



# Post- "Matthew" Emergency food Security Assessment (EFSA) - Phase 1 (most affected areas\*)

**AFTER TWO** CONSECUTIVE **YEARS OF DROUGHT** 



THE MOST **PRODUCTIVE** AREAS OF HAITI **WERE HIT BY A LEVEL-4 HURRICANE ON 3-4 OCTOBER** 

61% OF **HOUSEHOLDS** WERE DIRECTLY **AFFECTED** 



**MATTHEW RESULTED IN** A SIGNIFICANT REDUCTION IN INCOME-**GENERATING ACTIVITIES** 



AN EXTREMELY HIGH **PROPORTION OF POPULATION WILL NOT BE ABLE TO SUSTAIN THEIR WELLBEING THROUGH JUNE** 2017



**MORE THAN 50% OF HOUSEHOLDS ARE UNACCEPTABLE DIETS** 



THEIR PLOTS DAMAGED LOSING AT LEAST 3/4 OF

# **Highlights**

- This paper presents the impact on food security and livelihoods in the most affected areas two months after Hurricane Matthew.
- Over 60% of households were directly affected by Matthew, mainly in terms of damage to housing, stocks and cultivated plots;6% of households interviewed are still displaced or host displaced persons.
- Around 38% of the population in the most affected areas are food insecure (around 1.5 million people), including 5% severely food insecure (around 280,000 people). The Nord-Ouest, Grand' Anse rural area, the mountain livelihood zone in Nippes, La Gonave and the costal dry area in Artibonite, present more than 50% of food insecurity. Areas where humanitarian response was quickly deployed like Les Cayes, Jeremie or South rural areas and some of rural areas in Grand Anse present a better situation.
- More than one in two households have unacceptable food consumption (53%); A significant increase in population with acceptable food consumption was recorded in the departments of Grand'Anse, Sud and Nippes following significant deployment of food assistance since October.
- Almost two thirds of households adopted coping mechanisms having a negative impact on livelihoods: 21% 'crisis' coping strategies (sale of productive assets or seeds stocks consumption); 17% 'emergency' coping strategies (sale of house, land or last female animals).
- The average monthly food expenditure per household is 4,300 Gourdes (approximately 66 USD) - representing

The high level of coping mechanisms that affect livelihoods associated to stocks and animals losses among farmers suggests that an extremely high proportion of population in the most affected areas will not be able to sustain their wellbeing through June 2017. An early onset of the lean season – which ordinarily starts in April – is also expected in the areas of the country covered by the current study.

48% of their global monthly expenditures - slightly lower than average cost of food basket (5,537 Gourdes).

- The population of Nord-Ouest dedicate less than 3,000 Gourdes to food.
- The proportion of households in the poor and very poor quartiles wealth index increased by 8% - with peaks in Grand Anse and South departments - in December as opposed to pre-Matthew period.
- After Matthew, a significant reduction in income generating activities such as trade, livestock and crop production was observed. As a result, households rely on less sustainable and profitable sources such as gifts, donations or production of charcoal (each one increased by 6%). One in four households lost one to two sources of income.
- Over two thirds of agricultural households lost at least 75% of food stocks from the Spring/Summer 2016 season; on average each farmer lost 0.33 Ha of cultivated land for the winter season. Livestock owners have lost or sold two thirds of their animals.

\* Grand' Anse, Sud, Nippes, Sud-Est, Nord Ouest HT01, La Gonave, Artibonite HT01

























# Impact on Food Security

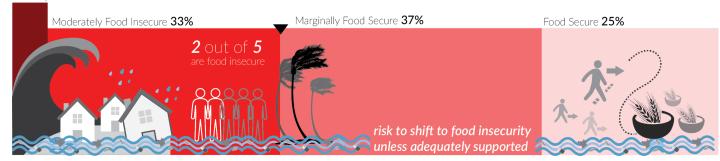


1.55M 38%PEOPLE **FOOD INSECURE** 

280,000 people are severely food insecure



Severely Food Insecure 5%



(Phase 1 - most affected areas) **FOOD INSECURITY** HIGHEST RAT

# 65%

#### **NORD OUEST HT01**

18% Severely food insecure

58%

#### **NIPPES HT07**

7% Severely food insecure

57%

#### **GRAND ANSE HT08**

11% Severely food insecure



# LA GONAVE/ARTIBONITE

9% Severely food insecure

## THE MOST FOOD INSECURE LIVELIHOOD ZONES ARE:

- Dry coastal maize and charcoal (HTO1) in Nord-Ouest district, Artibonite, lle de la Gonave;
- · South beans, bananes and petty trade in inland Grand Anse and Nippes (HT07) and

Rural areas recorded 49.8% of food insecurity (8.1% severely food insecure), against 20.5% in Les Cayes and Jeremie towns (1.4% severely food insecure). Thanks to the relevant deployment of humanitarian

Haiti Food Insecurity Situation - December 2016

# Cuba HAITI Zone of Analysis / Livelihood zones Dominican Republic HT01 - Coastal dry corn and charcoal HT07 - South Bean, banana and small trading HT08 - SouthWest coastal Corn, manioc and picking











Percent of Households in food insecurity Unclassified area < 30% 30 -40% 40 - 50% 50 - 60% > 60%

Foreign countries Ocean and lakes

Map Reference: WFP 2016-036-8\_Haiti Strate EFSA122016 Food Insecurity Situa

# Who are the most vulnerable?

# **DEMOGRAPHICS**







2 OUT OF 10 HOUSEHOLDS HAVE DISABLED OR CHRONICALLY ILL PEOPLE, with highest records in the coastal areas: Grand' Anse (Grand'Anse HT08, 29%), and Nippes HT07 (25%)



NO SIGNIFICANT DIFFERENCE IN TERMS OF FOOD INSECURITY WAS RECORDED BETWEEN FEMALE AND MALE HEADED HOUSEHOLDS





Small households (3 or less) are more prone to food insecurity than bigger households





# 24%HOUSEHOUDS

with disabled or chronically ill people are severely food insecure against 17% of households with no ill people

# **54%**HOUSEHOLDS

headed by a non-educated member are food insecure against 38% of those with primary level degree, 23% secondary and 20% superior



## DISPLACEMENT



7% of the household are hosting unaccompanied minors



10% of households have at least one member who migrated following the hurricane



**6%** are either displaced or residents hosting displaced households\*\*





91% destruction of homes 10% flooding of homes 26% lack of food Due to displacement, these households have lost a number of assets, goods and opportunities including their own houses (45% of occurrence); reserves of food (25%); domestic tools and assets (39%); and employment (18%)





# >50% INTERNALLY DISPLACED PERSONS ARE FOOD INSECURE

against 38% of residents. Only 2.5% of households declared being displaced. Nevertheless, the displacement of people in the most affected areas is directly related to food insecurity.

## RURAL VS URBAN AND LIVELIHOOD



37% FOOD INSECURE IN GRAND ANSE, NIPPES, SUD

that benefitted the most from humanitarian support against 46.1% in the other areas

# **20% URBAN HOUSEHOLDS**

in Les Caves and Jeremie towns, and 1.4% <code>Severely</code>  $\mathsf{food}$   $\mathsf{insecure}$ 





50% (1 IN 2) RURAL HOUSEHOLDS was exposed to food insecurity and 8.1% severely food insecure











Farmers are more exposed to food insecurity than non-farmers 48% vs 25%

**66% of farmers** declared having their plots destroyed or damage **highest proportion** of food insecurity is **observed among small-holder farmers** (less than 0.5 HA or less)



# Methodology

Shortly after the passage of the cyclone Matthew on October  $4^{\text{th}}$  2016, a rapid food security assessment in the most affected areas was conducted to identify humanitarian needs and to understand the impact on productions and livelihoods. In December, a more in-depth post-Matthew emergency food security assessment was conducted by the National Coordination of food security (CNSA) in partnership with the WFP, FAO, FEWSNET, and with the support of EU, ECHO, DFID, USAID, Solidarité Internationale, CARE, COOPI, World Vision, Concern Worldwide, to better inform targeting within the affected population and to guide short to mediumterm humanitarian and early-recovery interventions.

A **6,420 households** sample was designed to provide representative estimates in each of the 23 strata in the 10 departments of the country with a higher resolution in departments severely hit by the hurricane.

The WFP CARI\* methodology – based on the combination of Food Consumption Score (FCS), Food Expenditure Share and livelihood coping strategies at the household level - was used in the estimation of the Food Insecurity index.

The assessment is conducted in **two phases**. The first covered **3,840 households** in the departments and zones more directly affected by the hurricane - Grand Anse, Sud, Nippes, Sud-Est, Nord-Ouest HT01, Artibonite, Ile de la Gonave HT01 - from 2 to 20 December. The second will cover the rest of the country. This summary is about the zones surveyed in **phase one**.

\*Consolidated Approach to Report of Food Insecurity

total/partial

HOUSING

destruction

66%

destruction

PLOTS damage/

among farmers



# Impact of "Matthew"



43% increasing food PRICES



Haiti has a long cycle of rising prices of food as consequence of the last two years of drought and of the depreciation of the local currency against the U.S. dollar.

7 OUT OF 10 households have been affected by a shock

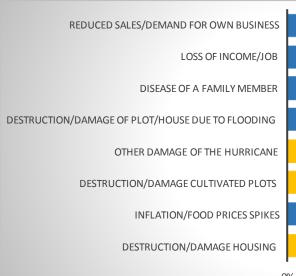


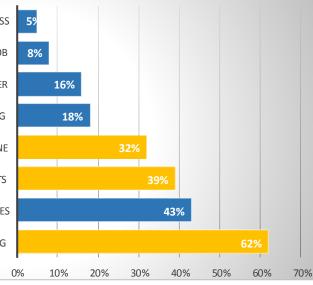
In order to overcome these multiple shocks, one third of affected households contracted DEBTS. Only 53% of households think they can repay the entire debt within the next 12

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t common shocks



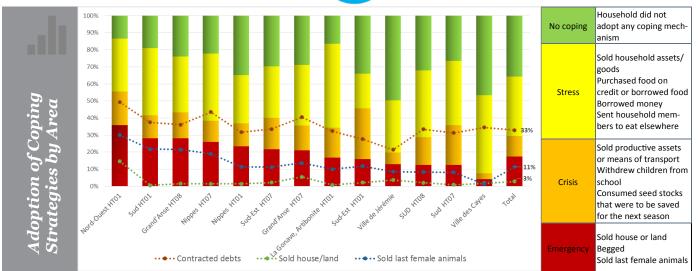


<sup>\*</sup>In orange shocks directly related to Matthew

# **Coping Strategies**



#### **Severity of Coping Strategies**



Between November and December 2016, around 64% of households engaged in negative coping strategies affecting their livelihoods, including 29% adopting severe ('crisis' or 'emergency') strategies which are extremely difficult to reverse.

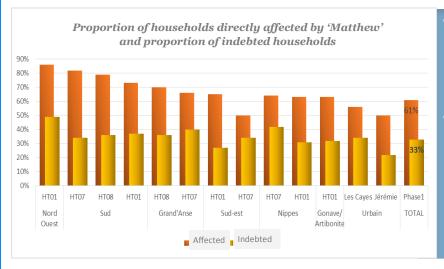
The situation is extremely critical in Nord-Ouest HT01 where 37% of households have engaged in emergency coping strategies.

Food assistance reaching over a million beneficiaries since mid-October in Grand Anse, Nippes and Sud contributed to the 60% decrease observed in the proportion of households adopting livelihood coping strategies; in particular, this proportion decreased by 74% in the department of Sud, by 58% in Grand'Anse and by 54% in Nippes.

Among the most adopted crisis-coping strategies, 16% of households used their seed stock for the next cropping season as source of food consumption. Around 11% of households sold reproductive animals as emergency coping strategy. Almost 7% of the households had to recur to begging as emergency level livelihood coping strategy, with peaks of 17% in Grand'Anse HT08.

The sale of the last female animals – representing one of the ultimate resort safety nets in Haiti – is the particularly common in pastoral Nord Ouest HT01 zones (30%). In this area, an extremely high proportion of households has also sold their plots or land (15%). Unfortunately, this was not sufficient to withstand the impact of the hurricane given that almost 50% of the population also contracted debts to face the shocks.

With exception of Nippes and Grand Anse HT07, the strata with the highest levels of adoption of emergency coping strategies also recorded the highest prevalence of households contracting debts, which is symptomatic of the hardship these populations are facing to withstand the critical moment.

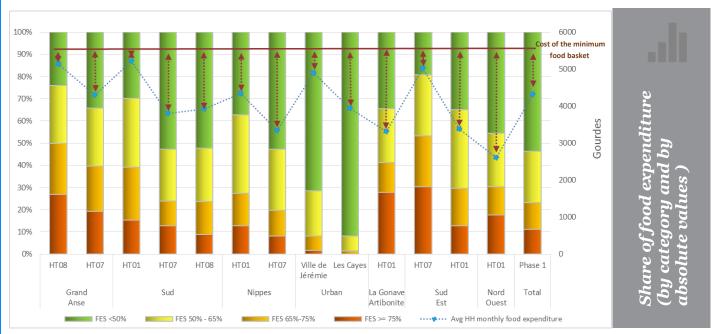


- Despite the high level of coping strategies adopted in the most affected areas, the direct impact of Matthew shows a certain level of convergence with the level of indebtedness, especially in Nord-Ouest and Sud departments.
- Around 87% of households in Nord-Ouest HT01 were directly hit by Matthew. Despite the significant level of adoption of 'crisis' and 'emergency' coping strategies (over 55%), this area also recorded the highest level of population that was forced to borrow money (49%). These elements witness the level of hardship of the population in this area following 'Matthew'.

Finally, the vast majority of households applied one or more food consumption-based coping strategies. Eating less preferred or cheaper food products (77%); reducing the size of meal portions (73%); and reducing the number of meals per day (74%) are the most common strategies adopted.



# Markets and Food Expenditures



On average, each household spends around 4,300 gourdes per month on food (i.e. about 66 USD and 0.44 USD/ person/day), representing 48% of total monthly expenditures.

In each of the 13 areas of analysis, the average expenditure on food does not allow to purchase the minimum monthly food basket whose cost is 5,537 gourdes\*.

The widest gaps were observed in Nord-Ouest where only 2,600 gourdes a month were spent which accounts for less than 50% of the cost of the minimum food basket (see the purple line in the above graph); this ratio rises to more than 64% and 62% respectively in the Grand' Anse HT08 and Sud-Est HT07 reflecting the limited economic access to food of households in these areas.

Furthermore, South HT01, Grand'Anse HT08 and Sud-Est HT07 record the highest values of the average food expenditures worth around 5,000 gourdes, while Nord-Ouest has the lowest record with less than 3,000 gourdes.

Overall, nearly a quarter (23.3%) of households spend more than 65% of their monthly budget on food which is very symptomatic of significant economic vulnerability. Food insecure households allocate 54% of their monthly budget to food against 44% of food secure.

Despite the massive food assistance deployed and the significant imports over the past two months, limited internal food availability associated to a sharp depreciation of the local currency against the US dollar has kept food prices high. This could further worsen if the trend on the foreign exchange market will not invert, and if projections for spring/summer and winter seasons harvest are confirmed significantly below average.

The scaling-up of emergency food assistance in the departements of

# Trends in Food Expenditure Share 71 68 65 51 47 66 63 May-11 Aug-13 Oct-16 Dec-16

## Grand'Anse, Nippes and Sud contributed to the significant reduction of food expenditures in these areas since mid-October 2016.

<sup>\*</sup> the value of the minimum food basket is based on the average food consumption for a family of five members and on the average monthly prices (Sep-Nov 2016) of the most frequently consumed products in the main retail markets of Haiti.

# **Food Consumption**





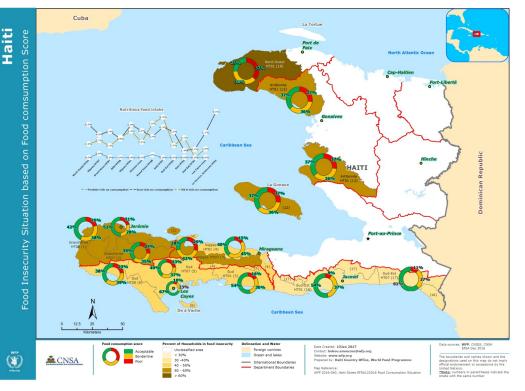
- Over 50% of households have an unacceptable food consumption.
- Almost 75% of households in Nord-Ouest HT01 does not have access to an adequate diet and over 36% have poor FCS.
- On average, people in the most affected areas consume 4.93 different food groups per day. However 14% of households in Jeremie town and 10% in Nord-Ouest HT01 consume only one to two groups, staples and oil.

The negative impact of Matthew on beans and bananas production resulted in constrained access to food in the inland livelihood zones of Grand Anse and Nippes HT01; In the Nord-Ouest HT01, the impact of Matthew further exacerbated the constrained access to food and animal products after two consecutive years of drought.

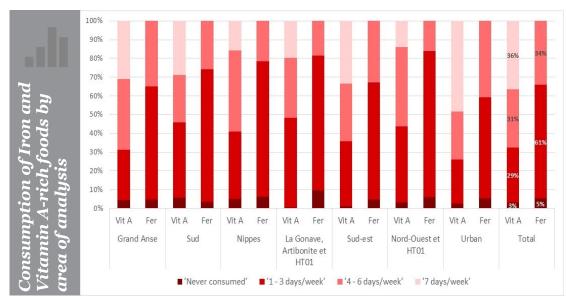
Around 21% of people in the most affected areas consume only three food groups - mainly staples, oil, sugar and, less frequently, pulses, meat/fish or eggs. The nutritional value and diversity of diets is not extremely poor, especially in terms of consumption of proteins, iron and Vitamin A rich foods.

Around 12% of households displaced by the hurricane do not consume Vitamin A rich foods as opposed to 3% among non-displaced.

Furthermore, only 8% of displaced and 13% of non-displaced households consume iron-rich foods on a daily basis.



While the proportion of unacceptable food consumption is quite uniform across strata, the one of households not



consuming iron or Vitamin A rich foods varies significantly, with peaks in la Gonave/Artibonite HT01 (9.5%) and in Sud HT07 (8.9%), respectively.

Nippes has the highest proportion of households not consuming Vitamin A and Iron rich foods.

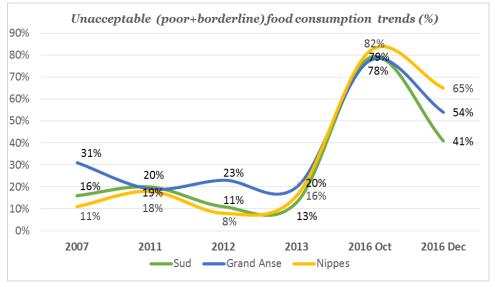
Access to proteins is generally adequate across all strata.

# FCS TRENDS



Through
HUMANITARIAN
ASSISTANCE





Scale-up of food assistance with over a million beneficiaries reached between 14 October and 22 December contributed to reduce the population with unacceptable food consumption in the three most affected districts of Grand Anse, Sud and Nippes;

In Nord-Ouest, around 75% still had an inadequate food consumption in December. Here, structural constraints to food availability and access were exacerbated by the impact of the hurricane combined with limited humanitarian response.

# WEALTH INDEX ---

The Wealth Index (WI) is a relative measure of household wealth. Based on their relative asset wealth, households are classified into four equal size groups – from the poorest to the richest

Very Poor	No latrine/toilets inside the home  Poor access to basic services (water, electricity etc.)  Houses are built with non-durable materials (straw, plastic sheets, etc.)	
Poor	Access to only some services Better quality of house construction	
Middle-income	Better access to basic services Some households own mobile phones, radio, electric iron	
Better-off	Running water and toilets inside the home and access to services Most households own mobile phones, radio, motorbike and electric iron Houses are built with durable materials (cement, tiles, wood, etc.)	

-di	Strata	Very Poor	Poor
Differences in the percentage of households falling in the WI quartiles after Matthew	Grand'Anse and HT08	<b>1</b> 29%	6%
	Grand'Anse and HT07	<b>1</b> 23%	8%
	Sud and HT01	<b>₽</b> 6%	4%
	Nippes and HT01	3%	9%
	Sud and HT07	14%	<b>☆</b> 8%
	Sud and HT08	15%	<u>↑</u> 9%
	Nippes and HT07	12%	7%
	Ville de Jérémie	☆ 8%	19%
	Ville des Cayes	18%	<b>☆</b> 7%
	La Gonave, Artibonite and HT01	10%	4%
	Sud-Est and HT01	3%	3%
	Sud-Est and HT07	<b>J</b> 11%	1%
	Nord-Ouest and HT01	3%	7%
	Total	<u>↑</u> 5%	<b>☆</b> 3%

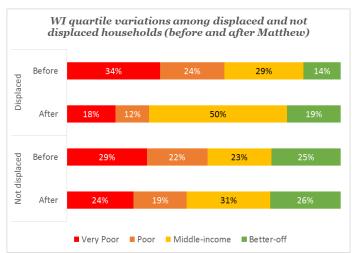
By using two fixed thresholds (post-Matthew comparison thresholds pre-Matthew), the analysis on poverty shows that the hurricane had a significant impact especially on Middleincome level households who shifted towards the Very poor (+5%) and Poor quartiles (+3%).

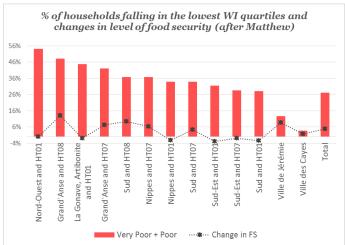
The wealth of middleincome households was particularly affected in Grand'Anse, where almost one third of households shifted towards the very poor or poor quartiles.

In Sud HT07 and HT08, middle-Income households were similarly affected: after the hurricane, the number of households falling in this quartile fell by 1/4, with a consequent increase in the number of very poor and poor households. Similar trends are observed in Nippes HT07.

The limited variation in food insecurity observed in Nord-Ouest HT01 and La Gonave/Artibonite HT01 could be due to the widespread structural poverty limiting the marginal decreases in the multi-dimensional indicator of wealth.

In areas mostly affected by Matthew, the impact that the hurricane had on the poorest households also affected their level of food security. Indeed, Sud, Grand'Anse and Nippes saw their levels of food insecurity increase compared to the pre-hurricane situation (+10% for Grand'Anse, +9% for SUD HT08, +7% for Nippes HT07).





The hurricane mainly affected the wealth of middle-income displaced households, whose number decreased by 22% with a consequent increase of poor and very poor households (+16% and +11% respectively);

The most affected populations are found in the mountaineous areas of Grand'Anse HT08 where a 16% decrease of *middle-income* households was observed underpinned by a 23% increase in the number of poorest households. Similar trends are recorded for middle-income households in Sud HT01 (-10% with a consequent 9% increase in the number of households falling in the poorest WI quartiles). In Jérémie, a significant reduction of households in the richest quintile (-11%) was justified by a 13% increase in the number of the *poor* or *very poor* households;

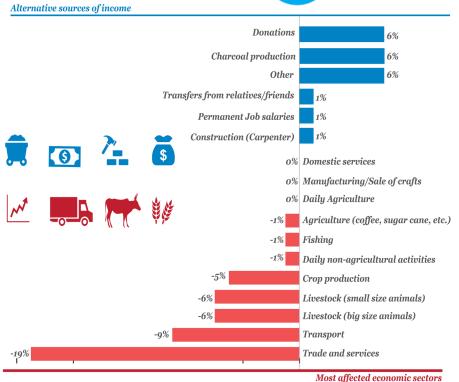
In the coastal areas of Nord-Ouest HT01, *poor* and mainly depending on the production of charcoal and maize recorded the highest proportion of food insecurity before and after the hurricane (54%).

The urban areas of Les Cayes and Jérémie recorded the lowest level of food insecurity among poor and very poor households.

In Grand'Anse HT08, the households mainly depending on maize productions were the most severely affected by Matthew. After the hurricane hit, the proportion of food insecure among the very poor households increased by 18%.



# Impact on Livelihood



The economic sectors mostly hit have been Trade (-19%), livestock (-6%) and crop production (-5%). However, the three sectors still provide over 50% of the average household income in the most affected areas

In the aftermath of the Hurricane households were forced to rely on less sustainable and profitable sources such as gifts, donations or production of charcoa (all increased by 6%).

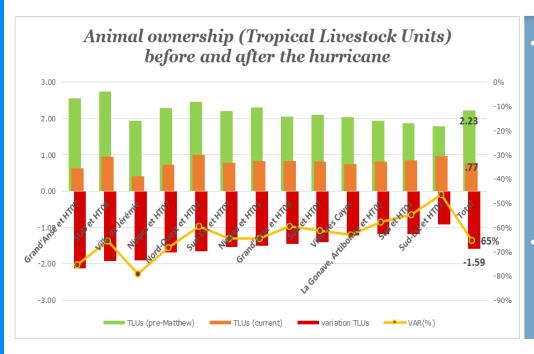
Around 25% of the households lost one or

Overall, no significant difference in food insecurity was observed between male and female-headed households depending on the same income sources. The only exception are female headed households depending on fishing (35% food insecure among against 19% of male-headed); handicraft (40% against 24%); and subsistence farming (55% against 49%).

The districts where 'Matthew' affected more significantly the livelihoods of local populations have been the Sud, with 28% of the population which lost at least one source of income and the Grand'Anse, where 26% have experienced a reduction in the number of income sources. Nord-Ouest also experienced similar patterns with a 20% reduction.

The hurricane affected severely agricultural productions and reduced the potential production for the forthcoming winter season 2016-17. On average, the cultivated surface decreased by one third, with more significant reductions observed in Sud, Grand Anse and Nippes. The three departments are among the most productive areas in the country.

Seed stocks consumption as a coping mechanisms adopted by farmers also affected cultivated areas. Small-holder farmers resorted more regularly to consumption of their seed stocks. The average surface of lands owned by those who consumed seeds is 1.4 against 1.9 of those who did not. As a result, a 35% marginal reduction of cultivated land was observed within farmers consuming seed stocks against 32% of those who did not.



- On average, a 2/3rd reduction in animal ownership calculated through the Tropical livestock Units was observed since the hurricane occurred. This is in line with the high adoption of coping mechanisms including sale of last female animals.
- The most significant reduction was observed in Grand Anse HT07 (2.1 TLUs) and in Sud HT08 (1.9 TLUs).

# **Conclusions**

Matthew affected significantly food insecurity and livelihoods of the populations covered by the EFSA. Almost 2 out of 5 households are food insecure with one third of them risking to become severely food insecure through June 2017 in case of insufficient external assistance. Around 25% of households have lost one source of income directly due to the impact of the hurricane, especially agriculture and livestock production-related.

Humanitarian interventions were highly successful in mitigating food insecurity in the departments of the Grand -Anse, Sud and Nippes. However, extremely high food insecurity levels are observed in Nord-Ouest HT01 and to a lesser extent in the coastal areas of Artibonite and Ile de la Gonave HT01, where the impact of Matthew and limited humanitarian response exacerbated pre-existing structural food insecurity.

In order to withstand shocks, 64% of households had to engage with asset-eroding negative coping strategies including 29% adopting severe (crisis or emergency) strategies such as seeds stocks consumption; sale of plot, land or last female animals. Although more than half of the population in the Nord-Ouest HT01 recurred to these coping mechanisms (55%), these were not sufficient and 49% of them also had to contract debts to face the hardship of the moment.



**Outlook**: Since 2 out of 5 households did not expect to be able to plant or cultivate and 33% decreased their actual cultivated land for the winter 2016/17 season, food insecurity is likely to increase through June 2017 due to limited food availability and increased prices of main commodities. An earlier than normal onset of the lean season is also expected by February or March for the vast majority of farming and livestock productive areas affected by the hurricane.

# Recommendations

**Roll-out emergency food assistance** in Nord-Ouest HT01, la Gonave and Artibonite HT01 and continue supporting the Grand Sud region by targeting to the most vulnerable groups. See criteria below:

- Children malnourished, children in schools, pregnant and lactating women in the affected areas;
- Households with disabled or chronically ill people;
- Displaced or households hosting IDPs;
- Households with head illiterate or having no education;
- Households depending on livestock production, prioritizing Nord-Ouest HT01, Sud-est HT07, Nippes HT01 and Sud HT01;
- Households only relying on non-sustainable income sources (gifts and assistance);
- Household relying on farming especially in Nord-Ouest HT01, Nippes HT07, Grand Anse HT08, La Gonave Artibonite HT01, Grand Anse HT07, Nippes HT01;
- Rural areas.

**Cash interventions** could be implemented where markets are functioning in order to support acute food needs of beneficiaries while helping resume agricultural activities / breeding for next season as well as the small trade and fishing activities.

**Distribution of seeds and inputs** in the most affected strata. In particular, it will be important to distribute seeds to short cycle of corn, beans, and finger millet in rural areas.

**Geographical targeting** prioritizing areas with over 50% of food insecure farmers (see strata mentioned above). If necessary, targeting for seeds distribution should be based on small-holders farmers (less than 1.5 Ha or, in case of significant financial constraint less than 0.5 Ha).

**Support for the recapitalisation of households** depending mainly affected most by Hurricane particularly Petty trading, fishing, livestock.

Explore the opportunity to **record the activities of food distribution** in kind or through cash as part of the activities for the rehabilitation of the productive areas proposed in the Post Disaster Needs Assessment (PDNA) of the Ministry of Agriculture, and in particular with regards to interventions of construction or rehabilitation of roads and irrigated perimeters, watershed management and consolidation activities in support of the multi-year crops (coffee, cocoa, coconut, mango, avocado, citrus etc.) which have been most affected by the hurricane.

It is important to **synchronize the timeline of interventions**, from short to medium to long term, to the relevant productive seasons. Furthermore, it is important to avoid overlapping between the labour's workload for early recovery activities with the ordinary agricultural calendars.

As part of rehabilitation interventions, should be given special attention to Nord-Ouest HT01.

A more refined set of targeting criteria will be produced in the final EFSA report.

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