exchange rate through monetary maneuvers have already being implemented by the Central Bank, prolonged drought has had a structural negative impact on the agricultural productivity and labor markets. This will slow down the reprise of the agricultural sector and households' purchasing power:

- Rains distribution is still erratic but in reprise during the 2016 spring growing season.
 Precipitation conditions slightly improved since the beginning of 2016 and were close to
 average in North West, North East, West and South East departments. Nevertheless, rainfall
 anomalies persist in Artibonite, where rain was still 40 percent lower than what expected in
 early March.⁵¹ Monitoring of rain distribution over the next month could help predict
 expected yields for 2016.
- Local production is expected to further tighten in 2016 as farmers could not prepare the season adequately for the main harvest. Losses during the 2014/15 agricultural year left producers short of funds to buy increasingly expensive farm inputs. Preliminary results from the EFSA show that 67 percent of households could not afford to plant for the 2015 second growing season and will not plant in the coming months.
- The unbalance between demand and supply of agricultural labour continues to impact poor households' income. Despite more rain in North West prompted labour demand at the end of 2015, labour demand remains weak in other departments.⁵² To the other hand, labour supply for farming activities also decreased as many young workers emigrated to urban centres or different countries in response to lack of labour opportunities in their communities.

 $^{^{\}rm 50}$ Emergency Food Security Assessment, Haiti, February 2016.

 $^{^{51}}$ FAO GIEWS, Earth Observation – Precipitation indicators. Available at:

 $[\]underline{\text{http://www.fao.org/giews/earthobservation/country/index.jsp?type=31\&code=HTI.}$

 $^{^{52}}$ FEWS NET, Haiti Food Security Outlook, from October 2015 through March 2016.

Labour supply particularly decreased in the South East leading to a localized increase in the cost of labour, which was 30 percent higher than in other southern areas in 2015.⁵³ This is likely to limit middle-income farmers in hiring workers without raising the prices for their crops.

• Monetary policy and possible improvement in political stability may ease currency pressure. In particular, the limits imposed by the Banque de la Republique d'Haiti (BRH) on US\$-lending, the increase of interest rate on BRH bonds along with increased inflows of foreign aid could potentially slowdown currency depreciation. In addition, possible success of political elections in the first half of 2016 appears as a key contributing factor to currency stabilization.

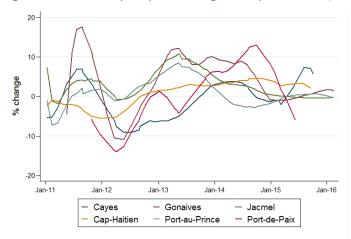
In light of the above findings, the following points can be put forward:

- Sustain to poor and very poor households' purchasing power appears a priority area of
 intervention. In fact, constraints to economic access to food are likely to persist during
 the first half of 2016, as income from wage labour in the agricultural sector is expected to
 remain low during the first harvest season, local prices remain high and currency
 stabilization is linked to upcoming political events.
- In remote areas, combination of in-kind and cash-based transfer intervention is suggested. CBTs appear as a viable option to facilitate purchases of imported food items as these are generally available in markets at stable prices. On the other hand, availability of local products is projected to remain tight at prohibitive prices across 2016. Thus, in-kind food deliveries should complement CBT amounts received by beneficiaries to ensure access to local foods without exerting further pressure on local prices. Specifically, external supplies appear as necessary in deficit areas for cereals and pulses production. The lean season (March-June) is the most critical period to increase the amounts of food delivered vis-à-vis cash in all affected regions.
- In the medium term, reprise of agriculture is required to restore households' livelihoods and incomes. This process undergoes the need to facilitate farmers' economic access to scarcely available inputs, e.g. seeds. Due to high cost of seeds, farmers generally refrained from planting or hire workers. Further analysis is needed to assess if direct provision of seeds or cash equivalent for their purchase can free sufficient resources, prompting labour demand and thus sustaining very poor household livelihoods.
- In the long-run, improving productive and trade infrastructure is finally proposed to overcome major structural bottlenecks and facilitate rehabilitation of labour opportunities. The implementation of conditional cash-for-asset activities to restore storage capacities, soil fertility and road networks in preparation to successive harvest seasons would be particularly beneficial in the vulnerable areas where production has low potential to reprise and which face major hiring problems (i.e. the South East and coastal plains in North and North West departments).

⁵³ Ibid.

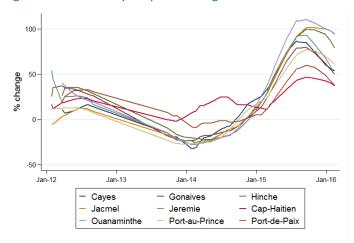
Annex

Figure 12 - Year-on-year price change of imported rice (tchako) by market



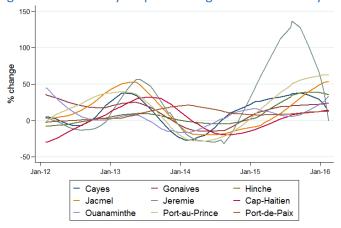
Source: VAM Food and Commodity Prices Data Store, http://vam.wfp.org

Figure 13 - Year-on-year price change of local black beans by market



Source: VAM Food and Commodity Prices Data Store, http://vam.wfp.org

Figure 14 - Year-on-year price change of local maize by market



Source: VAM Food and Commodity Prices Data Store, http://vam.wfp.org

